NARRATIVE PERSUASION: MESSAGE FORMAT INFLUENCE ON INTENTION TO SCREEN FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA

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Narrative Persuasion: Message Format Influence on Intention to Screen for Cervical Cancer among Women in Agricultural Sector in Kiambu 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…….

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This thesis has been submitted for examination with my approval as university supervisors

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DEDICATION

I would like to dedicate this work to two women who have been central in my pursuit of knowledge. My wife Jeniffer Wanjiku wa Mutitu for her never ending patience, and to my mother Monicah Wangechi who did everything to have me go through my education.

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LIST OF ABBREVIATIONS AND ACRONYMS

ASIR Age-standardized incidence rate.

BRCA1 Breast Cancer Gene Type 1.

HBM Health Belief Model.

HPV Human Papilloma Virus.

HSV Herpes Simplex Virus.

KTGA Kenya Tea Growers Association.

MDGs Millennium Development Goa**ls.**

mHealth Mobile Health.

SDGS Social Development Goals.

OPERATIONAL DEFINITIONS OF KEY TERMS

Age-standardized incidence rate	weighted average of the **age**-specific mortality **rates** per 100,000 persons
Age standardized death rates	The total number of deaths per year per 1,000 people of a given age)
Message frames	The terms "positive frame" and "negative frame" are used to refer to emphasizing favorable consequences that may happen due to complying with a target behavior, or emphasizing unfavorable consequences that may happen due to non-compliance, respectively.
Narrator's perspective	grammatical person of the narration. E.g. First person, second person, or third person
Narrative rationality	a logical method of reasoning by which a person can determine how believable another's narrative is.
Narrative coherence	The extent, to which narrative appears to flow smoothly, makes sense and is believable.
Narrative fidelity	The extent to which narrative appears truthful and congruent with our listeners own experience.

ABSTRACT

While the recent research has proven the effectiveness of narrative-based interventions in promoting health interventions, it is still not entirely clear exactly what particular element of narrative message influence higher perception of threat and efficacy and ultimately lead to persuation to adopt the recommended health behavior. In this regard therefore, the current study sought to investigate how manipulating various elements of narratives affect intention to take up cervical cancer screening services by women in agricultural sector. The general objective of the study was to determine the effects of narrative message format on intention to screening for cervical cancer among women in agricultural sector in Kiambu, Kenya. Specific objective were to determine the effect of message frame on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya; to assess the effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya; to evaluate the effects of narrative rationality on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya; and to determine moderating effects of Character identification on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.A randomized experimental study design was used. The sample size was 378. The respondents were randomly allocated to the four study arms. The messages was presented via a medium of a brief information video clips on cervical cancer and cervical screening. A uniform pretest questionnaire on cervical cancer and cervical cancer screening was completed by respondents before and after watching a narrative video. Chi Square test, ANOVA, ANCOVA and Hierarchical Multiple Regression were used in data analysis. On the findings, in regard to the effect of message frame on intention to screen for cervical cancer among the respondents, the study demonstrated that manipulating message frame resulted in change on intention to screen for cervical cancer. Post Hoc analysis demonstrated that lossfraed narratives were more effective compared to gain framed narratives in changing intention to screen for cervical cancer. In respect to the Effects of narrator's perspective on intention to screening for cervical cancer among the respondents, the study demonstrated that narratives presented in the first person perpective was more effective compared to the second person perpective. In respect to the effects of narrative rationality on intention to screening for cervical cancer among the respondents, the study demonstrated that repondents who evaluated the narrative as rational experienced a bigger change on intention to screen for cervical cancer. Finally, regarding the moderating effects of Character identification on relationship between message format and intention to screening for cervical cancer among the respondents, the study demonstrated that charcter identification had moderation effects on the relationship between message format and intention to screen for cervical cancer. The study therefore concluded that using a narrative that is loss framed, in the first person perspective, which is complete, comprehensive and believable, and presented to the target audience who identify with the narrator, may be effective in promoting screening for cervical cancer among women in agricultural sector.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Cancer of the cervix is the fourth most commonly diagnosed cancer among women with an estimated 570,000 (3.1% of all the new incidences of cancer) new cases worldwide (Bray et al, 2018). According to estimates there are approximately 530,000 new cases and 275,000 global deaths annually (Parkin & Bray, 2006; Pimenta, Claudia, David & Sylvia, 2013). Some 83 percent of the cases occur in low-and-middle income countries, where cervical cancer accounts for 15percent of female cancers, with a risk (before age of 65years) of 1.5percent, while in developed countries it accounts for 3.6 percent of new cancers, with a cumulative risk (ages 0–64 years) of 0.8percent (Parkin & Bray, 2006).

In Kenya, Cancer of the cervix is ranked second highest form of cancer among women after breast cancer. In terms of mortality, cancer of the cervix is ranked as number one killer with and estimated 5250 women being diagnosed with cervical cancer (estimations for 2018) and approximately half of them (2,451) dying from the disease annually (Kenya HPV and Related Cancers, Fact Sheet 2018). With increased awareness on prevention, effective screening, timely diagnosis and treatment, most of these deaths could be prevented. According to a study conducted by Denny (2015), 60 to 90% reduction of cervical cancer mortality rates would be experienced if cervical cancer screening programs were introduced in rural populations within three years of implementation (Denny & Prendiville, 2015).

In Kenya cervical cancer screening tests are offered for free and services are available at most health facilities. However, in spite of this, the uptake of these services is generally low. In 2014, cervical cancer screening coverage in Kenya was estimated to be at 3.2% for all women, 4.0% for women in urban areas, and 2.6% for women in rural areas (Morema, Atieli, Onyango, Omondi & Ouma, 2014). The implication of this low cervical screening services coverage is that most of the

patients do not get to know their cervical cancer status early, and consequently present at clinic when the disease has progressed to advanced stages. Patients with advanced cancer usually have poor treatment outcomes and more than half of these women die (Moshi et al, 2018; WHO, 2018).

One of the most notable interventions in the up scaling uptake of cervical screening is the use of efficient cancer communication strategies (Fukuda et al., 2005). There is a general consensus that communication campaign helps attain modest health impact (Rice, 2012). At the same time, literature is replete of the important role communication plays in the adoption and maintenance of behavior both at an individual and community levels. Studies (Kelly & Barker, 2016; Reinhart, Marshall, Feeley, & Tutzauer, 2007) have shown an increase in the uptake of health services where health communication interventions were introduced.

Various health communication strategies have been used in promoting utilization of healthcare services. Over all, mass media health communication approach is the most widely used across the globe (Ahamed & Bates, 2016). The main aim of using mass media is usually promoting change health of behaviors by persuading individual and communities to adopt behaviors that are perceived to be preventive from ill health (Reinhart et al., 2007). According (Walsh-Childers, 2016), mass media have had a great impact in the promoting of individual and environmental health.

Moreover, the use of internet technology has also provided a platform that has changed the way people deal and communicate about health issues. Higher than 75% of individuals living in the developed world have above average access to Internet, and approximately 80% of them uses the platform to acquire health information (Jiang & Street, 2017). The situation is different in developing countries. Internet access in Africa and in most developing countries is estimated at 13% in 2018 (Hunsaker & Hargittai, 2018). Variety of health information from internet has been used. These includes online support group, health education material, information on doing it yourself, screening information and medical genetics among others information, (Rogers, Lemmen, Kramer, Mann, & Chopra, 2017). Generally

speaking internet (e Health) provides virtually limitless opportunities and tools that we can use to improve the health of our communities.

One of the frequently used internet resource is social media. Several intervention studies have used social media as avenues to provide health information in attempt to create awareness and provide health information to individuals and communities, as a way of provoking health behavior change as well as up scaling utilization of preventive health services (Clerici, Veneroni, Bisogno, Trapuzzano, & Ferrari, 2012), diabetes (Nordfeldt, Hanberger, & Berterö, 2010), and organ-donation(D'Alessandro, Peltier, & Dahl, 2012). While it has been suggested that social medial is not an ideal platform of addressing health issues, such social media based intervention has reported improvement of health and change of health behavior. For example D'Alessandro (2012) in a study that used multiple social media platform to promote organ donation, reported a 28% increase in organ donor registration (D'Alessandro et al., 2012). Moreover, in another study that targeted adolescent at higher risk for sexually transmitted diseases using social media recorded a reduced display of risky behavior after brief online counselling program (Zimmerman et al., 2009).

Furthermore, the use of mobile phones to provide health (m-Health) services has also been shown as a potential solution to health challenges experienced in most of the developing countries. It can be a solution to myriad of challenges including workforce shortages, lack of health information, limited training of the workforce, communication and patient tracing, health data collection, among other challenges, (World Health Organization, 2011). In addition to this, mobile phone has been used in health to promote adherence to medication among patients, support healthcare workers to provide quality services among other things. For instance, Kannisto, Koivunen, and Välimäki (2014), used mobile health services to encourage clients to seek healthcare, and to promote adherence to medication. They also used m health to collect data from the healthcare workers (Kannisto, Koivunen, & Välimäki, 2014).

In developing countries health campaigns are usually oriented to key issues especially those reflected in the millennium development goals (MDGS) and social development goals (SDGS) (Kumar, Kumar, & Vivekadhish, 2016). The main

concerns of health campaigns includes sexual and reproductive health, specifically on issues to do with sexually transmitted infections and contraception. Other issues in health campaigns includes mother and child health, as well as nutrition(Strasser, Kam, & Regalado, 2016). Few health campaign focus on chronic diseases such cancer and diabetes.

A variety of strategies are used in developing countries. These include community based approach, mass media, interpersonal communication for example, information communication strategies such as mobile phone based communication (Quattrin, 2015). Some campaigns use a combination of more than one of the above strategies. Moreover, a plethora of channels are used ranging from TV, radio, public announcement and programmes, one to one interaction with peer counsellor as well as community oriented approaches including the use of street events such as street theatre and road shows.

Generally speaking, studies indicate that communicating health issues to segments of population requires adaptation of health material in a manner that is more acceptable and a manner that recipient population is more familiar (Healey et al., 2017). Moreover, Elbert et al. (2017) have shown that communicating messages in a manner that is friendly and format in which message recipients can relate to often lead to a higher adoption and maintenance of health behavior(Elbert, Dijkstra, & Rozema, 2017).

In this regard, use of narrative messages has been shown to be particularly effective in the context of health. Some of the reasons that have been given for this is the fact that narratives are engaging, easy to contextualize and easy to process compared with other forms of evidence (Hartling et al., 2010), Studies have shown narratives to be effective in a number of health interventions including tanning bed use(Yoo, Kreuter, Lai, & Fu, 2014), promoting acceptability of HPV vaccines, (Frank, Murphy, Chatterjee, Moran, & Baezconde-Garbanati, 2015) increasing the willingness for organ donation (Freya, Wagner, & Rackow, 2007), increasing fruit and vegetable consumption (Thomas, 2016a) and discouraging drunk driving(Timon, Wit, & Appel, 2018).

Narratives is one of the basic modalities of interaction for obtaining information (E. & Bilandzic, 2007). It has been defined as any cohesive and coherent story that have identifiable beginning, middle and the end, which provides information about the setting of the story , the story character, conflict, raises unanswered questions or unresolved conflicts and provides solutions (Hinyard & Kreuter, 2007).

In recent years, the utility of narratives as a form of health communication and their persuasive mechanisms has been investigated. A number of studies have confirmed that narratives can influence health beliefs (Thomas, 2016b; Frank et al., 2015; Thomas, 2016a; Meisel et al., 2016). Moreover studies have shown that they are effective in changing individual's attitudes towards health service, and in changing health behavior (Diekman, McDonald, & Gardner, 2000; Lee & Leets, 2004), and behavioral intentions (Hoeken & Geurts, 2005; Massi-Lindsey & Ah Yun, 2005; Slater, Rouner, & Long, 2006).

While recent research has proven the effectiveness of narrative-based interventions, it is still not entirely clear exactly what particular element of narrative message type influence higher perception of threat and efficacy and ultimately lead to intention to engage in the recommended adaptive behavior (Green, 2008).

Green and Brock (2001) have suggested that persuasion is a function of transportation in to the narrative world. The mechanism of transportation, the study suggests, is through several pathways including creation of emotional responses, connection with character through character identification, and by making narrative look more like real experience. The researchers however offer no explanation as to what aspects of message construction actually lead to transportation in the first place, and ultimately to persuasion. Following this discussion therefore, the important question of what specific aspects of narrative message leads to persuasion remains unexplored.

In this regard therefore, the study suggest that a combination of narrative characteristics (narrative message frame, narrative rationality and narrator's

perspective) as well as narrative observer factors (character identification) may help answer this question.

Research in the fields of psychology and communication has shown that the point of view in which the story is told may have a significant influence in the way the narrative observes receives encode and processes the information (Green, 2004). Green (2004) defines point of view as the grammar person in which the narrator is telling the story (i.e., first person, second person, or third person).

Moreover, other studies have shown that character identification (Cohen, 2001, 2006; Green & Brock, 2000; Slater, 2002; Slater & Rouner, 2002; Slater, Rouner, & Long,), message frame (whether message is presented as loss or gain frame) (Green & Brock, 2000, 2002), message rationality (comprehensiveness, completeness, logical etc.) as well as believability of the message (Yale, 2013) influence the extent to which the message is acted upon. Research on how these narrative message elements influence the effectiveness of communication in the context of cervical cancer screening is not all evident.

1.2 Statement of the Problem

Cervical cancer is one of the most frequently diagnosed form of cancers in women. In 2018, approximately 570,000 cases and 311,000 deaths were reported (Yes et al 2018). Majority of this occurred in developing countries (de Martel, et al., 2017). With increased awareness on prevention, effective screening, timely diagnosis and treatment, most of these deaths could be prevented. According to a study conducted by Denny (2010), 60 to 90% reduction of cervical cancer mortality rates could be experienced if cervical cancer screening programs were introduced in rural populations within three years of implementation.

In Kenya, cervical cancer screening tests are offered for free and are available at most health facilities ("Kenya National Cancer Screening Guidelines," 2018). However, in spite of this, the uptake of these services is generally low. In 2018, cervical cancer screening coverage in Kenya was estimated to be at 3.2% for all

women, 4.0% for women in urban areas, and 2.6% for women in rural areas(Morema, Atieli, Onyango, Omondi, & Ouma, 2014a). A variety of reasons have been given for low uptake of cervical cancer screening services. These includes user fees, time required to effectively consume a service, danger associated, stigma, embarrassment, poor knowledge, among others things (Saraiya, Lee Smith, Ragan, Aketch, & Buchanan Lunsford, 2017).

The implication of this low uptake of cervical cancer screening services is that most of the patients do not get to know their cervical cancer status early, and consequently present at health facilities when the disease has progressed to advanced stages, when it is difficult to manage. Patients with advanced cancer usually have poor treatment outcomes and more than half of these women die (Santesso et al., 2016).

One of the most notable interventions in the up scaling uptake of cervical screening is the use of efficient cancer communication strategies(Wojcieszak & N Kim, 2016). Moreover, Elbert et al(2017) have shown that communicating messages in a manner that is friendly and in format the message recipients can relate to, often lead to a higher adoption and maintenance of health behavior(Elbert, Dijkstra, & Rozema, 2017).

There is evidence that use of narrative messages is effective in the context of health. For example, a study by Yoo et al. (2015) showed narrative to be effective in decreasing turning bed use, (Yoo, Kreuter, Lai, & Fu, 2014,Nanet al 2015, Wojcieszak & Kim 2016; Chen et al., 2016), promoting blood donation (Kopfman, Smith, Yun, & Hodges, 1998), in increase donation of organ (Weber, Martin, & Corrigan, 2006), encouraging the consumption of fruit and vegetables (Slater et al., 2003), and avoiding tendency for drunk driving (Stitt & Nabi, 2005). The use of narrative to communicate cervical cancer screening to rural population in the current study may be effective given that most of them have low education attainment.

While the recent studies has it that narratives are effective in promoting health behavior, it is not entirely know what precisely what specific parts of narrative

message type influence higher perception of threat and effectiveness and ultimately lead to intention to engage in the recommended health behavior (Green, 2008).

Green and Brock (2001) have suggested that persuasion is a function of transportation in to the narrative world. The mechanism of transportation, the study suggests, is through several pathways including creation of emotional responses, connection with character through character identification, and by making narrative look more similar to the real world experience. They however do not offer any explanation as to what elements of narrative message construction lead to transportation in the first place and consequently leading to persuasion. Following this discussion therefore, the important problem of what particular element of narrative messages leads to persuade an individual to adopt a health behavior remains unexplored.

In this regard therefore, this study suggests that a combination of narrative characteristics (narrative message frame, narrative rationality and narrator's perspective) as well as narrative observer factors characteristic (character identification) may help answer the question.

The study, therefore, explored how manipulating the four elements of narrative message (message frame, narrative perspective, narrative rationality, and character identification), influence participants' levels of perceived threat, perceived susceptibility, perceived efficacy regarding cervical cancer prevention, and ultimately the intentions to start taking cervical screening service.

1.3 Objectives of the study

1.3.1 General Objective

The general objective of the study is to determine the effects of narrative message format on intention to screening for cervical cancer among women in agricultural sector in Kiambu, Kenya.

1.3.2 Specific objectives

1. To determine the effect of message frame on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.
2. To assess the effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.
3. To evaluate the effects of narrative rationality on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.
4. To determine moderating effects of character identification on relationship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

1.4 Study Hypothesis

Ho_1: Message frame has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

Ho_2: Narrator's perspective has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

Ho_3: Narrative rationality has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

Ho_4: Character identification has no significant moderating effects on relationship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

1.5 Siginificance of the study

1.5.1 Policy makers

Considering the increasing prevalence of cervical cancer and mortality related to it, it is important to identify modalities to increase the uptake of cervical cancer screening services. One of identifiable modality is on improving on the way issues relating to cervical cancer screening services are communicated. Understanding cervical cancer message structure especially will allow for development of effective communication strategy especially for women in rural areas.

1.5.2 County of Kiambu

Considering the amount of money that goes into management and treatment of cervical cancer, this study is important in several ways, first, the study will go a long way in informing strategies for promoting cervical cancer screening among women in the County thereby increasing the uptake of cervical cancer screening services. This will in turn translate to reduced cost of care associated with the disease.

Secondly, Kiambu Country residents predominantly live in rural areas. Several studies have indicated that the uptake of health services including cervical cancer is usually poor among rural women (Morema et al., 2014a). This study will increase the uptake of the cervical cancer screening service in the county. Finally, ill health is associated with low productivity. The fact that cervical cancer helps in improving treatment outcomes means that women that would otherwise suffer from ill health relating to cervical cancer will be avoided. This will improve on their productivity and ultimately their incomes.

1.5.3 Tea estates

Tea estates will benefit by avoiding workers absenteeism and labor turnover in the tea estates and factories due to cervical cancer related ailments. It will also help in averting high cost of treatment associated with cancer where cases present with advanced cancer. Moreover, the study will shed light on the aspects of narrative

message format that lead to higher perceptions of threat and efficacy and ultimately uptake of cervical cancer screening services among the estate workers.

1.5.4 Household and community

This study will be beneficial to household and community in two important ways. First, the study will help increase knowledge of the disease at the individual and community levels. This will in turn lead to increase of uptake of cervical cancer screening services by the individual women. Secondly, indirectly, the study will help individuals and the community avoid the cost that are associated with the disease. A study by Ngutu and Nyamongo (2015) indicated that management of cervical cancer to be higher compared to other diseases especially at the family level(Ngutu & Nyamongo, 2015). Lastly, the study will help avoid destruction of familial structures by helping families and communities avoid deaths due to cervical cancer.

1.5.5 Health communication Practitioners

The study will give insight to Health Communication practitioners in regard to message format design and communication on issues on cervical cancer screening among women in rural areas.

1.5.6 Body of knowledge/Theory

The study will contribute to the existing body of knowledge on narrative persuasion. Specifically, the study will help shed some light on the elements of narrative message construction that actually lead to transportation, and ultimately persuasion.

1.6 Scope of the study

1.6.1 Geographical scope

The study was carried out in tea estates in rural Kiambu. There are about 100,000 employees in Kenya Tea Growers Association (KTGA) member tea estates (Kenya Tea Grower Association, 2018). Approximately half of these employees are women

(KTGA, 2019). In Kenya's rural settings, the uptake of cervical cancer screening is generally low approximated at 2.0 % compared to 4% in the urban settings areas(Morema, Atieli, Onyango, Omondi, & Ouma, 2014b). This makes rural setting suitable for the study.

Moreover, the average age employees in these tea estates is 36.6 years(Chepwogen Soi, 2018). The World Health Organization recommends cervical cancer screening during 20-49 years because this is the time that test is most profitable (Berman, & Koeniger-Donohue, 2018).

1.6.2 Theoretical scope

This study was informed by four theories namely the Narrative paradigm, prospect theory, Health belief model, and Theory of reasoned action. Narrative paradigm helped in understanding mechanism of narratives and how it translates to behavior adoption. Transportation theory helped in understanding the world of narrative-how a person is psychologically transported into narrative world and comes back changed. Prospect theory helped in understanding how human makes decision in context of gains and losses. Lastly, the Health belief model helped in understanding the pathway to behavior intention and ultimately behavior health adoption.

1.6.3 Methodological Scope

The study used a randomized experimental design. An experiment can be defined as a deliberate imposition of treatment to a group or a subject with a sole intention of observing the effect of the treatment to the subject. If the study design assigns the treatments at random, then this type of research design is able to establish possible cause and effect that may exist between the dependent (outcome: intention to screen) and independent (treatment) variables. Key characteristics of this approach are the random assignment of the groups, control of extraneous variables and manipulation of the treatment condition (Creswell & Creswell, 2018).

1.6.5 Content scope

The study focused on the use of narratives in promoting cervical cancer screening. According to the National Cancer control strategy, cervical cancer is ranked second as the leading cause of mortality in Kenya (Walsh, 2008). Additionally, it has been proven that where cervical lesions are detected early, the treatment outcome for patient are good and that the cost of treatment and care is usually low. Rural population in Kenya tends to have low education attainment as compared to urban settings. This may hinder their processing of information on cervical cancer diseases and its screening services. The use of narrative to communicate cervical cancer screening to rural population in the current study may be strategic in promoting screening services (Hinyard & Kreuter, 2007).

1.7 Study limitations

Limitation of the study are factors that may influence the study and are beyond the researcher's control. They describe situations that may affect the method and the data analysis. This study sought to determine whether message frames had any effect on the uptake of cervical cancer among women in agricultural sector in Kiambu County. In particular the study buttressed message framing with message perspective (first person or third person). The study also sought to consinder the role of character Identification on therelationship between message format and intentention to screen for cervical cancer.

This study had one limitations. The study picked particpants randomly to be included in any of the four study arms. It was not possible to control external influencers of intention to screen for cervical cancer among these women. For example, exposure to the the media during the experiment season could have had and influences on their intention to screen for cervical cancer.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review of the study. It starts by presenting the study's theoretical background information and conceptual framework. This is followed by a review of variables in the study, empirical review, critique of existing literature, and identification of the research gap. The chapter ends with a summary.

2.2 Theoretical framework

Theory are intended to explain something especially one that is based on general principles that are independent of things that are to be explained (Abend, 2008). This study was informed by four theories namely the Narrative paradigm, theory of reasoned action, prospect theory and Health belief model.

2.2.1 Narrative Paradigm

Narrative paradigm posits that human being are natural story tellers and that when a story is told well it becomes more convincing than a good logical argument (rational thinking). The paradigm was developed by Walter Fisher as a way of developing solutions to cohesive arguments(Fisher, 1987). During that time rational world paradigm was the most predominantly used to satisfy public controversies. Fisher believed that telling stories has power in that they include the beginning the middle and the end of an argument which rational world paradigm did not have.

According to Walter Fisher, human being sare not rational. They do not seek for evidence in communication but rather communicate on narrative basis. His view was that people communicate by telling contextualized stories rather than searching for facts to back their argument. This paradigm therefore is purportedly comprehensive, in a way that it allows communication to be looked at as a narrative even though sometimes it does not conform to narrative format in real sense of the word. He

further stated that for a narrative to be effective it must be rational (Dainton & Zelley, 2011). By this world rationality, he meant that a narrative must be comprehensive, complete reasonable in relation to day-to-day life, and must be coherent. For the narrative to be effective it must be rational.

According to Yale (2013),coherence of a narrative is the extent to which the narrative makes sense (Yale, 2013). Stories that are coherent contain internal consistency, providing sufficient details, and reliable characters and are deficient of major surprises. Actually the ultimate test of coherence of a narrative is by finding whether the character in the story is acting in a reliable way. Where a character shows continuity of thoughts, motives and action their acceptance by narrative observers increases. In situation where character in the story depicts uncharacteristic behavior, then its acceptance decreases. On the other hand narrative fidelity is the extent to which a story sticks to observers prior information and understanding(Yale, 2013). Stories that are coherent and stick to fidelity may influence personal belief, values and attitudes (Herzog, 2017).

This paradigm is relevant in the current study due to its ability to analyse stories told by individuals and its ability to analys the extent to which a particular individual narrative can influence beliefs values and attitudes. Moreover, the basic components of the theory (coherence, fidelity, comprehensiveness, completeness, and fidelity went a long way in helping the researcher to analyse narratives by the cervical cancer survivors. Furthermore, narrative paradigm has been used by many scholars in understanding issues related to health use (Yoo, Kreuter, Lai, & Fu, 2014; Nan et al., 2015; Wojcieszak & Kim 2016; Chen et al., 2016). Even if some scholars have criticized the paradigm, it has continued to be applied across the globe to the present day, and hence suitable for the current study.

2.2.2 Theory of reasoned action (TRA)

This theory was propounded by Ajzen and Fishbein in 1980. It originated from research in expectancy model. This theory was created after trying to estimate the inconsistency between attitude and behavior. The assumption is that behavior is

voluntary. After this however, it was discovered that behavior is not 100% voluntary. This brought about to additional construct of behavior control. Upon addition of this construct, the theory was called planned behavior theory (TpB).

According to Adjezen (1991), an individual's behavior is influenced by the person's intention to adopt and perform recommended behavior. However, this intention is also influenced by the person's evaluation of the behavior (i.e favorable or not). Based on this therefore the best predictor of adoption of health behavior is a person's intention to adopt the behavior (McEachan et al., 2016). Behavior intention has been defined as the degree to which a person has in regard to accepting to perform a recommended behavior (Hinsz & Nickell, 2015). This intention is influenced by three things: individual attitude towards a specific behavior, subjective norms (people's belief about how the significant other will view the behavior in questions), and perceived behavioral control. In the current study subjective norm is the influence of friends, family members and the community. As a part of the subgroups a woman will try to fit to the norm. If the other group members think positively about cervical cancer screening, then they are more likely to adopt screening behavior, and the opposite is true.

Conceptual Model of Theory of Reasoned Action

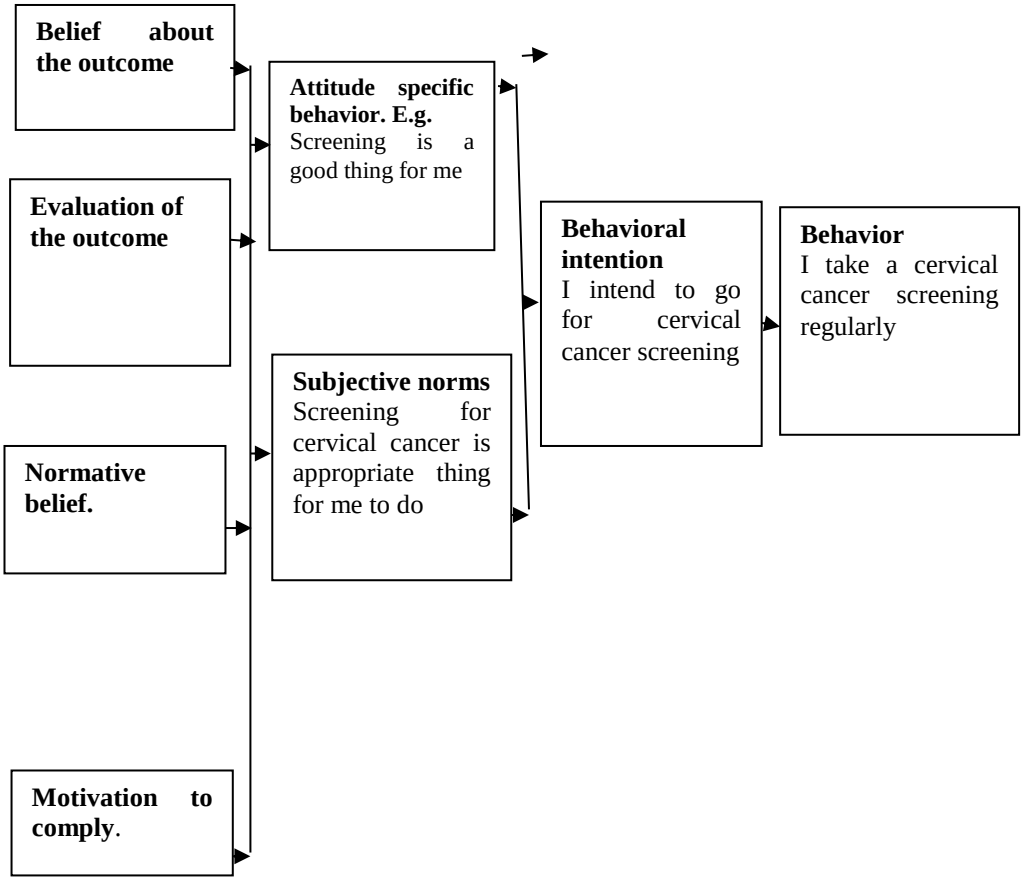

Figure 2.1: Conceptual Model Theory of Reasoned Action

Source: Adopted from Ajzen and Fishbein 1980

This theory has been used by researchers in different fields to understand numerous health behaviors. For example to predict consumption of green product (Modi et al., 2016), to understand Health behavior procrastination, to predict dentist behavior (Yusuf et al., 2016), to predict the intention to buy organic food by students (Yazdanpanah, & Forouzani ,2015) understand cancer screening behavior (Kobrin et al.,2015) among other studies. Because of continued use in predicting health behavior this theory was found relevant to the current study. In the current study, this theory will help in predicting the intention of women to screen for cervical cancer.

2.2.3 Prospect theory

The study also applied prospect theory. This theory was propounded by Kahneman & Tversky in 1970s. The theory explains how people arrive at a decision in a probabilistic situations. It was designed to correct flaws with older normative models. The older normative model of how people make decisions was the utility theory, which had it that people are basically rational, implying that they will weigh the outcome of a decision and select the decision with highest outcome pay off (Van 't Riet et al., 2016).

Accordingly, people should therefore weigh the value of any outcome in a linear rational way. As the favourable outcome probability increases in value individual subjective value should increase in the same speed. The opposite should be true-where probability of arriving at negative outcome increases few subjective value is allocated in favour of arriving at the outcome decreases (Laurie, 2010).

Based on this, in framing theory people should compare the positive and negative outcomes of decision when they are quantitatively similar. The development of prospect theory was based on the observation of the fact that people do not follow the law of rationality as would be expected in the utility theory. In fact, the idea that framing is effective in changing how people evaluate a suggestion is in itself against the classic normative models of human behaviour (Marie, Reinhart, Gardiner, Feeley, & Tutzauer, 2007).

This fact was demonstrated by the famous Asian problem study by Tversky and Kahneman (1981; 1986)(Tversky & Kahneman, 1981). In this study, a prototypic example was used where by a strange disease was expectantly would kill 600 people. The decision makers (DM) were to make a choice of four possible programmes. The intervention was expected to save two hundred people , program B had a one third (1/3) chance that six hundred people will be saved will be saved and two thirds chance that none of the six hundred people will be saved, C, that four hundred people will die, and D that a one third chance that nobody will die. In this people tended to choose program A and D. This implied that when outcomes are described

as positive (gain) people prefer the sure option. And when outcomes are described negatively loss people chose a riskier option(Diederich & Wyszynski, 2018).

