

**EFFECTS OF A PSYCHOSOCIAL INTERVENTION ON GENDER-BASED VIOLENCE, ANTEPARTUM DEPRESSION, GENERAL HEALTH AND ADOPTION OF SAFETY BEHAVIORS IN PREGNANT WOMEN IN KISUMU COUNTY, KENYA**

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**Effects of a Psychosocial Intervention on Gender-Based Violence,  
Antepartum Depression, General Health and Adoption of Safety  
Behaviors in Pregnant Women in Kisumu County, Kenya**

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**A thesis submitted in partial fulfillment for the degree of Doctor of  
Philosophy in Public Health in the Jomo Kenyatta University of  
Agriculture and Technology**

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## **DECLARATION**

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

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This thesis has been presented for examination with our approval as the University Supervisors.

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## **DEDICATION**

To my husband Patrick, your constant and unwavering support, encouragement and prayers kept me going through the toughest of times. To Nelson, Regina and Sam, may this inspire you to be great men and woman of your time. To my parents Daniel and Cecilia Katei Mutisya, the values and virtues you instilled in me were invaluable throughout this project.

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## ACRONYMS AND ABBREVIATIONS

<b>AAS</b>	Abuse Assessment Screen
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>AIDOS</b>	<i>Associazione Italiana Donne per lo Sviluppo</i>
<b>ANC</b>	Antenatal Care
<b>CAS</b>	Composite Abuse Scale
<b>CG</b>	Comparison group
<b>IECs</b>	Information Education and Communication
<b>EPDS</b>	Edinburg Postnatal Depression Scale
<b>ERC</b>	Ethical Review Committee
<b>ES</b>	Effect Size
<b>GBV</b>	Gender-Based Violence
<b>GBVRC</b>	Gender-Based Violence Recovery Centre
<b>HBM</b>	Health Belief Model
<b>HIS</b>	Health Information System
<b>HRQoL</b>	Health-Related Quality of Life
<b>HIV</b>	Human Immunodeficiency Virus
<b>IP</b>	Intimate Partner
<b>IPV</b>	Intimate Partner Violence
<b>IG</b>	Intervention Group
<b>JKUAT</b>	Jomo Kenyatta University of Agriculture and Technology
<b>KDHS</b>	Kenya Demographic and Health Survey
<b>KEMRI</b>	Kenya Medical Research Institute
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>LSHTM</b>	London School of Hygiene and Tropical Medicine
<b>NACC</b>	National AIDS Control Council
<b>NACOSTI</b>	National Council of Science and Technology
<b>NASCOP</b>	National AIDS and STI Control Program

<b>OR</b>	Odds Ratio
<b>PHC</b>	Primary Health Care
<b>PMTCT</b>	Prevention of Mother to Child Transmission
<b>PS</b>	Power Sample Size Calculator
<b>PTSD</b>	Posttraumatic Stress Disorder
<b>QoL</b>	Quality of Life
<b>RCTs</b>	Randomized Controlled Trials
<b>SD</b>	Standard Deviation
<b>SDG</b>	Sustainable Development Goal
<b>SPSS</b>	Statistical Package for Social Scientists
<b>SERU</b>	Scientific and Ethics Review Unit
<b>STIs</b>	Sexually Transmitted Infections
<b>SV</b>	Sexual Violence
<b>TTM</b>	Transtheoretical model
<b>UN</b>	United Nations
<b>USA</b>	United States of America
<b>UTI</b>	Urinary Tract Infection
<b>WHO</b>	World Health Organization
<b>UNEFPA</b>	United Nations Fund for Population Activities

## **OPERATIONAL DEFINITION OF TERMS**

<b>Economic violence</b>	Being neglected financially by a partner/spouse and/or being forced into exile from the home.
<b>Gender-based violence (GBV)</b>	The self-reported experience of one or more acts of physical, sexual, psychological and economic violence by intimate partners, family members or any other persons including childhood physical and sexual assault.
<b>Help-seeking behavior</b>	The disclosure to violence and specific actions taken to obtain assistance during and /or after an incident of violence.
<b>Intimate partner</b>	Someone to whom the participant is or was married to, dated, or had a sexual relationship with.
<b>Intimate partner violence</b>	The self-reported experience of one or more acts of physical, sexual, psychological and economic violence by intimate partners, whether current or former.
<b>Non-partner</b>	Strangers, acquaintances, friends, colleagues, peers, teachers, neighbors and family members
<b>Physical violence</b>	Use of a part of one's body or an object to control another person's actions. It includes but is not limited to: being slapped or having something thrown at you that could hurt,

	being pushed or shoved, being hit with a fist or something else that could hurt, being kicked, dragged or beaten up, being choked or burnt on purpose, and/or being threatened with, or actually, having a gun, knife or other weapon used on you.
<b>Psychological or emotional violence</b>	Acts likely to cause psychological harm such as; insults, belittling, constant humiliation, intimidation (destroying things), threats of harm, threats to take away children and deprivation of liberty within the family or within the general community.
<b>Psychosocial Intervention</b>	An intervention conducted in an antenatal care setting by a trained research assistant consisting of; active interviewing, sharing unbiased information on the magnitude of GBV, the GBV cycle and its adverse effects, empathetic listening, encouragement and validation of participants' feelings, facilitation to take measures to enhance safety and provision of a resource card.
<b>Reproductive and sexual coercion</b>	Behaviour by intimate partners intended to maintain power and control over the other partner's reproductive health and reproductive decision making.
<b>Research Assistant</b>	A mature female with previous experience in social work both in the community and with patients in a healthcare setting, specially trained to provide psychosocial support to

violated pregnant women.

<b>Safety Behaviors</b>	Actions which individual women may take to reduce the risk of harm and/or escape from violent situations.
<b>Sexual Violence</b>	Being physically forced to have sexual intercourse when you did not want to, having sexual intercourse because you were afraid of what the person might do, and/or being forced to do something sexual that you find humiliating or degrading.

## **ABSTRACT**

Gender-based violence is a prevalent problem affecting pregnant women globally. Many adverse and often fatal maternal and fetal outcomes have been linked to violence during pregnancy. The study objectives were; to determine the prevalence of GBV during pregnancy and the factors associated with it, and to establish the effect of a psychosocial intervention on GBV, antepartum depression, perceived general health and adoption of safety behaviors in pregnant women in Kisumu County. This was a longitudinal study, in which 12 public health centers were randomized to provide a psychosocial intervention together with the usual antenatal care or the usual antenatal care alone. Antenatal care attendees in the selected facilities were first surveyed and screened for GBV, and eligible GBV positive women enrolled for a follow-up. The facility-based psychosocial consisted of three 30 minutes sessions of active non-judgemental interviewing, sharing of unbiased information on the cycle, magnitude and adverse effects of GBV, empathetic listening, encouragement and validation of participants' feelings, safety planning and provision of a resource card. Data was collected using a semi-structured questionnaire and validated standardized tools and analyzed in SPSS. Multivariable logistic regression was used to determine the risk factors and analysis of covariance used to estimate the intervention effect on the quantitative outcomes, with the baseline scores as covariates. Chi-square was used to test for equality of proportions at 5% level of significance for categorical outcomes. Six hundred and ninety-one (691) pregnant women were surveyed and screened for GBV. Two hundred and eighty-eight (288) were enrolled for follow-up, 144 in each arm. The mean age of the survey participants was 24.5 years, standard deviation (SD) = 4.3 years and the age at sexual debut was 16.7, SD=2.2 years. Almost half of the pregnant women (48.6%) had experienced some form of GBV (physical, emotional, sexual or a combination of these). Forty-two percent and 23.4% reported experiencing physical and sexual violence respectively, in the past one year, and 39.2% had experienced physical violence during the current pregnancy. The individual and intimate partner characteristics associated with an increased risk of violence during pregnancy were; having a post-primary level of education in the women [OR=2.088], occasional alcohol consumption by an intimate partner, [OR=2.843], witnessing violence as a child [OR=3.380] and prior experience of physical [OR=13.116] and sexual violence, [OR=4.208]. Relationship factors associated with violence were; male partner dominance in decision making, [OR=5.930] and infidelity by the woman [OR=3.442] or her intimate partner, [OR=9.906]. The belief in the social superiority of a man [OR=3.949], man's right to assert over a woman [OR=3.163] and the belief that women should tolerate violence to save a

relationship/marriage [OR=9.493] were associated with increased risk of violence during pregnancy. The difference between the psychosocial intervention and the usual care groups in the total intimate partner violence and physical violence scores was significant post-intervention, with small effect sizes of partial eta = 0.20 and 0.31 respectively, but the groups did not differ significantly in the proportion reporting other acts GBV by an intimate and non-intimate partners ( $p > 0.05$ ). The intervention arm had a significantly lower mean depression score of 5.34, SD=4.23 versus 12.46, SD=4.22 in the usual care group post-intervention, (effect size=0.50), higher mean general quality of life score, 40.03, SD=8.3 versus 27.36, SD=16.7(effect size=0.25) and higher mean of adjusted safety behaviors, 8.82, SD=2.3 versus 5.56, SD=2.0 (effect size =0.61). GBV during pregnancy, particularly violence perpetrated by intimate partners is high in Kisumu County. Individual characteristics of women and their partners, relationship factors (decision making and infidelity) and beliefs that influence a woman's attitude and response to GBV were risk factors for violence during pregnancy. The ANC based psychosocial intervention resulted in meaningful and significantly lower total IPV, physical violence by an intimate partner and antepartum depression scores, and improved the women's perception of their general health as well as the adoption of safety behaviors. The intervention however did not have a meaningful effect in the reduction of severe combined violence, emotional violence, harassment, acts of GBV by intimate partners (refusal to use a condom and economic violence) and non-partner physical and sexual violence. The County Government of Kisumu in collaboration with other stakeholders needs to engage in advocacy against GBV and come up with systematic community-led initiatives to promote changes in social norms, beliefs and behavior that entrench gender inequality hence GBV against women in general and pregnant women. There is an urgent need to routinely screen pregnant women attending ANC for GBV in order to identify those experiencing violence for follow up support and care. In the context of human resource constraints, trained GBV advocates (community workers and volunteers) can be used to engage with abused women to offer psychosocial support, empower them and link them with community services including available psychological interventions.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background Information**

Gender-based violence (GBV) is a widespread human rights violation, a pervasive and systemic public health problem affecting women of all socio-economic and cultural groups throughout the world at a high cost to the individual and society (World Health Organization, (WHO), 2013; Arango *et al.*, 2014). Although data on GBV prevalence varies from and within countries due to the methodological differences in the way that violence has been defined and measured, there is compelling evidence that GBV is a serious and common problem globally (WHO, 2013). GBV includes all forms of violence; physical, psychological and sexual that is related to the survivor's gender or gender role in a society or culture (United Nations (UN), 2006). In this study, GBV represents the self-reported experience of one or more acts of physical, sexual, psychological and economic violence by intimate partners (intimate partner violence), family members or any other persons including childhood physical and sexual assault.

A WHO multi-country study found the lifetime prevalence of physical and/or sexual violence or both in women aged 15-49 years to range between 15-71% in the 10 countries surveyed (WHO, 2008). Comparatively the prevalence in developing countries is higher than in developed countries (WHO, 2013, Devries *et al.*, 2010) and its occurrence in the home environment contributes to its chronicity. Kenya has among the highest prevalence of GBV in Sub Saharan Africa with 47% of women aged 15-49 years reporting an experience of physical or sexual violence [Government of Kenya and Kenya National Bureau of Statistics (KNBS), 2015]. Sexual violence is on the increase with up to 20.6% of women aged 15-49 years in Kenya having been sexually violated [National AIDS and STI Control Programme (NASCOP) 2014]. Nyanza Province from which Kisumu County was hived reported the highest prevalence of physical violence

(57.1%) and sexual violence (22%) among women aged 15-49 years in the country (Government of Kenya & KNBS, 2015).

A growing body of literature shows that GBV during pregnancy is prevalent in many parts of the world (Government of Kenya & KNBS, 2015; Turan *et al.*, 2013; Shamu *et al.*, 2013; Devries *et al.*, 2010; Taft *et al.*, 2009; Antoniou *et al.*, 2008), with about one in every four rural women exposed to GBV during pregnancy (WHO, 2005). A multi-country survey found 4-32% of pregnant women were exposed to intimate partner violence (IPV) during pregnancy, with low-income countries reporting a higher prevalence of 14-32% (Devries *et al.*, 2010). The Kenya Demographic and Health Survey (KDHS) found 9% of ever-pregnant women to have experienced physical violence during pregnancy (Government of Kenya & KNBS, 2015) while a sample drawn from an antenatal clinic in rural Kisumu reported a much higher prevalence of 37% (Turan *et al.*, 2013). These statistics show that violence during pregnancy is more prevalent than most other conditions which women are screened for during pregnancy (Devries *et al.*, 2010; Mezey & Bewley, 1997).