Moreover, the participant's preferences depended on whether the messages were framed in term of the number of people who would be saved or the number of people would be lost. To start with, when a decision is positive people prefer sure option. When decision is framed negatively, people prefer riskier option. In regard to the current study, it is expected that where narrative message is framed positively in regard to what women in the study stands to gain the uptake of cervical cancer will increase.

Several studies have used prospect theory to understand various individual health choices. A study by Rouyand (Rouyard et al., 2018), used it to understand attitudes of people with manageable chronic diseases, Balls-Berry to understand the effect of framing on intention to participate in health research (Rouyard et al., 2018), Roth used the theory to understand women prisoners' intention to take HSV screening among other studies. Because prospect theory has had a long history of use in a variety of fields, it was found to be suitable for the proposed study. The theory will help in understanding cervical cancer screening intention by women in Agriculture given the message frames.

2.2.3 The Health Belief Model (HBM)

The last theory to be used in this study is the Health Belief Model. This theory was propounded by HuchBaum, Rosen stock and Kengeles in 1950s. The initial reason for the model was to help understand failure of people to take up diseases prevention strategies even if they were offered for free in the US. Later the model was used for patient's response to signs and symptoms and in understanding compliance with medication(Jones et al., 2015).

The model have it that person's belief in personal threat of disease and personal belief in the effectiveness of a strategy influences their likelihood of behaviour adoption of a suggested strategy / health behaviour(Jones et al., 2015). The theory

draws from psychological and behavioural theoretical base with idea that the two components of health behaviour are desire to avoid ill health and the belief in the effectiveness of a suggested action in prevention or cure the illnesses. As to whether a person takes action or not, it will depend on the perception of the benefits related to adopting a certain behaviour as well as barriers that may prevent the adoption of the suggested behaviour(Hallgren, McElfish, & Rubon-Chutaro, 2015). The key constructs in the model include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cue to action and self efficacy.

Recently the HBM has been used to understand screening behaviour for an array of diseases and to describe health behaviour (Karimy, Azarpira, & Araban, 2017). The model is now considered the most widely used for predicting health behaviour(Ojiambo, 2013;Champion, 2003; Champion & Miller, 1992). One of the reasons for its increase in popularity can be attributed to an array of researches across the globe and more specifically to a study by Champion in (1984). Champion also developed research tool to measure constructs of HBM specifically used in breast cancer screening prevention. This model has evolved to other health programmatic areas.

In recent times, several studies have used the model in various ways. For instance, to understand cyber victimization (Dodel & Mesch, 2016), to understand intention to seek help among students in psychological distress(Kim & Zane, 2016), understand adherence to immunosuppressive medication adherence(Kung, Yeh, Lai, & Liu, 2017) among other studies. Because of this longtime use in different sciences and across the globe, HBM was found suitable for the current study. It will help understand screening behavior intention as well as perceived barriers to utilization of the service.

2.3 Conceptual framework of the study

This section presents the conceptual framework of the study. It starts with an explanation of the relationship that exists among variables after which a pictorial representation in form of a flow chart is presented.

2.3.2 Explanation of the conceptual framework

According to Durham et al. (2015), conceptual framework is the researchers synthesis of variables and the relationship that exist among them (Durham, Sykes, Piper, & Stokes, 2015). The dependent variable in the study is the use of cervical cancer screening services among women in agricultural sector. This study has four treatment variables namely message frame, narrator's perspective, narrative rationality, and character identification. Perceived barriers are seen as the intervening variables in the study. It is assumed that the five variables will have effects on the way the message is received, processed and acted on. This will in turn affect various elements of screening behavior intention namely knowledge on cervical cancer, knowledge on cervical cancer screening, perceived susceptibility, perceived severity, and perceived efficacy.

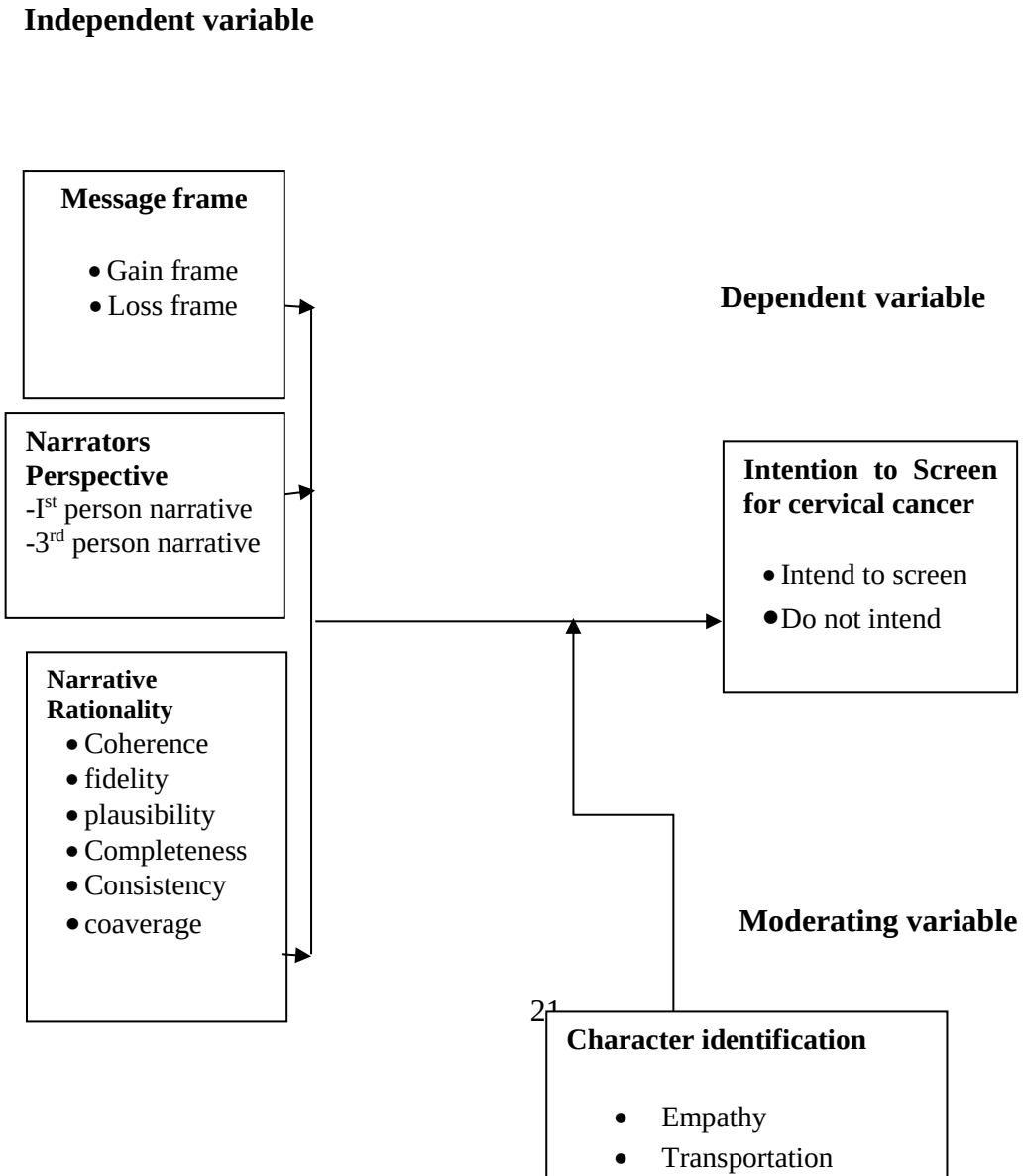

Figure 2.2: Conceptual Framework.

2.3.3 Review of variables in the study

2.3.3.1 Introduction

This section present review of literature on the selected treatment variables. The section starts with reviewing literature on message frame, then narrative perspective, narrative rationality and character identification. The section ends by presenting literature on modifying variable of perceived barriers.

2.3.3.2 Message frames

In the last two decades, researchers have embarked on identifying contexts in which gain framed messages and loss framed messages lead to behavior adoption of a recommended health behavior. Two categories of approaches have been used: one is focusing on risk of individuals in whom the message is advocated to or focusing on the gain to be achieved if individual accepts the advocated behavior(Rothman, Bartels, Wlaschin, & Salovey, 2006). It has also been shown that message frames (gain or loss) influences the way the message is received and processed and ultimately influence behavioral decision(Elbert & Ots, 2018).

In this regard, gain framed persuasive messages encourage the prevention of diseases more effectively compared to loss framed messages. By definition, gain frame emphasizes on the benefits a person is likely to get as a result of compliance with the communicators recommended behavior. On the other hand, loss framed messages emphasizes on the disadvantages a person is likely to suffer as a result of not complying with recommended behavior.

Past research (Detweiler, Bedell, Salovey, Pronin, & Rothman, 1999) have shown that gain frame enjoy a greater persuasive power compared to loss framed messages. A number of studies have investigated message framing in the context of health. A study by Gay and Harrington (2009) investigated the effects of narrative message frame in regard to undertaking of physical exercise. The results were that gain framed messages were more effective compared to loss framed messages. Another study by

Kiene, Barta, Zelenski and Coharan (2005) observed that loss frame was more effective in encouraging early screening for detection of diseases (Kiene, Barta, Zelenski, & Cothran, 2005; Wong & McMurray, 2002).

The explanation to this can be drawn from prospect theory mode of reasoning, that potential loss is more motivating than potentential gain when risky behavior is contemplated and that gain is more motivating in a situation of low risk (Kahneman & Tversky, 1979).

This has practical implications. In low risk situations gain framed messages must be used and in high risk situations loss framed messages should be used. However previous discussion on this have not been exhaustive in this regard because few reviews have focused on diseases specific frames. The idea is that different health condition may demand different framing of messages depending on their perceived risk. The question of whether gain-framed and loss-framed message appeals have significant levels of persuasiveness differs significantly across diseases is yet to be answered.

2.3.3.3 Narrator's perspective

Narrator's perspective refers to how information in the narrative is presented. It refers to the grammar person from which the story is told. There exist three grammatical persons in a Standard English: first-person, second-person, and third-person. The first person and the third person are the most commonly used in the day to day narratives (Krieken at al., 2015).

The function of narrator's perspective has to do with the relationship between the character, the narrator and the narrative observer (Krieken at al, 2015). Studies within the field of languages literature and psychology (Lissa et al., 2016; Chen et al 2016; Creer et al., 2018) have shown that manipulating grammar person can influence the way observers relate to, receive and process messages.

Furthermore, several scholars have investigated the role of grammatical perspective in the way a person analyses information presented in the narratives. Referring to

grammatical person, and specifically while writing in the first grammar, authors Percy Lubbock a leading reviewer for *the times literary* supplement in the 90s noted that: “This, then is the most complete means of dramatically heightening a reported impression, this device of telling the story in the first person, in the person of somebody in the book” (Lubbock, 1921, p. 127). On this the author implied that narratives that are told in the first person just feel different from the rest. They provide means through which an individual can fit into the narrator’s shoes.

In reference to third person perspective, Thompte (2009), felt that the grammar perspective was emotionally cooler as compared to the first person. The first person narratives are seen as more personal, and that it has a bigger potential in regard to arousing empathy and immediacy of action and drama. In another studies, Popova (2015) contends that stories that are told in the first grammar person are fundamentally different not only in the way they have been formulated but also in they are understood by the narrative observers.

Several studies have sought to explain the pathways in which grammar person influences the reception and processing of the information in the narratives. White (2016) suggest that grammar perspective influences the psychic distance in a way that when a story is told in the first person perspective it shortens the psychic distance hence arousing empathy and immediacy.

2.3.3.4 Narrative rationality

Narrative rationality on the other hand is the extent to which a story makes sense. Narrative paradigm looks at communication as all-encompassing in that it allows all communication to be looked at as narrative even when sometimes it does not conform to traditional narratives. For the narrative to be effective it must be rational. Narrative rationality requires several elements including coherence and fidelity, plausibility, completeness and consistency, which contribute to judgments about

reasons and ultimately the uptake of the desired behavior (Maryanne & Dainton, 2011).

Narrative coherence has been defined as the extent to which the story makes sense (Yale, 2013). Based on this definition, coherent stories are those that contain internal consistency, they have reliable characters, and are free from major surprises. Actually, the best measure of narrative coherence is whether the character in the story is acting in a reliable way. Where the story character is reliable, the acceptance of the story increases. However, in cases where the character is behaving in an unreliable way then this destroys the acceptance of the story. The fidelity of a narrative on the other hand is extent to which the story fits in in the observer's prior knowledge of the subject (Yale, 2013). Stories with high fidelity influence people's behavior, their beliefs and values. Narrative plausibility is the quality of seeming likely to be true, or possible to believe (Igatua, 1996) Narrative completeness is the extent to which a narrative has covered all the important information of the story without leaving out any (Igatua, 1996). Lastly narrative consistency is the extent to which the story details are consistent with each other (Igatua, 1996).

There is no contradiction in the fact that narratives are central to human communication. However, there exist some question as to how a narrative achieves its structure and its persuasive nature ultimately (Green & Brock, 2002). In regard to the source of its structure, two suggestions have been proposed. First, is the suggestion that narrative structure is embodied in the structure of the language or in the structure of the mind (Amsterdam & Bruner, 2000).

Others researchers with contrasting opinion suggests that narrative structure lay outside the psychological and linguistic structure, in the culturally predetermined way of sharing human experiences (Smith, 1980). This seems to be universal and enduring in across generations. The structure of narrative is such that narratives have the beginning, middle and the end, all of which we assign meaning (Green & Brock, 2002; Yale, 2013).

In regard to the persuasive nature of narratives, researchers have sought to expand the understanding of this. Burns (2011), argues that harmony between the structure of the narrative and the real human experience may explain the persuasive power of narrative (Burns, 2011). In other word, where there is congruency in terms of a characters action and expected rational chronology of events, then a narrative becomes more convincing and therefore more persuasive compared to logical arrangement of events. Actually some authors (Hinyard & Kreute, 2007; Mcqueen, Kreuter & Kalesan, 2011) do not deny contribution of rational evidence frameworks, but emphasizes on the additional value of narratives to these in arriving to a more comprehensive and pursuasion.

Walter fisher took it further by introducing the concept of narrative rationality in attempt to understand narrative persuasion. In his thinking narrative rationality is more comprehensive than traditional forms of rational thinking, in a way that it enables us to analyze and understand a narrative. The researcher does not dismiss the rational world but rather finds it as incomplete. To complete it, he would add narrative rationality (Fisher, 1989).

The concept of narrative rationality is drawn from narrative paradigm, and is broader in sense that it accounts for more human experiences making its very ideal to understand human persuasion. This paradigm challenges the idea that human communication must be argumentative, based on rational evidence, that reason is that hallmark of human communication and persuasion. While Fisher do not dismiss the idea of world rationality he insist that in addition, narrative rationality leads to a deeper understanding. To the traditional rational model, he adds the ideas of narrative fidelity and narrative probability. Other scholars have also identified others features of narrative that lead to persuasion including completeness, (glob et al., 2016) comprehensiveness and coherence (Yale, 2013).

2.3.3.5 Character identification

Character identification refers to an imaginative process that involves temporal replacement of one's own identity with one of the a character in narrative (verbal or

written) in such a way that a person becomes one with the character in that he/she experience their feeling and emotions (Lin, 2017). It is a psychological process whereby an individual adopts an aspect, character or an attribute of the other and is transformed partially or wholly by a model (character) in the narrative (Igartua, 2009).When this happens a person perceives the world in the eyes of the narrative character (Cohen, 2006).

Scientific and anecdotal literature is replete of evidence in the direction that character identification can have important effects on reading /listening experience of the narrative observer. Moreover, there is evidence that identifying with the character can have effects on the narrative observer's real life in changing their attitudes, and beliefs (Lin, 2017).

Research in the field of character identification seek to distinguish character identification and narrative presence. Narrative presence is a situation whereby one feels present in the character world. In trying to distinguish the two, Oatley (1999) states that: people observing the narrative becomes "an unobserved observer in scenes of the lives of characters in the story world. He or she stands in their bedrooms, hovers at their dining tables, drives with them in their cars." The consequence of this is that individual who regard character goals as important will experience emotion equivalent to the one experienced by the character (Oatley, 1995).

In this, the intensity of emotions depends on whether the character succeeds or fail in his goal, where success brings joy and failure brings sadness and anger. At the same time, the intensity of emotions depends on the degree identification by the narrative observer to the character in the narrative. The more they care about the character the higher the intensity of feelings, the lesser they care the less will be the emotion (Lin, 2017).

A study by Tal-Or (2010) found that the level of identification was higher with sympathetic character and lower among the unsympathetic character. Literature is replete with evidence on effects of character identification. For example, a study by

Muyer-Guse and Nabi, (2010) found that risk perception of teen pregnancy and perception of teen pregnancy was influenced by character identification (Moyer-Gusé & Nabi, 2010). Additionally, Igartua, (2012) found that identification with character in movies had a significant effect on the audience beliefs Igartua (2012). Furthermore, study by Caputo and Rouner (2011) found that identification with character help to reduce social distance with patient who have mental illnesses (Caputo & Rouner, 2011).

Several studies have exploited the idea that character identification influence belief and attitudes to achieve influence adoption of recommended health behavior. A study by Lovell et al. (2017) sort to examine how the audience identify with character in a drama series Makgabaneng. This series aims at increasing behavioral change in regard to HIV/AIDS through modeling and reinforce using a strategy that emphasize on progressive over a time, using entertainment education. The findings were that transitional storylines influenced behavior change process. The study recommended producers to use transitional character to for each desired behavior change improve behavioral change (Peirce & Bates 2012). In another study by Frank et al. (2015) a film was produced to provide information about HPV and cervical cancer in an attempt to examine the role of character identification using 450 respondents comprising of American, Europeans, and African American women. The findings were that the more the narrative was perceived as relevant to one's life, the higher the identification, and the higher the perception perceived susceptibility and risk to HPV.

2.3.3.6 Intention to screen for cervical

According to the World Health Organization (2001) it is recommended that women in reproductive age take-up cervical cancer screening. Nevertheless the uptake of these services remains very low in most of the developing countries in which they are offered for free, more particularly in the rural areas. A good understanding of the factors that influence the uptake of the cervical cancer screening is key in increase the uptake of these services. Studies have shown that screening of cervical cancer using cytology (the Pap smear) is successful public health intervention. It has been

shown to achieve reduction in cervical cancer incidences of up to 80% where it is practiced consistently (Franco et al., 2001).

The test was introduced over 50 years ago and has had substantial contribution to cervical cancer reduction. Some studies however have shown that it has some limitations as a cervical cancer screen tools. For example, literature has shown that an individual cytology has sensitivity of not more than 60% (Nanda et al., 2000). It is now acceptable that infection with high-risk HPV is a prerequisite to cervical cancer (Walboomers et al., 1999).

Getting to know what women know and think in regard to cervical cancer screening is an important component of developing effective and efficient cervical cancer screening program, a disease that is entirely preventable using both primary and secondary prevention strategies. Studies done across the world have shown that awareness and knowledge of HPV vaccination, cervical cancer screening and cervical cancer risk factors is below average (Mayrand et al.,.2007; Ronco et al., 2008; Giorgi-Rossi et al., 2007; Ogilvie et al., 2012).

Desire to take-up HPV vaccination has been associated with proper knowledge of cervical cancer screening as well as its risk factors (Rondo et al., 2010, Leinonen et al., .2009). It is expected that health promotion focus on enhancing risk factors and perceived control. This is by providing sufficient information on the above on women within the reproductive age. Several studies have shown various reasons as to why women may not intend to seek for cervical cancer screening services. In a study by Okwe et al. (2019) in Nigeria found that where screening services was perceived as expensive, people were not willing to utilize them (Okwe et al., 2019).

In another study the intention to screen for cervical cancer was predicted by attitude (odds ratio [OR]: 1.22; 95% confidence interval [CI]: 1.15, 1.30), personal subjective norms (OR: 1.02; 95% CI: 1.01, 1.03) and the perceived behavioral control by the consumer of the service (OR: 1.16; 95% CI: 1.10; 1.22). The same study reported that people were willing to be screened for cervical cancer.

2.4 Empirical review of the study

This section presents empirical review of studies on various aspects of message format. The study starts by presenting a review on message frame, then character identification and narrators perspective. The section ends by presenting empirical review of narrative rationality.

A study by Rothman et al. (2006) found that framing influences behavioral decision at individual levels. A gain framed message lay more emphasis on what one stand to gain in an event that they adopt a particular health behavior. Some few research studies in the context of health has been done on this. For instance a study by Gray and Harrington (2009) investigated the effects of message frame in regard to increasing regular exercising. The results supported the idea that gain framed messages promote preventive behavior more effectively as compared to loss framed messages.

The role of Message frame in behavioral adoption and maintenance has been examined in various contexts. There is no consensus yet in regard to whether particular messages frames influences behavior adoption and maintenance or not. Some authors have found a significant positive influence in relation to behavior adoption and maintenance while others have found no statistical effects on the same.

Ma and Nan (2018) in a controlled randomized study that sought to establish the effects of narrative and non narrative message frame on the adoption of tobacco smoking behavior cessation among college students found gain framed narrative to be effective on non-narrative messages and less effective in narrative messages. The study found that loss framed messages produced significantly greater perceived susceptibility, and severity compared to gain framed narrative message (Ma & Nan, 2018). Brusel et al. (2017) in a study that sought to examine the effects of message frame on counter arguing on drunk cycling presented using education entertainment context found that framing education entertainment messages to refrain from cycling drunk behavior produces less counter arguing and eventually refraining from the behavior, (Brusel et al., 2017).

Moreover, the role of message frame has also been examined in the context of the stages of change. The assumption is that different individual in different stages of change will require different message framing in order to change. Kim and Lee (2017) in an experimental study that involved 461 randomly picked individuals and examining the effects of message frame as well as narrators story perspective among smokers at different levels of change, found that loss frame was more effective among the respondent in the pre contemplation stage while gain framed messages was more effective among the smokers in the contemplation and preparation stages (Kim & Lee, 2017).

Cohen (2001) defines character identification as a process that starts in a cognitive emotional attachment with the audience, in a state in which the audience member is not aware of him or herself but rather imagines him/herself in the shoes of the narrator of the character in the story. The emotional sensation is expected to reduce the psychological distance between the narrative observer and the narrator and that it increases the level of emotional engagement (Busselle & Bilandzic, 2009).

Cohen's understanding of character identification, which is the one employed in this study, describes the phenomenon as composed of four components: empathy with the character, the experience of taking the character's perspective, an understanding of the motivations of the character, and the loss of self-awareness (Cohen, 2001). In other words, individuals who experience character identification feel like they are the characters in the narrative, and they experience the same joys, fears, and pains the character feels. It is important to note that character identification is understood in this context as an element of a message recipient's experience with a narrative. Like any experience, this makes it variable over time. An observer that experiences true character identification temporarily loses the sense of him- or herself and imagines being the character instead (Cohen, 2001).

Identification with character in the narrative has been referred a necessary elements in the change of attitudes towards health behavior. The assumption is that greater identification with character in the story influences attitude in regard to health behavior which in turn leads to the adoption of the recommended health behavior.

Cohen et al (2015) in a study that explored the effects of transportation and identification on attitude by subjecting respondent to two opposing narrative found that identification with concordant character tended to polarize attitude while identification with discordant character tempered attitude.

Generally, it is accepted that identification with character in the story often leads to adoption of health behavior. A few studies support this assertion. Frank et al (2015) in a film that was produced to provide information about HPV and cervical cancer in an attempt to examine the role of character identification using 450 respondents comprising of American, Europeans, and African American women found that the more the narrative was perceived as relevant to one's life the higher the identification and the higher the perception perceived susceptibility and risk.

Further, Konsonko et al. (2016) in a study sought to explore role of celebrity identity on risk perception using Anglina Jolie coverage of her announcement that she was a carrier of BRCA1, and using a randomly selected sample of 356 adults who had parasocial interaction with her found a positive results. Those individuals who identified with the celebrity and had relationship had elevated risk perception.

Moreover, some authors have sought to explain the process of identity and how it eventually leads to behavior adoption. Igartua and Vega (2016) in a study that sought at furthering knowledge on explanatory process including 208 participants aged between 14 and 20 randomly distributed to three different groups to watch different three episodes of *Revelados desde todos las posiciones*, a health programme television series, found that identity with the main character of episodes transmitting a prevention message was associated with greater elaboration process.

Narrative's perspective is the perspective in which the story is told to the observer. Point of view mediate between the story, identification and the adoption of the expected health behaviour (Nan et al., 2017). The work of the perspective of the narrative has to do with creating the relationship between the narrator, character, and the person observing the narrative. (Cohn, 1968; Prince, 1987). Studies in the field

psychology supports the idea that manipulating grammar perspective can influence the perception of the story and the story character. (Chen et al., 2015).

Chen et al, (2016) in a study that sought to expand knowledge on the role of protagonist-reader similarity identification and self referencing in health behaviour adoption which included participant aged above 30 year randomly recruited from crowd source website and randomly assigned to read one Forx magazine article about Caffeine overdose, found that point of view did not alter identification behavior or self-referencing. However, it did have a direct effect to the perception of susceptibility and severity of the caffeine overdose.

Moreover, Nan et al. (2017) in a randomized study that comprised of 121 individuals randomly selected sought to explore the role of narrator's perspective and non-narrative and narrative health message on risk perception, no difference in risk perception between 1st person narrative and 1st person non-narrative conditions. There was however and increase in risk perception in both conditions in that both reported an increase of risk perception.

Further, Chen Eton (2015) in a study that examined point of view found a significant increase in perceived susceptibility, fear, and behavior intention and threat perception associated with 1st person narrative perspective. There was equally a higher transportation and identification among those who received a 1st person narrative.

Some authors argue that in addition to credibility of the narrative: hedonic value and perceived goal facilitation are required to achieve greater behavior adoption. Kim and Thorson (2017) in a study involving a sample of 25 narratives and 25 non narratives TV commercials found that a set of four process variables: emotive response, advert hedonic value, advert credibility and perceived good facilitation collectively mediated positive effects of normative adverts on attitude.

Health et al. (2019) in a study that sought to evaluate the effectiveness of Wally Wise Guy a narrative character used in emergency communication, found that familiarity of Wally and its protecting reaction which includes shelter in place was a

strong predictor of taking up protective action once one is alerted to do so. Moreover, the completeness of the story and its fidelity were strong predictors of action. (Heath, Lee & Lemon, 2019).

In a meta-analysis, Kondish et al. (2018) argues that the dominant view of antibiotics as omnipotent and harmless medications has a strong communication component that starts with the story about the discovery of antibiotics. He proposes that comprehensive, complete and consistent stories on antibiotic will help counter antibiotic resistance. In his view, the study proposed a creation of a master narrative about antibiotics that includes real heroes, powerful symbol, recognizable models and inspiring values on proper use of antibiotic(Kodish, 2018).

Stephens and Smith, (2018) in a study that sought to explore the use of social media in a flood situation by community members, found that when credible, complete, coherent and factual (fidelity) is provided, community members identify with such and it is used in their social media forums. The study concluded that fidelity, completeness, consistence of narratives are key factors in communication in a crisis situation. When they have such information they are able to help one another (Stephens & Smith, 2018).

2.5 Critique of the existing related studies

Several studies were reviewed for the current study. Few observations can be made from the literature. First is the fact that gain framed health messages are more effective in behaviour adoption and maintenance while loss frame is more effective in preventive behaviour adoption. While this position could be true, it can also be contrary given the methodological flaws in several studies that have been reviewed. For example, the study by Ma and Nan, (2018) indicated that gain framed messages was more effective in raising perceived susceptibility when used with non narrative evidence as compared to when used with narrative type of evidence. Based on this the study concluded that message frames (gain vs Loss frames) have an effect on the way people receive information. This conclusion is problematic in several important ways. First, the study only focused on college students and therefore introducing the

survey population bias. The fact that only college students were included in the study makes its external validity very limited. It is generally expected that collage students are more likely to appreciate written material as compared to non written source of evidence; and therefore they will get more information by this use. Therefore the change observed could have resulted from the change of nature of evidence (narrative vs Non narrative) and not because of framing of the evidence.

Secondly, it is generally accepted in literature that individuals at different stages of change may require different type of message frame. For example Kim and Lee (2017) recommended that loss frame be used on individuals in pre contemplation stages while gain frame be used on individuals who are in contemplation, action and maintenance stages of behaviour change. The fact that there was no attempt done on classifying the respondents in regard to their stages of change introduced a bias. Moreover, that most studies on the effectiveness of message frame do not include any form of blinding mean that the researcher selection bias is not controlled.

The second observation from the reviewed articles is that message frame produces less counter argument compared to other forms of message frame. Brusel et (2017) in a study that sought to examine the effects of message frame on counter arguing on drunk cycling presented using education entertainment context found that framing education entertainment messages to refrain from cycling drunk behavior produces less counter arguing and eventually refraining from the behavior. While this could be true it is also possible that individual in the studies does not counter argue not because of narrative message frame but from other things. For example, studies have indicated that individual's personality can influence the extent in which the person counter argues on important issues in their life. Moreover, cultural context may be inhibitive to counter arguments. For instance Hogan and Foster (2016) argues that an individual who is introverted may result to less counter argument compared to individuals who are extroverts. Moreover, some cultural aspects may be inhibitive to ability to counter argue on important aspects of life. Van De et al (2015) observes that culture has an influence on people we eventually become. It mould all our aspects of life (Van De et al., 2015).

In regard to character identification, several studies were reviewed for the current study. Several prevailing themes were observed. First, where there exist a higher level of character identification with the character in the narrative, higher level of behaviour adoption was observed (Cohen, 2001).

The Cohen et al. (2015) study that explored the effects of transportation and identification on attitude by subjecting respondent to two opposing narrative, found that identification with concordant character tended to polarize attitude while identification with discordant character tempered attitude. Consequently, the assumption is that where attitudes favours the health behaviour recommended then the person will accept the behaviour recommendation and make it his/her own. While it is possible that this assumption could be correct, it is also possible that the assumption can be flawed in several important ways. Firstly, behaviour adoption exists in the context of several things. For instance, there could exist barriers that may hinder the adoption of the recommended health behaviour. For example, a study on cervical screening services utilization in Western Kenya by Morema et al. (2014), found that, while women identified with the narrative character, that did not lead to an increase in the consumption of the services even after the intervention (Morema et al., 2014) . One explanation that was given is that health facilities from which the service is offered were located far away from the residence and the fact that women needed to spend a lot of time in order to take up the test.

A similar assumption was made by Frank et al. (2015) which evaluated the role of character identification in regard to utilization of HPV vaccine among 450 respondents comprising of American, Europeans, and African American women, and which found that the more the narrative was perceived as relevant to one's life the higher the identification and the higher the perception perceived susceptibility and risk. Both studies did not control for other extraneous variables like availability of healthcare facility, amount of time required to consume the service among other variables.

The study by Konsonko et al. (2016) that sought to explore role of celebrity identity on risk perception using Angelina Jolie coverage of her announcement that she was a

carrier of BRCA1 which used a randomly selected sample of 356 adults who had parasocial interaction with her celebrity Angelina Jolie found positive results. The conclusion was that those individuals who identified with the celebrity and had parasocial relationship had elevated risk perception. While elevated risk perception has been associated with increased intention to adopt the recommended health behavior, studies have shown that contextual circumstances that do not favor the utilization of the services may be a hindrance. The study did not indicate how it controlled for extraneous factor. Moreover, the selection of individuals to participate in the study was sampled from Cloud- internet service. This act on its own lead to selection bias, in that only people who had access to internet were sampled. Consequently, this limits the external validity of the findings.

In regard to Narrative's perspective (relationships between narrator, character, and observer (Cohn, 1968; Prince, 1987)), the general findings across all the study reviewed is that first person perspective is associated with a higher level adoption of health behavior. This is in line with research within the fields of literature and psychology which lends support to the idea that manipulating grammatical person can influence how readers relate to story characters and events

Following this, the Chen et al. (2016), reviewed in the current study found that point of view did not alter identification behavior or self-referencing. However, it did have a direct effect to the perception of susceptibility and severity of the caffeine overdose. While this can be true, it is also true that a story must have other facilitating factors. For example, a story must be comprehensive, must have fidelity to reality, must be coherent among other necessary elements. The importance of the above aspects is supported by literature. For instance, Maryanne and Dainton, (2011) identified the required elements for a narrative to work in altering perceptions of susceptibility and severity. This includes coherence and fidelity, plausibility, completeness and consistency. This will contribute to judgments about reasons for the behavior recommendation and ultimately the uptake of the desired behavior (Maryanne & Dainton, 2011) at the same time, Yale, (2013) have indicated that a sure way of testing the coherence of a narrative is whether the character in the story

acts in a reliable way that is consistent with what is known in day to day life. Where story character behave consistently through their life in the story and shows continuity in their thoughts and action then acceptance increases. The opposite is true, where a character behaves unusually there is a decline in acceptance.

Based on these stories with fidelity, regardless of the perspective in which they are told, may influence their beliefs and values. On the same breath, stories without fidelity, regardless of the perspective they are told will not elicit health behavior. Moreover, Igartua, (1996) identified the element of narrative plausibility. He defines it as the quality of seeming likely to be true, or possible to believe (Igatua, 1996).

2.6 Research gaps

While the research has demonstrated the efficacy of narrative based health communication interventions, it is still not all clear as to what particular aspects of message feature influence greater perceptions of threat and efficacy and finally leading to the intention to engage the recommended behavior (Green, 2008). In reference to this persuasive power of narrative, Green and Brock (2000) recommends that transportation into a narrative world may lead to persuasion in several ways including creating emotional responses to and connections with characters and making the narrative seem more like direct, real experience. Nevertheless, they do not offer explanation as to what aspects of narrative message construction actually lead to transportation in the first place and ultimately to persuasion. In this regard therefore, the critical question of what aspects of narrative health messages construction leads to persuasion remain largely unexplored (Wlaschin, & Salovey, 2006). This research study contends that massage format, quality of the narrative and character identification may explain transportation into the narrative world and ultimately lead to behavior adoption.

2.7 Summary

This review started by reviewing literature on message frame, then literature on character identification, narrators perspective and lastly, literature on narrative

rationality. Overall, the following observations can be made from the review. First, studies indicate that message frame is effective in influencing behavior adoption. Specifically, gain frames have been associated with behavior maintenance especially by people who have already made a decision to adopt the recommended health behavior while loss frame are more effective on preventive behavior. The second observation is that narrative observers who identify with the character in the narrative tend to be more receptive to recommended behavior. The third observation is that the narrators' perspective influences behavior adoption. Those narratives that are told in the first person perspective are more effective as compared to those which are in the third person perspective. The last observation is that narratives that are coherent and that seem reasonable (fidelity), are more acceptable and therefore have a bigger influence in regard to behavior adoption.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology of the study. It looks at research design and study population, sampling frame, sample size, sampling technique, data collection instrument, pilot study and data analysis. The chapter ends by presenting information on ethical considerations.

3.2 Research design

Study design can be defined as the overall strategy that a researcher chooses for integrating different aspects of a research study in a coherent and logical way, thereby, ensuring effective address of the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data (Creswell & Creswell, 2018).

A randomized experimental design was used in this study. Two elements of narrative message structure were manipulated: message frame (gain framed vs. loss framed), and the narrator's perspective (first-person vs. third person).The message was presented via a medium of a brief information video on cervical cancer and cervical screening. A uniform pretest questionnaire on cervical cancer and cervical cancer screening (T1) was completed by respondents before watching a narrative video. After that, the respondents responded to the post test questionnaire (T2). The post test questionnaire had similar items as in the pretest questionnaire but in addition, it had items evaluating the believability of the narrative as supported by (Yale.2013) and identification with the character in the story (Igatua, 2010).

The study had four arms including 1) loss framed narrative message arm in the first person perspective, 2) loss framed narrative message arm in the third person perspective; 3) gain framed narrative message arm in the first person perspective; and 4) gain framed narrative message arm in the third person perspective. Loss framed

messages described the negative experiences of a person who is a victim of cervical cancer and gain framed message emphasized the positive experiences of a person who had cervical cancer detected early through screening and therefore positive treatment outcomes with little adverse experiences. Message video in the first-person video utilized first-person pronouns (i.e., I and me) and messages video in the third-person utilized third-person pronouns (i.e., she and her). A uniform pretest questionnaire (T1) was administered to all the participants in the four groups. Participants were randomly assigned to one of the four experimental conditions.

3.3 Study population

According to Kothari (2004), study population is the whole set of individuals or objects from which the subjects are selected, and for whom the data obtained can be used to make conclusion. This study was carried out in Tea firms in Kiambu County, Kenya. For an estate to be included in the study, it needed to meet the eligibility criteria which included having an average of 30 employees, having a well-established Human Resource Department, and express authorization for the study to be carried out from the management.

This population was selected for the study due to the fact that the uptake of cervical cancer screening is very low in rural areas compared to urban settings. In rural areas cervical cancer screening coverage is estimated to be at 2.6% against urban setting of 4%. The government's target coverage is 70% (Morema et al., 2014).

The study site was selected due to the fact that cervical cancer is one of the leading causes of morbidity and mortality among women within reproductive age (Ministry of Health, 2017). In spite of this, the uptake of cervical cancer in Kiambu County is among the lowest. According to the County Annual Development plan (2019), the population of women between 20 to 64 years of age in Kiambu was estimated to be 614,412. Out of this, less than 22000 (3.5%) has been screened for cervical cancer (County Annual Development plan 2019-2020).

Furthermore, this study targeted women aged 20 to 64 years working in Tea estates in Kiambu County. This age interval was targeted out of two reasons. First, it is the age bracket in which cervical cancer screening is most cost effective according to (WHO, guidelines for cervical cancer screening, ACS guidelines), and it is the age interval which individual are most sexually active therefore at high risk of infection with Human Papiloma Virus, a necessary factor for the development of cervical cancer infection (WHO, 2015).

Moreover, the high prevalence of cervical cancer risk factors among women in Agricultural sector makes them more vulnerable to cervical cancer compared to their urban counterparts. For instance studies have shown that women in agriculture are more likely to be poor (Palacio-Mejía, Rangel-Gómez, Hernández-Avila, & Lazcano-Ponce, 2003), have less access to reproductive health services (Lim & Ojo, 2017), have low education enrollment (King, Dewey, & Borish, 2015), have less time at their disposal to use preventive services(WHO, 2002), are likely to initiate sex early (Louie et al., 2009), get into marriage earlier (Louie et al., 2009), are more likely to be exposed to carcinogenic substances(e.g. organochlorine pesticides) in the course of their work(Louie et al., 2009, Rodríguez et al., 2017), among other risk factors are associated with cervical cancers.

3.4 Sample and Sampling frame

A sampling frame is a list of those within the population that can be sampled to be included in the study (Creswell & Creswell, 2018). This study targeted women aged 20 to 64 years working in tea firms in Kiambu County. This age interval was targeted out of two reasons. First, it is the age interval in which cervical cancer screening is most cost effective in developing countries (WHO, guidelines for cervical cancer screening, ACS guidelines), and it is the age interval which individual are most sexually active (WHO, 2015).

Four Tea firms were included in the study. These included Gakoe tea estate, Karirana tea estate, Matara tea factory and Gachege tea factory. The four tea firms were randomly picked from a list of tea firms obtained from crop officer Kiambu County.

The sampling frame comprised of a list of women working in these firms. The list obtained from Human Resource departments in the estates. A further filtering was done on the list so that only individual females who met the inclusion criteria (female aged 20-64years) were identified for further sampling to participate in the study. Women in all roles in the industry were included as long as they meet the inclusion criteria

3.5 Sample Size determination

A 95% confidence level with ± 5% margin of error (MOE) was desired for this study. The unadjusted sample size (n') required for ± 5% MOE using the conservative proportion (p) of p =0.5 (or 50%) is: $n' = \left(\frac{Z}{MOE}\right)^2 p(q)$

Where

- n is the desired sample size
- Z^2 is the standard normal deviation at the required confidence interval.
- p is the estimated proportion of females in the target population who are yet to take-up cervical cancer screening service.
- q =1- p

Therefore, sample size for the respondents used in the study is:

$$n=\frac{1.96^2(0.5x0.5)}{(0.05)^2} = 384$$

This population is less than 10,000 and hence finite population correction (FPC) was considered. Based on this therefore, the adjusted sample size was calculated as follows.

$$n = \left(\frac{n0}{1+(n0-1)/N}\right)$$

Where n is the sample size

n^0 is an adjusted sample size

N is the total population of women in the estates

$$n = \left(\frac{384}{1 + (384 - 1)/3000} \right)$$

$$n = \left(\frac{384}{1.13} \right)$$

$$n = 339$$

A Kenyan study by Orang'o, et al, (2016) that sought to understand factors associated with limited uptake of screening services in cervical cancer-screening program in rural Western Kenya reported 10% loss to follow-up during the study (Orang'o, et al, 2016). Based on this, it was therefore estimated that response rate (ϕ) of 90% was achievable in the current study, and hence a need to provide for a 10% non-response. After providing for 10% non response the new sample size ($n'_{adjusted}$) with ϕ = 90% is $n'_{adjusted} = \frac{n'}{\phi}$ = 377 respondents.

3.5.1 Sample allocation

The sample was allocated in such a way that each of the four study arms had 94 respondents. Table 3.1 shows the distribution of the sample in the study arms.

Table 3.1: Distribution of the sample in the study arms.

	Gain frame 1st Person perspective	**Gain frame 3rd person perspective**	**Loss Frame 1st person perspective**	**Loss Frame 3rdd Person perspective**	**Total**
Gakoe	24	23	24	23	94
Karirana	24	23	24	23	94
Gachege	24	24	24	24	96
Mataara	24	23	24	23	94
Total	96	93	96	93	378

3.5.2 Random allocation of respondents to study arms

Upon receipt of the list of employees from human resource, it was vetted to ensure that only individual women who met the inclusion criteria were selected for random allocation into the study arms. Individuals in the list were given serial numbers and using the serial number random numbers were generated using statistical Software for Social Science, individuals were assigned to the four study arms. Each of the study site had participants in all of the study arms as indicated in the table 3.1 above

3.6 Sampling techniques

The study used purposive technique to select Kiambu County, and simple random sampling in the selection of tea firms and study participants as indicated in the figure 3.1 below.

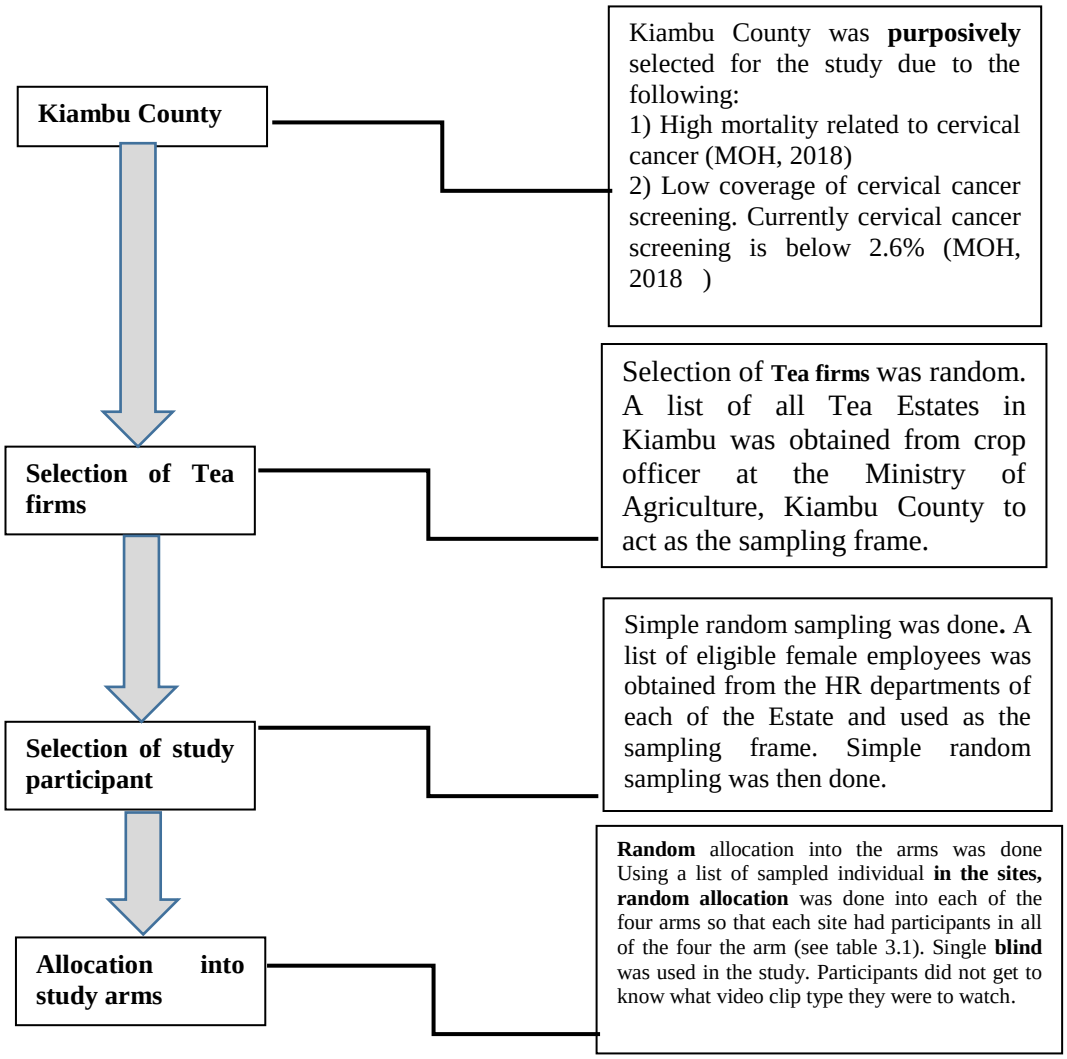

Figure 3.1: Sampling techniques

3.7 Study Intervention

3.7.1 Narrative video clip

The messages presented via the medium of a brief information video clip on cervical cancer and cervical screening. The intervention arm consisted of narrative video clips depicting personal stories of cervical cancer survivors. Four narrative video formats were created. The first one emphasized on the benefits that the survivor had as a result of taking up a cervical screening services (gain framed message) The second video emphasized on the negative experiences the narrator had as result of discovering cancer late (loss -framed message). The third video was created in such a way that the message in the video emphasized on the benefits that the survivor had as a result of taking up a screening services. However this was in the third person narrative format (gain -framed message third person narrative). The fourth video was created in such a way that it emphasized on the negative experiences the narrator had as result of discovering cancer late, but in the third person narrative (loss -framed message third person narrative). The video clips were recorded in kiswahili language to provide for audience who do not understand Kikuyu and Lou languages of the narrators.

Narrators in the study were recruited from two cancer treatment sites in Nakuru and Eldoret. A total of four women based on their willingness to participate in the study, were recruited (three living in western Kenya and attending clinic in AMPATH Eldoret, and one living Nakuru region and attending clinic in Nakuru Level Five Hospital).

3.8 Data collection instrument

The study employed relevant structured questionnaire as a tool to collect data in line with study objectives.

3.8.1 Structured Questionnaire

Two questionnaires were administered at pre and post study intervention. A uniform pretest (appendix ii) questionnaire with items on cervical cancer and cervical cancer screening were completed by respondents before watching any of the narrative video clips. The pretest questionnaire had items on socio-demographic characteristic, items on knowledge on cervical cancer, items on cervical cancer risk perception, and items on intention to screen for cervical cancer. The post test (appendix 3) questionnaire had all the above items but in addition it had items on narrative rationality and character identification. Apart from items on socio-demographic characteristics, all other items were Likert scale items with a scale of 1 to 5 where 1 represented 'strongly disagreed' and 5 represented 'strongly agree'

Items on knowledge on cervical cancer and cervical cancer screening, perceived risk and perceived threat susceptibility, perceived self-efficacy and perceived response efficacy were measured using an adaptation of item scale from several authors including Witte et al.'s (1998) 5-item scale, Katarzyna et al. (2014) and Gilber et al.'(2008). Intention to engage in the cervical cancer screening behavior change was measured using a 7-item scale adopted and modified from work by (Gina et al., 2013).

The Post test questionnaire sought to measure change in respondents' response in all of the above pretest questionnaire content after watching any one of the video clips. In addition two additional variable were measured including character identification and narrative rationality. Identification with characters was measured using an adaptation of Igartua and Paez's (2010) 14-item scale.

Participants were asked to indicate the degree to which they agreed or disagreed with statements such as, "I thought I was like the character or very similar to her" and "I understood the characters' feelings or emotions" on a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree).

Finally, Narrative rationality was measured by adaptation of Yale (2013) narrative believability scale. The scale have 12 items covering six aspects of narrative rationality including, Coherence, fidelity, plausibility, completeness, consistency, and coverage. Participants were asked to indicate the degree to which they agreed or disagreed specific assertions in the scale on a 5-point Likert-type scale (1 = strongly disagree to 5 = strongly agree).

3.9 Pilot test

The main purpose of pilot study was to identify potential gaps that may exist in the research tools as well as measure the internal consistency of the study tool. Further the tool reliability and validity was measured during the pilot test. Piloting was done in two tea estates of in Kericho (Kaisugu and James Finlay) in the month of December 2019.

Based on Connelly (2008) recommendation that 10% of the sample projected for the larger parent study is sufficient for pilot study, the study included 37 respondents for the pilot study. These were equally distributed in the two pilot study sites.

Both questionnaires were administered. Loss frame first person video clip was used for pilot study. A uniform pretest questionnaire on cervical cancer and cervical cancer screening was completed by the respondents before watching the video clips. Then after watching the video clip, participants responded to a brief post test questionnaire. Several items were found to be problematic and were adjusted as indicated in appendix V.

3.9.1 Reliability and Validity of study tools

According to Cox (2018), reliability is the extent to which the items or indicator variables under consideration measures the same thing or value under similar conditions consistently without biasness or error. It is expected that items under investigation to yield similar results when applied more than onces but in the same condition. In addition to this, it is also expected that items be valid. According to

Gandek (2108), validity is the extent to which an item measure what it ought to measure. For instance, the research instrument is said to be invalid if it measures different concept than what it was intended to measure initially. Because poor research items will lead to collection of poor data, it is imperative that a researcher test the validity and reliability of the research tools before the collection of data.

By a way of verifying unidimensionality of items in the questionnaire a researcher is able to verify item reliability and validity. According to Avcılar and Varinli, (2013), unidimensionality is the extent to which observed variables used to measure every dimension, measures only one dimension. Based on this therefore, reliability and Construct validity must be computed in order to establish unidimensionality.

In this study a reliability analysis was done to ensure the possibility of valid decisions that will be made based on the test scores. The most commonly and widely used measure of reliability analysis is Cronbach's alpha (Bolarinwa, 2015). Moreover, given that both of the research tools used in this study are of likert scale, Cronbach's alpha was found to be the most appropriate to test reliability analysis of the study instruments (Gliem & Gliem, 2003). The acceptable Cronbach's alpha value is above 0.6 (George & Mallery, 2003).

For the variable Narrative rationality, there were 12 items which were under scrutiny. For the variable the alpha coefficient recorded was 0.84 which was above 0.6 required. All items had alpha coefficients above 0.6. Consequently no items was removed from the series. Regarding character identification the alpha coefficient was 0.74 and again no item was expunged from the list. In respect to items on knowledge on cervical cancer and cervical cancer screening, the alpha coefficient was 0.82. All the items were retained. Finally, in regard to behavioral intention variable, the Cronbach's alpha coefficient was 0.74 with all the items being retained. The findings are summarized in table 3.2.

Table 3.2: Summary of reliability test on independent variables

Serial No.	Variable	No items	Cronbach's alpha
1	Narrative rationality	12	α=0.84
2	Character idetification	14	α=0.74
3	Knowledge of cervical cancer and cervical cancer screening	15	α=0.82
4	Behavioral intention	7	α=0.74

3.9.2. Reliability and Validity of narrative video clips

Narrators in the study were recruited from two cancer treatment sites in Nakuru and Eldoret. A total of four women, based on their willingness to participate in the study, were recruited (three living in western Kenya and attending clinic in AMPATH Eldoret, and one living Nakuru region and attending clinic in Nakuru Level Five Hospital). Consequently, four narratives were recorded and and included in the narrative pool for further processing.

The narratives were transcribed and sentences in the narratives categorized and coded based on whether they were gain or loss framed. Based on the number of gain and loss framed sentences in the narrative transcript, a narrative was categorized as either loss or gain framed narrative (Okuhara et al., 2014). Moreover, the narrative with the most loss framed sentences was selected and used in the study to represent loss frame study arm. Similarly the narrative with the most gain framed sentences was selected to represent the gain frame study arm (Okuhara et al., 2014).

Further, to confirm the reliability of the narratives categorization, six communication lecturers were invited to recategorize the narratives and the Fleiss' kappa calculated (Laerd Statistics, 2019). To achieve this, each of the rater was requested to do the

rating away from the others so that they could not influence decision of the other raters. Two options of categorization were provided for to the raters “loss framed narrative” and “gain framed narrative”. The Fleiss' kappa results was κ=0.613 (95% CI, 0.329 to .725), $p < .0005$. According to Falotico et al, (2015) Fleiss' kappa value of 0.6 to 0.8 is good. The implication of this finding therefore, is that the narratives were correctly categorized with raters’ level of agreement being at 72.5%.

3.11 Data collection Procedure

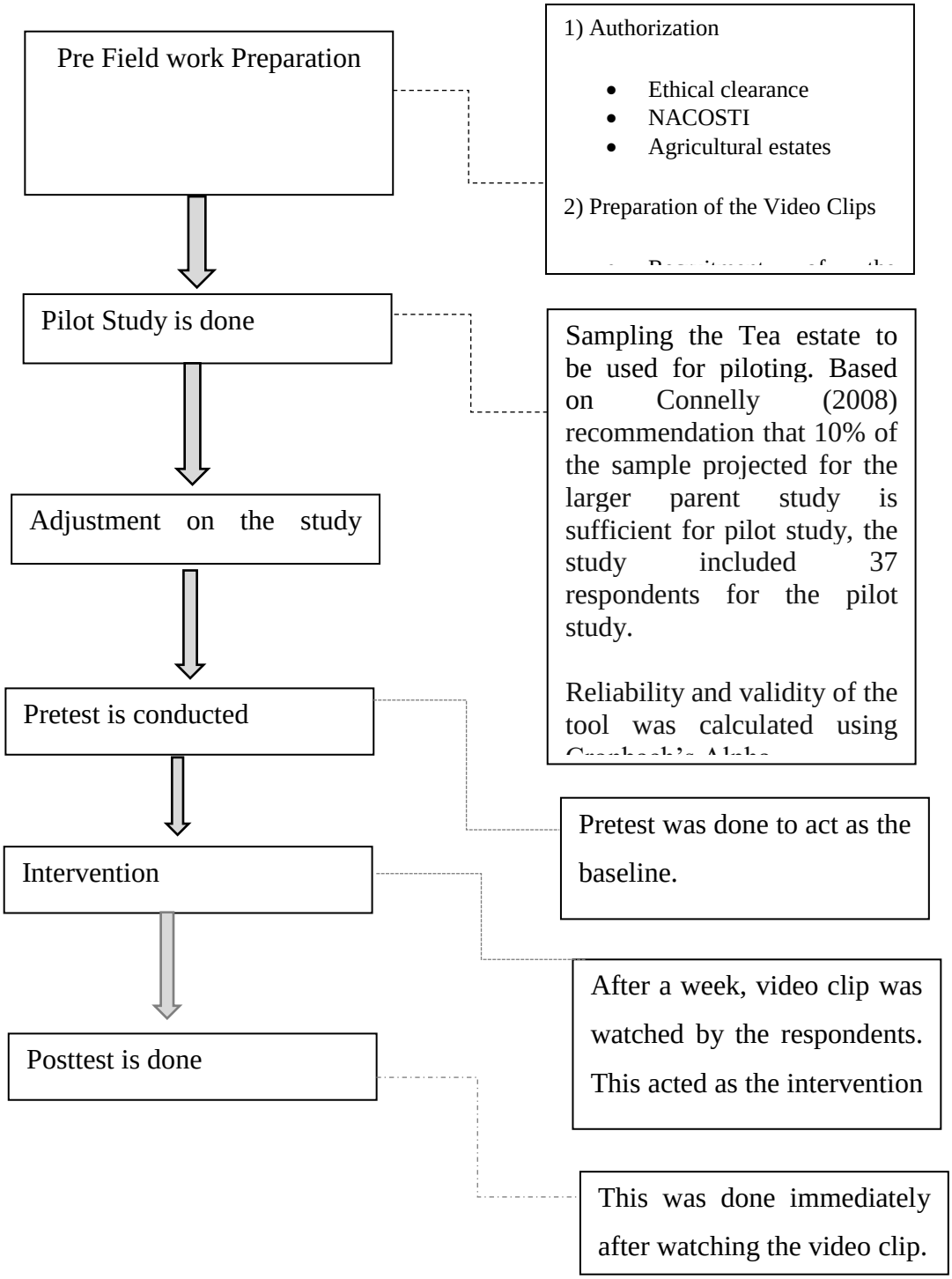

Figure 3.2: Data collection Procedure

3.12 Data processing and analysis

The 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 analyses 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, sociocultural factors, knowledge in regard to cervical cancer, risk perception and cervical cancer screening status and the intention to screen for cervical. The table below indicates a summary of the type of analysis done per study objective**.**

Table 3.3: Summary of analysis done on study objectives

Objective	**Level of measurement**	**Statistics**
To determine the effect of message frame on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya	Interval scale data	ANOVA, ANCOVA, Hierarchical Multiple Regression
To assess the effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya	Interval scale data	ANOVA, ANCOVA, Hierarchical Multiple Regression
To evaluate the effects of narrative rationality on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.	Interval scale data	ANOVA, ANCOVA, Hierarchical Multiple Regression
To determine moderating effects of Character identification on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.	Interval scale data	Hierarchical Multiple Regression

3.13 Model specification

According to Allen (1997), model specification is the determination of which independent variables should be included in or excluded from a regression equation. In this study regression models to be used in testing relationship between dependent and independent variables are as follows.

Regression model for objective one;

Ho_1: Message frame has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

$$\mathbf{Y = ß_0 + ß_1 x_1 + è}$$

Whereby;

Y= intention to screening for cervical cancer

$ß_0$= Constant

$ß_1$=Coefficients of determination

x_1=Message frame

è= Error term

Regression model for objective 2;

Ho_2: Narrator's perspective has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

$$\mathbf{Y = ß_0 + ß_2 x_2 + è}$$

Whereby;

Y= intention to screening for cervical cancer

$ß_0$= Constant

$ß_2$=Coefficients of determination

x_2= Narrators perspective

è= Error term

Regression model for objective 3;

Ho_3: Narrative rationality has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

$$\mathbf{Y = ß_0 + ß_3x_3 + è}$$

Whereby;

Y= intention to screening for cervical cancer

$ß_0$= Constant

$ß_3$=Coefficients of determination

x_3= Narrative rationality

è= Error term

Regression model for objective 4;

Ho_4: Character identification has no significant moderating effects on relationship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

A moderator is a variable that affects the direction and the strength of the relationship between an independent or predictor variable and a dependent criterion variable. This variable may reduce or enhance the direction of the relationship between a predictor

variable and a dependent variable, or it may change the direction of the relationship between the two variables from positive to negative. A moderator is supported if the interaction of predictor and moderator on the outcome of the dependent variable is significant. The research study used multiple regression analysis (Stepwise method) to establish the moderating effect of character identification and dependent variable

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_1 X_1 * Z + \beta_2 X_2 * Z \; \beta_3 X_3 * Z + e$ the where:

Y = intention to screen

X_1 = Message frame

X_2 = Narrative perspective

X_3 = Narrative rationality

Z = character identification (Moderator)

3.14 Ethical consideration

Ethical approval was sought from Mount Kenya University ethics committee (Appendix Vi). A research permit was sought from National Commission for Science Technology and Innovation (NACOSTI) in Kenya (Appendix Vii). Authorization to carry out the research was further sought from the Ministry of health at the county and the various organizations involved in the study. Each of the respondent was required to give consent by signing on the informed consent forms provided with each of the questionnaire (Appendices 1and 2). The fact that the structured questionnaire are interviewer administered may make the respondents not anonymous. Research assistants were trained on the need to maintain confidentiality instead in the circumstance. The data was however processed, analyzed, presented and stored on anonymous basis.

CHAPTER FOUR

RESULTS AND DISCUSSION.

4.1 Introduction

This chapter presents the findings and the discussion of the study. The chapter begins with presentation of finding and discussion of sociodemographic information after which findings on each of the four objectives are presented and discussed.

4.1 Response rate

The calculated sample size for the study was 339 but after providing for 11.5% non-response the sample increased to 378 respondents. These were randomly allocated to the four arms of the study as indicated in the figure 4.1 that follows. At the same time, the sample was distributed to each of the four study sites as shown in table 3.1. All the sites had respondents participating in each of the five arms of the study. The structured questionnaire was interviewer administered.

A 100% response rate was achieved for the baseline study. However, there were some few item non response in cases where some respondents opted not respond to some items in the questionnaire, resulting to some missing data. This was addressed substituting the missing data with series means (Ehrlinger et al., 2018). In the post test, 34 respondents were lost to follow up resulting to a response rate of 91% (344). Consequently, data from 378 (100%) respondents for the pretest and 344 (91%) for post test, was analyzed and included in the study findings for the baseline and post test respectively. The figure 4.1 below shows changes that occurred in the sample size from allocation to data analysis.

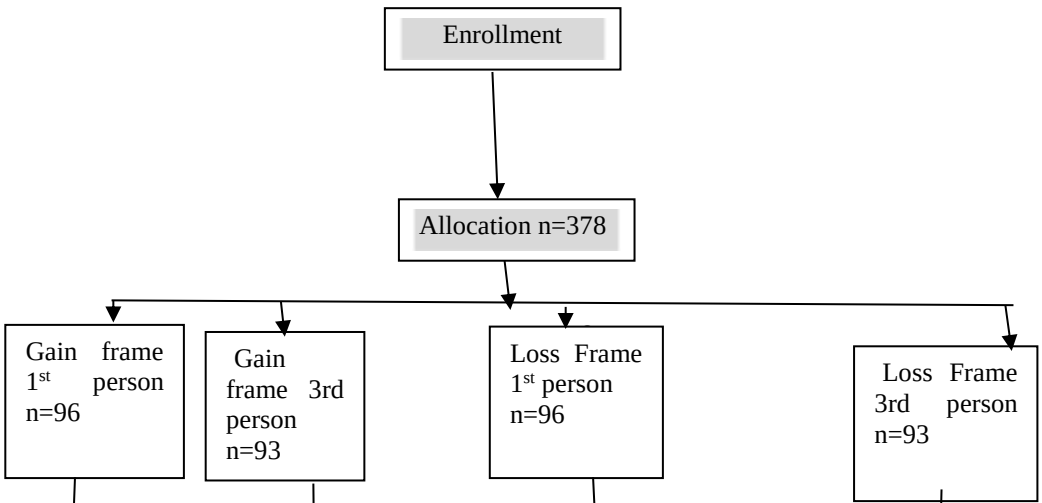

Figure 4.1: Data analysis flow chart

4.3 Socio Demographic Characteristics of Respondents

Table 4.1: Socio demographic characteristics of the respondents

Age category	**frequency**	**percentage**
21 to 25	57	15.2
26 to 30	15	4.0
31 to 35	105	27.5
36 to 40	78	20.5
Above 41	123	32.8
Total	378	100
Marital status	frequency	percentage
Married	249	65.9
Never married	58	15.3
Divorced	23	6.1
Widowed/Widower	21	5.6
Separated	27	7.1
Total	378	100
Education status	frequency	percentage
Never been to school	23	6.1
Did not complete primary	24	6.3
Primary	141	37.5
Did not complete secondary	120	31.7
Secondary school	37	9.7
Tertiary education	33	8.7
Total	378	100
Religion	Frequency	percentage
Catholic	137	36.2
Protestants	227	60.1
African traditional religion	9	2.4
No religion	5	1.3
Total	378	100

From the table 4.1, majority of the respondents (32%) were aged above 41. This was followed by respondents aged between 31 to 35 and 36 to 45 years of age, at 27.5% and 20.5% respectively. Combined together, the two groups accounted for 48% of all the respondents. Regarding whether there was a statistically significant difference among the age groups in respect to cervical cancer screening status, Chi test returned a no statistically significant results X^2 (4, N = 378) =3.886,p=0.442. According to WHO, while screening can be taken by all women in reproductive ages, it is highly recommended for women at the ages 30 to 49 because it is at this age cervical screening is most beneficial (WHO, 2017). At individual level, studies have shown that in the absence of screening, a 20-year-old average-risk woman has about a 250 in 10 000 chance of developing invasive cervical cancer during the rest of her life, and about a 118 in 10 000 chance of dying from it. Screening at least every 3 years from 20 to 65 years of age will decrease these probabilities by about 215 in 10 000 and 107 in 10 000, respectively, and will increase a 20-year-old woman's life expectancy by about 96 days . The risk of cervical cancer increases as the age advances.