GBV during pregnancy is recognized as an important risk factor for adverse maternal and fetal outcomes. Violence during pregnancy has been associated with higher levels of depression during and after pregnancy (Ludermir *et al.*, 2010, Shah, 2010), anxiety, low self-esteem/confidence (El Kady *et al.*, 2005), increased likelihood of miscarriage (Taft & Watson, 2007), premature labor or delivery (Rodrigues *et al.*, 2008), low birth weight (Valladares *et al.*, 2002; Murphy *et al.*, 2001), HIV/Acquired Immune Deficiency Syndrome (AIDS), sexually transmitted infections (STIs) and injury (Shi *et al.*, 2013; Dunkle *et al.*, 2004). Constrained access to health care (Turan *et al.*, 2013) and /or delayed antenatal care, (Hindin *et al.*, 2008; Dietz *et al.*, 1997), limited negotiation for safe sex, uptake of prevention of mother-to-child transmission (PMTCT) of HIV and HIV treatment even in cases where women are aware of their seropositive status have been linked to GBV (Mugume *et al.*, 2007; Moraes *et al.*, 2006). GBV has also been cited as an important cause of maternal deaths in the United States of America (USA) and the United Kingdom (Lewis, 2007; Greenfield *et al.*, 1998; Ganatra *et al.*, 1998). In

addition to the maternal and fetal effects described, GBV is associated with diminished quality of life (QoL) in pregnant women (Tavoli *et al.*, 2016; Gharacheh *et al.*, 2016). GBV may thus be among the greatest impediments to the attainment of the Sustainable Development Goal (SDG) 3 whose focus is the elimination of preventable deaths in newborns and children under five, reduction of maternal mortality and bringing to an end the HIV/AIDS epidemic among other broad objectives.

Although GBV prevalence studies are increasing in developing countries, the evidence base for the risk and protective factors for GBV during pregnancy has not reached threshold levels to influence vibrant national policy and intervention programs. The variability and uniqueness of the individual, relationship, community and societal factors (Hindin *et al.*, 2008; Martin *et al.*, 2012) imply that the risk factors established in high-income country studies may not apply wholly in low and middle-income countries. Design of effective prevention programmes for GBV requires an understanding of the risk factors that are direct causes of IPV and those that point to common characteristics of victims and the environment (Abramsky *et al.*, 2011). Pregnancy provides an excellent window for identifying risk factors for abuse and an opportunity to assist and support affected women (Devries *et al.*, 2010; Turan *et al.*, 2013; Shamu *et al.*, 2011).

Primary prevention of GBV remains the best option and a number of programs aimed at prevention of GBV in sub Saharan Africa have adopted it (Wagman *et al.*, 2015; Keller *et al.*, 2015; Abramsky *et al.*, 2014; Pulerwitz *et al.*, 2010; Jewkes *et al.*, 2008; Pronyk *et al.*, 2006). However the role of secondary prevention in the pregnant women subpopulation cannot be overlooked considering the evident consequences of GBV. There is a dearth of literature on effective health facility-based interventions in pregnant women exposed to GBV (Devries *et al.*, 2010; WHO, 2011; Shamu *et al.*, 2013; Van Parys *et al.*, 2014) particularly in the African region which has the greatest need. Such interventions are particularly critical in the African context where the stigmatization of survivors and poverty complicate decisions by women to leave abusive environments.

Most developed countries have mechanisms to identify women experiencing violence during pregnancy early and similar mechanisms have the potential to work in Kenya (Turan *et al.*, 2013). In order to build the evidence base for advocacy and inform the design of intervention strategy and/or policy on GBV in pregnant women, there is a need for empirical evidence on the magnitude and risk factors for GBV. Additionally, the necessity for interventions in the antenatal period, which can reduce/eliminate violence and mitigate the adverse health effects of GBV in pregnant women living in rural resource-constrained settings, can no longer be ignored (Devries *et al.*, 2010; WHO, 2011; Turan *et al.*, 2013).

## **1.2 Statement of the Problem**

GBV particularly, physical and sexual violence in women aged 15-49years and physical violence during pregnancy in the former Nyanza Province is high (Government of Kenya & KNBS, 2015). GBV during pregnancy is a risk factor for many adverse and often fatal maternal and foetal outcomes hence the need to accord GBV importance in antenatal care.

Few quality studies have been done on violence during pregnancy in Africa (Shamu *et al.*, 2011) and information on the magnitude and the risk factors for GBV among pregnant women in Kenya is scanty. Generalization of risk factors from studies mostly conducted in high-income countries is not feasible due to contextual differences (Abramsky *et al.*, 2011). A gap thus exists in Kenya of empirical information on a problem known to have significant adverse effects on maternal and child health and which is necessary for building the evidence base for advocacy, policy, and programming for interventions targeting pregnant GBV survivors in health care facilities and in the community.

The need to evaluate the effectiveness of interventions with the potential to reduce violence against women particularly in the African region (Arango *et al.*, 2014), and in subpopulations like pregnant that need it the most is great (Devries *et al.*, 2010; Taft *et al.*, 2011; WHO, 2011; Turan *et al.*, 2013). Utilization of trained paraprofessionals and community workers to provide support to violated women may be a viable option in resource-constrained settings. However, no study in Kenya has investigated the effect of delivering such focused non-specialized psychosocial support to violated pregnant women particularly, at public primary health care facilities which are most accessible to the low-income bracket women, who bear a greater burden of GBV. Antenatal care (ANC) provides an excellent opportunity for identifying violated pregnant women for follow up support and care (WHO, 2012) because 96% of women in Kenya come into contact with skilled health care providers during that period (Government of Kenya & KNBS, 2015; Turan *et al.*, 2013). The aim of this study was to determine the magnitude of GBV during pregnancy and to assess the effect of a psychosocial intervention in pregnant women in Kisumu County.

### **1.3 Justification**

Determining the prevalence of GBV during pregnancy in Kisumu County which has the highest prevalence of GBV among women in the reproductive age and the second highest prevalence of physical violence during pregnancy will help better the understanding of the morbidity attributed to GBV in this vulnerable subpopulation, which is currently scanty. An understanding of the risk factors is core in building a base for advocacy against GBV and/or other interventions tailored to the risk factors.

The burden of GBV during pregnancy is disproportionately high in the low-and-middle-income countries but it is not clear which interventions should be adopted to deal with it during the pregnancy ‘window of opportunity’ particularly in the context of limited professional counsellors at primary health care facilities, as is the case in Kisumu County. The findings of this study provide the much-needed information on the effect of an ANC based non-specialist psychosocial intervention.

## **1.4 Study Objectives**

### **1.4.1 General Objective**

To determine the prevalence of GBV among pregnant women and the associated factors, and to establish the effect of a psychosocial intervention on GBV, antepartum depression, general health and adoption of safety behaviors in pregnant women in Kisumu County

### **1.4.2 Specific Objectives**

- i. To establish the prevalence of GBV among pregnant women in Kisumu County;
- ii. To determine the factors associated with GBV in pregnant women in Kisumu County;
- iii. To establish the effect of a psychosocial intervention on GBV and antepartum depression in pregnant women in Kisumu County;
- iv. To establish the effect of a psychosocial intervention on perceived general health and adoption of safety behaviors in pregnant women in Kisumu County.

### **1.4.3 Research Questions**

- i. What is the prevalence of GBV among pregnant women in Kisumu County?
- ii. What factors are associated with GBV in pregnant Kisumu County?
- iii. What effect does a psychosocial intervention have on GBV and antepartum depression in pregnant women in Kisumu County?
- iv. What effect does a psychosocial intervention have on pregnant women's perception of general health and adoption of safety behaviors in Kisumu County?

## **1.5 Scope**

The study was conducted among pregnant women attending ANC in selected public health centers in Kisumu County between April 2016 and January 2017.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter defines GBV and its prevalence both in the general women population and in pregnant women, globally, in Africa, Kenya and in the former Nyanza Province. It captures a review of the literature on the risk factors for GBV, its adverse effects during pregnancy and interventions aimed at reduction of GBV and some of the associated adverse effects. The knowledge gaps and the conceptual framework for the study are explained.

#### **2.2 Meaning and Forms of Gender-based Violence**

GBV also referred to as violence against women, is defined as any act of violence that results in or is likely to result in physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life (UN, 2006). It includes but is not limited to acts of physical, sexual, and psychological violence by intimate partners or dating partners, family members, sexual assault and rape (including stranger rape, acquaintance/date rape, and marital rape), childhood sexual assault of girls, sexual harassment and forced prostitution. Gender-based violence is commonly directed against a woman because she is a woman and thus affects women disproportionately. Such violence is globally recognized as a gross violation of human rights and a serious public health problem.

One of the most common forms of GBV is the physical, sexual, and emotional abuse and controlling behaviors by an intimate partner known as intimate partner violence (IPV) (United Nations Women, 2016; WHO, 2012). Domestic violence is broader and encompasses IPV, child or elder abuse or abuse by any member of a household (Heise, 1999). IPV occurs at varying magnitude and severity in all settings and among all

socioeconomic, religious and cultural groups (Arango *et al.*, 2014; Daoud *et al.*, 2012; Devries *et al.*, 2010; Taillieu & Brownridge, 2010). Women globally bear an overwhelming burden of IPV and the perpetrators of violence are mainly male partners or ex-partners (United Nations Women, 2016). Within intimate relationships, GBV occurs in different forms and often the magnitude severity and impact of the resultant adverse effects vary. Physical violence includes acts such as slapping, hitting, kicking, strangulation, pushing and beating while sexual violence includes forced sexual intercourse and other forms of sexual coercion. Emotional (psychological) abuse consists of acts such as insults, belittling, constant humiliation (in private and in public), intimidation (destroying things), threats of harm and threats to take away children. Controlling behavior is another form of violence which includes isolation of a person from family and friends, monitoring their movements and restricting access to financial resources, employment, education or medical care [WHO and London School of Hygiene and Tropical Medicine (LSHTM), 2010]. Economic violence was recently reported in a study done in rural Kenya with findings that pregnant women are often neglected and/or exiled from home by the spouse/ partner or relatives (Hatcher *et al.*, 2013).

## **2.3 Prevalence of GBV**

### **2.3.1 Prevalence of GBV in Women**

In recognition of GBV as a serious public health problem, the WHO recommended inclusion of data on IPV using standardized tools, into demographic and health surveys for comparability of findings and also to help governments, non-governmental organizations and development partners to build the case for policy, planning, implementing, monitoring and evaluation of violence prevention/ reduction interventions. The prevalence of GBV is commonly presented as the lifetime and annual prevalence (WHO, 2013). The United Nations Fund for Population Activities (UNFPA) recommended that the prevalence of the various forms of violence should be described separately (UNFPA, 2003).

Globally 35.6% of women have had an experience of either non-partner sexual violence, physical or sexual violence by an intimate partner, or both (WHO, 2013). The WHO African region has the highest lifetime prevalence of intimate partner violence and non-partner sexual violence among all women at 45.6% compared to the high-income countries (32.7%), (Ibid). In the Global Burden of Disease Regions, sub-Saharan Africa leads in the prevalence of IPV among the ever-partnered women at 66% (Ibid).

An analysis of data from demographic and health surveys (DHS) found Kenya to be among the countries in Africa with the highest prevalence of any of the three forms of violence (physical, sexual or emotional) at 47%, with Nigeria and Zimbabwe at 31% and 43% respectively (Bamiwuye & Odimegwu, 2014]. Forty five percent of women aged 15-49 years in Kenya reported a lifetime prevalence of physical violence, 20% of them in the 12 months preceding the DHS (Government of Kenya and KNBS, 2015). Sexual violence (SV) has gained significance in Kenya and other parts of the world because of the direct link between SV and HIV. About 21% of women in the 15-49 age bracket reported exposure to SV (National AIDS & STI Control Programme, 2014), but the statistics may still be an under-representation because underreporting of SV is common (Ibid).

### **2.3.2 Prevalence of GBV during Pregnancy**

Perpetration of violence against women by intimate partners can commence, continue or escalate during pregnancy (Devries *et al.*, 2010; Brown, 2012) and pregnant women compared to non-pregnant women may have a higher risk of IPV given that they are more likely to be in a relationship (Talleiu & Brownridge, 2011). Prevalence rates of violence during pregnancy vary globally, with population-based surveys generally yielding lower prevalence compared to clinic-based studies (WHO, 2011) often due to issues in the methodology which limit disclosure (Shamu *et al.*, 2011). For example, the perception of better privacy in a clinic setting may favor greater disclosure compared to a household setting and asking pregnant women about specific incidents of violence (past and current) can yield higher prevalence compared to asking ever-partnered

women for the same information. An analysis of data from population-based DHS in 19 countries found the prevalence to range between 2.0% in Australia, Cambodia, Denmark and, the Philippines to 13.5% in Uganda (Devries *et al.*, 2010). In the Kenyan DHS conducted in 2014, 9% of ever-pregnant women reported an experience of physical violence (Government of Kenya & KNBS, 2015) compared to 37% from an ANC based study in rural Kisumu (Turan *et al.*, 2013). Other clinic or facility based studies have documented prevalence of 21% in South Africa (Groves *et al.*, 2015), 45% (Onoh *et al.*, 2013) and 72% (Ayodapo *et al.*, 2017) in Nigeria, 28% in Uganda (Kaye *et al.*, 2006) and 27% in Tanzania (Mahenge *et al.*, 2013), which are much higher than those reported in population-based studies in the same countries.

A recent meta-analytic review of 92 studies in 23 countries on violence during pregnancy reported an overall prevalence of 19.8%, with 28%, 14% and 8% reporting emotional, physical and sexual violence respectively (James *et al.*, 2013). A similar analysis of African studies reported an overall prevalence of 15.2%, with prevalence in individual studies ranging from 2-57% (Shamu *et al.*, 2011). Generally, violence at the time of pregnancy is higher in Africa and in Latin American countries compared to Europe and Asian countries, and psychological/emotional violence is rarely measured (Van Parys *et al.*, 2014).