At the population level, studies have shown that screening women once in their lifetime, at the age of 35 years, with a one-visit or two-visit screening that involve visual inspection of the cervix with acetic acid or DNA testing for human papillomavirus (HPV) in cervical cell samples, reduced the lifetime risk of cancer by approximately 25 to 36 percent, and cost less than $500 per year of life saved.

At the same time relative cancer risk declined by an additional 40 percent with two screenings (at 35 and 40 years of age), resulting in a cost per year of life saved that was less than each country’s per capita gross domestic product a very cost-effective result, according to the Commission on Macroeconomics and Health (Goodie, 2005).

4.3.2 Marital status of the respondents

Majority 249 (65.9%) of the respondents were married. Chi square test to determine if there existed statistically significant difference in regard to screening status of the respondents across marital status returned a no significant Chi test result X^2 (5, N = 378) =5.88,p=0.432. The fact that majority of the respondents are married is indicative that they are sexually active. Sexual activity is associated with exposure to Human papilloma virus, a necessary factor for cervical cancer (Ogilvie et al, 2017). HPV is the primary cause of 99.7% of all cervical cancers and is sexually transmitted. Infection with one or more of the 15 high-risk oncogenic types usually results in invasive cervical cancer after 10-20 years. Globally, about 70% of all cases of cervical cancer are caused by HPV types 16 and 18 (MOH, 2018). At the same time, studies have shown that HPV infected men are significant reservoir for HPV that leads to an increased transmission among women and consequently increasing the risk of cervical cancer among women (Giuliano, 2020).

Furthermore, while there are many factors that influence the uptake of cervical cancer screening services, several studies have shown that spousal dependence in decision making and particularly the involvement of male spouse may have a significant influence in cervical cancer screening uptake. For example, in a study carried in Ghana, fear of spousal retaliation due to disagreements about whether to use reproductive health services was shown to be a significant barrier among women in adopting reproductive health services (Adegboyega, 2019). Another study by William et al. (2012) showed that lack of information among men on cervical cancer was associated with poor uptake of cervical cancer screening services by their female partners.

4.3.3 Education status of the respondents

A significant number of the respondents had poor educational attainment. Only a small proportion of respondents 70 (18.4%) had attained secondary and tertiary education. This may have an implication in regard to uptake of cervical cancer screening services as people with poor education may also have poor knowledge on

need for cervical cancer screening. Chi square test to find if the number of women who had screened for cervical cancer was statistically significant across different the levels of education returned a significant Chi test results X^2 (5, N = 378) =5.88, P=0.432

These findings are consistent with findings from other studies. Poor education attainment has been associated with poor uptake of cervical cancer screening services among women. For example, in a study by Aynalem et al. (2020) that sought to determine factors associated cervical cancer uptake among women in Debremarkos Ethiopia, found that education was positively correlated with increase in cervical cancer uptake.

Another study by Buba et al. (2019) found that women who had attained up to secondary school education were more likely to consume cervical cancer screening services as compared to those who had a poorer education attainment. Moreover, a randomised controlled trial of gain-and loss-framed messaging in the national patient information leaflet by Gold et al., (2019), found that respondents with a low level of education were 1.1 times more likely to have screen. Comparatively, those with tertiary or a high level of education were approximately 3 times more likely to have intention to screen. Taken together, findings in these studies suggested that education has a central role in motivating women to consume cervical cancer screening services.

4.3.4 Religion of the respondents

Majority of the respondents 227 (60.1%) in the study were protestants followed by Catholics at 137 (36 %). Only 5(1.3%) respondents declared that they did not belong to any religion. Chi square test to determine whether there was statistical association in respect to having screened for cervical cancer across religions returned a significant X^2 (1, N = 378) =10.26,p=0.001. Christians were more likely to go for screening as compared to non-Christians.

These findings contradicts findings from other studies that evaluated the role of religion in the consumption of cervical screening services. For example, a study by Jennifer et al. (2012) that sought to determine a probable relationships among the elements of spirituality (church participation, religious support, spiritual health locus of control, and religious coping) and adherence to cancer screening recommendations, found that there was a strong association between positive religious coping and adherence to all age-appropriate screening, even after controlling for relevant covariates. In the study, for every one-point increase on the positive religious coping scale, the odds of having completed all cancer screenings were increased by a factor of 5.3.

4.3.5 No of children by the respondents

Majority 210 (55%) of the respondents had 1 to 3 children followed by 4 to 5 at 91(24%). Together, these two groups, accounted for over 75% of all the respondents. Chi square test to determine if there exist a statistically significant difference between the respondents with low parity (1 to 3 children) and high parity (above three children) in regard to their screening status returned a significant test results X^2 (3, N = 378) =18.846, p = 0.000 . Those with three and fewer children were less likely to have screened for cervical cancer compared to those who had more than three children. These findings are similar to findings in other studies which have associated parity with women cervical cancer risk level as well as a factor in determining consumption of cervical cancer screening services.

For example, a study by Uz et al. (2017), found a positive association of abnormal Pap smear test with respondents' parity. In the study, most of the patients with results of positive smears were grand multiparous (i.e. had between six and eight children). Another study by Roura (2016) that sought to prospectively evaluate associations between hormonal factors and risk of developing cervical intraepithelial neoplasia grade 3 (CIN3)/carcinoma in situ (CIS) and invasive cervical cancer (ICC), found that respondents with high parity had a higher risk of CIN3/CIS than nulliparous women. Another study by Garg (2019) found high correlation for parity of 3 and above children. Based on these study findings, we can infer that the current

study population is a high risk population with individual who are of moderate to high risk in regard to cervical cancer.

These results are similar to findings by Acharya et al. (2017) who found that women who had more than three children were more likely to consume cervical cancer screening services as compared with those who had fewer than two children. Another study by Nkube et al. (2015) that sought to determine the role of parity in the consumption of cervical cancer screening services, parity was associated with the uptake of Pap smear, as women with one child, were more likely to have ever had a Pap smear compared to women who did not have any children.

4.3.6 Test of similarity of the respondents Sociodemographic characteristics

In order to be able to compare the participants in the study, it was necessary to confirm that there existed no difference in regard to their social demographic characteristics across all the study arms. A chi square test was used to establish this with all the tests returning a no statistically significant difference test, with chi result for age being, X^2 (16, N = 378) =14.96, p = .53 religion, X^2 (12, N = 378) =17.24, p = 0.12 education X^2 (20, N = 378) =16.7, p = 0.67, and marital status being X^2 (20, N = 378) =16.3, p = 0.65.

Given the fact that some respondents were lost to follow-up, it was found prudent to repeat the test before the data analysis at post test. In this regard, the Chi square test returned no statistically significant difference in all the socio demographic characterises with chi test for age being, X^2 (16, N = 344) =10.9, p = ..83 religion, X^2 (12, N = 344) =10.9, p = 0.14, education X^2 (20, N = 344) =13.3, p = 0.846, and marital status being X^2 (20, N = 344) =16.3, p = 0.7.

The implication of these Chi test results is that the respondents were relatively similar in regard to their socio demographics at pre-test as well as the post test, therefore the effects of the message format can be compared across all the respondents in each of the message frame.

4.4 Knowledge on cervical cancer and cervical screening at baseline.

To determine the respondent's knowledge on cervical cancer and cervical cancer screening, a series of Likert scale items testing on the knowledge on cervical cancer and cervical screening were given. Respondents were first asked if they had heard about cervical cancer. In respect to the question, 86.2% had heard about the diseases and 13.8% had not heard about it. The 86.2% who had heard about the disease were the asked questions that related to knowledge about the disease in a series of questions presented in a Likert scale.

With regard to the assertion that cancer is a genetical disease, 10.1% strongly agreed, 9.8% agreed, 21% were undecided, 24.4% disagreed, and 34.4% strongly disagreed. The correct answer is that cervical cancer is a genetical disease. Majority of the respondents responded incorrectly to this question. With regard to assertion that cancer can be detected at it earliest stage 34.4% of the respondents strongly agreed, 34.4% disagreed, 21% were undecided while 9.8% disagreed with the assertion. The correct response for this is that cancer can be detecte early during the pre cancerous lesion which is curable. Again majority of the respondents responded correctly.

Respondents were then asked to indicate their level of agreement with assertion that cervical cancer can be cured if it is detected early. 8.9 % of the respondents strongly agreed with the assertion, 14.9% of respondents agreed, 9% were undecided, 33.3% disagreed and 33.9% strongly disagreed. The correct response is that cervical cancer is curable especially if detected early. Majority of the respondents did not have correct response. However, it is worthy to note a sizeable proportion of individuals either answered incorrectly or were undecided. This may mean that they were not clear about what is correct answer or not. Individuals who do not expect to be cured of cervical cancer may find it difficult to take a cervical cancer screening test.

In regard to assertion that postmenopausal women are at risk of cervical cancer, 21.4%, of the respondents strongly agreed, 10.8% agreed, 4.8% were undecided, 35.2% disagreed and 27.8% strongly disagreed. On assertion that HPV is a necessary factor for cervical cancer, 26.7% of the respondents strongly agreed, 13.0% agreed,

1.3% were undecided, 28.6% disagreed and 30.4% strongly disagreed. A good proportion of the respondents who were either undecided or disagreed cannot associate HPV and cervical cancer. This is expected given poor education attainment among the respondents. About the assertion that post coital bleeding is one of the symptom of cervical cancer, 20.9% of the respondents strongly agreed 17.7% agreed, 1.9% undecided, 23.5% disagreed and 36.0% strongly disagreed. The correct response is that post coital bleeding is one of the symptom of cervical cancer. Majority of the respondents, responded to this question incorrectly. In respect to assertion that cervical cancer has no symptoms in precancerous lesion period 32.2% strongly agreed, 28.8% agreed 18.8% were undecided, 14% disagreed and, 7.8% strongly disagreed. A good proportion of respondents responded incorrectly to the assertion. Respondents were then requested to indicate their level of agreement with assertion that early sexual activity is a risk factor in cervical cancer. On this, 12.7 % of the respondents strongly agreed. 26% agreed, 0.3% were undecided, 28% disagreed while and 33% strongly disagreed. Respondents seem to have a good knowledge and one will hope that this will translate into intention to screen for cervical cancer. Respondents were then asked to indicate their level of agreement that precancerous lesion can be detected by screening. On this 24.4% strongly agreed, 14.1% agreed, 7.2% were undecided, 26.5% disagreed and 27.9 % strongly disagreed.

This question was followed up with a question that required the respondent to indicate their level of agreement with assertion that the main reason of screening is to discover precancerous lesion. In respect to this 16.1% of the respondents strongly agreed, 22.2 % agreed 2.1 % were undecided, 34.9 % disagreed and 24.6% of the respondents strongly disagreed. Finally the respondents were requested to indicate their level of agreement with the assertion that cervical cancer screening is offered at the local healthcare facility. On this, 6.1% of the respondents stongly agreed with the assertion, 21.4% agreed, 18.% were undecided, 29.6% of the respondents disagreed and ,24.9% strongly disagreed with the assertion. The correct position is that these services are available for free at most public health facility. The negative response in respect to the question may be an indicator that there is a poor level of awareness in

regard to the existence of healthcare facilities where a person can receive screen services among the respondents. The mean is as indicated below in table 4.2.

Table 4.2: Knowledge on cervical cancer and cervical screening at baseline

Indicators	SD	D	U	A	SA	MEAN	STD DEV
Cervical cancer is genetic diseas	25.2%	29.8%	25.1%	9.8%	10.1%	2.39	1.131
Cancer of the cervix can be detected in its earliest stages	34.4%	24.4%	21%	9.8%	10.4%	2.07	0.98
Cervical cancer can be cured	33.9%	33.3%	9.0%	9.8%	14%	2.27	1.26
Postmenopausal women still have risk of getting cervical cancer	27.8%	35.2%	4.8%	10.8%	21.4%	2.3	1.69
Human papilloma virus is necessary factor inducing cervical cancer	30.4%	28.6%	1.3%	13.0%	26.7%	2.27	1.07
Cancer has no symptoms precancerous lesion period	31.2%	28%	18.8%	14.1%	7.9%	2.39	1.27
Early sexual activity is a risk factor in cervical cancer	33%	28%	0.3%	26%	12.7%	2.16	1.2
Precancerous lesion can be detected by screening	27.9%	26.5%	7.2%	14.1%	24.4%	2.2	1.18
The main reason for screening is to discover precancerous lesion	24.6%	34.9%	2.1%	22.2%	16.1%	2.4	1.08
Cervical cancer screening is offered free of charge in local health facility	24.9%	29.6%	18%	21.4%	6.1%	2.0	1.94

Further, to determine whether there existed a statistically significant difference in knowledge on cervical cancer and cervical cancer screening across the study arms at baseline, the data was recorded based on respondents scoring on items testing on knowledge of cervical cancer and cervical cancer screening. Two categories of knowledge level (poor knowledge, and good knowledge) were obtained and then Chi square test was run. The test returned a no statistically significance difference in knowledge across all the arms X^2 (4, N = 378) =.2, 1, p = 0.704. The implication of the result from this test is that all the respondent had fairly equal level of knowledge on cervical cancer and cervical cancer screening at the baseline.

From the table on the respondent level of knowledge on cervical cancer and cervical cancer screening is fairly low. The item on the availability of cervical cancer screening free services scored the poorest. Out of 378 respondents only 25(6.6%) who indicated to know that cervical cancer screening services were available at their local health facility for free. Finally, out of the 86.2% who had heard about the disease, after considereing their score on questions that related to knowledge about the disease and cervical cancer screening, 26.7 % of the respondents were categorized as knowledgeable and 73.3% of the respondents as not knowledgeable in respect to cervical cancer and cervical cancer screening. This indicate poor information penetration in the community which call for a review of the way cervical cancer screening services information is communicated to women in rural areas.

Many studies have pointed at the correlation between the awareness and knowledge, and utilization of cervical cancer screening services. A study by Elisa et al. (2020) that sought to assess awareness, knowledge and utilization of cervical cancer screening services among women in Vhembe District, South Africa, found that the poor utilization was directly related to low level of awareness and knowledge (Elisa et al., 2020). Closer home in Uganda, a study by Rawlance et al. (2017), found that misconceptions about cervical cancer were barrier to the utilization of screening services. Similar results were obtained by Busolo et al. (2019) in a study that sought to evaluate Kenyan youths understanding and risk perception of various types of cancer. The study found that poor understanding of the disease and poor risk

perception were associated with poor uptake of preventive measures.

4.5 Respondents cervical cancer risk perception at baseline

The study sought to determine the level of risk perception of cervical cancer among the respondent. To do this, a series of four questions relating to self-cervical cancer risk rating were asked. With regard to the assertion that respondent is at high risk of developing cervical cancer, 19% of the respondents strongly agreed, 13.5% of the respondents agreed, 9.3% were undecided, 30.4% disagreed and 27.8% strongly disagreed.

This question was followed up with a question that requested the respondents to indicate their level of agreement with assertion that the respondent is often worried that she would get cervical cancer. On this 20.7% of the respondents strongly agreed, 17.2% agreed, 7.4% were undecided, 25.2% disagreed and 29.4% of the respondents strongly disagreed. Regarding the assertion that all women have an equal risk of developing cervical cancer, 18.0% of the respondents indicated that they strongly agreed, 26.2% agreed, 9.3% were undecided, 17.7% disagreed and 28.8% and strongly disagreed with the assertion. Finally, respondents were asked to indicate their level of agreement with assertion that they believe that they were at risk of contracting HPV. In this regard 11.9% strongly agreed, 27.2% agreed, 7.4% were undecided, 25.7% disagreed and 27.8 strongly disagreed with the assertion. Table 4.3 shows the mean and the standard deviations for each of the four questions item on risk perception.

Table 4.3: Respondent's cervical cancer risk perception at baseline

Indicators	SD	D	U	A	SA	MEAN	STD DEV
I am at a high risk of contracting cervical cancer	28.8%	30.4%	9.3%	13.5%	19%	2.4	1.51
I am often worried that I would get cervical cancer	29.4%	25.2%	7.4%	17.2%	20.7%	2.1	1.54
All women have an equal risk of developing cervical Cancer.	28.8%	17.7%	9.3%	26.2%	18. %	2.2	1.517
I believe that I am at a risk of contracting HPV.	27.8%	25.7%	7.4%	27.2%	11.9%	2.3	1.43

From the table above most of the respondents had a low cervical cancer risk perception. Only 32.5% of the respondent felt that they were at risk of the disease at baseline and only 39.1% felt that they were at a risk of contracting HPV.

Taken together, based on the way the respondents responded to the questions, the respondents have a low risk perceptions. This is problematic in the sense that where individuals do not perceive themselves at risk, they may not be willing to take up screening services. As a matter of fact, many studies have shown that where respondents showed a low risk perception, the uptake of screening services is equally low. For example, a study by Gu et al. (2018) that sought to understand cervical

cancer risk perception and the role of personal risk factors as they influence screening behavior among Chinese women, found that respondents risk perception was low and equally few respondents were willing to take up screening services. Another study by Mbachu et al. (2017) that sought to assess the effectiveness of peer health education on perception and willingness to screen and uptake of cervical cancer screening by women in Nigeria, found that individual risk perception for cervical cancer significantly increased the desire to seek for cervical cancer screening services. Similarly, a study by Elena et al, (2019) that sought to evaluate the role of perceived risk to cervical cancer found that poor self-risk perception was associated with poor consumption of screening services.

4.6 Respondent's cervical cancer screening status at baseline

The study sought to determine the status of respondents in regard to cervical cancer screening. The figure 4.2 below shows the proportion of respondents who have screened for cervical cancer.

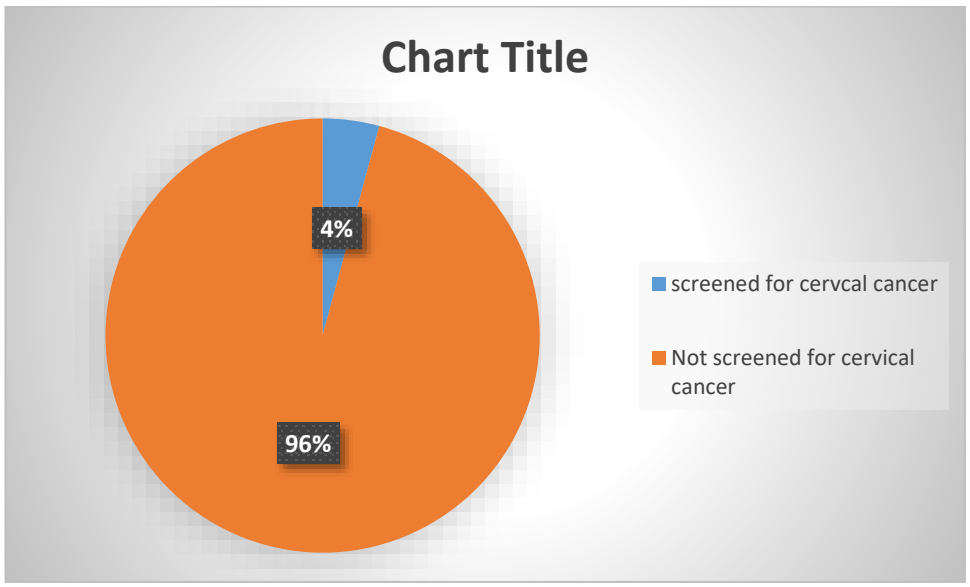

Figure 4.2: cervical cancer screening status of the respondents.

From the figure 4.2 above, only 4 % indicated to have taken a cervical cancer screening. This rate is extremely low given the fact that the government targeted cervical cancer screening coverage is 70% (MOH, 2017). Except for religion, X^2 (1, N = 378) =10.526, p = 0.01, the rest of the socio demographic characteristics returned a no statistically significant difference regarding screening status with age Chi test being X^2 (1, N = 378) =.0.497, p = 0.481, education being X2 (1, N = 378) =.0.71, p = 0.791 and marital status being X2 (1, N = 378) =.3.354, p = 0.063.

Further, there was no statistically significant difference among the respondents allocated in the various study arms in regard to screening status of the respondents X^2 (16, N = 378) =.12.09, p = 0.708.

4.7 Future intention to screen for cervical cancer

This study sought to determine future intention to screen for cervical cancer among the respondents. In this regard, a series of Likert scale questions regarding intention to screen for cervical cancer was given to respondents. Based on the respondents' summed up Likert score on items on future intention, the data was recorded in such a way that two categories of future intention was obtained ("having intention" and "having no intention"). The cutoff point was 17. Based on these two categories 163 (43.1%) of the respondents were categorized as "having intention" to screen for cervical cancer, while the rest 215 (56.9%) of the individuals were categorized as "having no intention" to screen for cervical cancer at baseline. At post test, of the 344 respondents who participated, 230 (66.9%) of the respondents were categorized as "having intention" to screen for cervical cancer, while the rest 114 (33.1%) were categorized as having no intention to screen for cervical cancer.

At the pretest, in regard to assertion that getting screened for cervical cancer informed one of her health status, 6.9% of the respondents strongly agreed, 18.3% agreed, 17.4% were undecided 28.4% disagreed and 29% strongly disagreed. Majority of the respondents agreed with the assertion which is a good indication of the desire to know their cervical status. This meant that they would like to take up a cervical cancer screening test.

In respect to assertion that respondents' family would want the respondents to go for a cervical cancer screening 33% of the respondents strongly agreed with the assertion, 36% agreed, 14.8% were undecided, 11.9% disagreed while 4.3% of the respondents strongly disagreed. Majority of the respondents had agreed with the assertion implying that their families would support respondents in taking up the screening test.

This questionnaire item was followed by an item that had an assertion that cervical cancer screening facilities are available in my area of residence. On this, 4.9% of the respondents strongly agreed with the assertion, 8.6% agreed, 32.2% were undecided, 28.5% disagreed and 25.8% of the respondents strongly disagreed. Majority of the respondents are not aware that there existed facilities where they could take up the screening test. Regarding the assertion that getting cervical cancer screen would be a good thing for me, 18.4% of the respondents strongly agreed with the assertion, 29.9% agreed, 25.6% were undecided, 20.9% disagreed and 5.2% of the respondents strongly disagreed.

On the assertion that people who are important to the respondents approve of the respondent's taking cervical cancer screen 33% of the respondents strongly agreed, 36.1% agreed, 14.8% were undecided 11.9% disagreed, and 4.3% strongly disagreed. This was followed by assertion that the respondent is capable of getting cervical cancer screening. On this, 25.6% of the respondents strongly agreed with the assertion, 21.6% agreed, 34.1% were undecided, 13.3% disagreed, and 5.4% strongly disagreed with the assertion. Finally, on intention to screen for cervical cancer at baseline, respondents were asked to indicate their level of agreement with the assertion that they intend to take up a cervical cancer screening. In respect to this, 21% of the respondent strongly agreed with the assertion, 19% agreed, 24% were undecided 22% disagreed while, 14% strongly disagreed with the assertion.

Chi square test done to determine if there was a statistically significant difference in future screening intention across the study arms at pretest returned a non-significant test results X^2 (4, N = 378) =8.55, 1, p = 0.07. The implication of this result is that respondent were similar in regard to their future intention to screen for cervical cancer at the baseline across all the study arms. However, Chi square test done to

determine if there was a statistically significant difference in future screening intention across the study arms at post test returned a significant test results X^2 (4, N = 344) =30.254, p = 0.001. The implication of this result is that respondent were similar in regard to their future intention to screen for cervical cancer at the baseline across all the study arms, but this changed after the intervention, where some respondents who watched different video clip changed their intention to screen for cervical cancer. Table 4.4 below shows the distribution of the percentage responses on items on intention to screen for cervical cancer as well as means and standard deviations.

Table 4.4: Respondent's intention to screen for cervical cancer at pretest.

INDICATORS	SD	D	U	A	SA	MEAN	STD. DEV
Getting screened for cervical cancer informs me of my health status	29%	28.4%	17.4%	18.3%	6.9%	2.8	1.53
My family would wa me go for a cervi cancer screening.	4.3 %	11.9%	14.8%	36%	33%	2.18	1.135
Cervical can screening facilities a available in my area residence	25.8%	28.5%	32.2%,	8.6%	4.9%	2.52	1.213
Getting cervical can screen would be a go thing for me	5.2%	20.9 %	25.6%	29.9%	18.4%	1.83	0.96
People who a important to approve of me taki cervical cancer screer	2.4 %	11.9%,	14.8%	36.1%	33%	1.86	93
I am capable of getti cervical can screening	5.4%	13.3%	34.1%	21.6%	25.6	2.21	1.21

At the post test, in regard to the assertion that getting screened for cervical cancer informs respondents of my health status, 25% of the respondents strongly agreed, 36.6% agreed, 8.7% were undecided, 15.7% disagreed and 14% strongly disagreed. Regarding assertion that respondents' family would want her go for a cervical cancer screening 26.5% of the respondents strongly agreed with the assertion, 47.4% agreed, 12.5% were undecided, 5.5% disagreed while 8.1% of the respondents strongly disagreed.

On the assertion that cervical cancer screening facilities are available in my area of residence 25.6% of the respondents strongly agreed with the assertion, 42.4 % agreed, 17.2% were undecided, 9% disagreed and 5.8% of the respondents strongly disagreed. Regarding the assertion that getting cervical cancer screen would be a good thing for me, 32.3% of the respondents strongly agreed with the assertion, 40.1% agreed, 19.2% were undecided, 4.4% disagreed and 4.1% of the respondents strongly.

On the assertion that people who are important to the respondents approve of the respondents taking cervical cancer screen 28. 2% of the respondents strongly agreed, 51.2% agreed, 9.9% were undecided 5.8% disagreed, and 4.9% strongly disagreed. This was followed with assertion that the respondents is capable of getting cervical cancer screening. On this, 31.4% of the respondents strongly agreed with the assertion, 38.7% agreed, 17.4% were undecided, 7.3% disagreed, and 5.2% strongly disagreed with the assertion. Finally, on intention to screen for cervical cancer at baseline, respondents were asked to indicate their level of agreement with the assertion that they intend to take up a cervical cancer screening. In respect to this, 35.5% of the respondent strongly agreed with the assertion, 36.3% agreed, 15.4% were undecided 4.9% disagreed while, 7.8% strongly disagreed with the assertion.

4.8 Tests of assumptions

In this study some assumptions were made on the data collected. These assumptions included that the data collected is normally distributed, that sampling done was adequate to allow for factor analysis, that there is homogeneity of variance, that predictor variables in regression have a straight line relationship with the outcome

variable, and absence of multicolineality among the variables. Because these assumption informs the decision on the tests to be used in data analysis, and the fact that violation of these assumptions would mean errors in data analysis and interpretation, it was found prudent to test these assumptions before the actual data analysis began. The test of assumptions that were considered included test of normality, sampling adequacy, homoscedasticity, linearity, and multi-collinearity diagnostics. The findings on each of the assumption is given in the following sections.

4.8.1 Test of Normality for all Variables

According to Razali and Wah (2011), the assumption of normality can be checked using Kolmogorov-Smirnov test and Shapiro-Wilk test. To test for this, four independent variables including message frame, narrative rationality, identification with story character and narrative perspective were entered in the factor list, and the intention to screen for cervical cancer at the post test (variable we are making inference about) as the dependent variable. Table below shows the results of the findings on normality test.

Table 4.5: Test of normality assumption

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig	Statistic	df	Sig
Narrative rationality						
Rational story .	184	152	.320	.906	152	.210
Story not Rational.	221	192	.312	.886	192	.213
Message frame						
Gain frame first person perspective narrative	.216	87	.128	.885	66	.121
Gain frame third Person perspective narrative	.256	85	.315	.852	68	131
Loss frame first person perspective narrative	.103	88	.315	.965	70	.343
Loss frame third person perspective narrative	.209	84	.124	0.883	80	.241
Character identification						
Identifies with story character	.201	188	.310	.895	188	.146
Do not identify with story character	.171	156	.240.	922	156	.141
Narrative perspective						
First person perspective	.195	151	.213	894	151	.156
third person perspective	.211	193	.313	.903	193	.172

The null hypothesis of normality test is that the data came from a normally distributed population. Thus, if the *p* value smaller than the chosen alpha level (p=0.05), then the null hypothesis that the data came from a normally distributed population cannot be rejected. On the other hand, if the *p* value is greater than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not normally distributed (Dixit & Leela, 2016). From the table 4.10 above, p value for all the variables entered are above alpha level of .05. The null hypothesis cannot be rejected and therefore the study conclude that the data is normally distributed.

4.8.2 Sampling Adequacy Test

Sampling adequacy is a statistic that measures the proportion of variance among variables that might be common variance (Schoen et al., 2017). This is required for studies that use factor analysis models as in the case of the current study. Specifically Kaiser-Meyer-Olkin (KMO) and the Bartlett's test of sphericity are used to measure sampling adequacy which help in determining how suitable a data is for Factor Analysis (Chan et al., 2017).

In this study sampling adequacy was measured using both the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity. The following table shows results of the two test for all the variables. The tests returned a KMO correlation value of above 0.5 and Bartlett's test of Sphericity with a chi-square output of p value of $P < 0.05$. According to the rule of thumb, a KMO correlation value above 0.60 is to be considered adequate (Burton & Mazerolle, 2011), while Bartlett's test of Sphericity with a chi-square output $P < 0.05$ indicate that there is relationship among the items in the survey (Williams, Onsman, & Brown, 2010; Burton & Mazerolle, 2011). Based on this fact, the study concludes that the sample is adequate for factorial analysis.

Table 4.6: KMO and Bartlett's Test

Intention to screen			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.738
Bartlett's Test of Sphericity	Approx. Chi-Square		372.95
	Df		28
	Sig.		.000
Narrative rationality			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.579
Bartlett's Test of Sphericity	Approx. Chi-Square		2191.98
	Df		66
	Sig.		.000
Character identity			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.521
Bartlett's Test of Sphericity	Approx. Chi-Square		870.65
	Df		66
	Sig.		.000
Knowledge on cervical cancer			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.539
Bartlett's Test of Sphericity	Approx. Chi-Square		143.38
	Df		78
	Sig.		.000

4.8.3 Homoscedasticity test

According to Knaub, (2007), homoscedasticity refers to the variances of the predictions determined by regression remains constant. Thus, it explains a situation in which the residuals (error terms) remain constant or distributed consistently across all the predictors values (Statistics Solutions, 2011; Keith, 2015). A scatter plot was done with dependent variable as indicated in figure 4.3 below. Observation of the scatter plot indicated residuals were evenly distributed and therefore meet the requirement of homoscedasticity.

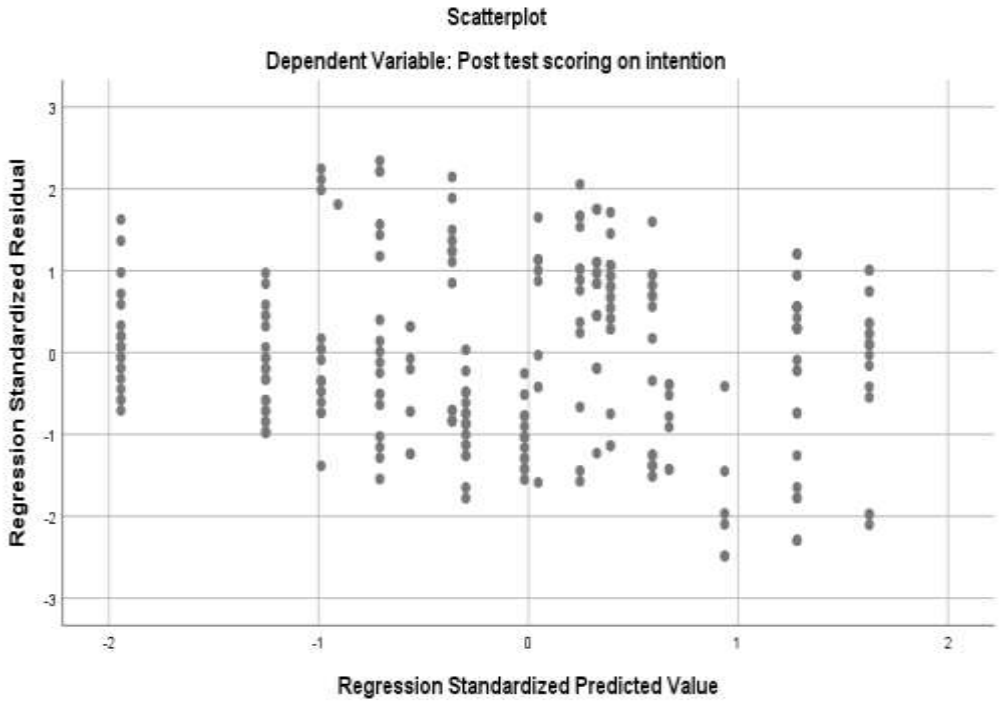

Figure 4.3: Homoscedasticity test

4.8.4 Linearity test

According Hayes (2018), linearity is the extent to which the predictor variables in regression have a straight line relationship with the outcome variable. Linearity is a requirement for linear regression analysis to take place. Linearity assumption was determined by generating a normal pp plot in which intention to screen for cervical cancer at post test was entered as the dependent variable and message frame, narrative rationality, narrative perspective were entered as independent variables. Observation of the plot generated indicated a linear relationship as indicated in figure 4.4 below.

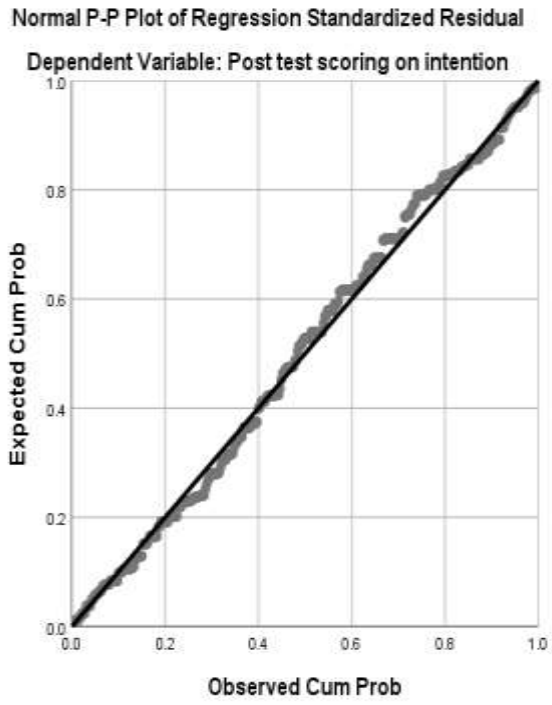

Figure 4.4: Linearity test

4.8.5 Test of Multicollinearity among the Independent Variables

Testing for multicollinearity of the predictors in a regression model is important because it has an adverse impact on the regression analysis (Vatcheva, Lee, McCormick, & Rahbar, 2016). Multicollinearity can be diagnosed using tolerance value (TV), variance inflation factor (VIF), and condition index (CI) (Das, 2019). To test for multicolloneality in the current study, the dependent variable (intention to screen for cervical cancer at post test) was entered together with the independent variables (narrative rationality, character identification and the message frame, and perspective). The result of multi-collinearity diagnostics is as indicated in table 4.7 below.

Table 4.7: Multi-collinearity diagnostics

	Collinearity Statistics			
	t	sig	Tolerance	VIF
Narrative rationality	3.973	.000	.841	1.189
Character identification	.968	.334	.988	1.012
Narrative perspective	-1.365	.173	.917	1.091
Message frame	-4.251	.000	.817	1.225

Midi, Kumar and Sarkar (2010) suggests that a tolerance value less than 0.1 indicates that there is a serious collinearity and less than 0.2 indicates a potential collinearity. Similarly, a VIF value greater than 10 indicates the presence of collinearity. From the table above, all the tolerance values are above 0.2 while all the VIF values are below 10 which indicates absence of colineality of the variables among the predictor variables and hence the regression model will be adequately fitted to predict the dependent variable

Taken together, the assumptions meet the requirement for parametric data analysis that was predominantly used in current study.

4.9 Inferential statistics

The following sections presents the results of inferential data analysis. In this study, three methods was used for inferential statistics. These included analysis of variance (ANOVA), the Analysis of Covariance (ANCOVA) and Regression Analysis. In this section findings on the study objectives are presented after which multivariate regression analysis are presented.

4.9.1 Effect of message frame on intention to screening for cervical cancer.

The first objective of the study was to determine the effects of message frame on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. In order to determine the effects of message frames on intention to screen for cervical cancer, it was important to confirm that there existed no difference among the respondents randomly allocated to the five arms of the study in respect to their intention to screen for cervical cancer. To this end, ANOVA test was run with message frame as the factor and intention to screen for cervical cancer at pre-test (baseline) as dependant variable. The results are as indicated in the table 4.8 below.

Table 4.8: ANOVA test on Knowledge, risk perception and intention to screen for cervical cancer at baseline

ANOVA of Narrative message frames on intention to screen for cervical cancer at pre test

Sum of squares		df	mean square	f	sig
Intention to Screen for cervical Cancer at post test	Between groups	84.2	3	28.1	1.462 0.26
	Within groups	6587.4	342	19.3	
	Total	6671.6	343		

The test returned a no significant result for respondents' intention to screen for cervical cancer. The implication of this test finding, is that respondents were at equal levels in respect to future intention to screen for cervical cancer. This made it possible to compare the groups after the intervention. Further ANOVA was run to determine if there existed any difference in regard to screening for cervical cancer at pre-test across the study sites. The test returned a no statistically significant difference for intention to screen for cervical cancer being $F\ (3,\ 375) = 0.134$, $p = 0.940$. This means that respondents across the site had equal level of intention to screen for cervical cancer.

After elapse of two weeks period, respondents were followed up and given intervention in form of watching one of the four narrative video clip (gain frame 1st person perspective, gain frame third person perspective, loss frame 1st person perspective and loss frame 3rd person perspective). All of the narrative video clips had factual equivalent information on cervical cancer and cervical cancer screening but framed differently as gain frame (emphasizing favorable consequences that may happen due to complying with a target behavior) and loss frame (emphasizing unfavorable consequences that may happen due to non-compliance, respectively). Moreover, each was presented in form of first person narrative perspective and third person narrative perspective narratives.

Immediately after watching the video clip they responded to a post test questionnaire with similar items as the pretest questionnaire, but which, in addition, had items that measured respondent's identification with the character in the story as well as the respondents' evaluation of the rationality of the story. The items were presented in a Likert scale of 5, in a continuum in which strongly disagree had a score of 1 and strongly agree had a score of 5. The data was analyzed by summing up the scores on all of the items measuring intention to screen for cervical cancer to obtain a single score. The post test results were aggregated in the four study arms. Table 4.9 below shows the results for pretest compared with the post test results.

Table 4.9: Distribution of scores on intention to screen for cervical cancer by study arms.

Study arm	Pretest		post test	
	Mean	SD	Mean	SD
Gain frame 1st person perspective narrative.	18.1	10.9	21.6	8.9
Gain frame 3rd person perspective narrative	19.1	10.7	20.3	6.7
Loss frame 1st person perspective narrative.	18.8	4.3	29.7	7.1
Loss frame 3rd person perspective. Narrative.	20.8	9.3	28.7	7.03

From the table above, there was a general increase in the mean score on intention to screen for cervical cancer mean score among respondents in all the message frames after the intervention. However respondents who watched any of the loss framed video clip had a bigger increase in their intention to screen for cervical cancer mean score compared to those who watched either of the gain framed narrative video clip.

Analysis of Covariance (ANCOVA) was conducted to compare the effect of message frames on intention to screen for cervical cancer, the message frame was entered as the factor and intention to screen for cervical cancer at post test as dependant variables, while controlling for intention to screen for cervical cancer at pre-test. The test results were as indicated in the table 4.6 below.

Table 4.10: ANCOVA of Narrative message frames effects on intention to screen for cervical cancer at post test

	Type III Sum of squares	df	mean square	f	sig
Corrected model	8753.197	5	1750.639	33.644	0.00
Intercept	13574.462	1	13574.462	260.875	0.00
Intention at baseline	2.898	1	2.898	.056	0.81
Message frame	8725.596	4	2181.399	41.922	0.00
Error	15922.483	339	52.034		
Total	199904.000	344			
Corrected total	24675.679	343			

From the table the ANCOVA test returned a significant test results implying that the message frame had a significant effect on intention to screen for cervical cancer.

4.9.1.1 Control of effects of social demographic characteristics

To control for effects of social demographic variables on the intention to screen for cervical cancer given the message frame, a hierarchical multiple regression was run with all the sociodemographic factors entered in the first block and study arm entered in the second block. The results were as presented in table 4.11 below.

Table 4.11: Hierarchical multiple regression of message frame covariates

Variable	β	t	Sr^2	R	R^2	ΔR^2
Step 1				**0.503**	**0.253**	**0.002**
Marital status	-.075	-.1.382	0.075			
Religion of the respondent	.093	1.705	0.092			
Highest Level of Education	011	.205	0.011			
Age of the respondents	-.046	-.830	0.045			
Step 2				**0.339**	**0.115**	**0.097**
Marital status,	.081	1.570	0.085			
Religion of the respondent	.096	1.870	0.101			
Highest Level of Education	-.025	-.467	0.025			
Age of the respondents	-.029	-.559	0.030			
Message frame	.314	6.079	0.314			

The hierarchical multiple regression revealed that at Stage 1, social demographic variables did not contribute significantly to the regression model, F (4,343) = 1.534, p= 0.192) and accounted for only 1.83% of the variation in intention to screen for cervical cancer. Introducing message frame variable to the model at step 2 explained 12% of variation in intention to screen for cervical cancer and this change in R^2 was significant, F (4,343) = 8.749, p= 0.00). When the socio demographic variables and message frame were added together in the model in the second stage, only the message frame significantly predicted intention to screen for cervical cancer F (4,343) = 8.749, p= 0.00). After the effects of the sociodemographic variables have been removed, message frame explained 10% of the variation on intention to screen for cervical cancer which was statistically significant. This means in this study, message frame (predictor variable of interest in the case) explains 10% of the variation on intention to screen for cervical cancer among the women in agricultural sector, after controlling for the socio demographic factors.

4.9.1.2 Test of hypothesis

The first null hypothesis for this study was that Message frame has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. General Linear univeriate model was used. The null hypothesis of the model is that there is no difference in mean in respect to scoring on intention to screen for cervical cancer across the message frames at post test. Intention to screen for cervical cancer at post test was entered as a dependent variable and the message frame as the fixed factor. Additionally Laverne test of homogeneity of variance and Turkey post Hoc test was carried out. The levene's test of homogeneity met the assumption of homogeneity, F (4, 340) = 3.01, p = 0.38. The result for the General Linear univeriate model was as indicated in table 4.12 below.

Table 4.12: Message frame results on Tests of Between-Subjects Effects of message frame

Source	Type III Sum of squares	df	mean square	f	sig
Corrected Model	9357.937	4	2339.484	45.061	0.000
Intercept	189507.384	1	189507.384	3650.124	0.000
Message Frame	9357.937	4	2339.484	45.061	0.000
Error	17600.223	339	51.918		
Total	225919.000	344			
Corrected total	26958.160	343			

From the table above there was a significant effect of message frame on the intention to screen for cervical cancer at post test [F (4, 343) = 45.06, p = 0.000]. Based on the findings the null hypothesis is rejected. The study finds that Message frame has significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

Further, a post hoc comparison using the Tukey HSD test indicated that the mean score for the loss message frame first person perspective narrative (M=29.7, SD=7.1) was significantly different from gain message frame first person perspective narrative (M=21.6, SD=8.9), and gain message frame third person perspective narrative (M=20.3, SD=6.7). However the loss frame first person perspective (M=29.7, SD=7.1) did not differ significantly from loss frame third person perspective (M=28.7, SD=7.03). Taken together, these results shows that loss framed narrative is more effective in increasing the intention to screen for cervical cancer among women in agricultural sector in Kiambu County Kenya.

This study sought to determine whether message frames had any effect on the uptake of cervical cancer among women in agricultural sector in Kiambu County. In particular the study buttressed message framing with message perspective (first person or third person). The findings were that loss framed narrative messages had the biggest effects on intention to screen for cervical cancer among women in agricultural sector in Kiambu County. These findings are consistent with results with other studies. For example a study by Gallagher et al. (2016) in a study that sought to examine the role of three distinct beliefs about risk in moderating women's responses to framed messages that promote mammography found that Women with average and higher levels of perceived susceptibility for breast cancer were significantly more likely to report screening after viewing a loss-framed message compared to a gain-framed message. Similarly, a study by Lee-Won et al. (2017) in a study that examined how social media virality metrics, loss-versus-gain message framing, and perceived susceptibility influence message-evoked fear and intention to perform colonoscopy in the context of colorectal cancer screening, found that loss framing, relative to gain framing, led to greater message-evoked fear when the message was presented with high-virality metrics, and led to an increased intention to screen for cervical cancer among the respondents.

Moreover, the results in the current study, concurs with the findings of studies in other subfields of preventive health. For example, a study by Macapagal (2017) that sought to investigate the impact messages framing on decisions to have sex and

sexual risk, found out that the intentions to have sex with high-risk partners significantly decreased after the loss-framed message, but not after the gain-framed message, and intentions to have sex increased for participants who received the gain-framed message first. The study results suggested that loss-framed messages may be particularly effective in reducing intentions to have sex with partners who might pose a higher risk for STIs, and that message presentation order may alter the relative effectiveness of gain- and loss-framed messages on sexual decision making. Similarly, another study by Mccullocks et al. (2020), which examined the effect of source credibility (high vs. low) and message framing (positive vs. negative) on college students' behavioral intentions to get screened for STIs via a 2×2 experiment ($n = 207$), revealed that both highly credible sources and negatively framed messages (loss framed) influenced behavioral intentions to screen for STIs.

Similarly, a study by Godinho et al. (2016) which aimed at testing the effectiveness of framed messages (gain vs. loss) on behavioural intention and fruit and vegetable (FV) intake, comparing predictions based on prominent theoretical perspectives on message framing (function of the health behaviour and recipients' motivational orientation) and by further exploring the role of baseline intentions as a potential moderator of the framing effects. The gain-frame was not conducive, *per se*, to higher intentions or behaviour. Having intention as the outcome, only baseline intentions moderated the effects of message frame. When considering FV intake as the outcome, both motivational orientation and baseline intentions moderated the effects of message frame, with the loss-frame promoting higher FV intake among individuals who were prevention-oriented and had higher baseline intentions. Findings suggest that the success of framed messages for FV intake depends upon the recipient's characteristics, such as motivational orientation, baseline intentions, and cultural background, with implications for health communication interventions.

Some studies have found contradictory findings to this study findings. For example, in a study by Daffu et al. (2016) which sought to investigate the effectiveness of message framing, cultural sensitivity and their interaction on promoting physical activity among British south Asians that employed one hundred and seventy-nine

participants randomly allocated to watch one of four films in a 2 (loss vs. gain) × 2 (culturally sensitive vs. non-culturally sensitive) design, found no main effects for message framing. Moreover, in another study by Mavandadi et al. (2017), that examined the extent to which framing by gain, by loss, or neutral of health messages promotes appointment attendance among patients referred to specialty mental health care, found out that participants who received the gain-framed message after being referred to specialty mental health care were significantly more likely to attend their appointment than those who received a neutral letter. In the study, no statistically significant differences were noted among those receiving a loss-framed message compared with the other two arms.

4.9.2 Effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya.

The second objective was to determine the effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To determine this, a baseline questionnaire with items testing on future intention to screen for cervical cancer was administered to the respondents. After two weeks the respondents were followed up with an intervention which involved watching any of the four narrative video clips in different message frames. The effects of the narrative perspective on the variable were then measured immediately after watching the video clip by administering a post test questionnaire that had similar items as the pretest questionnaire. To facilitate analysis using ANCOVA a one way analysis of variance was carried out (ANOVA) to determine that there existed no difference before intervention. The results are as indicated in table 4.13 below.

Table 4.13: ANOVA of Narrative perspective on intention to screen for cervical cancer at pre test

	Sum of squares	df	mean square	f	sig
Intention to Screen for cervical cancer at post test	Between groups	25.6	1 25.6	1.329	0.250
	Within groups	6646.0	342	19.3	
	Total	6671.6	343		

From the table above there was no statistical significant difference in respect to scoring on intention between the group allocated to watch narrative video clip in first person perspective and narrative clip that is in the third perspective at the baseline F (1, 342) = 1.329, p = 0.250. The implication of this finding is that individuals allocated in either of the two group were equally likely (or unlikely) to screen for cervical cancer at baseline. At the same time the test met the ANCOVA assumption that requires ANOVA of the groups in comparison not be significant at pretest F (1, 342) = 1.329, p = 0.250 was achieved.

The two groups were subjected to intervention which entailed watching their respective allocated video clip in either first person or third person perspective. They were then given a post test questionnaire with items measuring change in the intention to screen for cervical cancer. The findings are as indicated in table 4.14 below.

Table 4.14: Distribution of scores on intention to screen for cervical cancer by study narrator perspective

Narrator perspective	Pretest (N=378)		post test (N=344)	
	Mean	SD	Mean	SD
1st person perspective narrative.	15.4	2.04	26.9	4.3
3rd person perspective narrative.	15.0	1.5	22.53	4.4

From the table there was there was a general increase in the mean score on intention to screen for cervical cancer among respondents in all the three group both groups.

ANCOVA test was done to find out if there existed any significant difference in scoring on intention to screen for cervical cancer for respondent who watched video clip in first person perspective and the respondents who watch video clip in third person perspective. Intention to screen for cervical cancer at post test was entered as the dependent variable and narrator's perspective as fixed factor while controlling for intention to screen at pre-test. The results are as presented in table 4.15 below.

Table 4.15: ANCOVA of Narrative Perspective effects on intention to screen for cervical cancer.

Source	**Type III Sum of squares**	**df**	**mean square**	**f**	**sig**
Corrected Model	2666.610[a]	2	1333.305	18.719	0.000
Intercept	12214.508	1	12214.508	171.488	0.000
Intention to screen at pre test	7.014	1	7.014	0.098	0.754
Narrative perspective	2639.009	1	2639.009	37.051	0.000
Error	22009.069	342	71.227		
Total	199904.000	344			
Corrected total	24675.679	343			

From the table above there exist a significant difference in regard to scoring on the intention to screen for cervical cancer between the group that watched the first person perspective narrative video and the third person perspective narrative video clip.

4.9.2.1 Control of effects of Message frame and social demographic characteristics

To control for effects of message frame and social demographic variables on the intention to screen for cervical cancer given the message perspective, a hierarchical multiple regression was run with all the sociodemographic factors and the message frame entered in the first block and message perspective entered in the second block. The results were as presented in table 4.16.

Table 4.16: Hierarchical multiple regression of narrative perspective covariates

Variable	**β**	**t**	**sr^2**	**R**	**R^2**	**ΔR^2**
Step 1				**0.339**	**0.115**	**0.115**
Age	.189	-.559	-0.30			
Religion of the respondent	1.28	1.870	0.101			
Education level	1.82	-6.079	-.025			
Marital status	0.182	0.081	-.085			
Message frame	1.91	-6.079	-.314			
Step 2				**0.339**	**0.115**	**0.097**
Age	1.38	0.428	-.023			
Religion of the respondent	1.21	1.723	.094			
Education Level	0.135	-0.366	-.020			
Marital status	0.296	-1,088	-.059			
Message frame	-1.876	-6.261	-.323			
Narrative perspective	5.376	6.160	0.319			

The hierarchical multiple regression revealed that at Stage 1, together, social demographic variables and the message frame contributed significantly to the regression model, F (4,344) = 8.79, p= 0.01) and accounted for 11.5% of the variation in intention to screen for cervical cancer. Introducing message perspective variable at step 2 explained an additional 9.0% of variation in intention to screen for

cervical cancer. This change in R^2 was significant, F (4,343) = 8.749, p= 0.00). When effects of socio demographic variables, message frame, and message perspective were added together in the model in stage 2, two variables (the message frame (F (5,343) = 14.43, p= 0.00) and message perspective (F (5,343) = 14.43, p= 0.00), were significant predictors intention to screen for cervical cancer. After the effects of the sociodemographic variables and the message frames were removed, message perspective explained 9% of the variation on intention to screen for cervical cancer which was statistically significant.

4.9.2.2 Test of hypothesis

The second null hypothesis stated that narrator's perspective has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To test the hypothesis, General Linear Univeriate model was used. The null hypothesis of the model is that there is no difference in mean in respect to scoring on future intention to screen for cervical cancer across the message perspective at post test. Intention to screen for cervical cancer at post test was entered as a dependent variable and the message perspective as the fixed factor. Additionally Laverne test of homogeneity of variance was carried out. The levene's test of homogeneity met the assumption of homogeneity, F (1, 342) = 3.1, p = 0.27. The result for the General Linear univeriate model were as indicated in table 4.17.

Table 4.17: Narrative perspective results on Tests of Between-Subjects Effects

Source	**Type III Sum of squares**	**df**	**mean square**	**f**	**sig**
Corrected Model	2736.205[a]	1	2736.205	38.634	0.000
Intercept	190380.972	1	190380.972	2688.069	0.000
Narrative perspective	2736.205	1	2736.205	38.634	0.000
Error	24221.95	342	70.824		
Total	225919.000	344			
Corrected total	26958.160	343			

From the table above there was a significant effect of message perspective on the intention to screen for cervical cancer at post test [F (1, 344) = 38.634, p = 0.000]. Based on the findings, the null hypothesis is rejected. Moreover, a post Hoc comparison of intention to screen for cervical cancer mean between the first person and third person perspective narratives revealed that the mean scores on intention to screen for cervical cancer for the respondents who watched the first person narrative video clip (M=26.5, 8.7SD), was greater than that of the respondents who watched the third person perspective narrative video clip (M=20.8, 8.03SD), The implication of this finding is that the first perspective video clip was more effective compared to the third person perspective video clip.

Taken together, these findings suggest that narrative perspective have an effect on intention to screen for cervical cancer among women in agricultural sector in Kiambu County. The results further suggest that the effects of message perspective would be bigger if messages are presented in the first person narrative perspective. These findings are agrees with other studies done elsewhere. For instance, a study by Nan et al (2017) that sought to examine the relative persuasiveness of narrative vs. non-narrative messages and the influence of narrative perspective (first- vs. third-person) and modality (text-based vs. audio-based) on message effectiveness in a controlled experiment, found out that narrative perspective had a role in influencing risk perception and that first-person narrative message led to greater perceived risk of getting HPV than a third-person narrative message.

Similarly, these findings concur with a study by Vince, (2013). In this study, the researchers examined the persuasive effects of three narrative features in a message about type 2 diabetes: narrative point of view (first- vs. third-person perspective), protagonist competence (positive role model who prevents diabetes vs. negative role model who develops diabetes), and protagonist-reader similarity (demographically similar vs. dissimilar) using a randomly allocated sample of 489 respondents. The study found greater levels of identification were found to foster self-referencing (first person perspective), leading to persuasion. Identification was strongest with a first-person point of view and when the narrator was a positive role model.

Moreover, another study by Kaufman and Libby's study (2012), a first-person (vs. third-person) narrative increased experience-taking and behavior change. However, the advantages of the first-person narrative only emerged when the depicted character was in group (vs. out-group). Narratives have a promise of changing health behavior. Results in the current study suggest that creative executions involving first-person accounts of narrative stories are recommended in increasing intention to screen for cervical cancer among women in agricultural setting.

4.9.3 Effects of narrative rationality on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

The third objective of the study was to determine the effects of narrative rationality on the intention to screen for cervical cancer among the respondents. To determine this, respondents were given a questionnaire with items evaluating rationality (believability) by the respondents. To determine whether respondent's evaluation of the story had any effects on their intention to screen for cervical cancer, ANCOVA test was used.

Two assumption of running ANCOVA are non-significant ANOVA at pretest and homogeneity of variance. To test these assumptions ANOVA was run with message rationality as fixed factor in the model and intention to screen for cervical cancer at pretest as the dependent variable. The test returned a not significant result $F(1,343) = 0.243$, $P=0.63$, hence confirming a no statistically difference between the groups. Moreover, the Levine's test of homogeneity returned a not significant test meeting the other requirement for ANCOVA test, $F(1, 342) = 2.17$, $p = 0.13$.

Having tested and confirmed the assumptions, ANCOVA was run with narrative rationality as the fixed factor, intention to screen for cervical cancer as the dependent variable at post test, while controlling for intention to screen for cervical cancer at pretest.

The results are as indicated in table 4.18 below.

Table 4.18: ANCOVA of Narrative rationality effects on intention to screen for cervical cancer.

Source	Type III Sum of squares	df	mean square	f	Sig
Corrected Model	2600.825	2	1300.413	18.2	0.000
Intercept	12071.446	1	12071.446	168	0.000
Intention at pretest	11.304	1	11.304	158	691
Narrative rationality	2573.224	1	2573.224	36.020.000	
Error	22074.854	309	70.824		
Total	199904.000	344	71.440		
Corrected total	24675.679	343			

From the table above there exist a statically significant difference in regard to scoring on the intention to screen for cervical cancer between the group respondents who evaluated the narrative as rational and respondents who evaluated the narrative as not rational , $F (1, 342) = 36.020$, $p = 0.000$.

4.9.3.1 Control of effects of variables

To control for effects of social demographic variables, message frame, and narrative perspective on the intention to screen for cervical cancer given respondents' evaluation of narrative, a hierarchical multiple regression was run with all the sociodemographic factors, message frame, and message perspective entered in the first block, and narrative rationality was added and entered in the second block. The results were as presented in table 4.19 below.

Table 4.19: Hierarchical multiple regression of Narrative rationality

Variable	β		t	sr^2	R	R^2	ΔR^2
Step 1				**0.452**	**0.204**	**0.204**	
Age	1.38	0.428	-.023				
Religion of the respondent	1.21	1.723	.094				
Education Level	0.135	-0.366	-.020				
Marital status	0.296	-1,088	-.059				
Message frame	-1.876	-6.261	-.323				
Narrative perspective	5.376	6.160	0.319				
Step 2				**0.501**	**0.251**	**0.047**	
Age	.214	.690	-.031				
Religion of the respondent	1.087	1.729	.075				
Education Level	0.33	-0.093	-.001				
Marital status	0.296	-1,088	-.037				
Message frame	-.1501	-5.014	-.194				
Message perspective	5.377	6.392	.310				
Narrative rationality	4.267	4.915	.216				

The hierarchical multiple regression revealed that at Stage 1, sociodemographic factors, message frame, and narrative perspective put together contributed significantly to the regression model, F (6,344) = 14.413, p= 0.00) and accounted for 20.2% of the variation in intention to screen for cervical cancer. Introducing narrative rationality at step 2 explained an additional 5.4% of variation in intention to screen for cervical cancer and this change in R^2 was significant, (F (7,343) = 16.585, p= 0.00). After the effects of the sociodemographic variables, message frame, and narrative perspective variables had been removed, narrative rationality explained

4.6% of the variation on intention to screen for cervical cancer which was statistically significant.

4.9.3.2 Test of hypothesis

To test the third null hypothesis of the study which stated that narrative rationality has no significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya, General Linear Univeriate model was used. The null hypothesis of the model is that there is no difference in mean in respect to scoring on future intention to screen for cervical cancer across the message rationality at post test. Intention to screen for cervical cancer at post test was entered as a dependent variable and the category of narrative rationality as the fixed factor. Additionally, Laverne test of homogeneity of variance was carried out. The levene's test of homogeneity met the assumption of homogeneity, F (1, 342) = 3.7, p = 0.31. The result for the General Linear univeriate model were as indicated in table 4.20 below.

Table 4.20: Narrative rationality results on Tests of Between-Subjects Effects

Source	**Type III Sum of squares**	**df**	**mean square**	**f**	**sig**
Corrected Model	2521.500	[1]	2521.500	35.3	0.000
Intercept	191131.267	1	191131.267	267	0.000
Narrative rationality	2521.500	1	2521.500	35.2	0.000
Error	24436.660	342	71.452		
Total	225919.000	344			
Corrected total	26958.160	343			

From the table above there was a significant effect of Narrative rationality on the intention to screen for cervical cancer at post test F (1, 344) = 35.289, P = 0.000. Based on the findings the null hypothesis is rejected. The study finds that Narrative

rationality has significant effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. Further, a post hoc analysis found that the mean score on intention to screen for cervical cancer for respondents who evaluated the narrative as rational (M= 26.5, SD=8.7) was greater than of those who evaluated the narrative not rational (M=21.0, SD=8.5)

Taken together these findings suggest that Narrative rationality have an effect on intention to screen for cervical cancer. The fact that individuals who evaluated the story as rational had a bigger mean score on intention to screen for cervical cancer compared to those who evaluated the story as not rational, may suggest that use of believable stories in health promotion may lead to a higher rate of adoption of health behavior.

These findings are similar with other studies done elsewhere in both health and non-health related subjects. For instance, in a study by Zhou et al (2008) which tested the conjoint effects of participant rationality and two story attributes, severity and context, on perception of the SARS threat and on story evaluation, found that participants' with high rationality SARs apprehension was high compared to those who evaluated the story rationality poorly.

Moreover, Stephens et al. (2018) in a study that sought to explore the use of social media in a flood situation by community members, found that when credible, complete, coherent and factual stories were provided, community members identified with characters in the stories and adopted advocated health behaviours. The study concluded that fidelity, completeness, consistence of narratives are key factors in communication in a crisis situation.

In yet another study by Health et al, (2019) that sought to evaluate the effectiveness of Wally Wise Guy, a character used in in emergency communication, found that completeness of the story, its fidelity and coherence were predictors.

4.9.4 Moderating effects of Character identification on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

The fourth objective of the study is to determine the Moderating effects of Character identification on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To evaluate character identification, respondents were requested to watch narrative video clip in which story character narrated their experience with cervical cancer. They then responded to a post test questionnaire which had similar items that evaluated respondent's identification with the character in the story. To determine moderating effects of character identification on independent variables, moderation analysis was done.

According to Hayers (2018), moderation analysis is a type of regression analysis which explains impact of independent variable on dependent variable under the influence of a moderator variable. To achieve this, hierarchical multiple regression analysis was performed on all the independent variables. The result of the analysis is presented under the following sections below.

4.9.4.1 Moderating analysis of character identification on message frame

To investigate the moderating effects of character identification on message frame, a hierarchical multiple regression analysis was performed. The outcome variable of analysis was intention to screen for cervical cancer, the predictor variable for the analysis was message frame, and the moderator variable evaluated for the analysis was character identification. Moreover, social demographic variables were controlled for in the model.

In so doing, Socio demographic variables were entered in block 1, message frame ware entered in block 2 and interaction term between the message frame and character identification was entered in block 3.

The results were as indicated in the multiregression table Table 4.21.