## **2.4 Risk Factors for GBV**

Krug *et al.* (2002) used an ecological model to describe the various levels under which the factors contributing to GBV may be grouped. An individual's exposure to violence is influenced by factors at the individual, relational, community, and societal levels. Individual-level factors include biological factors, beliefs, attitudes, and personal history factors while the relationship level factors include those relating to an individual's close social relationships such as that with an intimate partner. At the community level, the factors relate to the settings of social relationships like neighborhoods, workplaces and schools, and the characteristics of those environments that contribute to or protect against violence. Societal level factors refer to the underlying conditions of society that

normalize or inhibit violence. Some of the risk factors for GBV during pregnancy are analyzed in the following sub-sections.

#### **2.4.1 Individual Factors**

Evidence from existing studies underscores certain individual factors as important predictors of GBV in women in general. Some of the risk factors for GBV in women remain consistently significant across countries while others are context specific and vary among and within countries (WHO, 2012). Some studies found risk factors to include young or adolescent age; single marital status; separation or divorce during pregnancy; belonging to ethnic minorities and low educational status (Taillieu and Brownridge, 2011). Others studies found the risk markers to be youth, parity, low level of education and low levels of income (Taft *et al.*, 2009; Abramsky *et al.*, 2011; Fawole *et al.*, 2008). Some studies in Nigeria (Olagbuji *et al.*, 2010; Ezechi *et al.*, 2009, Efetie and Salami, 2009) and Rwanda (Ntaganira *et al.*, 2008) did not establish an association between the education level and violence from an intimate partner. The mechanisms through which various risk factors precipitate to violence are often complex. Evidence, for example, links low level of education to few opportunities and increased economic vulnerability hence abuse by intimate partners on whom the women tend to be totally economically dependent. Pregnant adolescents/young women are more socio-economically disadvantaged group thus the higher risk of intimate partner violence (Devries *et al.*, 2010). Younger women may be less emotionally mature to handle relationships/marriages and are economically vulnerable and thus submissive to male dominance, control, and abuse.

Low socioeconomic status has been cited as a predictor of GBV in women in general and in pregnant women as well (Hatcher *et al.*, 2013; Taft *et al.*, 2009; Hoque & Kader, 2009). Studies found unemployment and low socioeconomic class to be risk factors for experiencing abuse (Olagbuji *et al.*, 2010; Ezechi *et al.*, 2009). The type of employment, formal or informal, was not associated with violence but having low house-hold decision-making power increased pregnant women's risk of IPV (Kaye, 2004). Low

earnings were a predictor of dependency to husband/partners or the extended family (Shamu *et al.*, 2011) and a marker of vulnerability. Due to the feminization of poverty in Africa, many poor women depend entirely on their partners for household maintenance and pregnancy care. This economic vulnerability is often exploited by their partners who violate them. The hypothesized mechanism through which poverty predisposes women to abuse is the basis of primary intervention strategies aimed at increasing the income levels through access to and control of economic and financial resources (Pronyk *et al.*, 2008).

Alcohol/substance and drug abuse by partner (or self) and violence have been cited as major risk factors for abuse both in pregnant (Shamu *et al.*, 2011; Taillieu & Brownridge, 2011; Olagbuji *et al.*, 2010; Ntaganira *et al.*, 2008) and non-pregnant women (Hindin *et al.*, 2008; Feseha *et al.*, 2012). Men with pregnant partners reported the highest prevalence of physical violence (hitting partner) and sexual violence (forcing a partner to have sex) (Eaton *et al.*, 2012). Intoxication in both males and females also leads to irresponsible behavior such as fights, sexual violence and casual sex (Dunkle *et al.*, 2004). A systematic review of the literature on IPV studies with pregnant women in Africa, however, cautioned on measurement biases which tend to exaggerate the strength of association between alcohol or drug abuse and violence during pregnancy due to the use of non-validated tools (Shamu *et al.*, 2011).

Violence from intimate partners was found to be associated with unintended pregnancy which is often blamed on the woman and attracts a punishment of divorce or threats of divorce (Fanslow *et al.*, 2008). The fear of responsibilities which go with pregnancy makes men less likely to sanction a pregnancy if they were not prepared for it (Valladares *et al.*, 2002). The underlying reasoning behind meting violence on a woman because of an unintended pregnancy in many African cultures is that males in a relationship or marriage control female sexuality (Chirawu, 2006). Violence may be more likely during a first pregnancy because the stressful transition to parenthood can trigger conflict and IPV (UNICEF, 2009), and also because young pregnant women may

be less emotionally ready for pregnancy and more economically dependent on their partners (Bacchus *et al.*, 2006).

Past exposure to violence (violence between parents, sexual abuse during childhood and exposure to other forms of prior abuse) is consistently cited as an important risk factor for GBV in adult women (WHO, 2012). African studies have established strong links between a history of abuse (experiencing abuse before the age of 15 and/or abuse in the past 12 months) and violence from an intimate partner during pregnancy (Shamu *et al.*, 2011). Childhood abuse and prior exposure to any form of violence were risk factors for violence during pregnancy in Rwanda (Ntaganira *et al.*, 2008), and women exposed to violence from intimate partners in the past 12 months were at a higher risk of abuse during pregnancy in Nigeria (Olagbuji *et al.*, 2010). Childhood abuse entrenches learned subordination which is carried into adulthood with the resultant perception of violence as a normal experience in womanhood.

Pregnancy also increases women's economic and emotional vulnerability (Turan *et al.*, 2013; Hatcher *et al.*, 2013; Bacchus *et al.*, 2006; Sagrestano *et al.*, 2004; Jasinski, 2004; Noel & Yam, 1992) and dependency (Messman & Long, 1996) and thus the risk of abuse by partners and other family members.

Cross-sectional studies from Africa have reported a relationship between HIV infection and IPV (Maman *et al.*, 2010; Townsend *et al.*, 2010; Pronyk *et al.*, 2006). A review of the literature on HIV and domestic violence showed that violence against female partners increases when a female partner is known to be HIV positive (Kaye, 2004). Studies in Kenya and Tanzania have also shown associations between HIV and IPV in a non-pregnant population (Shi *et al.*, 2013; Maman *et al.*, 2002). Although the associations do not imply that abuse of women by intimate partners increases the risk of HIV, they point to hypothesized mechanisms for the causal association between abuse and HIV. Some of the potential mechanisms include inability of women to negotiate safe sex like condom use due to violence or fear of it (Swan & Connell, 2012; Frye *et al.*, 2011; Mittal *et al.*, 2011; Seth *et al.*, 2010) or that abused women have relatively

compromised immune systems due to the stress of IPV (Bonomi *et al.*, 2006). Violence following disclosure of HIV testing and a positive HIV result has also been documented (Turan *et al.*, 2013; WHO, 2004). Violence is also an important determinant of separation which may, in turn, increase a woman's risk of HIV if she or her partner acquires a new partner (WHO, 2013). Other studies have reported that both abused women and perpetrators more likely to engage in risky sexual behavior (Dunkle *et al.*, 2004; WHO, 2004). Further, sexual IPV may directly lead to HIV infection due to physical vaginal trauma (Andersson *et al.*, 2008; Karamagi *et al.*, 2006).

Sexual risk behaviors in women and perpetrators of GBV have been investigated owing to the potential but complex causal relationship between GBV and HIV in pregnant and non-pregnant women (WHO, 2012; WHO, London School of Hygiene & Tropical Medicine, 2010). Findings from African studies showed positive associations between sexual risk factors and GBV. Transactional sex and having multiple sexual partners increased the risk of exposure to violence (Dunkle *et al.*, 2004; Karamagi *et al.*, 2006). Pregnant women reporting infidelity (having sex with another man whilst in marriage) were more likely to be experiencing abuse compared to those who did not report infidelity (Karamagi *et al.*, 2006).

#### **2.4.2 Relationship Factors**

Relational factors which commonly trigger violence include: male dominance in the family/dominance and control of the relationship by the male and conflict/dissatisfaction in the relationship (marital conflict and instability) (WHO, 2012), economic stress, infidelity and disparity in educational attainment and job status (Garcia-Moreno *et al.*, 2005).

The family unit in Africa is highly patriarchal and women must consult husbands/partners before making any important decisions including health decisions such as taking HIV test. Women who consulted partners in health care decisions are less likely to report violence compared to those who did not (Hindin *et al.*, 2008). In male

controlled relationships, pregnancy places a woman in a situation where she has a disproportionate risk of violence from her partner because of non-consensual testing or unwanted disclosure (Turan *et al.*, 2013; Bond *et al.*, 2002). In Kenya, evidence of HIV testing at ANC without partner's permission and disclosure of HIV-positive diagnosis increases the risk of violence during pregnancy (Turan *et al.*, 2013; Hatcher *et al.*, 2013).

Male control in relationships was evident in Zimbabwe where pregnant women who made decisions to conceive alone were at greater risk of violence during pregnancy. In cases where the partner wanted her to become pregnant, she was protected from experiencing violence (Shamu *et al.*, 2011). Violence against women married to Muslims in an Ethiopian study (Feseha *et al.*, 2012) may be a pointer to male dominance or control in the relationship that is deeply rooted in religious beliefs.

Conflict or dissatisfaction in the relationship and marital instability predispose women to violence (WHO, 2012). Real or perceived infidelity and/or having other wives are common triggers of violence among partners. An Ethiopian study done among non-pregnant women found physical violence to be higher among women whose partners had other wives (Feseha *et al.*, 2012). Another similar study found cohabiting women and women whose partners had extramarital or outside relationships to suffer more abuse (Abramsky *et al.*, 2011). Men and women described infidelity as major triggers of IPV, especially if a woman asked for an explanation from her partner or when she was perceived as being unfaithful. Jealousy-related IPV was also commonly reported if women refused to have sex with her partner, commonly interpreted as an indication of infidelity (Hatcher *et al.*, 2013). Violence in the above studies may be explained by the normalization of traditional masculinity behaviors (Barker & Ricardo, 2005).

Having children from previous relationships increased the risk of violence in women two-fold (Abramsky *et al.*, 2011) and disparities in educational attainment and job status have also been reported as risk factors (García-Moreno *et al.*, 2005). Physical violence was found to be higher in women whose current marriage was not arranged with the

support of the family, a pointer to the central role of family support without which acceptance by the partner's family can be low and a trigger of conflict and violence.

#### **2.4.3 Community and Societal Factors**

Generally, research focusing on community and societal factors associated with violence against women in Africa are limited. In a multi-country study on IPV, women in communities with more educated men like Kenya and Bolivia reported more physical and sexual violence (Hindin *et al.*, 2008). In two WHO multi-country studies, higher violence trends were also found in communities where men believed in more than one rationale for wife beating (Abramsky *et al.*, 2011; Hindin *et al.*, 2008). Values and norms justifying male aggressiveness and community tolerance of GBV were common causes of violence against women globally (McCloskey *et al.*, 2016; Abramsky *et al.*, 2011; Jewkes, 2002; Krug *et al.*, 2002).

#### **2.5 Effects of GBV during Pregnancy**

Substantial evidence links violence during pregnancy with great maternal and fetal health risks. Violence during pregnancy has been associated with antepartum depression (Rahman *et al.*, 2012; Shah, 2010) and post-traumatic stress disorder (PTSD) during pregnancy and after birth (Antoniou *et al.*, 2008). Pregnant women are at a greater risk of HIV transmission and vulnerable to the intersecting risks and adverse outcomes related to HIV infection and GBV (Turan *et al.*, 2013; Maman *et al.*, 2010). Studies show violence during pregnancy to be associated with injuries (Thananowan and Heidrich, 2008; El Kady *et al.*, 2005), miscarriage (Rahman *et al.*, 2012; Shamu *et al.*, 2011; Devries *et al.*, 2010; Fanslow *et al.*, 2008), late or no entry into prenatal care (Stockl *et al.*, 2010; Dunn & Oths, 2004; UNEFPA and *Associazione Italiana Donne per lo Sviluppo* (AIDOS), 2003), premature labor and birth (Sigalla *et al.*, 2017; Sanchez *et al.*, 2012; Rodrigues *et al.*, 2008; Schoeman *et al.*, 2005; Wang & Chou, 2003), low-birth-weight (Sigalla *et al.*, 2017; Nunes *et al.*, 2010; Kaye *et al.*, 2006), antepartum haemorrhage (Silverman *et al.*, 2008; Janssen *et al.*, 2003) and maternal deaths through

homicide (Campbell *et al.*, 2003) and suicide (McFarlane *et al.*, 2002) among other adverse outcomes.

Compared to developed countries, studies and systematic reviews of the consequences of violence during pregnancy in Africa which accounts for the highest prevalence and burden of GBV globally are scanty (WHO, 2011; Shamu *et al.*, 2011; Van Parys *et al.*, 2014). GBV, particularly IPV possibly accounts for a large proportion of maternal mortality but this association is to date unrecognized by policymakers in many developing countries (*Ibid*).