Table 4.21: Hierarchical Multiple Regression analysis of moderating effects of character identification on message frame

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				**0.134**	**0.018**	**0.018**
Marital status,	-.075	-1.382	0.075			
Religion of the respondent	.093	1.705	0.092			
Highest Level of Education	011	.205	0.011			
Age of the respondents	-.046	-.830	0.045			
Step 2				**0.339**	**0.115**	**0.097**
Marital status,	-.081	-1.570	0.085			
Religion of the respondent	.096	1.870	0.101			
Highest Level of Education	-.025	-.467	0.025			
Age of the respondents	-.029	-.559	0.030			
Message frame	-.314	6.079	0.314			
Step 3				**0.350**	**0.123**	**0.008**
Age	-.214	.690	-.026			
Religion of the respondent	1.087	1.729	.100			
Education Level	0.33	-0.093	-.025			
Marital status	0.296	-1,088	-.092			
Message frame	-.1501	-5.014	-.210			
Mf*character ID Interaction term	.046	1.724	.094			

Mf*character ID Interaction term = message frame and character identification interaction term

The socio demographic variables entered in the first step accounted for 1.8% of variation on intention to screen for cervical cancer. This change was however not significant (R^2 = 0.018, F(4, 344) = 1.98, p =0.192. Adding message frame to the model the change in R^2 went up from 0.08 to 0.115. At step 2 therefore, the model accounted for 11.5% of intention to screen for cervical cancer. This change was significant R^2 = 0.115, F (5, 339) = 8.749, p =0000. The interaction term was added

at step 3 and the change in R^2 went up from 0.115 to 0.123. Effectively, at this stage, the model accounted for 12.3% of variation on intention to screen for cervical cancer. This change in R^2 was significant, $R^2 = 0.153$, $F (6, 344) = 7.829$, $p = 0000$.

These results suggest that character identification has a moderating effect on interaction between message frame and intention to screen for cervical cancer. While the change in R^2 after the interaction term was small, it was statistically significant implying that character identification has a small size moderating effects of 15.3% on the influence on relationship between message frame and intention to screen for cervical cancer. One of the reasons for the low level effect could be the fact that the current study did not consider socio-demographic homogeneity with story character. The current study used the Igatua (2010) 14 item scale to measure the level of identification with story character which do not consider socio demographic characteristic as a part of character identification.

Other studies that considered other forms of homophily found a bigger moderating effect compared to the current study. For example, Hoeken and sanders (2016) in a study that sought to demonstrate the impact of character identification where they varied story perspective as coming from a lawyer and a medical doctor and observed by law students and medical students, found that professional identification moderated for the acceptance of opinion. In that study, law students were more likely to accept opinion from a lawyer narrator and medical students likely to accept opinions as proposed by a medical doctor.

Similar suggestions were made by Dessart et al. (2018). In this they focused on the role of character identification and character type in the effects of narrative transportation that occur from storytelling ads, where they varied animal and human character in the ads. They found out that identification with animal was counterproductive in that, by generating higher levels of narrative transportation, storytelling video ads can reduce character identification, which results in an overall decrease in positive attitude toward the brand, when using animal characters. These findings therefore suggest the importance of considering homogeneity of story character when using narrative messages to encourage adoption of a health behavior.

4.9.4.2 Moderating analysis of character identification on narrative perspective

To investigate the moderating effects of character identification on narrative perspective, a hierarchical multiple regression analysis was performed. The outcome variable of analysis was intention to screen for cervical cancer, the predictor variable was narrative perspective and the moderator variable evaluated for the analysis was character identification. Moreover, social demographic characteristics variables and message frame were entered controlled for in the model.

To achieve this, socio demographic and message frame variables were entered in block 1, narrative perspective in block 2, and interaction term between the message frame and character identification entered in block 3. The results were as indicated in the multiregression table below.

Table 4.22: Hierarchical Multiple Regression analysis of moderating effects of character identification on narrative perspective

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				**0.339**	**0.115**	**0.115**
Age	.189	-.559	-0.30			
Religion of the respondent	1.28	1.870	0.101			
Education level	1.82	-6.079	-.025			
Marital status	0.182	0.081	-.085			
Message frame	1.91	-6.079	-.314			
Step 2				**0.452**	**0.204**	**0.09**
Age	1.38	0.428	-.023			
Religion of the respondent	1.21	1.723	.094			
Education Level	0.135	-0.366	-.020			
Marital status	0.296	-1,088	-.059			
Message frame	-1.876	-6.261	-.323			
Narrative perspective	5.376	6.160	0.319			
Step 3				**0.483**	**0.233**	**0.029**
Age	-.117	-.365	-.018			
Religion of the respondent	1.108	1.705	.083			
Education Level	-.151	-.409	-.020			
Marital status	-.317	-1.167	-.057			
Message frame	-1.842	-1.167	--.298			
Narrative perspective	3.316	1.883	.092			
*NP*character ID Interaction term	.070	1.346	.065			

Note *NP*character ID Interaction term = Narrative perspective and character identification interaction term

The socio demographic and message frame variables entered in the first step accounted for 11.5% of variation on intention to screen for cervical cancer. This change was significant (R^2 = 0.115, F (344) = 8.74, p =0.00. Adding narrative perspective to the model the change in R^2 went up from 0.115 to 0.204. At step 2, the

model therefore, accounted for 204% of variation intention to screen for cervical cancer. This change was significant $R^2 = 0.204$, F (5, 339) = 14.413, p =0000. The interaction term was added at step 3 and the change in R^2 went up from 0.19 to 0.233. Effectively, at this stage, the model accounted for 23.3% of variation on intention to screen for cervical cancer. This change in R^2 was significant $R^2 = 0.029$, F (6, 344) = 12.643, p=0000. These results suggest that character identification has a moderating effect on interaction between narrative perspective and intention to screen for cervical cancer.

A number of studies have demonstrated that first perspective narrative is more effective than third perspective. For instance, a study by Kaufman and Libby (2012) found that a first-person narration of experience led to an increased adoption of behavior compared to the third person narration of the similar experience. Moreover, in another study by Nan et al. (2015), it was found that a first-person news story about HPV vaccination was more effective in inducing perceived risk of getting HPV than a third-person news story. Similar conclusion was arrived at in the review of studies within the field of health communication suggests that first-person narratives were more influential than third-person narratives in health decisions (Winterbottom et al., 2008). Furthermore, a study of narrative perspective, de Graaf and colleagues (De Graaf, Hoeken, Sanders, & Beentjes, 2012) found that participants identified with a character more when the narrative was told from that character's perspective. The increased identification then resulted in more story-consistent attitudes.

While there is commonalities of these findings, the mechanism of how this works has not be well explained. These findings in the current study that identification with story character has effects on interaction between narrative perspective and intention to screen for cervical cancer may explain this. Put in other words, the current study findings that character identification has a moderating effect on message perspective in relation to intention to screen for cervical cancer among the respondents, may help explain why first person perspective is more effective compared to third person perspective. Indeed, this was the suggestion by a study by Nan et al. (2015).

According to (Cohen, 2001), identification represents a “mechanism through which audience members experience reception and interpretation of the narrative from the inside, as if the events were happening to them”. Accordingly, individuals who identify with a character in a narrative are more likely to align their own beliefs and normative expectations with those of the character.

This findings on moderating role of the character identification on narrative perspective seems to support this assertion by Cohen. A Post Hoc comparison of intention to screen for cervical cancer mean between the first person and third person perspective narratives in this study revealed that the mean scores on intention to screen for cervical cancer for the respondents who watched the first person narrative video clip (M=26.5, 8.7SD), which was greater than that of the respondents who watched the third person perspective narrative video clip, (M=20.8, 8.03SD). Consequently, these findings suggest that a narrative told from a first-person perspective could have resulted in higher identification with the character, which should then lead to greater persuasiveness of the narrative.

4.9.4.3 Moderating analysis of character identification on narrative rationality

To investigate the moderating effect of character identification on **narrative** rationality, a hierarchical multiple regression analysis was performed. The outcome variable of analysis was intention to screen for cervical cancer, the predictor variable for the analysis was narrative rationality and the moderator variable evaluated for in the analysis was character identification. Moreover, social demographic variables, message frame, and narrative perspective were controlled were for in the model. In block 1, the socio-demographic variables, message frame and narrative perspective were entered then narrative rationality was entered. Then narrative rationality was entered in block 2. Finally, the interaction term between the narrative rationality and character identification were entered in block 3. The results were as indicated in the multiregressional table 4.23 below.

Table 4.23: Hierarchical Multiple Regression analysis of moderating effects of character identification on narrative rationality

Variable	β	t	sr^2	R	R^2	ΔR^2
Step 1				**0.452**	**0.025**	**0.205**
Age	1.38	0.428	-.023			
Religion of the respondent	1.21	1.723	.094			
Education Level	0.135	-0.366	-.020			
Marital status	0.296	-1,088	-.059			
Message frame	-1.876	-6.261	-.323			
Narrative perspective	5.376	6.160	0.319			
Step 2				**0.452**	**0.025**	**0.205**
Age	-.214	.690	-.031			
Religion of the respondent	1.087	1.729	.075			
Education Level	0.33	-0.093	-.001			
Marital status	0.296	-1,088	-.037			
Message frame	-.1501	-5.014	-.194			
Message perspective	5.377	6.392	.310			
Narrative rationality	4.267	4.915	.216			
Step 3				**0.503**	**0.253**	**0.002**
Age	-.187	-.598	-.028			
Religion of the respondent	1.011	1.597	.076			
Education level	-0.025	-.070	-.003			
Marital status	-0.222	-.837	-.040			
Message frame	-1.284	.318	-.191			
Narrative perspective	5.549	6.532	.309			
Narrative rationality	0.199	1.748	.083			
*NR*character ID Interaction term	0.003	.899	. .043			

*NR*character ID Interaction term = **narrative rationality** and character identification interaction term

The socio demographic, message frame, and narrative perspective variables entered in the first step accounted for 20.5 % of variation on intention to screen for cervical cancer. This change was significant (R^2 = 0. 205 8, F (6, 344) = 14.41, p =0.00. Adding narrative rationality to the model the change in R2 went up from 0.205 to 0.251. At step 2, the model therefore, accounted for 25.1% of intention to screen for cervical cancer. This change was significant R^2 = 0. 0.251, F (7, 344) = 16.05, p =0000.

The interaction term was added at step 3 and the change in R^2 went up from 0.251 to 0.253. Effectively, at this stage, the model accounted for 25.3% of variation on intention to screen for cervical cancer. This change in R^2 was not significant R^2 = 0.253. However the overall model was significant F (8, 344) = 14.13, p =0000. These results suggest that character identification has a moderating effect on interaction between narrative rationality and intention to screen for cervical cancer.

Finally, the study sought to proof the fourth null hypothesis that stated that Character identification has no significant moderating effects on relation ship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County. Given findings on character moderation analysis on all the three independent variables in the study, the study finds that there was evidence of moderation effects of character identification on the independent variable. Based on this therefore, the null hypothesis that Character identification has no significant moderating effects on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya is rejected.

A post hoc analysis of the intention to screen for cervical cancer among the respondents revealed that respondents who evaluated the narrative as rational had a higher intention to screen for cervical cancer mean score (M=26.5, 8.06 SD) than those who evaluated the narrative as irrational (21.1, 8.8 SD). Out of those who evaluated narrative as rational, 59.2% of them also identified with the character in the story, compared to 40.8% who evaluated the story as rational but did not identify with the story character

These findings suggest that where a narrative is rational, story observers also to tend to identify with the story character more. The findings are consistent with findings of other studies that sought to explain the mechanism through which this happens. For example, accordingly to Cohen (2001), individuals who identify with a character in a narrative are more are also likely to have believed the story. This makes them more likely to align their own beliefs and normative expectations with those of the character. Moreover, there is evidence that identifying with the character can have effects on the narrative observer's real life in changing their attitudes, and beliefs (Lin, 2017).

Additionally, Igartua, (2012) found that identification with character in movies had a significant effect on the audience beliefs Igartua (2012). Furthermore, study by Caputo and Rouner (2011) found that identification with character help to reduce social distance with patient who have mental illnesses (Caputo & Rouner, 2011).

4.10 Multivariate Regression Analysis

The study sought to determine whether there was significance relationship between independent variables and the dependent variables. To achieve this, Multiple Linear Regression model was conducted. The following section presents the results on the overall effects of all the independent variables which were: Message frame, narrative perspective, and narrative rationality on the dependent variable which was intention to screen for cervical cancer. The proposed overall model without moderator for the study was; $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

The next section presents the overall effects of all the independent variables with the moderator. In this the proposed model was $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_1 X_1 * Z + \beta_2 X_2 * Z \beta_3 X_3 * Z + e$ the where:

Y = intention to screen

X_1 = Message frame

X_2 = Narrative perspective

X_3 = Narrative rationality

Z = character identification (Moderator)

In respect to effects of all the independent variables together without a moderator ($Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$), a multivariate regression analysis was carried out with intention to screen for cervical cancer entered as the dependent variable, independent variables message frame and narrative perspective (categorical variables) entered as fixed factor and narrative rationality (continuous variable) entered as covariate in a general liner model. The results were as indicated in the table 4.24 below.

Table 4.24: Multivariate analysis of effects of all independent variables on intention to screen for cervical cancer without the moderator variable

Parameter Estimates

Dependent Variable: scoring on intention to screen for cacx at Post test

		Std.			95% Confidence Interval	
Parameter	B	Error	T	Sig.	Lower Bound	Upper Bound
Intercept	19.681	1.609	12.230	.000	16.516	22.847
[IDV2=1.00]	2.843	.907	-3.135	.002	-4.626	-1.059
[IDV2=2.00]	0[a]	.	.	.	.	.
[Studyarm =1]	-5.629	1.219	4.617	.000	3.231	8.027
[Studyarm=2]	6.125	1.240	4.937	.000	3.685	8.565
[Studyarm=3]	5.074	1.156	-4.388	.000	-7.348	-2.799
[Studyarm=4]	2.472	1.457	1.697	.091	-.394	5.337
IDV3	.158	.059	2.658	.008	.041	.275

Regarding the goodness of fit, the model returned a coefficient of determination of R-square value of 0.376. This implies that the model is able to explain 37.6% of the variation on intention to screen for cervical cancer among women in agricultural sector in Kiambu County Kenya without the moderator. The overall fitness of the model was evaluated using F-statistics. The test returned a significant test statistics F (6, 343) = 33.822, p =0000. Consequently the results shows that the model is a good predictor of intention to screen for cervical cancer among women in agricultural

sector in Kiambu County. The output presented in table 4.25 above presents overall Regression Coefficients associating the dependent variable and the predictor variables and how significant each of the predictor variable affect the response variable. In other words, the model seek to demonstrate effects of each of the independent variables (message frames, narrative perspective and narrative rationality), has on the independents variable (intention to screen for cervical cancer, (predictor variables). In the table Studyarm =1 represented gain message frame first person perspective, Studyarm =2 represented gain frame 3rd person perspective, Studyarm =3 represented Loss frame first person perspective, and Studyarm =4 represented loss frame 3rd person perspective. IDV2 =1 1st person perspective narrative message, IDV2= represented 3rd person perspective narrative message IDV3 represented scoring on narrative rationality. Based on the output, the overall model without the moderator extracted can be presented as follows:

$$Y= 19.681+2.843X_1+ 5.074X_2+0.\ 158X_3$$

Based on the above model, it can be seen that beta coefficients of the model are as follows 19.681, -2.843, 5.074, and 0.158 which indicates that a unit change in any of the variables will definitely lead to a positive increase in the intention to screen for cervical cancer among women in agricultural sector in Kiambu County Kenya without the moderator.

Table 4.25: Multivariate analysis of effects of all independent variables on intention to screen for cervical cancer with the moderator variable

Parameter Estimates

Dependent Variable: Post test scoring on intention

					95% Confidence Interval		
Parameter	B	Std. Error	t	Sig.	Lower Bound	Upper Bound	Partial Eta Squared
Intercept	6.355	7.375	.862	.389	-8.151	20.862	.002
[IDV2=1.00]	2.893	4.014	.721	.472	-5.003	10.789	.002
[IDV2=2.00]	0[a]	.	.	.	.	.	.
IDV3	.523	.222	2.355	.019	.086	.959	.016
[Studyarm=1]	-7.269	5.514	1.318	.188	-3.578	18.115	.005
[Studyarm=2]	-7.275	4.267	1.705	.089	-1.117	15.668	.009
[Studyarm=3]	4.283	2.934	-1.460	.145	-10.054	1.488	.006
[Studyarm=4]	3.343	2.038	1.640	.102	-.666	7.352	.008
productframe	.014	.046	.300	.764	-.077	.104	.000
productchidperpective	.194	.135	1.436	.152	-.072	.460	.006
productchidrationlity	.013	.007	-1.698	.090	-.027	.002	.009

a. This parameter is set to zero because it is redundant.

Regarding model 2 in which the moderator was considered, the results showed that although with a small margin, the model was better compared to the first model. The coefficient of determination of R-square value was 0.38. This implied that the model was able to explain 38.3% of the variation on intention to screen for cervical cancer among women in in Agricultural sector in Kiambu County Kenya. Moreover, the model was more significant compared to previous model where the moderator variable (character identification) was not considered F (6, 343) = 34.342, p =0000.

In the table, Studyarm =1 represented gain message frame first person perspective, Studyarm =2 gain frame 3rd person perspective, Studyarm =3 represented Loss frame first person perspective, and Studyarm =4 represented loss frame 3rd person

perspective. IDV2 =1 1st person perspective narrative message, IDV2= represented 3rd person perspective narrative message IDV3 represented scoring on narrative rationality, productframe represented message frame and character identification interaction term, productcharacterperpective represented narrative perspective character and identification interaction term, and productchidrationlity represented narrative rationality and character identification interaction term. Based on the output presented in table 4.26 above, the overall model with the moderator extracted can be presented as follows:

$Y=6.355+0.53X_1+2.893X_2+4.284X_3+0.0149X_1*Z+0.194X2*Z+0.013X_3*Z$

Based on the above model, it can be seen that beta coefficients of the model are as follows, 6.355, .523 2.893,4.283,0.014,0.194, and 0.013 which indicates that a unit change in any of the variables will definitely lead to a positive increase in the intention to screen for cervical cancer among women in agricultural sector in Kiambu County Kenya without the moderator.

Taken together the multivariate analysis shows that without the moderator, message frame, narrative perspective and narrative rationality had a positive effects on the intention to screen for cervical cancer among the respondents. When the moderator was added the effects increased positively, implying that character identification helped in increasing intention to screen for cervical cancer among the respondents. These results are consistent with the role of all the three independent variables.

Ma and Nan (2018) in a controlled randomized study that sought to establish the effects of narrative and non-narrative message frame on the adoption of tobacco smoking behavior cessation among college students found gain framed narrative to be effective on non-narrative messages and less effective in narrative messages. The study found that loss framed messages produced significantly greater perceived susceptibility, and severity compared to gain framed narrative message (Ma & Nan, 2018). Brusel et al. (2017) in a study that sought to examine the effects of message frame on counter arguing on drunk cycling presented using education entertainment context found that framing education entertainment messages to refrain from cycling

drunk behavior produces less counter arguing and eventually refraining from the behavior (Brusel et al., 2017). In another study, Gray and Harrington (2009) investigating the effects of message frame in regard to increasing regular exercising, supported the idea that gain framed messages promote preventive behavior more effectively as compared to loss framed messages.

Furthermore, studies in the field psychology supports the idea that manipulating grammar perspective can influence the perception of the story and the story character. (Chen et al., 2015).

In this study which sought to expand knowledge on the role of protagonist-reader similarity identification and self-referencing in health behavior adoption and including participant aged above 30 year randomly recruited from crowd source website and randomly assigned to read one Forx magazine article about Caffeine overdose, found that point of view did not alter identification behavior or self-referencing. However, it did have a direct effect to the perception of susceptibility and severity of the caffeine overdose. Similarly, Nan et al. (2017) in a randomized study that comprised of 121 individuals randomly selected and that sought to explore the role of narrator's perspective and non-narrative and narrative health message on risk perception found no difference in risk perception between 1st person narrative and 1st person non-narrative conditions. There was however an increase in risk perception in both conditions in that both reported an increase of risk perception.

Finally on narrative rationality, studies have demonstrated that it has influence on the uptake of health services. For example, a study by Zhou et al. (2008) which tested the conjoint effects of participant rationality and two story attributes, severity and context, on perception of the SARS threat and on story evaluation, found that participants with high rationality SARs apprehension was high compared to those who evaluated the story rationality poorly.

4.11 Optimal Model

This study sought to investigate the effects of narrative Message Format on Intention to screen for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To this end, the study considered three independent variables namely, message frame, narrative perspective, and narrative rationality. Moreover, the study also determined the moderating role of character identity on intention to screen for cervical cancer among the respondents. The study conducted various tests and the findings were that three independent variables have effects on the dependent variable. Moderation analysis on character identity also demonstrated that the variable has moderation effects on intention to screen for cervical cancer. Consequently, in this study none of the variables was expunged from the proposed model. The proposed model was retained as the optimal model as indicated in figure 4.5 below.

Independent variable

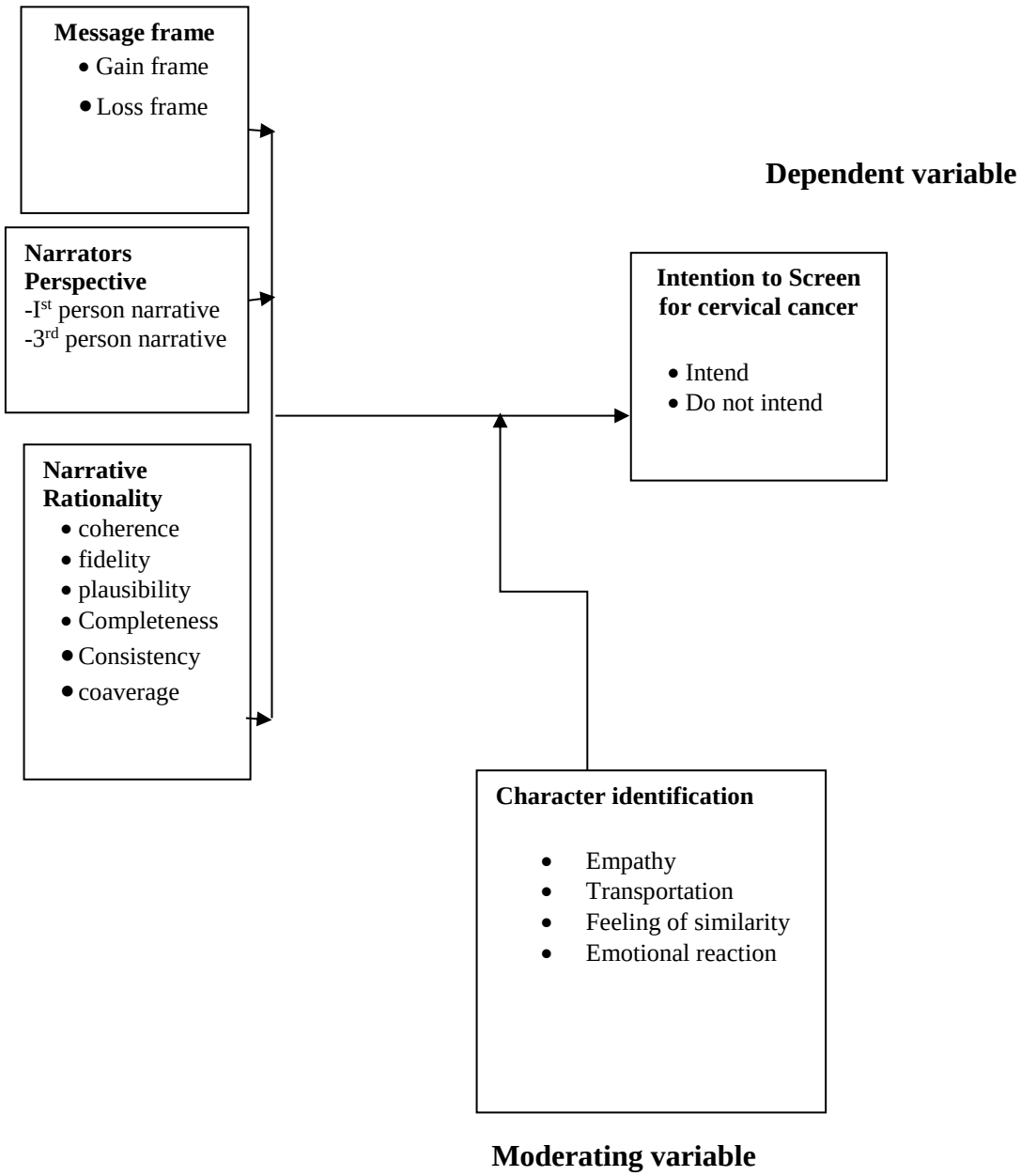

Figure 4.5: Optimal model.

This can be statistically be represented as:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_1 X_1 * Z + \beta_2 X_2 * Z \; \beta_3 X_3 * Z + e$ the where:

Y = intention to screen

X_1 = Message frame

X_2 = Narrative perspective

X_3 = Narrative rationality

Z = character identification (Moderator)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusion and recommendations of the study. The chapter begins by presenting a brief summary of the study findings after which study conclusions are presented. This will be followed by presenting the recommendations. The chapter ends by presenting areas of further research based on the identified gaps. The main objective of the study was to determine the effects of narrative message format on intention to screening for cervical cancer among women in agricultural sector in Kiambu, Kenya. The study used a randomized experimental design where the elements of narrative message were manupilated. The following is the summary of the major findings based on the objectives.

5.2 Summary of the findings

5.2.1 Effects of the narrative message frame.

The first objective of the study was to determine the the effects of narrative message frame on intention to screen for cervical cancer. Descriptive statistics showed that there was a difference in regard to the change of intention to screen for cervical cancer by respondents watching different format video clips. Moreover inferential statistics using ANCOVA and Hierarchical Multiple Regression revealed that message frame had a significant effect on intention to screen for cervical cancer among the respondents.

Further, a post hoc comparison using the Tukey HSD test indicated that the Loss framed narrative message had a bigger effect on intention to screen for cervical cancer among the respondents, compared with gain framed narrative message.Taken together, the study concluded that loss framed narrative is more effective in increasing the intention to screen for cervical among women in agricultural sector in Kiambu County Kenya.

Comparison of the current study findings with literature, found that, while there were some few studies that had contradictory findings, most studies findings were consistent with the current study findings.

5.2.2 Effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

The second objective was to determine the Effects of narrator's perspective on intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. In this regard, ANCOVA test showed that there was a a significant difference in regard to scoring on the intention to screen for cervical cancer between the group that watched the first person perspective narrative video and the second person perspective narrative video clip. Further, Hierarchical Multiple Regression revealed that including narrative perpective variable in the regression model, led to an increase intention to screen for cervical cancer. Moreover comparing mean change in intention to screen for cervical cancer among the respondents watching narratives in the first person and third person perpective, showed that respondents who watched narrative in the first person perspective had a bigger change compared to respondents who watched narrative clip in the second person perspective.

Taken together these findings suggest that narrative perspective had an effect on intention to screen for cervical cancer among women in agricultural sector in Kiambu County. The results further suggest that the effects of message perspective would be bigger if messages are presented in the first person narrative perspective. These findings are comparable with other studies done elsewhere. Most studies have found that greater levels of identification were found to foster self-referencing (first person perspective), leading to persuasion. In literature, identification was strongest with a first-person point of view and when the narrator was a positive role model.

5.2.3 Effects of narrative rationality on the intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

The third objective of the study was to determine the effects of narrative rationality on the intention to screen for cervical cancer among the respondents. In this regard, ANCOVA test run to test to determine this, returned a statistically significant results. Further Hierarchical Multiple Regression revealed that introducing narrative rationality led to an increase variation in intention to screen for cervical cancer.

A post hoc analysis of the intention to screen for cervical cancer among the respondents revealed that respondents who evaluated the narrative as rational had a higher intention to screen for cervical cancer mean score compared to those who evaluated the narrative as irrational. These findings suggest that where a narrative is rational, story observers also to tend to identify with the story character more. These findings are consistent with the studies done elsewhere. In general literature have it that evaluating narratives as rational may also fosters identification with narrative character that led to persuation.

5.2.4 Moderating effects of Character identification on relationship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya

The fourth objective of the study was to determine the moderating effects of character identification on relationship between message format and intention to screening for cervical cancer among women in agricultural sector in Kiambu County, Kenya. To determine this, moderation analysis was done with all the independent variables.

To investigate the moderating effects character identification on relationship between message frame and intention to screen for cervical cancer, a hierarchical multiple regression analysis was performed. The results suggested that character identification has a moderating effect on relationship between message frame and intention to

screen for cervical cancer. In regard to moderating effect character identification on relationship between narrative perspective and intention to screen for cervical cancer, Hierarchical Multiple Regression analysis was performed. The results suggested that character identification has a moderating effect on relationship between narrative perpective and intention to screen for cervical cancer. Finally in regard to the moderating role of character identification on relationship between narrative rationality and intention to screen for cervical cancer, a hierarchical multiple regression analysis was performed. These results suggested that character identification has a moderating effect on interaction between narrative rationality and intention to screen for cervical cancer.

These findings are consistent with studies done elsewhere in literature. The general observation of the findings is that while character identification had a significant moderating effects on the relationship between all the elements of message format as described above, the moderating effects was fairly small. The reason could as a result of non considation of homiphily in regard to sociodemographic characteristics in the current study. Other studies that considered other forms of homophily found a bigger moderating effect compared to the current study.

5.3 Conclusions

This study sought to determine the effects of narrative message format on intention to screen for cervical cancer among women in agricultural sector in Kiambu county Kenya. The effects of various elements of narrative messages format including message frame, narrative perspective, and narrative rationality on intention to screen for cervical cancer were evaluated. The study also evaluated the moderating role of character identification on relationship to screen between message format and intention to screen for cervical cancer.

In regard to the effect of message frame on intention to screen for cervical cancer among the respondents, the study demonstrated that manipulating message frame resulted in change on intention to screen for cervical cancer. Post hoc analysis showed that respondents who watched loss framed video clip tended to have a

change in mean score on intention to screen for cervical cancer compared to respondents who watched gain framed narrative video clip. Based on this findings therefore, using loss framed cervical cancer screen narrative messages in health campaign may help in increasing the uptake of cervical cancer screening services among women in agricultural sector in Kiambu County, Kenya.

On the effect of narrative perspective on intention to screen for cervical cancer among the respondents, study demonstrated that manipulating narrative perspective resulted in change on intention to screen for cervical cancer. A post hoc data analysis demomstrated that respondents who watched video clip in the first person perspective, tended to have a bigger change in mean score on intention to screen for cervical cancer compared to respondents who watched video clip in the 3rd person perspective. In view of this therefore, the study concluded that using narratives in first person perspective narrative could be effective in increasing the uptake of cervical cancer screening among women in agricultural sector.

Furthermore, in respect to the effects of narrative rationality on intention to screen for cervical cancer among the respondents, the current study demonstrated that respondents who evaluated the story as rational also tended to have a higher mean score on intention to screen for cervical cancer. Based on this therefore, the study concluded that using cervical cancer survival stories that are credible, complete, consistent and comprehensive may help in persuading women in agricultural sector in Kiambu County to screen for cervical cancer.

Finallly, pertaining to the moderating role of character identification on relationship between message format and intention to screen for cervical cancer among the respondents, the study found that character identification had a significant moderating role on relationship between all the elements of message formart and intention to screen for cervical cancer. In this regard therefore the study concluded that when using narrative messages to promote health behavior, use of story characters who the target audience can identify with, may help in increasing persuation which will inturn lead to adoption of advocated health behavior.

5.4 Recommendations

This study has a number of recommedations to stakeholders working in prevention and control of cervical cancer. This include the policy makers, County of Kiambu, Tea firms. Household and community, Health communication Practitioners, and health communication researchers as presented in the following sections**.**

5.4.1 Policy Makers

This study has demonstrated that narratives that are loss framed, that are complete, comprehensive and believable, presented by the cervical cancer survivors themselves to the target that identify with survivor, are effective in persuading women to screen for cervical cancer. In promoting cervical cancer screening in rural areas thereofore, the study reccommed that the Ministry of Health should consider using cervical cancer survivors' personal stories to educate women on cervical cancer and cervical cancer screening. This is particularly in rural areas where education attainment is usually low coupled with poor cervical cancer screening uptake.

5.4.2 County of Kiambu,

The uptake of cervical cancer screening was very low among the respondents. Education attainment was equally poor among the respondents. In this regard therefore Kiambu County should therefore, consider using narrative to promote cervical cancer screeining as opposed to the use of inforgraphics. Moreover, the County should consinder establishing collaborations with tea firms working in the agricultural sector which employs the bulk of the target population in promoting cervical cancer screening services.

5.4.3 Tea firms

Firms working in agricultural sector should consider mainstreaming cervical cancer education in their daily routine so as to promote acquisition of cancer education among their female employees, in order to increase the uptake of cervical cancer

screening. This could be by relaying information through recconded narratives played in assembly halls during health breaks.

5.5 Suggestions for Further Research.

Using an experimental design, this study sought to determine the effects of manipulating different elements of narrative message including message frame, narrative perspective and narrative rationality. Standardization of study conditions as required by the design meant that the study was limited in its scope. In this regard the study noted few areas that may require further inquiry. First, this study used recorded video clips to determine the effects of manipulating the three elements of narrative message on intention to screen for cervical cancer. It is not clear whether similar results will be achieved if written narrative format. At the same time it is not clear what would be the effects of intension if the study used a live cervical cancer servivor narrative on site. A further study on this is therefore recommended.

Secondly, in regard to identification with the story character, the study did not consider narrators-observers homogeneity in respect to their ethnic origin. It is thus not clear what would be the effects of varying ethnic characteristic of the story teller on intention to screen for cervical cancer. A further study on this is therefore recommended.

Finally, the study took place at the work place environments in which influence of group on individual decision making was not controlled for. It is not clear therefore whether controlling this would lead to have different results. A further study on this is therefore recommended.

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APPENDICES

Appendix I: Consent form

NARRATIVE PERSUATION: MESSAGE FORMAT INFLUENCE ON INTENTION TO SCREEN FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA.

I am a PhD student in Health Communication in the school of Communication, Jomo Kenyata University of Agriculture and Technology. As part of this degree I am undertaking a research project leading to a thesis. The purpose of this research study is to determine the effects message format have on the uptake of cervical cancer screening services among women in Agriculture. Your input in this study will help healthcare professionals design cancer communication interventions that are relevant to women in agriculture in relation to cervical cancer screening.

You will be asked to complete a questionnaire which will take approximately 30 minutes to complete. Completion of the questionnaire implies consent to participate in the research. It is important that you complete the questionnaire with complete honesty; there is no right or wrong answer. All responses collected will be put into a written report on an anonymous basis. It will not be possible for you to be identified personally. All the data collected will be kept secure and no other person besides me and my supervisor will have access to the completed questionnaire. The thesis will be submitted for marking at the School of communication and deposited at the university library. It is intended that one or more articles will be submitted for publication in scholarly journals. The questionnaires will be destroyed five years after the end of the project. If you have any questions or would like to receive further information about the project, please contact me at the School of Public Health Mount Kenya University, or call me on 0719802082, or my thesis supervisor Prof. Helen Mberia, through email –hmberia@jkuat.ac.ke

Consent

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered to my satisfaction. I hereby accept to participate in the research study.

Sign: _____ Date: _____

Appendix II: Pretest Questionnaire

NARRATIVE PERSUATION: MESSAGE FORMAT INFLUENCE ON INTENTION TO SCREEN FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA.

Thank you for taking your time to complete this survey. The purpose of this research study is to determine the effects message format have on the uptake of cervical cancer screening services among women in Agriculture. Your input in this study will help healthcare professionals design cancer communication interventions that are relevant to women in agriculture relation to cervical cancer. Participation in this study is absolutely free and you may withdraw at any point of the study if you so wish. You may also choose not to respond to some questions that you may be uncomfortable with.

The information that you provide in this study shall be kept strictly confidential, we will not ask for your name or identification card. Thanks again for accepting to participate in the study

SITE IDENTIFICATION
ESTATE .....
SITE .....
LOCATION/CAMP .....
serial number |___|___|___|___|

NO.	QUESTIONS	ANSWERS	SKIP
Section A. Socio-demographic			
1.	What is your age	1=15-20 2=21-25 3=26-30 |___| 4=31-35 5=36-40 6=Above 41	
2.	What is your religion?	1 = Catholic 2 = Protestant 3 = Muslim |___| 4 = African Traditional Religion 5 = None	
3.	What is the highest level of schooling you have completed?	0 = Have never attended school 1= Did not complete primary education 2 = Primary |___| 3 = Secondary 4= Did not complete secondary education 5 = Post secondary school (including college, university, other diploma)	

NO.	QUESTIONS	ANSWERS	SKIP
4.	What is your current marital status?	1 = Currently married 2= living with a man/woman as if we are married 3 = Never married 4 = Divorced |___| 5 = Widow/ Widower 6 = Separated	
5.	Have you ever been pregnant?	0=No 1=Yes |___|	If no Go to No 7
6.	If yes how many children do you have	1=1-3 2=4-5 3= Above 5 |___|	
Section B. **Knowledge on cervical cancer and cervical and cancer screening**			
7.	Have you ever heard of an illness called cervical cancer?	0=No 1=Yes |___|	
8.	Cervical cancer is not a genetic disease	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
9.	Cervical cancer has a long precancerous lesion period	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
10.	Cancer of the cervix can be detected in its earliest stages	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
11.	Cervical cancer can be cured if detected early	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

NO.	QUESTIONS	ANSWERS	SKIP
12.	Postmenopausal women still have the risk of getting cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
13.	Human Papilloma Virus is necessary factor inducing cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
14.	Post coital breeding is one of the symptom of Cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
15.	Cervical cancer has no symptoms in the precancerous lesion period	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
16.	Early sexual activity is a risk factor in Cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
17.	Precancerous lesion can be detected by screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
18.	The main reason of screening is to discover precancerous lesion	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
19.	Women should be screened for cervical cancer at least every three years	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
20.	Cervical cancer screening is available in local health facilities	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
21.	Cervical cancer screening is offered free of charge in local health facilities	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
22.	I have screened for cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
23.	I am often worried that I would get cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
24.	I believe that I am at risk of developing cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
25.	All women have an equal chance of developing cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
26.	I believe that I am at a risk of contracting HPV	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
	Section c. **Behavioral intention**		
	Listed below are statement that represents your perceptions towards cervical cancer screening. Please indicate your level of agreement in a scale of 1-5 where 1 is strongly disagree and 5 is strongly agree		
28.	Getting screened for cervical cancer informs me of my health status	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

NO.	QUESTIONS	ANSWERS	SKIP
29.	My family would want me go for a cervical cancer screening.	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
30.	Cervical cancer screening facilities are available in my health fac area of residence	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
31.	Getting cervical cancer screen would be a good thing for me	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
32.	People who are important to me approve of me taking cervical cancer screen	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
33.	I am capable of getting cervical cancer screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
34.	I Intend to take cervical cancer screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

Appendix III: post-test

NARRATIVE PERSUATION: MESSAGE FORMAT INFLUENCE ON INTENTION TO SCREEN FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA.

Thank you for taking your time to complete this survey. The purpose of this research study is to determine the effects message format have on the uptake of cervical cancer screening services among women in Agriculture. Your input in this study will help healthcare professionals design cancer communication interventions that are relevant to women in agriculture relation to cervical cancer. Participation in this study is absolutely free and you may withdraw at any point of the study if you so wish. You may also choose not to respond to some questions that you may be uncomfortable with.

The information that you provide in this study shall be kept strictly confidential, we will not ask for your name or identification card. Thanks again for accepting to participate in the study

SITE IDENTIFICATION
ESTATE .....
SITE .....
LOCATION/CAMP .....
serial number |___|___|___|___|

NO.	QUESTIONS	ANSWERS	SKIP
Section A. Socio-demographic			
1.	What is your age	1=15-20 2=21-25 3=26-30 |___| 4=31-35 5=36-40 6=Above 41	
2.	What is your religion?	1 = Catholic 2 = Protestant 3 = Muslim |___| 4 = African Traditional Religion 5 = None	
3.	What is the highest level of schooling you have you completed?	0 = Have never attended school 1= Did not complete primary education 2 = Primary |___| 3 = Secondary 4= Did not complete secondary education 5 = Post secondary school (including college, university, other diploma)	

NO.	QUESTIONS	ANSWERS	SKIP
4.	What is your current marital status?	1 = Currently married 2= living with a man/woman as if we are married 3 = Never married 4 = Divorced |___| 5 = Widow/ Widower 6 = Separated	
5.	Have you ever been pregnant?	0=No 1=Yes |___|	If no Go to No 7
6.	If yes how many children do you have	1=1-3 2=4-5 3= Above 5 |___|	
Section B **Knowledge on cervical cancer and cervical and cancer screening**			
7.	Now I would like to talk about something else Have you ever heard of an illness called cervical cancer?	0=No 1=Yes |___|	
8.	Cervical cancer is not a genetic disease	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
9.	Cervical cancer has a long precancerous lesion period	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
10.	Cancer of the cervix can be detected in its earliest stages	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

NO.	QUESTIONS	ANSWERS	SKIP
11.	Cervical cancer can be cured if detected early	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
12.	Postmenopausal women still have the risk of getting cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
13.	Human Papilloma Virus is necessary factor inducing cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
14.	Post coital breeding is one of the symptom of Cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
15.	Cervical cancer has no symptoms in the precancerous lesion period	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
16.	Early sexual activity is a risk factor in Cervical cancer	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
17.	Precancerous lesion can be detected by screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
18.	The main of screening is to discover precancerous lesion	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
19.	Women should be screened for cervical cancer at least every three years	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
20.	Cervical cancer screening is available in local health facilities	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
21.	Cervical cancer screening is offered free of charge in local health facilities	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
Section C. Narrative rationality			
22	I believe the story could be true	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
23	The story was reasonable	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
24	The story seems true	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
25	It was easy to follow the story from the beginning to the end	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

NO.	QUESTIONS	ANSWERS	SKIP
26	It was hard to follow the story from the beginning to the end	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
27	If I were writing the story I would organize it differently	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
28	The information presented in the story was consistent	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
29	All the fact in the story agreed with each other	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
30	The consistency of the story refers to the extent to which the story does not contradict itself or contradict other things you know to be true. How would you rate this story in terms of consistency?	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
31	There was important information missing in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
32	There were lots of 'holes' in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
33	The coverage of the story refers to the extent to which the story accounts for all the information presented in the story. How would you rate this story in term of coverage?	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

	Section D . Character identification		
	Listed below are statement that represents your perceptions towards your access to cancer screening. Please indicate your level of agreement in a scale of 1-5 where 1 is strongly disagree and 5 is strongly agree		
34	I thought I was like the woman narrating the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
35	I thought I would like to behave like the woman in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
36	I identified with the woman in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
37	I felt as if I were one with the woman in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
38	I had the impression that I was really experiencing the story of the woman in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
39	I felt like I formed part of the story narrated	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
40	I myself have experienced the emotional reactions like those of the woman in the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
41	I understood the woman's way of acting and thinking	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
42	I tried to see things from the point of view of the woman.	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
43	I tried to imagine the characters feeling, thoughts and reaction	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
44	I understood the woman's feeling and reaction	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
45	I was worried about what was going to happen to the woman by the end of the story	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
46	I felt emotionally involved with the character feeling	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
47	I imagined how I would behave if I found myself in the place of the woman	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
	Section E. **Behavioral intention**		
	Listed below are statement that represents your perceptions towards cervical cancer screening. Please indicate your level of agreement in a scale of 1-5 where 1 is strongly disagree and 5 is strongly agree		
48.	Getting screened for cervical cancer informs me of my health status	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
49.	My family would want me go for a cervical cancer screening.	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

50	Cervical cancer screening facilities are availab mu area of residence	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
51	getting cervical cancer screen would be a good thing for me	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
52	People who are important to me approve of me taking cervical cancer screen	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
53	I am capable of getting cervical cancer screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	
54	Intend to take cervical cancer screening	(1). Strongly disagree (2) disagree (3) Undecided (4) agree (5)Strongly agree	

Appendix IV: Loss frame first person perspective narrative

Hadithi Ya Bi Eunice Anyango Aliyekuwa na ugonjwa wa saratani ya mlango wa uzazi

Host: Saratani ama cancer ni ugonjwa ambao unasababishwa na mabadiliko ya chembe chembe au cell mwilini kwa njia isiyo halisi. Saratani ni mojawapo ya magonjwa yanayo sababisha vifo vingi hapa duniani.Leo tutaangazia saratani ya mlango wa uzazi yaani cervical cancer ambayo inaadhili wanawake. Kila mwaka wanawake wengi wanajipata na mabadiliko ya chembe chembe katika mlango wa uzazi ambapo hii ni moja wapo ya dalili za saratani ya mlango wa uzazi.

Nchini Kenya asilmia tatu nukta mbili (3.2%) ambao wamehitimu umri wa kuzaa ndiyo wamejitokeza kuthaminiwa kama wana saratani ya mlango wa uzazi. Hii ni changamoto kwai kugunduliwa mapema kunachangia kupona haraka kutokana na hii kansa ya mlango wa uzazi.

Saratani ya mlango wa uzazi inasababishwa na kiluzi cha popiloma ama ukipenda Human Popiloma Virus (HPV). HPV huambukizwa wakati wa tendo la ngomo maambukizi haya yanayoambukizwa kwa kuanza mapema kwa tendo la ngono, kuwa na wapenzi ama kuwa na mpenzi ambaye ana wapenzi wengi na pia kuzaa watoto wengi. Visababishi vingine ni uvutaji wa sigara na maambukuzi ya ukimwi. Iwapo saratani hii ya mlango wa uzazi itajulikana mapema kuna uwezekano mkuba kuwa yule mwanamke atapata matibabu mapema na apone. Lakini iwapo mwanmke atakawia kukaguliwa nahii saratani igunduliwe kama imekaa matibabu haitakuwa na faida sana itakuwa vigumu kupona na pia itaghalimu kiasi kikubwa cha pesa, na ina uchungu sana. Hivi leo nina furaha kukutana na mmoja wa rafiki yangu mmoja aliyepatikana na saratani ya mlango wa uzazi.

Host: Tafathari unaweza tuwambia majina yako na pia uko uko na umri wa miaka mingapi?

Eunice: Kwa majina yangu mimi ninaitwa Eunice anyango nimetoka Kata ya Busia, Kata ndogo ya Butura. Nimeolewa na niko na watoto wawili. Mimi

nina umuri wa miaka therathini nan ne (34),

Host: Je unafanya kazi gani?

Eunice: Mimi sina kazi. Mimi ni mkulima wa vitu vidogovidogo. Nina panda mahindi na vitu vingine ambazo tunatumia nyumbani. Pia nina ngombe na kuku. Sina kazi nyingine. nina mume na watoto wawili.

Host: Na masomo yako umefikia wapi?

Eunice: Mimi nimesoma mpaka darasa la nane. Sikuweza kunedelea na masomo yangu kwa kuwa wazazi wangu hawakuweza kunipeleka shule zaidi ya hiyo.

Host: Hivi leo nataka tuongee kuhusu saratani ya njia ya uzazi. Sijui kama unaweza tuelezea kilicho kufanyikia kuhusu hili jambo? Ningetaka utuelezee safari yako kuhusiana na huu ugonjwa. Vile kwamba ulijua uko nahuu ugonjwa. Dalili zenye uliona ili kujua uko na huu ugojwa. Hadi wakati wa mwisho ndio ujue umepona. Kwanza dalili ambazo uliziona.

Eunice: Katika Mwezi May mwaka wa 2017, nilianza kuwa na shida**.** kwanza nilianza kutokwa na uchafu katika sehemu yangu ya siri. Uchafu ulikuwa Majimaji, kama usaha na pia huu uchafu ulikuwa na halufu mbaya. Nikaona hii siyo kitu ya kawaida. Dalili ingine ilikuwa

Pia, wakati nikienda na mwanaume (tendo la ndoa) nilikuwa ninasikia uchungu sana.

Host: Unasema ulikuwa unatoa uchafu wenye halufu mbaya na pia ukifanya tendo la ndoa unasikia uchungu.

Eunice: eeh

Host: hapo ndio uliamua kwenda kwa daktari? Nini ilikusukuma kwenda kumuona daktari

Eunice: eeh. Unajua ukiwa unatoa halufu kiasi kwamba huwezi kukaa na wenzako. Hiyo ni jambo mbaya. Jambo hilo ndilo lilinifanya niende kumuona dakatari. Nilitaka daktari anisaidie

Host: ulipomtembelea daktari, ukamwelezea unatoa ile halufu, daktari alikwelezea nini?

Eunice: alini kagua katika njia ya uzazi. alinipima kwa njia ya uzazi.

Host: walikupima njia ya uzazi?

Eunice: eeh

Host: Ningetaka utuelezee walikupima aje? Nini walicho kifanya

Eunice: walinipaka dawa huko ndani alafu wakanimulika huko ndani. Sijui ningamu ama ninini walinipakapaka huko ndani. Kisha wakanimulika hivi (aki onyesha kwa mkono) na kitu imekaa kam torchi.

Host: ok walikumulika?

Eunice: eeh

Host: ok hiyo ndiyo tunaiita VIA VILI. Wakisha fanya kipimo cha VIA VILI nini ingine walicho kufanyia?

Eunice: waliponimulika walipata kwamba kuna uvimbe kwa mlango wa uzazi.

Host: walipata kuna uvimbe kwa njia ya uzazi. Daktari alifanya aje?

Eunice: daktari alisema haelewi ni kwa nini. Alisema atahitaji nyama kidogo itolewe kutoka kwa njia ya uzazi. Ilikufanikisha hiyo, aliniambia niende katika sehemu ingine ya hospitali ambapo nilisaidiwa kupeana hicho kipande kidogo cha nyama. Baada ya ukaguzi Daktari alinambia nikama kulikuwa na ugojwa.

Host: Nini ingine ilifanyika?

Eunice: Daktari aliniuliza niende katika kipimo kingine chapili ili kudhibitisha kama ninao ugonjwa. Baada ya kipimo cha pili, niilidhibitisha kwamba nilikuwa na saratani ya njia ya uzazi ambayo ilikuwa imefikia kiwango cha tatu (stage 3 cancer). Alinielezewa nilikuwa na ugonjwa wa saratani ya njia ya uzazi. Mimi nilistuka kwa maana sikuwa naelewa saratani ya njia ya uzazi inamaana gani.

Host: Baada ya hayo?

Eunice: Nilishauriwa na daktari kuwa ni ya muhimu kuwa niaanze matibabu mara moja. Nilishauriwa kwamba matibabu ya kwanza ni uvimbe uchomwe (ama radiotherapy). Kisha Daktari alipendekeza kwamba nipitie radiotherapy kwa mara ishirini na tano na baada ya hiyo pia nifanyiwe chemotherapy kwa mara tano na mwishowe nichomwe kutumia sitima mara tatu (cyotherapy).

Host: Je ulijisikia aje kupita hay yote: niungumu gani ulikuwa nao kupitia radiotherapy mara 25 na chemotherapy mara 5 na kutumia sitima mara tatu (cyotherapy).

Eunice: Kwanza niliogopa Sana kwa maana mtu akisema uchomwe kwa sehemu ya sili na sitima, hiyo inastusha sana. Kusema ukweli hii safari haikuwa rahisi, ni safari ngumu sana na pia ni ya uchungu. Kuzidisha hayo matatibabu yanagharimu pesa mingi sana na inasababisha mawazo mengi (stress), pia inachukua muda mwingi kwa sababu nilazima uende kwa clinic mara mingi hata baada ya matatibabu kuisha kwa maana inahitaji ukaguzi (checkup) mara mingi. Baada ya miezi sita kuisha nilirudishwa kwa picha ya MRI ili kuhakikisha kuwa kila kitu ni salama.

Host: Baada ya picha?

Eunice: Niliambiwa kuwa ule uvimbe ulikuwa umeisha lakini nitakuwa nikienda clinic mara kwa mara kuhakikisha kama kwamba kila kitu ki salama. Haidhulu, Ingawa niliyapitia mengi nina furaha sana pia nina furahia kwamba jamii yangu iko salama.

Host: unaweza sema nini baada ya haya yote?

Eunice: Nina furaha sana lakini nina jutia kuwa nilingonja sana bila kufanyiwa ukaguzi hadi nikapata ugonjwa imemea kwa mwili wangu. Naweza sema kuwa sio jambo la busara kungonja bila kukaguliwa kwa maana inaumiza mwili kwa uchungu, matibabu ni ya gharama kubwa na pia ina iko stress mingi.

Kwa hivyo ningewahimiza wanawake wote walohitimu umri kwenda katika kituo cha afya ili kukaguliwa na iwapo watapatikana na huu ugonjwa wataanza matibabu mapema ili kuepukana na shida nyingi kama nilivyo zipitia

Host: tunakushukuru sana, mungu aendelee kukuponya.

Appendix V: Loss frame Third person narrative perspective

Hadithi Ya Bi Eunice Anyango Aliyekuwa na ugonjwa wa Cancer yamlango wa uzazi

Saratani ama cancer ni ugonjwa ambao unasababishwa na mabadiliko ya chembe chembe au cell mwilini kwa njia isiyo halisi.

Saratani ni mojawapo ya magonjwa yanayo sababisha vifo vingi hapa duniani.Leo tutaangazia saratani ya mlango wa uzazi yaani cervical cancer ambayo inaadhili wanawake. Kila mwaka wanawake wengi wanajipata na mabadiliko ya chembe chembe katika mlango wa uzazi ambapo hii ni moja wapo ya dalili za saratani ya mlango wa uzazi.

Nchini Kenya asilmia tatu nukta mbili(3.2%) ambao wamehitimu umri wa kuzaa ndiyo wamejitokeza kuthaminiwa kama wana saratani ya mlango wa uzazi. Hii ni changamoto kwani kugunduliwa mapema kunachangia kupona haraka kutokana na hii kansa ya mlango wa uzazi.

Saratani ya mlango wa uzazi inasababishwa na kiruzi cha popiloma ama ukipenda Human Popiloma Virus (HPV). HPV huambukizwa wakati wa tendo la ngomo maambukizi haya yanayoambukizwa kwa kuanza mapema kwa tendo la ngono, kuwa na wapenzi ama kuwa na mpenzi ambaye ana wapenzi wengi na pia kuzaa watoto wengi. Visababishi vingine ni uvutaji wa sigara na maambukuzi ya ukimwi.

faida

Iwapo saratani hii ya mlango wa uzazi itajulikana mapema kuna uwezekano mkuba kuwa yule mwanamke atapata matibabu mapema na apone. Lakini iwapo mwanmke atakawia kukaguliwa nahii saratani igunduliwe kama imekaa matibabu haitakuwa na faida sana itakuwa

vigumu kupona na pia itaghalimu kiasi kikubwa cha pesa, na ina uchungu sana.

Hivi leo nataka kuwasimulia hadithi ya Bi. Eunice Anyango aliyepatikana na cancer ya mlango wa uzazi.

Eunice ana umri wa miaka 34, ni mkulima wa vitu vidogovidogo, ana mume na watoto wawili. Eunice amesoma mpaka darasa la nane.

Bi Eunice alipatikana na ugonjwa May katika mwaka wa 2017. Alianza kupokea matibabu mwezi wa saba, miezi miwili baada ya kupatikana na ugonjwa. Hii ni kwa sababu ya ukosefu wa kifedha. Eunice alipitia matibabu kwa muda wa mwaka mmoja, July mwaka wa kumi nane (2018) aliambiwa kuwa amepona.

Lakini hata hivyo Eunice alikuwa amepitia mengi kwa huo mwaka mmoja. Hadithi ya Eunice inaanza katika mwaka wa 2017.

Kataika mwaka wa 2017 mwezi wa May Eunice alianza kutokwa na uchafu katika sehemu yake ya sili. Alianza kuona maji maji ambayo ilikuwa kama uzaha na ambayo ilikuwa inatoa halufu mbaya sana. Hapo ndipo aliona hiyo siyo jambo la kawaida na ndipo aliamua kwenda kwa daktari ili kutafuta usaidizi.

Jambo lililo mpa msukumo wa kwenda kwa daktari ni ile harufu kwa sababu hangeweza hata kukaa na watu wengine vizuri kwa sababu alikuwa anatoa uvundo mmbaya.

Wakati alimweleza daktari vyenye anavyojiskia, daktari aliamua apelekwe maabara ndiyo akaguliwe njia ya uzazi. Akielezea jinsi vile ukaguzi ulivyo fanyika. Bi. Eunice alisema alipakwa dawa Fulani ndani ya uke wake, katika mlango wa uzazi yaani na baada ya hayo akamulikwa na torchi ndani ya uke wake (VIA VILLI)

Bi. Eunice alisema kuwa baada ya huu ukaguzi wa kwanza alipatikana kuwa alikuwa na uvimbe . Alielezewa na daktari kuwa alikuwa na uvimbe na kuwa ingekuwa ya muhimu kuhakikisha kuwa ule uvimbe haukuwa saratani. Kufanikisha hayo, daktari alimpedekeza aende kupimwa mahali kwingine tena, Mara ya pili, ilikudhibitisha uvimbe ulikuwa wa aina gani.

Bi. Eunice alifululiza katika sehemu nyingine ya hospitali ambapo alitolewa kipande kindogo cha nyama kutoka sehemu ya uzazi na kuipima (hiii inaitwa biopsy).Matokeo ya ukaguzi wa pili ulionyesha kuwa Bi. Eunice anaugua ugonjwa wa saratani ya mlango wa uzazi ambayo ilikuwa stage 3.

Eunice alishauriwa na daktari kuwa ni ya muhimu kuwa aanze matibabu mara moja. Alishauriwa kwamba matibabu ya kwanza ni uvimbe uchomwe (ama radiotherapy). Kulingana na Bi. Eunice daktari alipendekeza kwamba apitie radiotherapy kwa mara ishirini na tano na baada ya hiyo pia afanyiwe chemotherapy kwa mara tano pia kutumia sitima (cryotherapy) mara tatu.

Akiulizwa alijisikia aje kupitia matukio mambaya kama hayo, ikiwa radiotherapy mara 25 na chemotherapy mara 5, na pia kuchomwa na stima mara tatu, Bi. Eunice alisema safari haikuwa si rahisi, ni safari ngumu sana na pia ni ya uchungu. Kuzidisha hayo matatibabu yanagharimu pesa mingi sana na inasababisha mawazo mengi (stress), pia inachukua muda mwingi kwa sababu nilizama uende kwa clinic mara mingi hata baada ya matatibabu kuisha kwa maana inahitaji checkup mingi.

Bi.Eunice anajutia kuwa alingonja sana bila kufanyiwa ukaguzi hadi alipopata ugonjwa imekuwa kwa mwili wake. Anasema kuwa sio jambo la busara kungonja bila kukaguliwa kwa maana inaumiza mwili kwa uchungu, matibabu ni ya gharama kubwa na pia ina stress mingi.

Kwa hivyo Bi.Eunice anawahimiza wanawake wote walohitimu umri kwenda katika kituo cha afya ili kukaguliwa na iwapo watapatikana na huu ugonjwa watanza matibabu mapema ili kuepukana na shida nyingi kama alivyo zipitia Bi. Eunice.

Appendix VI: Gain frame first person perspective

Host: Ugojwa wa saratani ya njia ya uzazi ni ya nne kati ya saratani ambazo hupatikana kwa wanawaka. Mnamo mwaka wa 2018 saratani ya njia ya uzazi iliadhili wana wake 311,365 na kusababisha kiwango cha asilimia tatu nkta tatu (3.3%) cha vifo katika ndunia yote. Nichini Kenya saratani ya njia ya uzazi imeratibiwa ya pili kataika saratani zote za wanawake, saratani ya matiti ikiongoza.

Hivi leo nina kutana na rafiki yangu ambaye alipatikana akiwa na saratani ya njia ya uzazi. Ningependa atuelezee safari yake yakukambiliana na huu ugonjwa wasaratani ya njia ya uzazi.

Host: ningependa uanzie kwa kujitabulisha Kwa wenye wana kusikiliza. Utupe njina lako, unafanya kazi gani? Umeolewa?

Edna: Kwa majina mimi naitwa Edna kimani, mimi ninaishi katika eno la pipeline Kata ya nakuru, Kata ndogo ya Nakuru East. Mimi ni mkulima na pia mimi ni fundi wa nguo. Mimi nimeolewa na nina watoto watatu. Kwa umri, mimi nina miaka therathini na tatu (33years)

Host: Na je kuhusu masomo yako.

Edna: Mimi nilisoma mpaka kidato cha nne. Nilimalizia shule katika kidato cha nne. Sikuweza kuedelea ndipo nikaanza kujigulisha na kazi ya ushonaji nguo

Host: Asante

Host: Hivi leo tunaongea kuhusu saratani ya njia ya uzazi. Ninanjua kwamba ulikuwa umenielezea kuwa ulipitia matibabu kusiana na huu ugonjwa. Kwa manufaa ya wanaokutazama, ningependa utuelezee safari yako kuhusian na huu ugonjwa.

Edna: Asante sana.

Ni kweli. mimi nilikaguliwa na ninakapatikana nilikuwa na huu ugonjwa katika mwaka wa 2016.

Host: Ilifanyika nini mpaka ukajipata umeenda kukaguliwa? Unajua si kwaida kuenda mtu kuamka na kwenda kwa ukaguzi?

Edna: Kwangu mimi, tangu nimpoteze mmoja wa rafiki zangu, mimi huwa makini sana kwa kutunza afya yangu. Wakati nilipo mpoteza rafiki nilipitia hali ngumu sana. Tangu hiyo siku niliamua kuwa nitakuwa nikienda kwa ukaguzi mara kwa mara. Tangu huo wakati nimekuwa nikiende kwa ukaguzi kila mwaka bila kukosa.

Pia niko narafiki yangu ambaye mara kwa mara sisi huwa tuna jandiliana kuhusu huu ugonjwa. Hata yeye huwa makini kuhusu afya yake. Kwa hivyo sisi huwa tunaonge hizi habari

Host: Haya ni ya muhimu sana. Inafurahisha kuwa huwa mnaongea haya mambo. Tafadhali tuambie nini kilicho kufanya uwende katika mahabara kupimwa siku ambayo ulipimwa.

Edna: Ilikuwa siku ya kawaida, kama siku ingine yeyote. Hiyo siku, niliamka nkiwa mchangamfu. Ilikiwa ni siku ya kawaida kwangu. Nilianza kufanya kazi yangu ya kawaida katika nyumba yangu. Kupika kiamsha kinywa, kutayarisha watoto waende shule, halafu niende kwa shamba yangu ndogo.

Kabla ya hii siku nilikuwa nimefikiria kwenda kwa ukaguzi wa njia ya uzazi. Kwangu mimi kawaida, kila mwaka mimi huenda kwa ukaguzi. Wakati huu mwaka mmoja ulikuwa umepita kutoka nime fanyiwe ukaguzi. Nilikuwa najua nina faa kurundi lakini , nilikaa niki airisha kwenda kwa ukaguzi kwa muda sasa.

Hiyo asubuhi nilpata simu kutoka kwa rafiki yangu akinielezea kuwa alikuwa amepanga kuenda kwa ukaguzi wa saratani ya njia ya uzazi katika kituo cha matibabu mjini nakuru (level 5 pgh Nakuru) ambapo mimi huenda.

Hii ilikuwa nikama kichocheo (trigger) ambacho nilihitaji ilikuenda katika ukaguzi wa saratani ya njia ya uzazi. Niliamua kuwa nitaadamana naye ilizote tupate ukaguzi. Nilijitayarisha nani kaandamana na yeye hadi kituoni cha matibabau cha level 5 Nakuru.

Host: Tuelezee kilicho endelea

Edna: Tulifika kutuoni na kama kawaida rafiki yangu alikuwa na furaha. Alikuwa mchangamfu. Yeye ndiye aliweza kushughulikwa kwanza alafu mimi nikamfuata. Huduma ilichukuwa kama muda wa dakika therathini (30 min)

Host: Tafadhali tuelezee kuhusu utaratibu wa huduma ulio ipokea.