Health-related quality of life (HRQoL) or quality of life (QoL) is a multi-dimensional concept consisting of domains related to general health, physical, mental, emotional and social functioning which describes the overall effect of a disease, illness or condition on the health of an individual (Bakas *et al.*, 2012). QoL depicts an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to one's goals, expectations, standards, and concerns (Romero *et al.*, 2013). Studies have reported an association between violence and decreased QoL (Tavoli *et al.*, 2016; Gharacheh *et al.*, 2016; Sørensen *et al.*, 2012; Wittenberg *et al.*, 2007). The QoL is currently a major concern to policymakers, researchers, and healthcare professionals due to its importance in describing population health status, and in evaluating outcomes of healthcare interventions (Sørensen *et al.*, 2012). Interest in assessing the QoL in clinical trials investigating the relative effectiveness of preventive and treatment programs in pregnant and postpartum women has increased tremendously in the past few decades (Mogos *et al.*, 2013). Population health extends beyond saving lives to improving quality of life and as such interventions targeting pregnant women in healthcare settings should in addition to measuring the essential pregnancy-related morbidity and mortality outcomes, include measures on the extent to which interventions contribute to improving the QoL (Mogos *et al.*, 2013).

## **2.6 Interventions to Reduce GBV during Pregnancy**

Although empirical evidence of the extent of GBV globally and in Sub-Africa has been increasing, studies on the magnitude of this pervasive problem and the risk factors in pregnant women in the East African region are inadequate. This is perhaps the reason for the dearth of studies focusing on primary and/or secondary interventions to eliminate/reduce GBV during pregnancy. A recent review of interventions on IPV in sub-Saharan Africa showed that most were community focused (McCloskey *et al.*, 2016). A systematic review of randomized controlled trials (RCTs) of IPV interventions during pregnancy revealed a huge gap in interventions in Africa (Van Parys *et al.*, 2014). Out of the 9 RCTs reviewed, 6 were conducted in the USA and one each in Peru, Australia, and China (*Ibid*). A similar gap has also been reported in another review (Jahanfar *et al.*, 2014).

Existing interventions broadly fall in the categories of home visitation, supportive counseling (Van Parys *et al.*, 2014), health facility, and community-based (Jahanfar *et al.*, 2014). Irrespective of the category, the interventions aimed to reduce violence scores or episodes and improve maternal and fetal outcomes such as depression, postnatal depression, premature labor, birth weight, antepartum hemorrhage, miscarriage and quality of life among other outcomes. Interventions varied in the length of exposure with some consisting of a single brief session (30 minutes) to multiple sessions during pregnancy and postpartum. The intervention approaches were psychological therapy such as cognitive behavioral therapy by Kiely *et al.* (2010) and Zlotnick's intervention based on interpersonal psychotherapy theory (Zlotnick *et al.*, 2011). Other interventions adopted an empowerment and supportive counseling approach (Sharps *et al.*, 2013; Coker *et al.*, 2012; Cripe *et al.*, 2010; Tiwari *et al.*, 2005; Calderon, 2008, Curry, 2006), delivered by nurses, professional counselors, paraprofessionals or through interactive computer assessment sessions.

In a home visitation program by Bair-Merritt *et al.* (2010) in which IPV victimization was the primary outcome, women in the intervention group had lower but non-significant rate of IPV victimization and significantly lower rate physical assault and perpetration. The decrease in IPV victimization continued on a downward trend up to 3 years. In contrast, findings from a study using para-professional home visits (to provide information, give support, help women plan for safety, and provide a referral to community services) found no significant difference in physical IPV in this group compared to the usual ANC group (Olds *et al.*, 2004). The nurse-visited intervention arm in the same study had a significant decrease in physical partner violence (*Ibid*). In a home visitation mother-mentor support study by Taft *et al.* (2011), women in the intervention group received a resource card and up to 12 months of non-judgmental support, a trusting relationship, assistance in developing safety strategies, information, and assistance in referral to community services. The intervention group compared to the usual ANC group had lower mean abuse scores at 12 months follow-up (*Ibid*). Nagle's home-visitation by a nurse had no significant effect on the reduction in domestic violence eight months postpartum (Nagle, 2002). Other interventions with abused women reported a decline in violence scores post-intervention (Prosman *et al.*, 2014; Coker *et al.*, 2012).

Counseling interventions generally adopted two main approaches; psychological and supportive. In both approaches, there was an element of empowering through the sharing of information or development of skills. Kiely *et al.* (2010) randomized pregnant women to receive an integrated cognitive behavioral intervention delivered before or after routine prenatal care for about 35 minutes, with up to two postpartum booster sessions, or the usual prenatal care. Women in the intervention were less likely to have recurrent episodes of abuse during pregnancy compared with those receiving usual ANC, although the difference between groups did not reach statistical significance (*Ibid*). Overall women in the intervention compared to those in the control group were less likely to report IPV at any point during pregnancy and/or in the postnatal period (*Ibid*). Zlotnick *et al.* (2011) utilized a psychotherapy intervention consisting of four 60

minutes individual sessions over a four week period before birth and one booster session within two weeks of delivery versus the standard antenatal care. The intervention and control groups did not differ significantly in IPV scores during pregnancy or up to three months postpartum.

Tiwari *et al.* (2005); Curry *et al.* (2006); Cripe *et al.* (2010) utilized individualized supportive counseling aimed at empowering women through information and advice on safety. A wallet-size referral card with a list of agencies providing services to abused women, and one 30 minutes case management by a professional counsellor or trained social worker was provided to the intervention group, while the control group received the wallet-size referral card and the standard antenatal care (Cripe *et al.*, 2010, Tiwari *et al.*, 2005). Curry *et al.*, (2006) offered both the intervention and control group an opportunity to see a video on the ‘Faces of abuse’. The intervention group had unlimited access to individualized care from a nurse who provided education, emotional support, basic needs assessment, assessment for safety and discussed family concerns.

The Tiwari *et al.* (2005) intervention appeared effective in reducing minor physical violence and psychological abuse but not severe physical and sexual violence. Cripe *et al.* (2010) reported no statistically significant differences in the occurrence of IPV between the intervention and control groups and in Curry *et al.* (2006), evidence of a difference in violence scores between the group receiving nurse case management and usual care group was not statistically significant. In all the studies the effectiveness of interventions in reducing non-partner violence was not evaluated and only one study (Tiwari *et al.*, 2005) examined the effectiveness of the intervention on the reduction of sexual violence.

Some of the secondary outcomes examined in interventions included antepartum and postpartum depression, health-related quality of life, adoption of safety behaviors, gestational age, preterm births, birth weight, mother-child bonding, social support, help-seeking, participation in society, acceptance of referral to local support services and mental health care. Tiwari *et al.* (2005) found women in the intervention group to have

significantly higher physical functioning in health-related QoL and significantly lower role limitation due to physical and emotional problems. Fewer women in the intervention group had postnatal depression at follow up. The intervention by Zlotnick *et al.* (2011) did not significantly reduce the likelihood of a major depressive episode or posttraumatic stress disorder (PTSD) but a trend towards decrease during pregnancy was reported. Cripe *et al.* (2010) found no statistically significant differences between the two groups in QoL, health seeking and adoption of safety behaviors, but reported a trend towards improvement in the three outcomes. Kiely *et al.* (2010) found women in the intervention group to have significantly fewer preterm births and an increased mean gestational age. Nagle's findings on the number of women with depression at seven to eight months postpartum showed no strong evidence of differences between groups (Nagle, 2002).

The observed diverse findings on the effectiveness of the interventions on the outcomes may be attributed to methodological challenges and the complex nature of studies on violence due to the numerous ethical and safety issues involved (Van Parys *et al.*, 2014). Also, the legitimacy of using violence as the main outcome measure given the complexity of intervening factors between violence identification and reduction has been questioned (*Ibid*). Van Parys *et al.* (2014) opined that internal changes such as mental health and perceived general health may be more informative when evaluating the impact of interventions. Based on the literature available on interventions to prevent, eliminate or reduce violence in pregnant women it is not very clear which are most effective (Jahanfar *et al.*, 2014; Van Parys *et al.*, 2014; O'Reilly, 2010). However, the home visitation programs and some multifaceted counseling interventions are promising (Van Parys *et al.*, 2014).

## **2.7 Knowledge Gaps**

GBV occurring during pregnancy is a serious public health problem globally. Current data on the prevalence of violence during pregnancy in Kenya is limited to physical violence from intimate partners in the ever-partnered women (Government of Kenya &

KNBS, 2015). This means that the 9% prevalence may be an underestimation as it excludes sexual, emotional and economic violence from intimate partners as well as violence from non-partners for which pregnant women are at risk. Facility/clinic-based studies using samples of currently pregnant women have tended to yield higher prevalence. To date, no study has focused on the risk factors of violence during pregnancy in the context of the ecological model in Kenya.

Promising interventions to reduce GBV in pregnancy and improve the maternal and fetal outcomes have been documented, mostly in developed countries but the same cannot be said of Sub Saharan Africa which has the greatest need. There is a huge gap in studies focused on evaluating the effectiveness of interventions that have shown potential to reduce GBV during pregnancy in Kenya; particularly at PHC facilities accessed by the class of women who tend to be disproportionately affected by GBV.

## **2.8 Conceptual Framework for the Study**

Krug *et al.* (2002) used an ecological model to describe the various levels under which the factors contributing to GBV may be grouped. An individual's exposure to violence is influenced by factors at the individual, relational, community, and societal levels. Individual-level factors include biological factors, beliefs, attitudes and personal history factors while the relationship level factors include those relating to an individual's close social relationships such as that with an intimate partner. At the community level, the factors relate to the settings of social relationships like neighborhoods, workplaces and schools, and characteristics of those environments that contribute to or protect against violence. Societal level factors refer to the underlying conditions of society that normalize or inhibit violence. Without interventions, pregnant women may be more vulnerable to GBV and its adversities.

The psychosocial intervention took a secondary prevention approach for early detection and reduction or elimination of GBV during pregnancy. It has its theoretical basis in Dutton's empowerment model (Dutton, 1992) which is premised on the assumption that

perpetration of GBV particularly in intimate relationships is part of a pattern of coercive control (Dobash *et al.*, 1992). Dutton emphasized the need to increase abused woman's independence and sense of control over her life through increasing safety and enhancing her decision making and problem-solving ability. Parker and colleagues expounding on Dutton's theory argued that given the complex and multidimensional nature of intimate relationships, women have a superior understanding of their context and know what is best for them (and their children) (Parker *et al.*, 1999). Abused women thus need as part of help, an opportunity to express their feelings to empathetic persons in a non-judgemental environment and while being allowed autonomy to make their own decisions.

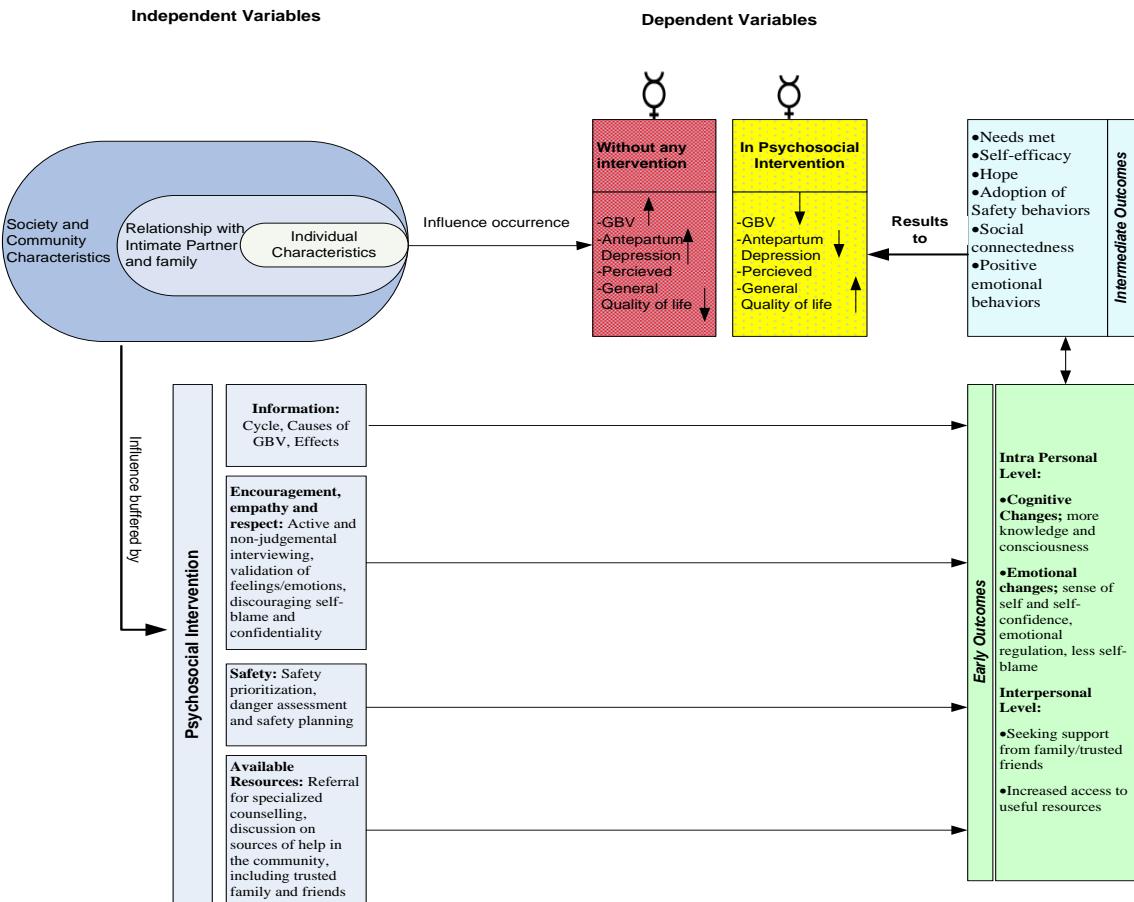
The Psychosocial intervention's components were conceptualized to translate to early and intermediate outcomes (Anderson, 2005), and ultimately less GBV, increased safety and better mental well-being. The hypothesized mechanisms through which the intervention would result in the end of study outcomes have been discussed hereafter.

### **2.8.1 GBV Cycle, Magnitude and Effects**

The GBV cycle component and its effects especially in the context of an intimate relationship can prepare a woman to avoid subsequent violence by adopting the relevant safety behaviors and through increased sensitivity to signs of increasing tension or danger (Withers & Erausquin, 2017). Sharing information on the magnitude of GBV helps participants to understand that GBV affects many other women and this can potentially lessen or eliminate self-blame and stigma and increase utilization of social support, resulting to better mental health (Escriba-Aguir *et al.*, 2010; Mburia-Mwalili *et al.*, 2010) and reduce recurrence of violence (Sanchez-Lorente, 2012). Pregnancy being is a period of transition (Khaw & Hardesty, 2007) when women are more receptive to health changes and interventions (Hatch, 2005). We hypothesized that an increase in knowledge of the potential adverse effect of GBV on the health the woman and her unborn baby would result in actions and behaviors likely to reduce or eliminate such risks.

### **2.8.2 Encouragement, Empathy and Respect**

A client-centered approach consisting of non-judgemental and active interviewing, encouragement, empathy, and respect in a quiet private room was necessary as it would foster an environment of emotional and physical safety needed for clients to open up and share their experiences in confidence. Acknowledgment of clients' strengths and validation of their feelings and emotions essentially raises the sense self-worth and efficacy and may help clients release pent-up tension (Tiwari *et al.*, 2005). According to the Health belief model (HBM) (Strecher & Rosenstock, 1996), self-efficacy is an essential component in the adoption and maintenance of behavior, in this case, safety and help-seeking behavior. A sense self-efficacy reduces the sense of helplessness often associated with poor mental health, diminished quality of life and the risk of violence recurrence.



**Figure 2.1: Conceptual Frameworks for Study**

*Adapted from Krug et. al. (2002) and SAFE Ireland 2015*

**Key**



-The hypothesized direction of change and the resultant effect



-Upwards-shows the hypothesized direction of change; downwards depicts

positively reinforcing feedback

-Woman



### **2.8.3 Community Resources**

Help-seeking by GBV survivors is generally poor (Withers & Erausquin, 2017) and utilization of informal resources more common (Fanslow & Robinson, 2010; Kiss *et al.*, 2012). Research assistants, thus, shared information on sources of help for GBV atrocities and were trained to recognize participant's pace in making help-seeking changes and to offer support while respecting participants' autonomy. The process of change in help-seeking in this context was not assumed to fit into the linear Trans-theoretical model of change (TTM) (moving from pre-contemplation – contemplation – preparation –action – maintenance) because evidence exists that the process is not applicable to abused women (Chang *et al.*, 2006). Rather we conceptualized that utilization of resources would increase social support thus buffering of the effect of GBV on mental health (Escriba-Aguir *et al.*, 2010; Mburia-Mwalili *et al.*, 2010) and would also reduce recurrence of violence. Increased social connectedness also has the potential to raise participants' awareness that alternatives to living with GBV exist.

### **2.8.4 Safety assessment and Planning**

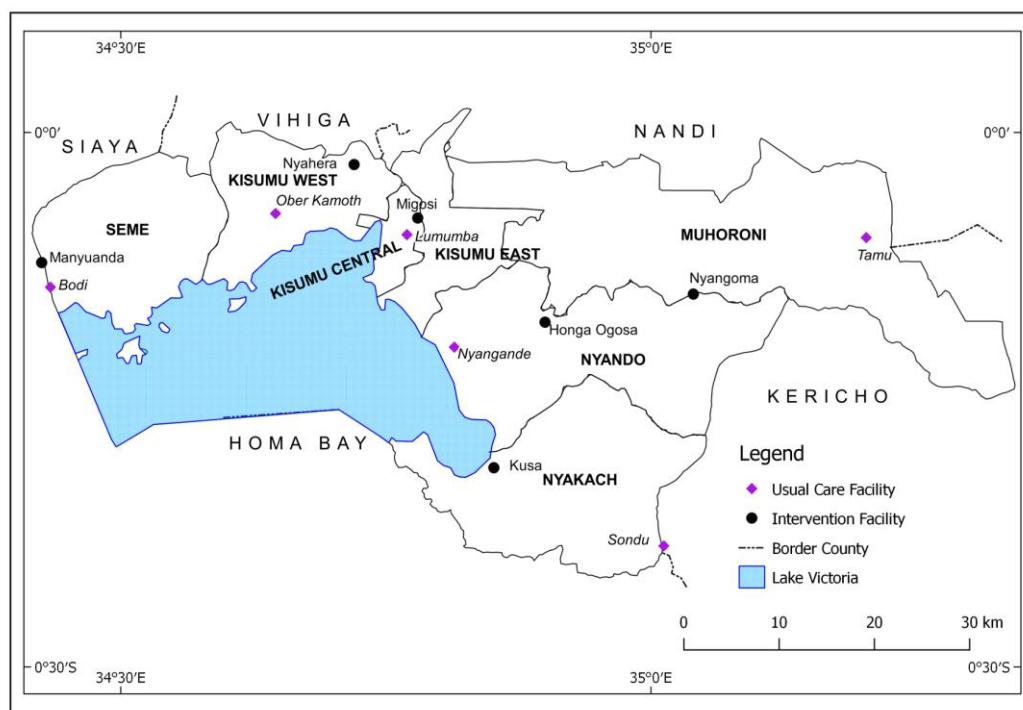
An assessment of individual participant's safety needs followed by an exploration of options necessary to enhance her safety is central to working with GBV survivors (Usta *et al.*, 2012) particularly in interventions during pregnancy (Zlotnick *et al.*, 2011; Cripe *et al.*, 2010; Tiwari *et al.*, 2005; Parker *et al.*, 1999). Emphasis on safety was conceptualized to have the beneficial effect of helping survivors avoid the very common underestimation of potential danger and to appreciate their potential to play an active role in enhancing their safety and that of the unborn child. This is vital in increasing the self-efficacy needed to adopt and sustain the relevant safety behaviors. The intervention would also result in reduced economic violence by intimate partners as well as GBV by non-partners through increasing participants' knowledge of GBV and its adverse health effects. Studies have reported a reduction in violence as a result of interviewing women on GBV or sharing cards listing resources available to help GBV survivors (McFarlane *et al.*, 2006; McFarlane *et al.*, 2000).

## CHAPTER THREE

### MATERIALS AND METHODS

#### 3.1 Study Site

The study was carried out in public health centers in Kisumu County. The county which was hived from the former Nyanza Province covers an area of 2085.9 Km<sup>2</sup> and has a population of 1,063,695 people. The county has 6 functional sub Counties in terms of healthcare organization; Kisumu East and West, Muhoroni, Nyakach, Nyando, and Seme, (Figure 3.1).



**Figure 3.1: Map of Kisumu County Showing the Location of the Study Sites – Health Facilities** (Source: Kisumu County Government, 2015)

It is served by 92 public health facilities consisting of 8 hospitals, 16 health centers, and 68 dispensaries. About 16% of Kisumu County's total population consists of males and females in the reproductive age (15-49 years). The lifetime prevalence of physical and sexual violence since the age of 15 years in the former Nyanza Province was the highest in the entire country at 57% and 22% respectively (Government of Kenya and KNBS, 2015).

### **3.2 Study Design**

Two public health centers in each of the six sub-counties (a total of 12) that had the highest volume of ANC clients in the first quarter of 2015 were selected based on data in the Ministry of health information system (HIS). One of the two facilities in each sub-county was randomly assigned to have the psychosocial intervention group and the other the usual antenatal care (ANC) group. The first phase of this study was a cross-sectional survey of all eligible ANC attendees in the 12 public primary health care facilities. The survey was appropriate for estimating the prevalence and determination of the factors associated with GBV. The second phase was a quasi-experimental study. Assessment of the effect of a psychosocial intervention on the selected outcomes required the collection of baseline (pre-intervention) and post-intervention data from participants in both groups, hence the choice of a quasi-experiment for the follow-up phase of this study. Figure 3.2 shows a summary of the study phases.

### **3.3 Study Variables in the Survey Phase**

#### **3.3.1 Independent Variables**

These were grouped into four categories described in the following sections.

- i. **Individual characteristics:** respondent's age, age difference with spouse/partner, whether the respondent was living with a man, level of education, income, alcohol consumption, childhood witnessing of violence

- between parents/guardians and, history of physical violence since the age of 15 years and exposure to sexual violence.
- ii. **Sociocultural beliefs:** a man is socially superior to a woman, a man has a right to assert over a woman, women should tolerate violence to maintain relationships/marriage, sex is a man's right in relationship/marriage and that a woman is responsible for controlling a man's sexual urges.
  - iii. **Intimate partner relationship** issues such as financial adequacy, whether male partner dominates in decision-making, infidelity, and whether the woman is satisfied in the relationship.
  - iv. **Community characteristics:** population density and security in the neighborhood, access to treatment and legal help for GBV and community sanctions against GBV.

### **3.3.2 Dependent Variable**

GBV (GBV positive or GBV negative)

## **3.4 Study Variables in the Follow up Phase**

### **3.4.1 Independent Variable**

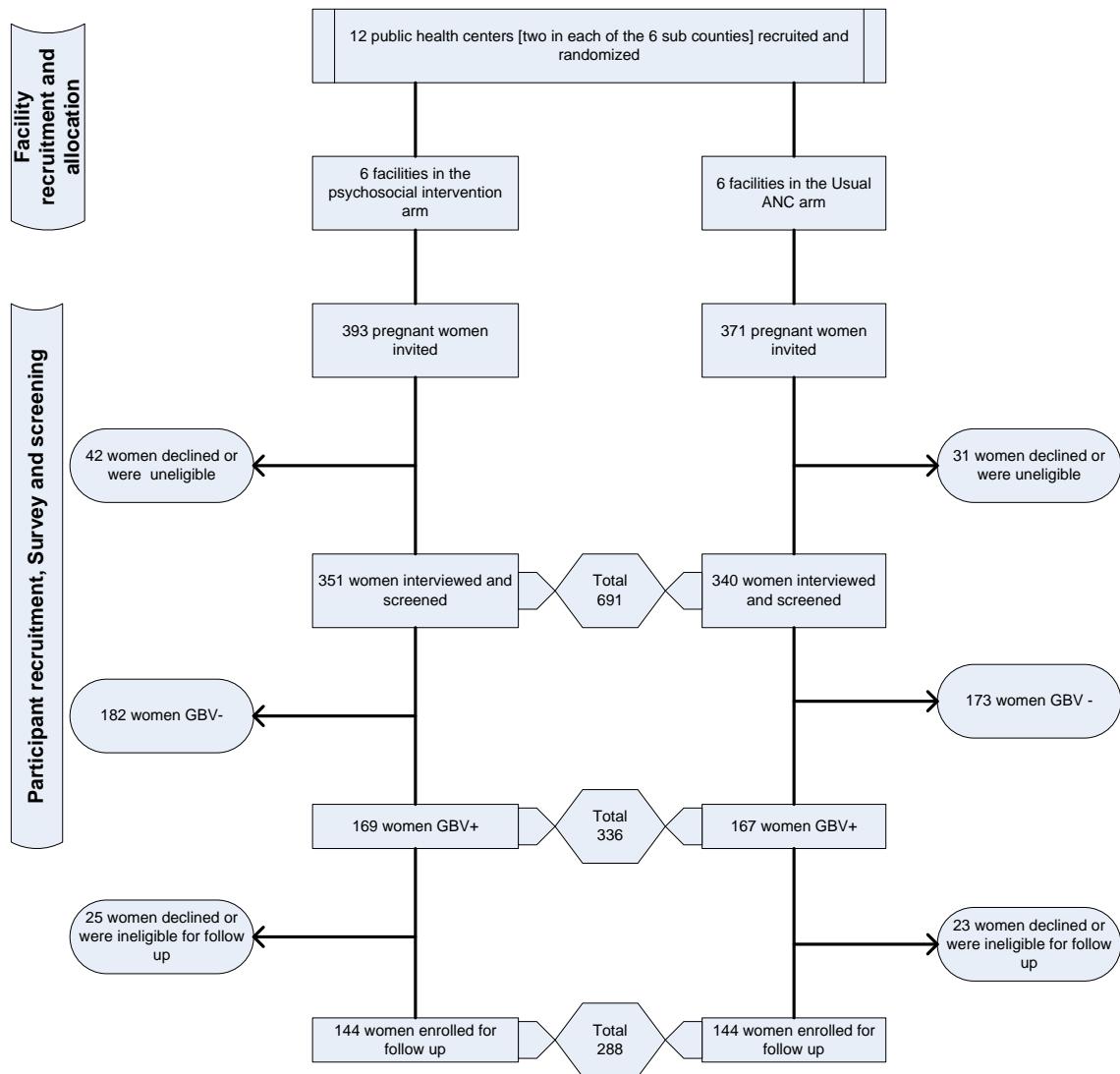
The dependent variable in the follow-up phase was the type of care; psychosocial intervention or usual ANC.