Edna: Huduma huwa haichukui muda mrefu**.** Huwa inachukua mda mfupi sana. Daktari alikuwa mzuri. Daktari alikuwa mwanmke na alikaa kama mwenye alifahamu chenye alikuwa anafanya. Aliniuliza nilalie kitanda, ili aweze kunikagua. Nika pakwa chemikali Fulani, kisha akanimulika kwa torchi, ilikuweza kuhakikisha kuwa sikukuwa na kitu kisicho cha kawaida. Hiki kipimo nilielezewa kuwa kinaitwa VIA VILLI.

Kwa kuwa kulinga na yeye, ilesehemu ya njia uzazi ilkuwa na chembechembe ambazo hazikuwa za kawaida, ailinishauli kuwa ninahitaji kufanywa ukaguzi mwingine katika siku inigine lakini katika hiyo wiki.

Baada ya siku mbili nililejea katika hospitali. Nilielezewa kuwa nitafanyiwa ukaguzi wa pap smear ambao. Utaratibu wa pap smear

unahusu kuchukua chembechembe kutuka kwa njia ya uzazi. Hii huwa inafanywa kwa kutumia brushi ama pamba, ambayo hupitishwa katika njia ya uzazi. Baada ya hiyo hizo chembechembe hukaguliwa kutumia darubini (microscope) ili kuamua kuwa kama ni za kawaida ama la.

Host: tuelezee, matokeo ilikuwa aje?

Edna: Nilijulishwa kuwa matoke yangu inaonyesha kuwa chembechembe zangu si zakwaida. Hii ilimaanisha kuwa kuna uwezekano kuwa ninaweza kuwa na ugonjwa ambo ndio unaanza kumea. Kwa sabau hii dakatari alinishauri niende nione daktari wa sarartani (oncologist).

Nilipoenda kumuona oncologist, niliambiwa nitolewe kipande kidogo kwa ukaguzi mwingine (Biopsy). Matokeo ya huu ukaguzi wa biopsy ilionyesha kuwa nilikuwa na ugojwa wa saratani ya njia ya uzazi. Alinielezea kuwa ndio tu ilikuwa inaanza kumea. Kwa sababu hii daktari aliamua kuwa nianze matibabu

Host: Ulikuwa unajiskia vipi kwa wakati huu wote

Edna: Nilikuwa ninastuka sana. Nilifikilia kuhusu watoto wangu, bwana wangu. Sikuwa na furaha. Lakini hata hivyo nilikuwa na furaha kuwa nilijua kwa wakati mzuri kuhusu hii ugojwa.

Host: uliambia mtu yeyeote.

Edna: ndio nilambia bwana wangu. Lakini hata hivyo daktari alinipa faraja, aliniambia kuwa ni vizuri kuwa niligundua niko na ugojwa mapema ambapo ninaweza timbiwa kwa njia ya rahisi. Aliniambia haitani ghalimu pesa mingi, na pia itachukua munda mdogo kutibiwa. Hayo yalinipa faraja.

Host: Baada ya haya nini ilifanyika

Edna: nilianza matibabau. Nilipatiwa madawa na pia radiation. Haikuwa chungu. Ilikuwa rahisi kwangu sana. Sikutumia pesa mingi.

Kusema ukweli nilishangazwa na vile waliweza kutoa hizo chembechembe mbaya kwa njia rahisi na kwa muda mfupi.

Host: Ungependa kuwaambia wana wake wengine anje kuhusiana na hili jmabo.

Edna Mawadha yangu kwa wanawake ni kuwa waende kwa ukaguzi mapema. Nivizuri kujijua mapema. Kukaguliwa mapema. Hii huwa inawezesha mtu kutambua shida mapema, kuepuka kulipa pesa nyingi na pia siyo chungu. Kwa hivyo nigewahimiza wanawake wanjiasilishe kwa ukaguzi mapema ili wapate haya manufaa.

Host: Asante sana Bi Edna. Nina furaha sana kwa kuwa umeweza kuelimisha wanawake wengine. Asante**.**

Edna: Asante

Appendix VII: Third person gain frame narrative

Saratani ya njia ya uzazi ndiyo ya nne katika saratani ambazo zinapatikana na wanawake sana. Katika mwaka wa 2018 saratani ya njia ya uzazi ndio ilkuwa inaongoza katika kusababisha vifo vya wanawake duniani mzima na vifo vya wanawake karibu 311,365 , hii ni asimilia 3.3 ya vifo vyote vinavyo tokana na saratani. Nchini Kenya, saratani ya njia ya uzazi ni ya pili kwenye orodha ya saratani kali sana kwa wanawake baada ya saratani ya matiti. Leo nataka kuwasimulia hadithi ya Bi. Edna Kimani ambaye alipatikana na ugonjwa wa saratani ya njia ya uzazi katika hospitali ya Nakuru level 5. Ni zaidi ya mwaka mmoja tangu apatikane na ugonjwa wa saratani.

Bi. Edna Kimani anaishi na kufanya kazi huko Nakuru pipeline area, yeye ni mkulima na pia fundi wa nguo. Ako na umri wa miaka 34, ameolewa na ana watoto watatu. Amesoma mpaka kidato cha nne ambapo alimaliza kidato cha nne 1998.

Bi. Edna alipatikana na saratani ya njia ya uzazi katika mwaka wa 2016 mwezi wa Septemba. Bi. Edna anasema alikuwa mwangalifu sana kwa maswala ya afya tangu ampoteze rafiki yake wa karibu kupitia ugonjwa wa saratani. Hilo tukio la kumpoteza rafiki yake lilikuwa tukio lililomwadhili sana. Hapo ndipo aliamua kuanzia tabia ya kuenda kwa daktari kukaguliwa mara kwa mara. Amekuwa akienda kwa ukaguzi mara kwa mara.

Alikuwa anaenda kwa ukaguzi kila baada ya mwaka. Vile vile Bi. Edna anaeleza kuwa ana rafiki yake ambaye huwa wanaongea mambo mengi ikiwemo kuhusu ugonjwa huu wa saratani. Rafiki ya Bi. Edna pia huwa anajali afya yake na huwa wanaongelea ugonjwa wa saratani.

Siku moja Bi. Edna aliamka akiwa mchamgamfu na kama kawaida akaanza majukuu yake ya kila siku : usafi, kuwatayarisha watoto kwenda shule na kisha baadaye kuelekea katika shamba. Kabla ya hii siku alikuwa amefikiria kuhusu umuhimu wa kwenda kwa ukaguzi ya saratani ya njia ya uzazi. Alikuwa anajua kuwa anafaa kwenda hospitalini kufanyiwa ukaguzi lakini kulingana na vile alikuwa na kazi nyingi za kufanya alikuwa anahairisha safari yake ya kwenda hospitalini. Asubuhi ya siku alipoenda hospitalini, alipigiwa simu na rafiki wake ambaye alimuarifu kuwa alikuwa na mpango wa kuhudhuria ukaguzi wa njia ya uzazi hiyo siku, katika hospitali ya Nakuru level 5. Habari hiyo ilimpa Bi. Edna motisha wa kwenda hospitali na adhuhuri hiyo walienda na rafiki yake katika hospitali ya level 5.

Walipofika hospitalini rafiki yake ndiye alikuwa wa kwanza kuingia kwa daktari alafu Bi. Edna akamfuata. Shughuli ile ya ukaguzi ilichukua muda wa dakika thelathini.

Bi. Edna anasema kuwa ile shughuli ya ukagaguzi haichukui muda mrefu ilichukua muda mfupi sana, alishughulikiwa na daktari wa kike. Alilazwa kwa kitanda kisha akapakwa kemikali katika mlango wake wa uzazi na baada ya muda mfupi, aliangaliwa kama kila kitu iko sawa kwa kutumia tochi (via villi). Kulingana na daktari kulikuwa na chembe chembe ambazo hazikuwa za kawaida.

Daktari alimshauri afike hospitalini siku ingine ili afanyiwe ukaguzi mwingine katika hiyo wiki. Ukaguzi wa pili ulikuwa ni wa PAP smear. Huu ukaguzi unahusu kuchukua chembe chembe kutoka kwa mlango wa uzazi na pia kwa sehemu za siri ukitumia pamba, kisha baadaye zile chembe chembe zinatazamwa kwa darubini kuamua kama zile chembechembe ni za kawaida.

Baada ya matokeo aliambiwa kuwa kuna uwezekano ana saratani ya njia ya uzazi. Alishauriwa afanyiwe ukaguzi mwingine na akaelekezwa kwa specialist oncologist. Yule daktari alimfanyia biopsy ambayo inahusisha kukata kipande kidogo cha nyama kutoka kwa njia ya uzazi. Baada ya matokeo Bi. Edna aliambiwa kuwa ana saratani ya njia ya uzazi ya kiwango cha chini kabisa. Kulingana na daktari hii ni saratani ambayo ndio tu imeanza kumea. Daktari alimshauri aanze matibabu. Aliweza kupata matibabu kwa mda mfupi kasha akawa nafuu.

Ingawa Bi adna alisema alikuwa nauoga sana, anafurahia kuwa alipata kujua ako na ugojwa mapapema. Bi. Edna alianza matibabu ambayo ilkuwa ni matibabu pamoja na radiation. Anasema haikuwa uchungu sana na malipo pia haikuwa ya bei ghali. Anasema anashangazwa na muda uliotumika kumalizwa ule ugonjwa.

Bi. Edna anawashauri kuwa wanawake wasingoje mpaka wasikie uchungu ndio waende kukaguliwa. Anawaushauli kuwa wanafaa kutembelea kituo cha matibabu iliwafanyiwe ukaguzi huu kwa maana ina manufaa mengi. Kwa sababu aliweza kugundua ugonjwa wake mapema aliweza kupata matibabu mapema na akapona daktari amemhakikishia kuwa amepona, imekuwa kwa gharama ya chini kabisa na pia bila uchungu.

Appedix VIII: Loss Framed first person perspective (English verson)

The Story of Mrs. Eunice Anyango who had cervical cancer

Host: Cancer is a one of the leading causes of death in the world. Today we will focus on cancer of the cervix that affects women. Every year many women experience a change on their cervix which is one of the symptoms of cervical cancer.

In Kenya, three and a half percent of women within childbearing age are diagnosed with cancer of the cervix. For the majority of these women, the disease is diagnosed when it is in its advanced stages. This is a big challenge because late detection of the disease will affect the treatment of the disease. If detected late, the treatment outcomes are usually poor. Early diagnoses contributes to a better treatment outcome and eventually a quick recovery from the disease.

Cervical cancer is associated with Human papilloma. This virus is transmitted during sexual intercourse. Some of the risk factors includes early sexual debut, having multiple partners or having a partner who has multiple partners, as well as having many children. Other risk factors include smoking and HIV infection. Where this form of cancer is detected early, there is a high probability that the patient will receive treatment and attain fully recovery. However, if there is a delayed disease detection, the probability of full recovery will be limited. Today I am happy to meet one of my friends who was been diagnosed with cervical cancer recently.

Host: Please introduce yourself to us.

Eunice: My name is Eunice, I am a resident of Busia County, Butura Sub-County. I am married and have two children. I am thirty for years old (34),

Host: What do you do for a living?

Eunice: I don't have a job. I am a small scale farmer. I plant maize and other things that we use at home. I also have cattle and chickens. I have no other job. I have a husband and two children.

Host: Please tell us about your education

Eunice: I attended school up to the eighth grade. I could not continue with my studies because my parents could not afford more schooling for me beyond that level.

Host: I want you to talk to us about your experience with cervical cancer. I would like you to talk to us about your journey in relation to this disease. When did you come to know that you had contracted the disease? Please take us through that.

Eunice: It was in May 2017 when I started having problems. First, I started having smelly fluids from my genitals. The fluid was pus like in colour and had a very bad smell. I found this to be very unusual. Another thing is that every time ihad sex, it was very painful . It was very painful.

Host: You say that you were experiencing unusual smelly liquid and also having painful sex encounter?

Eunice: Yes

Host: Is this why you decided to go to see a doctor? What prompted you to go see a Doctor?

Eunice: Yes. The smell was so foul that it was dificult to sit around other peolpe. This is what made me make a descsion to see a doctor. I needed to seek help from my doctor.

Host: So when you talked to the doctor about what you were experiencing, what did he say?

Eunice: He examined my birth canal

Host: Did he do any test?

Eunice: Yes

Host: I would like you to tell us what exactly happened

Eunice: The doctor applied a chemical to my cervix. I am not sure what the chemical was but after that he did use a torch to see through my cervix.

Host: ok, that is called VIA VILLI. Did they tell you what they found?

Eunice: Yes, they said that there is a chance that I have cancer of the cervix.

Eunice: They said that they have found that I have a lump in the cervix.

Host: They found that there was an inflammation of the genital tract. What did the doctor do?

Eunice: The doctor said he did not understand why. He said he would need a tissue sample from my birth canal. To that end, he referred me to another part of the hospital where the tissue sample was obtained. After the examination the doctor told me that I had an infection.

Host: What else was done?

Eunice: The doctor asked me to go for another test to confirm my diagnosis. The second confirmatory test revealed that I had cervical

cancer at stage three. I was shocked because I did not understand what cervical cancer means.

Host: what happened after this?

Eunice: I was advised by the doctor that it was important for me to start treatment immediately. I was advised that the first treatment would be radiotherapy. The Doctor then recommended that I undergo radiotherapy for twenty five times, after which I would also receive chemotherapy for five times and finally be given cryotherapy.

Host: What do you feel having had to go through all that? What was your experience going through this type of treatment?

Eunice: At first I was very scared because I did not understand what it actually meant. To be honest, this journey was not easy, it is a very difficult journey and it is also a painful one. The treatments is also very expensive and causes a lot of stress, it also takes a lot of time because you have to go to the clinic regularly even after the treatment is over because it requires a very close monitoring. Six months later I had my final MRI scan taken to confirm that everything was okey.

Host: what did they tell you after the scan?

Eunice: I was told that the swelling was over but I would be required attend clinic regularly to make sure everything was okey. It doesn't matter, although I went through a lot, I am very happy that I recovered fully. I am also happy that my community is safe.

Host: what are your reccomedation having gone through all these things?

Eunice: I am very happy that I am now okey, however I regret that I waited for a long time without being examined until the disease was

detected when it was in advanced stage. I say that it is not wise to wait for long without being screened for the diseaase because it hurts the body, the treatment is expensive and it also has a lot of stress.

So I would encourage all women who are sexually active to go to a health facility for a check-up and in case they are diagnosed with the disease they should start treatment early to avoid similar experiences as mine.

Host: thank you very much, may God continue to heal you.

Appedix IX: Loss framed third person perspective (English verson)

Cancer is a one of the leading causes of death in the world. Today we will focus on the cancer of the cervix that affects women. Every year many women experience a change on their cervix which is one of the symptoms of cervical cancer.

In Kenya, every year, three and a half percent of women within childbearing age are diagnosed with cancer of the cervix. For the majority of these women, the disease is diagnosed when it is in its advanced stages. This is a big challenge because early detection contributes to a better treatment outcome and eventually a quicker recovery from the disease.

Cervical cancer is associated with Human papilloma virus. The virus is transmitted during sexual intercourse. Some of the risk factors includes early sexual debut, having multiple partners or having a partner who has multiple partners, as well as having many children. Other risk factors include smoking and HIV infection. Where this form of cancer is detected early, there is a high probability that the patient will receive treatment and attain fully recovery. However, if there is a delayed detection of the disease, treatment will not be effective and probability of full recovery will be limited. Today I am happy to tell a story of one of my friends who was diagnosed with cervical cancer recently

Eunice is 34 years old, a small-scale farmer, has a husband and two children. Eunice studied up to the eighth grade. She contracted the disease in May 2017. She began receiving treatment in the month of July, two months after being diagnosed with the disease. This is due to the lack of funding. She underwent treatment for one year and in the month of July (2018), was declared fully recovered. That notwithstanding, she went through a very difficult time.

According to her, in the month of May 2017, she began to have discharges from her vagina. The discharges were yellowish in color and had a foul smell. It is at this time she realized that she needed to seek for help. What triggered a visit to a doctor was the foul smell because she couldn't sit around to other people.

After explain to a doctor how she was going through, the doctor decided to take her through physical examination. Explaining how the physical examination was conducted, Eunice says that a chemical was applied on her cervix and this was followed by a physical observation was done under bright illumination.(VIA VILLI). According to the doctor, the cervical surface had abnormal cell configuration. At this time, the doctor recommended further investigation. The second investigation involved obtaining a cervical tissue sample. Through this, the doctor confirmed the presence of cervical cells. According to the doctor, the disease was in stage three. She was advised to start treatment immediately. The treatment comprised of twenty five sessions of radiotherapy, five sessions of chemotherapy and three sessions of Cryotherapy. The treatment took one year and the patient was declared cured in year 2018. Ms Eunice intimates that the journey through treatment is very painful and very costly. She advices all women to seek screening services early enough so that if there are issue they can start treatment early. This will make it easier for such women to go through treatment.

Appedix X: Gain frame message –first person (English verson)

Host: Introduction

Cancer of the cervix is the fourth most commonly diagnosed cancer among women.

In 2018, cancer of the cervix was the leading cause of death among women globally with estimated 311,365 deaths, contributing to approximately 3.3% of all cancer related deaths. In Kenya, Cancer of the cervix is ranked second highest form of cancer among women after breast cancer.

Today we are meeting Mrs Edna Kimani who was diagnosed with cancer of the cervix at the Nakuru level 5 hospital over one year ago.

Host: May be you can start by introducing yourself, your name and what you do for living.

Client: My name is Edna Kimani I live and work in Nakuru pipeline area. I am a farmer but at the same time I have trained as a tailor I make clothes. I am a mother of three children, I am married and I am 34 years old.

Host: what about your education.

Client: Yes I went to school I went up to form four. I finished my form four class in 1998.

Host: Thank you

Host: Today we are discussing about cancer of the cervix, may be you would like to talk to us about your experience with this disease.

Client: Thank you. Yes I was diagnosed with the disease in 2016 sept.

Host: how did you get to be diagnosed with the disease?

Client: I have always been keen on health issues since I lost one of my close friends to cancer. It was very traumatizing experience. Since then I made a decision to do a checkups regularly. I have been taking a cervical screen every years ever since.

At the same time I have friend who we share a lot. Once in a while we get talking about the disease. She is also keen about her health and once in a while we get talking about the condition.

Host: It is good that you are keen about this important issue. Please talk to us about last time you took the test.

Client: it was a normal day. I had woken up feeling cheerful and as usual I embarked on doing my daily chores- cleaning preparing children to go to school as I set out to go to my small farm. Before this day I had thought about the need to go for the cervical cancer screening. I knew I was due for another test but I had kept on postponing perhaps due to my busy schedule.

This particular morning, I got a call from my close friend who informed me that she intended to go for cervical cancer screening at the Nakuru **Level 5:** hospital later in the day.

That was just about the trigger that I needed because I immediately made a decision to accompany her to the hospital to do the same. I prepared and at about mid day we proceeded to Nakuru level five hospital.

Host: So what happened?

Client: We got to the hospital and as usual my friend was in high spirit. She was the first one to go in and then I followed after she was done. The procedure took about 30 minutes.

Host: Please tell us more about your experience with the procedure.

Client: It does not take long time. It is seemingly very short. I was attended to by a very friendly female doctor. I was made to lay on a bed and they applied a particular chemical on my cervix. After a short while, using a torch, she observed whether there was anything unusual. This procedure I was told is called VIA VILLI.

Because according her there seemed to be some abnormal cells, she recommended a further test at a later date but in the course of the week. The second procedure I was told is called PAP smear. It entails collecting some cells from the cervix and vagina.

In this case, a piece of cotton, a brush or a small wooded stick is used to gently scrap the cells from the cervix and the vaginal. Then these cells are observed under microscope to determine whether they are normal or not.

Host: what were the results of the procedure?

Client: I was told that my smear was positive- implying that there was a probability that I have cancer of the cervix. A further test was recommended, and I was referred to a specialist oncologist.

The specialist said that she was going to do a biopsy- which involved cutting a small piece of tissue from the cervix. Thus was done and I was told that I had a low grade cervical cancer. This according to her is cancer that is just beginning to grow. The doctor recommended treatment. I was on treatment for about a year.

Host: What were your feelings at that time?

Client: I was very scared. I felt that my world had come down crushing. It was a very emotional time for me. I thought about my children and my husband. I was very scared. To me at that point the diagnosis equivalent to death at that point. **Host:** did you talk to anybody about it.

Client: Yes I did. I had talked to my friend and my husband about it and they were very scared for me.

However it is the word from my doctor that really comforted me. She said that my cancer was just beginning and that it was possible that I recover fully from the condition. She said, because I did my screen early I was able to discover the disease very well and at a minimum cost.

Host: So what happened after that?

Client: I was put on medication. A combination of both drugs and radiation were used. It was not painful, and the cost was manageable I was actually amazed at the speed with which the disease was wiped away.

Host: what would you like to tell women who are at risk of this form of cancer?

Client: My advice is that they do not have to wait until they feel pain to go in for screening, they should go for it now. This has a lot of advantages. Because I got to discover the disease early, I was able to get treatment early and I made full recovery. My doctor has confirmed this. It is also cheaper and will help avoid cost related to complication. In addition it is more comfortable, there is not pain. So I urge women to set sometime aside and take-up the test.

Host: Thank you for sharing your story. I am sure that this will go a long way in helping women out there in making appropriate decision to go for cervical cancer screening.

Client: Thank you

Appedix XI: Gain framed third person perspective (English verson)

Cancer of the Cervix is the fourth most common diagnosed form of cancer among women. In 2018, cervical cancer was the leading cause of death for women worldwide with approximately 311,365 deaths reported. This constituted 3.3 percent of all deaths due to cancer in that year. In Kenya, cervical cancer is the biggest killer cancer after breast cancer. Today I want to tell you a story of Mrs. Edna Kimani who was diagnosed with cervical cancer at Nakuru level 5 hospital. It is more than a year since she was diagnosed with that form of cancer.

Ms Edna lives and works in the Nakuru pipeline area, is 34 years old, married and has three moreover, she is a small scale farmer and also has a tailoring business. Regarding her education attainment, Ms Kimani, studied upto Form Four.

She was diagnosed with cervical cancer in September 2016. According to her she had become very careful to take regular cervical screening since she lost her friend to the diseases. She had been making sure that she goes for screening every year without fail. She explain that her motivation to do so is that she has a close friend with whom she talk about the issues related to the disease.

According to her, on the material day, she had cheerful morning, felt energetic and as usual started her daily routine: taking care of her home hygiene, preparing the children for school and then later on go to her farm. Earlier in the day she had thought about the importance of going for a cervical cancer screening. She knew she had to go to the hospital for a check-up but due to her busy schedule she kept procrastinating her trip to hospital for the annual checkup. On the material day morning, she received a call from a friend who informed her that she had planned to attend a cervical examination in the day, at Nakuru level 5 hospital. She felt that this was the best time for her to

undertake the trip to the hospital for the screening, now that she had a company. When they got to the hospital her friend was the first to go in to see the the doctor fater which she took her turn to see the doctor.

She intimates that the diagnostic process did not take long, it was very short, and she was assessed by a female doctor. She says that she was put to bed and then a chemical applied to her cervix. After this, under a bright illumination, the doctor did physical observation. According to her, the doctor informed her that there were abnormal cells in her cervix. She was requested to come to the hospital another day so that she could repeat the test that week. The second test was PAP smear. The test involved picking cells from the cervix using a cotton wool swab.

The second test suggested a possibility that she has cancer of the cervix. She was advised to undergo further tests and was referred to a specialist oncologist. The doctor performed a biopsy that involved cutting a small piece of cervical tissue. The results showed that she had low-grade cervical cancer. According to the doctor, the disease had just started to develop. She was taken throught treatment and was able to fully recover from the disease.

Although she says that she was fearful, she is glad tht she found out of the illness early illness and began treatment early. Her treatment which included radiotherapy. She agrees that it was not painful and the payment was also not expensive. She says that she was also surprised by the short time it took to end the disease.

She advises women not to wait until they are in pain to go for a checkup. She advises women that they should visit a medical center for the test as it has many benefits. Because she was able to diagnose her condition early she was able to get treatment early and recoverer fully in a short time.

Appendix XII: Pilot study Results

Cronchbach's on knowledge if the item is deleted

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
if the respondent has heard of cervical cancer	46.88	174.797	-.883	.872
Level of agreement to assertion that cancer is a genetical disease	45.00	177.187	-.625	.887
Level of Agreement with assertion that cancer is not genetic disease	46.12	160.047	.763	.859
Level of agreement with assertion that cancer can be detected in its earleist stages	46.12	163.922	.757	.865
Level of agreement with assertion that cancer can be cured if detected early	46.33	167.292	.525	.866
Level of agreement with assertion that postmenopausal women has a risk of getting cervical cancer	45.45	163.318	.700	.869
Level of agreement with assertion that HPV is a nessesary factor inducing cervical cancer	45.58	153.814	.694	.856

Level of agreement with assertion that post coital breeding is a symptom of cervical cancer	45.48	160.195	.713	.865
Level of agreement with assertion that cervical cancer has no symptom in the precancerous lesion period	45.39	161.559	.647	.868
Level of agreement with assertion that early sexual activity factor is a risk factor in cervical cancer	46.12	163.297	.643	.865
level of agreement with assertion that precancerous lesion can be detected by screening	45.97	155.718	.805	.855
level of agreement with assertion that the main reason is to detect precancerous lesion.	45.03	163.905	.601	.869
level of agreement with assertion that women should be screened for cervical cancer every three years	45.91	159.773	.542	.862
level of agreement with assertion that cervical cancer is available in local health faciities	45.64	153.676	.654	.857
level of agreement with assertion that cervical cancer is available in local health faciities for free	45.33	160.917	.842	.868
self rating on risk of getting cervical cancer	44.36	160.301	.701	.871

level of agreement with assertion that the respondents have screened for cervical cancer	44.76	156.439	.817	.866
level of agreement of assertion that the respondent worry that she can get cervical cancer	45.03	147.655	.715	.853
Level of agreement with assertion that she is at risk of getting cervical cancer	45.24	144.377	.716	.853
Level of agreement with assertion that all women have an equal chance of developing cervical cance	45.76	149.439	.744	.853
Level of agreement have a a risk of conducting HPV	45.45	146.818	.699	.854

Appendix XIV: List of Tea firms in Kiambu County.

1. Mataara tea
2. Kambaa tea
3. Marimba tea
4. Ngorongo tea
5. Karirana tea
6. Cianda tea
7. Gachege tea
8. Kamiti tea
9. Theta tea
10. Kagwe tea
11. Gakoe tea
12. Kacharoba
13. Kimbenda tea estate
14. Mabruki

Source: Crop Officer, Ministry of Agriculture Kiambu County

Appendix XV: NACOSTI Permit

Director General

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &

REPUBLIC OF KENYA

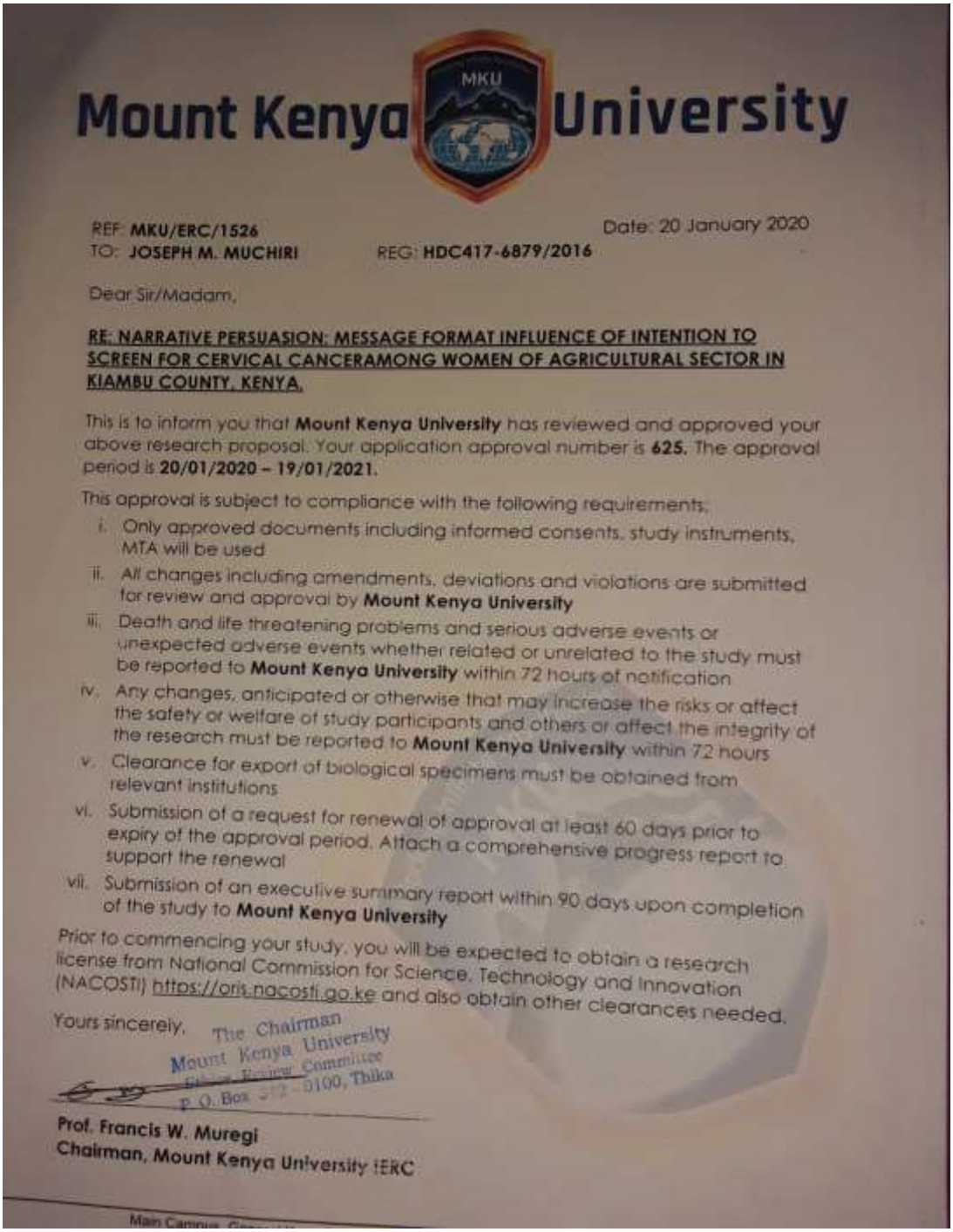
V**This is to Certify that Mr.. Joseph mutitu muchiri of Mount Kenya University, has been licensed to conduct research in Kiambu on the topic: NARRATIVE PERSUATION: MESSAGE FORMAT INFLUENCE ON INTENTION TO SCREEN FOR CERVICAL CANCER AMONG WOMEN IN AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA. for the period ending : 20/February/2021.**

License No: **NACOSTI/P/20/3693**

550674

Applicant Identification Number

Appendix XVI: Ethical clearance



Mount Kenya University

REF: **MKU/ERC/1526** Date: 20 January 2020
TO: **JOSEPH M. MUCHIRI** REG: **HDC417-6879/2016**

Dear Sir/Madam,

RE: NARRATIVE PERSUASION: MESSAGE FORMAT INFLUENCE OF INTENTION TO SCREEN FOR CERVICAL CANCERAMONG WOMEN OF AGRICULTURAL SECTOR IN KIAMBU COUNTY, KENYA.

This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **625.** The approval period is **20/01/2020 – 19/01/2021.**

This approval is subject to compliance with the following requirements;

i. Only approved documents including informed consents, study instruments, MTA will be used
ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions
vi. 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
vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

Yours sincerely,

The Chairman
Mount Kenya University
Ethics Review Committee
P. O. Box 342 - 0100, Thika

Prof. Francis W. Muregi
Chairman, Mount Kenya University IERC

Main Campus