### **3.4.2 Dependent Variables**

The outcome variables were;

- i. GBV (total IPV, severe combined violence, physical violence, emotional violence, harassment, and non-partner GBV);
- ii. Antepartum depression;
- iii. Perceived general health;

iv. Adoption safety behaviors.



**Figure 3.2: Flow Diagram of the Study Phases**

### **3.5 Target Population**

The target population was pregnant women who constitute 8.1 % of the 542,490 females in the county (Government of Kenya and KNBS, 2015). The prevalence of GBV during pregnancy was 37% according to findings from a clinic-based study (Turan *et al.*, 2013). About 97% of pregnant women in Kisumu County visit skilled health care providers for ANC services (Government of Kenya and KNBS, 2015).

### **3.6 Study Population**

Pregnant women attending antenatal care in the facilities selected.

#### **3.6.1 Inclusion Criteria**

##### **Initial Survey and Screening**

- i. All pregnant women aged 18-49 years seeking ANC services in the selected health facilities in Kisumu County;
- ii. Willingness to participate.

##### **Follow up Phase**

- i. Pregnant women with a positive GBV score;
- ii. Women in their first or second trimester;
- iii. Women from the selected facilities' catchment area and who did not intend to leave the area or change their ANC facility during the study period;
- iv. Willingness and consent to participate;

### **3.6.2 Exclusion Criteria**

- i. Pregnant women attending ANC accompanied by a partner, family member or other persons. This is in line with WHO's ethical and safety recommendations for intervention research on violence against women (WHO, 2016) that require researchers to put the safety of respondents first. From the power and control wheel, an intimate partner's controlling behavior may manifest through limiting a woman's interaction with other people (National Center on Domestic and Sexual Violence, 2018).
- ii. Violated women requesting a referral to specialized treatment;

### **3.7 Sampling**

#### **3.7.1 Participating Facilities**

One of the two health centers in each of the 6 sub-counties was randomly assigned to be the one where the pregnant women would receive the psychosocial intervention alongside the usual ANC services (the intervention group) or the usual ANC services only. Table 3.1 shows randomization of the participating health centers in each sub-county.

**Table 3.1: Participating Facilities by Type of Care**

Sub County	Health Facilities	
	Psychosocial Intervention	Usual ANC
Kisumu East	Migosi	Lumumba
Kisumu West	Nyahera	Ober Kamoth
Muhoroni	Nyang'oma	Tamu
Nyakach	Kusa	Sondu
Nyando	Hongo Ogosa	Nyag'ande
Seme	Manyuanda	Bodi

### **3.7.2 Sample Size Determination for the Survey Phase**

The formula by Fox *et al.* (2007) was used to determine the adequate sample size needed to estimate the prevalence of GBV among pregnant women in Kisumu County. At 95% level of confidence, 5% confidence interval and taking the proportion of women exposed to GBV during pregnancy,(P), to be 37% (from a survey done in Kisumu by Turan *et al.*, 2013), a sample of at least 358 pregnant women was adequate.

$$N = P(100-P)$$

$$\frac{(SE)^2}{_____}$$

Where;

N- Required sample size

P- Proportion of violated pregnant women (37%)

However, a total of 691 pregnant women were surveyed for GBV and other characteristics as the study team sought to obtain the desired sample for the follow-up phase.

### **3.7.3 Sampling Procedure for the Survey Phase**

Consecutive pregnant women attending ANC in the selected facilities in over a period of six months (May- October 2016), and who fulfilled the eligibility criteria were surveyed.

### **3.7.4 Sample Size Determination for the Follow-up Phase**

The Power Sample size (PS) calculator version 3.1.2 (Dupont and Plummer, 1990) was used to determine an adequate sample size for the follow-up phase. The study aimed to detect a difference of 16% in GBV or depression at the end of the intervention. Thus an improvement of 1 in 6 women would be considered clinically important (Taft *et al.*, 2011). The statistical power was 80% at 95% level of confidence. The prevalence of GBV in pregnant women is estimated to be 37% in the control group based on findings from a previous study (Turan *et al.*, 2013). The following information was input into the PS program in order to obtain the above sample size for the follow-up phase of this study:

- $\alpha$**  The significance level or Type I error probability which is 0.05;
- Power** The desired power of the test which is 80%;
- $p_0$**  The probability of GBV in the pregnant women receiving the usual ANC care Group (37%);
- $p_1$**  The probability of GBV in pregnant women in the intervention group (21%),  
 $37\%-16\% = 21\%$ );
- $m$**  The number of women in the control group per intervention/treatment subject.  
The groups would be equal in size, thus,  $m = 1$ .

The PS output was a sample size of 137. An attrition rate of 5% was estimated increasing the required sample size to 144 in each arm.

### **3.7.5 Sampling Procedure for the Follow up Phase**

Due to financial resource constraints, consecutive eligible GBV positive women were enrolled for the follow-up phase until a maximum of 24 was attained in each health center.

### **3.8 Procedures for Data Collection, Instruments and Techniques**

After the intervention allocation the ANC staff, counselors and the research assistants were trained on GBV, research ethics, the consent process and the study procedures relevant to their facility. The research assistants were also trained in the administration of the data collection tools.

The data collection tools were pretested in Ratta health center in Otwenya Location, Kisumu West Sub County, and adjustments made on the affected items. Participants were interviewed in a quiet private room within/close to the ANC clinic in English or *Dholuo* depending on the client's preference. Two counselors were available throughout the study period to provide regular professional advice and/or guidance to the ANC staff and research assistants. The principal investigator, counselors, and research assistants met once every fortnight to discuss progress and any emerging issues/challenges.

#### **3.8.1 Measures**

The standard tools used in this study; Abuse Assessment Screen, RAND 36-Item Health Survey 1.0, Edinburgh Postnatal Depression Scale and the Safety Behavior Checklist were free, except for the Composite Abuse Scale for which permission to use had to be sought in writing, from the author, Prof. Kesley Hegarty.

##### **3.8.1.1 Survey Phase**

The survey used a semi-structured questionnaire with items on participants' socio-demographics, history of violence, sociocultural beliefs (on the social position of men in relation to women, female submissiveness and tolerance of violence among others), participants' relations with intimate partners and the characteristics of participants' source community.

The Abuse Assessment Screen (ASS) (Soeken *et al.*, 1998) was used to screen the women for GBV. Participants were specifically asked if they had ever been slapped, kicked, forced into sexual activities or emotionally abused by anyone or their intimate partner at any time, during the past year and during the current pregnancy. A ‘yes’ to any of the five questions in the ASS was considered as exposure to GBV(GBV+) and was coded as 1 while a ‘no’ answer was coded as 0 and meant that the woman had not experienced GBV(GBV-). The reliability of the ASS was measured using Cronbach’s alpha ( $\alpha = 0.896$ ).

### **3.8.1.2 Follow up Phase**

#### **i. CAS**

The pregnancy version of the Composite Abuse Scale (CAS), (Hegarty *et al.*, 2005) was used for data on GBV. The scale has 30 items, each of which is scored between 0 and 5 with a possible total score of 0-150. The total CAS IPV Score was obtained by adding scores for all items in the scale to which a participant responded.

The CAS has 4 subscales that measure specific forms of IPV: Severe Combined violence (8 items; possible score 0-40), Physical violence (7 items; possible score 0-35), Emotional violence (11 items; possible score 0-55), and Harassment (4 items; possible score 0-20). A Participant’s score in a subscale was obtained by adding up the scores for the items in the subscale to which she responded.

The CAS scale was modified to include seven more items; two each for reproductive/sexual coercion, economic violence by an intimate partner, physical and sexual violence by non-partners and one for respondent’s perpetration of physical violence against her intimate partner. Cronbach’s alpha ( $\alpha$ ) for the CAS were; total CAS  $\alpha = 0.917$ , severe combined violence  $\alpha = 0.701$ , physical violence  $\alpha = 0.889$ , emotional violence  $\alpha = 0.831$  and harassment (four items)  $\alpha = 0.655$ .

## **ii. RAND 36-Item Health Survey 1.0**

Five items from the RAND 36-Item Health Survey 1.0 were used to measure the general health. The precoded numeric values in the questionnaire were recoded according to a defined scoring key (Ware and Sherbourne, 1992). A high score indicates a more favorable general health state. The Cronbach's  $\alpha$  for the five items was 0.619.

## **iii. Edinburgh Postnatal Depression Scale**

The 10 item Edinburgh Postnatal Depression Scale (EPDS) (Cox *et al.*, 1987) was used to measure antepartum depression. The scale has a maximum score of 30. Scores  $\geq 13$  indicate possible antepartum depression (Taft *et al.*, 2011), Cronbach's  $\alpha$  for EPDS was 0.726.

## **iv. Safety Behavior Checklist**

A modified version of the Safety Behaviour Checklist (McFarlane and Parker, 1994) used to measure the adoption of safety behaviours, Cronbach's  $\alpha = 0.696$ . The modification entailed rephrasing item number 1 from 'hid money' to 'saved money' to make it acceptable, and removal of 2 items that were not applicable to the participants in this study. The modified scale had 13 items.

Since not all behaviors were applicable to each woman, an adjustment procedure was used to facilitate interpretation and comparison of scores. The adjusted safety behavior score for each participant was computed by multiplying each woman's percent of applicable behaviours by 13 and dividing by 100% (McFarlane *et al.*, 2002).

To assess violence and safety behaviors adopted during the post-intervention interview, the questions were rephrased to allow the participants to respond for the period after the baseline assessment and the time of the last interview. For the CAS, the research assistant asked: “Since the time we met for the first interview has your husband or partner or anybody else.....” For the Safety Behaviour Checklist, the research assistant asked: “Since the time we met for the first interview have you...”

The risk of contamination between groups was minimal because the participating facilities in each sub-county were health care centers that were far apart. Given that a health center serves a certain catchment area and provides primary health care meant that it was highly unlikely that a client would leave the facility near her home/residence for one that is further away. This was supported by responses by participants in the exit interview. Deliberate measures taken in the intervention facilities to minimize the potential interaction between participants included minimizing waiting time at the ANC clinic for the participants, and escorting out each participant after a psychosocial session or interview. The research assistants were also not aware of the study hypotheses having had no role in the design of the study.

### **3.8.2 Participant Recruitment and GBV Screening**

Nurses at the ANC clinic briefly introduced the study and requested potential participants to meet the research assistant after receiving ANC services. After a brief introduction, the research assistant explained the nature of the study and obtained consent for participation in the survey and for GBV screening. The survey questionnaire was administered first followed by the ASS to consenting women. The interview took an average of 30 minutes.

Participants with a positive GBV result (based on the ASS) were assessed for eligibility for follow-up based on the criteria outlined in 3.6.1. Interested eligible women met the research assistant in the subsequent ANC visit during which the relevant intervention was explained, consent for the baseline survey and follow-up was obtained and

participants completed the baseline questionnaire. Research assistants in the usual ANC facilities shared cards containing information on the resources available in the community for violated women immediately after the baseline interview while those in the intervention facilities held the first psychosocial support session and also shared the cards. All the participants in the follow-up provided a safe and reliable phone number and were given a hotline number for purposes of communication with the study team.

### **3.9 Description of the Type of Care**

#### **3.9.1 Psychosocial Intervention Group**

Participants in the intervention arm received the usual ANC services and psychosocial support as part of follow-up. The intervention was delivered by trained research assistants who had previous experience in social work both in the community and with patients in a healthcare setting. Research assistants made the participants comfortable and relaxed in a quiet private room and proceeded to create rapport. The intervention entailed providing of unbiased information on the GBV, its magnitude in the general women population, the GBV cycle and the adverse effects of GBV. Assistants actively interviewed each participant, listened empathetically, validated participants' feelings and encouraged them. The assistants pointed out that it was the woman's fault that she had been or was being violated. A safety assessment was done and participants were facilitated to identify measures they could take to enhance their safety (and that of their other children) based on the safety behavior checklist. Each participant was also given a card listing persons/organizations from where they could obtain further assistance for GBV. The card was issued alongside other ANC information pamphlets in order to conceal it and protect women from unintended harm. Participants were informed of the availability of coordinated referrals for specialized counseling services.

The research assistants aimed to hold at least three 30 minutes psychosocial support sessions with each participant before the post-intervention interview. The first session was held immediately after the baseline interview or within 2 weeks after the baseline

and the remaining sessions spread over a 3 to 5 month period. The sessions were mostly scheduled to coincide with ANC appointment dates whenever possible but special appointments were negotiated with participants where the former was not possible and in case a participant missed an ANC visit. A snack was also provided during the negotiated visits. The provisions, which were modest, and not the norm were unlikely to be a source of undue influence on the participants. Research assistants informed participants of the availability of coordinated referrals for specialized counseling services.

### **3.9.2. Usual ANC Group**

The pregnant women in the comparison group received the usual ANC services and a card listing persons/organizations where help for GBV could be sought alongside other ANC pamphlets and were informed of the availability of coordinated referrals for specialized counseling services. Each woman held a psychosocial support session with the research assistant after the final interview.

## **3.10 Data Management and Analysis**

### **3.10.1 Data Management**

In order to maintain confidentiality, all study participants received unique participant identification numbers that were recorded on the questionnaire. The questionnaires were kept in secured cabinets in each facility and the key maintained by the research assistant. Emphasis on confidentiality was made during the research ethics training and throughout the data collection period. Data entry into the Statistical Package for Social Scientists (SPSS) version 20.0 (Armonk, New York) was by trained data entry clerks.

### **3.10.2 Data Analysis**

#### **a. Survey Phase**

In the survey the dependent variable, GBV, was categorical (GBV+ or GBV-). The independent variables were broadly grouped into four categories based on the ecological model by Krug *et al.* (2002); i) characteristics of participants and those of their intimate partners including the history of violence, ii) cultural beliefs on the social position of women vis-à-vis men, iii) intimate partner relations, and iv) community characteristics. Four models, one for each broad category of independent variables, were developed to identify the factors associated with GBV during pregnancy. Information on the explanatory variables in each broad category was collected using a questionnaire which had been developed based on findings of previous research.

The direct/simultaneous model-building approach was used where the independent variables were entered into each model at the same time without making assumptions about the order, their relative worth or ‘statistical significance’ (Hosmer *et al.*, 2013; Darlington, 1990; Tabachnick & Fidell, 2007). This approach was preferred over the purposeful selection of covariates because, first, this study did not have a priori hypothesis about some variables being of greater importance than others (Stoltzfus, 2011). It also minimized the degrees of freedom spent and thus the risk of overfitting and took into account any independent variables, which in isolation, may behave differently with respect to the outcome variable compared to when they are considered simultaneously with other variables (Babyak, 2004). Finally, the multivariable model would yield an odds ratio adjusted for the covariates, including confounders which may be present (Pourhoseingholi *et al.*, 2012). The models were expected to produce reasonably stable estimates because the limiting sample size in this study was 336 and the ratio of observations per predictor for all four models >12 (Babyak, 2004).

### **b. Follow-up phase**

The independent variable was the type of care (psychosocial intervention or usual ANC care) and the dependent variables were the total CAS IPV score and IPV scores for the four CAS subscales (severe combined violence, physical violence and emotional violence and harassment), depression and general health scores and the adjusted safety behaviours performed. One-way between-groups analysis of covariance was used to estimate the effect of the intervention on the total IPV and the various subscales of IPV, depression, general health, and the adjusted safety behaviors performed, after adjusting for the baseline scores. Baseline scores were used for participants with missing post-intervention data. Preliminary checks were conducted to ensure that the assumptions of reliable measurement of the covariate, normality and linearity, homogeneity of variances and homogeneity of regression slopes were not violated.

Other dependent variables; economic violence (by IP or family members), physical and sexual violence by non-partners and respondent's perpetration of violence against her intimate partner were analyzed in frequencies and proportions and Chi-square used to test for equality of proportions at 5% level of significance. The Phi coefficient ( $\phi$ ) was calculated to determine the strength of association between the type of care and the adoption of specific safety behaviors.

### **3.11 Ethical Considerations**

Ethical clearance was given by the Scientific and Ethics Review Unit (SERU) of the Kenya Medical Research Institute (KEMRI). The study team obtained permission from the Ministry of Health, Kisumu County and from the administration in the participating health facilities.

Additional measures taken as part of the informed consent process included a candid discussion on the study purpose, risk and/or discomfort and the benefits of the study. This was done in a private and comfortable room situated within or near the ANC

premises. Potential participants were informed about their freedom to join and decline participation in the study at any point without any consequences. The study team emphasized that provision of ANC and any other services was not dependent on participation in the study. They were also assured the data collected from them would not contain personal identifiers.

The sensitivity of the GBV subject and the potential for escalation of violence if the abuser suspected/found out about participation in the study was discussed with potential participants. Emphasis was made on this aspect to reduce the possibility deliberate or inadvertent disclosure of participation. The steps the study team would take in case of reported escalation of violence were shared. There would be an immediate withdrawal from the study, referral to the nearest gender-based violence recovery center (GBVRC) including facilitation of the participant to get there and discreet monitoring of her safety until she delivered.

Other deliberate measures were inbuilt into the research process in order to protect the participants and the research team from unintended harm/violence. A hotline number was established for the purpose of reporting any incidence of violence during the study, whether or not it was as a result of participating in the study and participants were encouraged to report any real or perceived escalation of violence throughout the study period. Resource cards were given alongside other ANC Information Education and Communication (IEC) materials from the ministry of health. The cards did not contain any information relating to GBV except the names and contact information of the organizations. Research assistants did not approach potential participants if they arrived for ANC accompanied by the spouse or partner, family member, friend or any other person. Further, participants did not hold supportive sessions/interviews related to the study if they were accompanied by any of those mentioned above. The lead ANC nurse in the participating facilities, counselors, research assistants and data entry clerks were trained in research ethics. All participants gave written informed consent to participate in this study.

## **CHAPTER FOUR**

### **RESULTS**

#### **4.1 Introduction**

A total of 691 ANC attendees were interviewed and screened for GBV in the survey phase. Three hundred and thirty-six (48.6%), screened positive for GBV while 355 (51.4 %) were GBV negative. Two hundred and eighty-eight (288) participants were recruited for the follow-up phase, 144 in each arm.

#### **4.2 Survey Phase**

##### **4.2.1 Socio-Demographic and Economic Characteristics of the Participants**

The mean age of the respondents was 24.5 years and the reported age of sexual debut was 16.7, standard deviation (SD) = 2.2 years. Eighty eight percent (88%) of the women were living with a husband/partner and 51.8% had a partner who was more than 4years older. Sixty eight percent (68.6%) of the women and 56.7% of their husbands or partners had a primary level of education or less and, fifty three percent (53%) of the women did not have their own source of income, Table 4.1.

##### **4.2.2 Past Exposure to Physical and Sexual Violence**

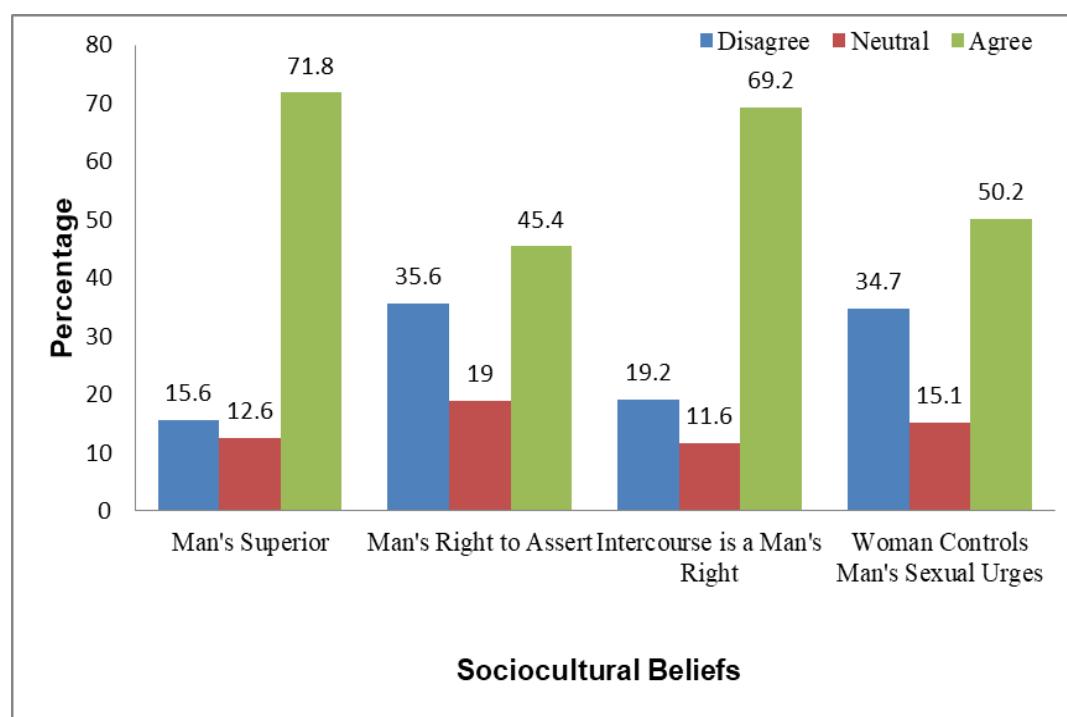
Forty three percent reported witnessing of violence between parents or guardians and 48% had experienced physical violence since the age of 15 years, perpetrated by parents. Thirty-three (33.9%) had been abused sexually at some point in their life.

**Table 4.1: Socio-Demographic and Economic Characteristics of Survey Participants (n=691)**

<b>Characteristic</b>	<b>n (Mean)</b>	<b>SD</b>
Age in years	691 (24.51)	4.328
Age at sexual debut in years	688 (16.7)	2.2
	<b>n (691)</b>	(%)
<b>Currently Living with a Man/Partner</b>		
No	83	12.0
Yes	608	88.0
<b>Age difference with spouse/partner(current or former)</b>		
0-4Yrs	333	48.2
More than 4Yrs	358	51.8
<b>Respondent's Level of Education</b>		
Primary or Less	474	68.6
Post Primary	217	31.4
<b>Partner's Level of Education</b>		
Primary or Less	395	57.2
Post Primary	296	42.8
<b>Woman has Own Income Source</b>		
No	369	53.4
Yes	322	46.6
<b>Employment status partner</b>		
Self-employed	238	34.4
Casual labourer	297	43.0
Employed	156	22.6
<b>Presence of Child not born to the partner</b>		
Yes	212	30.7
No	479	69.3
<b>Respondent Drinks Alcohol</b>		
No	580	83.9
Yes	111	16.1
<b>Male Partner's consumption of alcohol</b>		
Often	88	12.6
Only sometimes	296	42.8
Never	307	44.4

#### **4.2.3 Sociocultural Beliefs Supportive of GBV**

Seventy-two percent (72%) believed that a man is socially superior to a woman while 45% believed that a man has the right to assert over a woman. Although 69% of the women reported that sexual intercourse was a man's right in a relationship or marriage, 49.5% disagreed with the belief that a woman should tolerate violence in order to keep a relationship/family. Twenty-one percent (21%) reported that there are times when a woman deserves to be beaten and 50% believed that a woman is responsible for controlling a man's sexual urge (Figure 4.2).



**Figure 4.1: Participants' Responses to Beliefs Supportive of GBV (n=691)**

#### 4.2.4 Intimate Partner Relations

Sixty seven percent (67%) of the pregnant women reported that conflict in their relationships was fairly common and 51% reported husband or partner dominance in decision making. Ten percent (10%) reported having other secret lovers besides their husbands or partners but 32% believed that their partner had other lovers/partners. Slightly more than half (51%) of the pregnant women had barely enough money to meet their needs but many did not believe that a difference in the educational attainment (89.9%) or income status (87.6%) had a negative effect on their relationship (Table 4.2).

**Table 4.2: Intimate Partner Relations (n=691)**

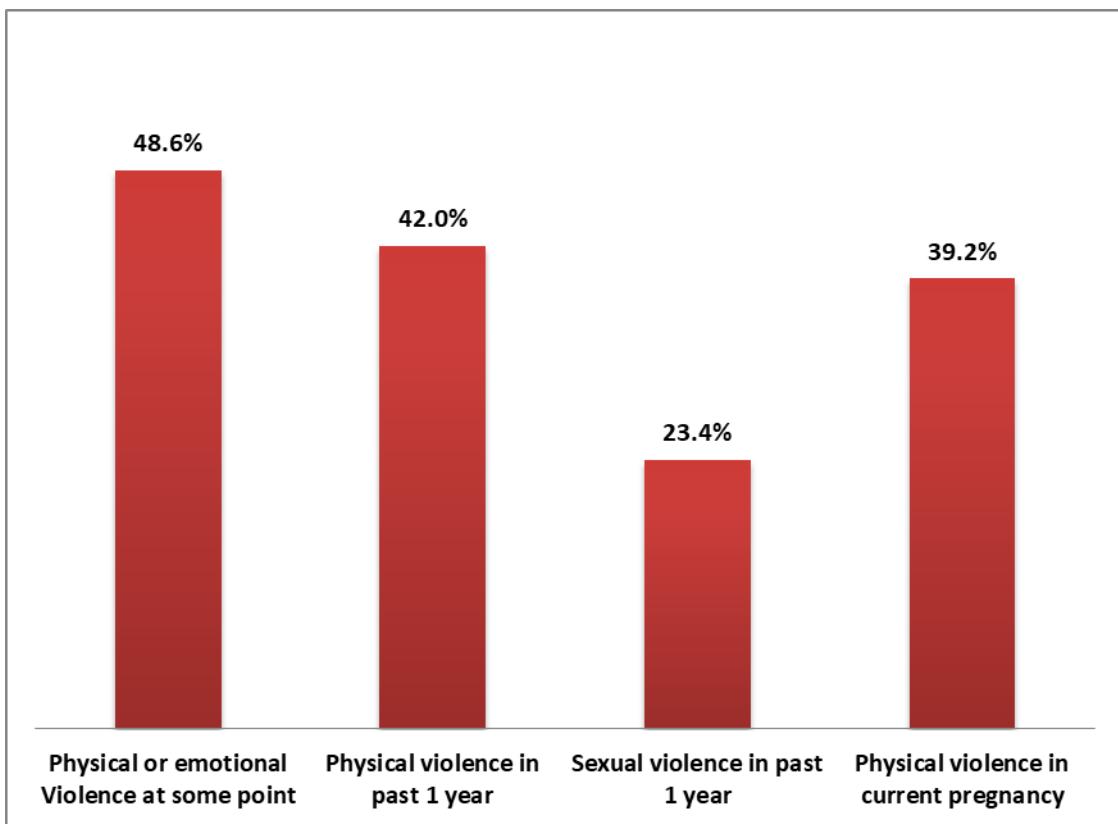
Variable	n	Percentage (%)
<b>Partner dominates in decision making</b>		
Yes	356	51.5
No	335	48.5
<b>Frequency of Conflict in the relationship/marriage</b>		
Often	130	18.8
Only sometimes	462	66.9
Never	99	14.3
<b>Whether Respondent has other secret Lovers</b>		
Yes	70	10.1
No	621	89.9
<b>Partner raised concerns about respondents Fidelity</b>		
Yes	157	22.7
No	534	77.3
<b>Partner has other lovers/partners besides the respondent</b>		
Yes	225	32.6
No	466	67.4
<b>Respondent raised concerns about partners fidelity</b>		
Yes	174	25.2
No	517	74.8
<b>Difference in educational attainment negatively affects relationship</b>		
Yes	70	10.1
No	621	89.9
<b>Difference in income status negatively affects relationship</b>		
Yes	86	12.4
No	605	87.6
<b>Adequacy of Finances</b>		
Barely enough	348	50.4
Enough to help us get by	313	45.3
Adequate	30	4.3

#### **4.2.5 Community Characteristics**

Ninety percent (90%) felt that the community had mechanisms to deal with perpetrators GBV however the strength of community sanctions against GBV was reported as weak by 30%. The processes of seeking treatment and legal help for GBV atrocities were reported as easy by 82% and 60% of the women respectively. Sixty nine percent of the respondents reported having access to schools, water (51%) and 77% felt that their neighborhoods were safe.

#### **4.2.6 Prevalence of GBV among Pregnant Women**

Forty eight percent (48.6%) reported experiencing some form of GBV (physical, emotional and/or sexual violence). Forty-two percent had experienced physical violence (being slapped, kicked or physically hurt by someone) and 23.4% reported experiencing sexual violence in the past one year. Thirty-nine percent (39.2%) of the women had experienced physical violence during the current pregnancy, Figure 4.3. Physical violence was mostly perpetrated by intimate partners (husband, ex-husband, and boyfriend). Strangers and other relatives accounted for less than 3% of the perpetrators.



**Figure 4.2: Prevalence of GBV among Pregnant Women**

#### **4.2.7 Factors Associated with GBV during Pregnancy**

##### **4.2.7.1 Individual Factors**

The model with predictors entered was significant,  $p=0.005$  ( $df=15$ ) and fit  $\chi^2= 12.02$ ,  $p= 0.149$   $df= 8$ . The model without the predictors correctly classified 51% of the cases while that with the predictors correctly classified 81% of the cases. The variability explained by the set of independent variables was between 43.3%-57.7%. An overall significant effect was found between age and GBV during pregnancy  $\chi^2= 9.650$ ,  $p= 0.008$ ,  $df=2$ . The risk of experiencing violence was lower in older participants ( $\geq 23$  years) compared to women aged  $\leq 22$  years. An age difference of more than 4 years

between the pregnant woman and her IP was found to be associated with reduced violence OR= 0.618, 95% CI[0.395-0.965].

Similarly having an intimate partner who was a casual labourer OR= 0.372, 95% CI [0.222-0.621] or had steady employment OR= 0.135, 95% CI [0.067-0.273], and an IP with a post-primary level of education OR=0.394, 95% CI [0.236-0.659] were all associated with reduced violence (Table 4.3).

The risk of experiencing violence during pregnancy was, however, higher in women with a post-primary level of education OR= 2.088,95% CI [1.147-3.802] compared to those with a primary level of education or less, women whose IPs consumed alcohol ‘sometimes’ OR= 2.483, 95% CI [1.519-4.059], those who witnessed violence between parents/guardians OR=3.380, 95% CI [2.427-6.046], women with a history of physical violence since age of 15yrs OR= 13.116, 95% CI [7.976-21.569] and women reporting exposure to sexual violence OR= 4.208,95% CI [2.603-6.803] (Table 4.3).

**Table 4.3: Individual Factors Associated with GBV during Pregnancy**

		GBV+		GBV-					
Variable	Total (%)	n=336	%	n=355	%	B	Wald(df)	p-Value	Adjusted OR (95% CI)
<b>Age (n=691)</b>									
≤ 22	246(35.6)	128	38.1	118	33.2				1.00
23 – 26	246(35.6)	103	30.7	143	40.3	-0.819	9.387(1)	0.002	0.441(0.261-0.745)
27+	199(28.8)	105	31.3	94	26.5	-0.303	1.116(1)	0.291	0.738(0.420-1.296)
<b>Age Difference with Spouse/Partner (=691)</b>									
0-4years	333(48.2)	167	49.7	166	46.8				1.00
> 4years	358(51.8)	169	50.3	189	53.2	-0.482	4.486(1)	0.034	0.618(0.395-0.965)
<b>Currently Living with a Man (n= 691)</b>									
No	83(12.0)	46	13.7	37	10.4				1.00
Yes	608(88.0)	290	86.3	318	89.6	-0.172	0.235(1)	0.628	0.842(0.420-1.688)
<b>Existence of Income Source [Respondent](n=691)</b>									
No	369(53.4)	191	56.8	178	50.1				1.00
Yes	322(46.6)	145	43.2	177	49.9	-0.369	2.590(1)	0.108	0.692(0.441-1.084)
<b>Partner's Employment Status(n=691)</b>									
Self employed	242	133	39.6	109	30.7				1.00
Casual labourer	295	141	42.0	154	43.4	-0.990	14.235(1)	0.005	0.372(0.222-0.621)
Employed	154	62	18.5	92	25.9	-2.003	31.044(1)	0.005	0.135(0.067-0.273)
<b>Respondent Drinks Alcohol(n=691)</b>									
No	580(83.9)	274	81.5	306	86.2				1.00
Yes	111(16.1)	62	18.5	49	13.8	0.227	0.503(1)	0.478	0.797(0.426-1.491)
<b>Partner Drinks Alcohol</b>									
Never	307(44.4)	107	31.8	200	56.3				1.00
Sometimes	296(42.8)	174	51.8	122	34.4	0.910	13.167(1)	0.005	2.483(1.519-4.059)
Often	88(12.7)	55	16.4	33	9.3	0.563	2.332(1)	0.127	1.756(0.852-3.618)

**Table 4.3(Continued): Individual Factors Associated with GBV during Pregnancy**

		GBV+		GBV-					
Variable	Total (%)	n=336	%	n=355	%	B	Wald(df)	p-Value	Adjusted OR (95% CI)
<b>Respondent's Education Level(n=691)</b>									
Primary or Less	474(68.6)	233	69.3	241	67.9				1.00
Post Primary	217(31.4)	103	30.7	114	32.1	0.736	5.800(1)	0.016	2.088(1.147-3.802)
<b>Partner's Education Level(n=691)</b>									
Primary or Less	398(57.6)	203	60.4	195	54.9				1.00
Post Primary	293(42.4)	133	39.6	160	45.1	-0.931	12.608(1)	0.005	0.394(0.236-0.659)
<b>Witnessed Violence between Parents/Guardians(n=691)</b>									
No	391(56.6)	125	37.2	266	74.9				1.00
Yes	300(43.4)	211	62.8	89	25.1	1.343	33.265(1)	0.005	3.380(2.427-6.046)
<b>History of violence since age of 15yrs(n=691)</b>									
No	359(52.0)	76	22.6	283	79.7				1.00
Yes	332(48.0)	260	77.4	72	20.3	2.574	102.841(1)	0.005	13.116(7.976-21.569)
<b>Exposure to Sexual Violence(n=691)</b>									
No	446(64.5)	151	44.9	295	83.1				1.00
Yes	245(35.5)	185	55.1	60	16.9	1.437	34.379(1)	0.005	4.208(2.603-6.803)

#### **4.2.7.2 Sociocultural Beliefs**

The model with the predictors was significant,  $p=0.005$ , ( $df=10$ ) and fit Hosmer and Lemeshow test  $\chi^2=14.25$ ,  $p=0.08$  ( $df=8$ ). The model with the predictors correctly classified 76.4% of the cases compared to that without the variables (51.4%). The variables in the model accounted for 31.0%-41.4% of the variability.

An overall significant association was found between three beliefs and GBV during pregnancy. The belief that man is socially superior  $\chi^2 = 20.516$ , ( $df=2$ ),  $p=0.001$ , a man has right to assert over a woman  $\chi^2 = 26.330$ , ( $df=2$ ),  $p=0.001$  and the belief that women should tolerate violence to maintain relationships/marriages  $\chi^2 = 85.603$ , ( $df=2$ ),  $p=0.001$ .

The pregnant women who believed that a man is socially superior were four times more likely to experience GBV,  $OR=3.949$ , 95% CI [2.044-7.631]. The women who returned a ‘neutral’ response and those who believed that a man had a right to assert over a woman had three times more risk of experiencing violence,  $OR=3.326$ , 95% CI [1.899-5.826] and  $OR=3.163$ , 95% CI [1.930-5.185] respectively. The risk of GBV was nine times higher  $OR=9.493$ , 95% CI [5.746-15.681] in those who believed that a woman should tolerate violence in order to maintain a relationship/marriage (Table 4.4).

**Table 4.4: Sociocultural Beliefs Associated with GBV during Pregnancy**

Belief	Total (%)	GBV+		GBV-		B	Wald(df)	p-Value	Adjusted OR (95% CI)
		n=336	%	n=355	%				
<b>Man Socially Superior(n=691)</b>									
Disagree	108(15.6)	15	4.5	93	26.2				1.00
Neutral	87(12.6)	33	9.8	54	15.2	0.567	2.032(1)	0.154	1.762(0.809-3.840)
Agree	496(71.8)	288	85.7	208	58.6	1.374	16.702(1)	0.001	3.949(2.044-7.631)
<b>Man has right to assert over a woman(n=691)</b>									
Disagree	246(35.6)	63	18.8	183	51.5				1.00
Neutral	131(19.0)	74	22.0	57	16.1	1.202	17.651(1)	0.001	3.326(1.899-5.826)
Agree	314(45.4)	199	59.2	115	32.4	1.152	20.859(1)	0.001	3.163(1.930-5.185)
<b>A woman should tolerate violence to maintain a relationship/marriage(n=691)</b>									
Disagree	342(49.5)	90	26.8	252	71.0				1.00
Neutral	168(24.3)	96	28.6	72	20.3	1.340	32.327(1)	0.001	3.820(2.407-6.063)
Agree	181(26.2)	150	44.6	31	8.7	2.251	77.224(1)	0.001	9.493(5.746-15.681)
<b>Sex Man's right in relationship/marriage(n=691)</b>									
Disagree	133(19.2)	42	12.5	91	25.6				1.00
Neutral	80(11.6)	25	7.4	55	15.5	0.089	0.052(1)	0.819	0.915(0.428-1.956)
Agree	478(69.2)	269	80.1	209	58.9	0.434	2.645(1)	0.104	1.544(0.915-2.606)
<b>A Woman's responsible for controlling a man's sexual urges(n=691)</b>									
Disagree	240(34.7)	86	25.6	154	43.4				1.00
Neutral	104(15.1)	59	17.6	45	12.7	0.278	0.843(1)	0.358	1.321(0.729-2.392)
Agree	347(50.2)	191	56.8	156	43.9	0.098	0.161(1)	0.689	0.907(0.563-1.462)

#### **4.2.7.3 Relationship Factors**

The model with predictors entered was significant,  $p=0.005$  ( $df=5$ ) and fit  $\chi^2= 12.1$ ,  $p= 0.10$   $df\ 7$ . The model without the predictors correctly classified 51.4% of the cases while that with the predictors correctly classified 78.7% of the cases. The variability explained by the set of independent variables was between 37.9%-50.5%.

Pregnant women reporting satisfaction in their relationship were less likely to report GBV compared to those who did not OR=0.502, 95% CI (0.327-0.770) while those who reported male partner dominance in decision making were six times more likely to report GBV OR=5.930, 95% CI [3.998-8.797] compared to those who did not report partner dominance. Infidelity by the woman or her intimate partner was found to be associated with GBV. Pregnant women with other secret intimate partners were more likely to report GBV OR=3.442, 95% CI [1.696-6.986], as well as those who reported infidelity by their husbands/IPs OR=9.906, 95% CI [6.088-16.119], Table 4.5.

**Table 4.5: Relationship Factors Associated with GBV during Pregnancy**

		GBV+		GBV-					
Variable	Total (%)	n=336	%	n=355	%	B	Wald(df)	p-Value	Adjusted OR (95% CI)
<b>Partner Dominance in Decision Making(n=691)</b>									
No	335(48.5)	76	22.6	260	73.2				1.00
Yes	356(51.5)	260	77.4	95	26.8	1.780	78.270(1)	0.005	5.930(3.998-8.797)
<b>Respondent has Other IP's(n=691)</b>									
No	621(89.9)	286	85.1	335	94.4				1.00
Yes	70(10.1)	50	14.9	20	5.6	1.236	11.719(1)	0.001	3.442(1.696-6.986)
<b>Partner has other IP's(n=691)</b>									
No	466(67.4)	139	41.4	327	92.1				1.00
Yes	225(32.6)	197	58.6	28	7.9	2.293	85.214(1)	0.005	9.906(6.088-16.119)
<b>Satisfaction in the Relationship(n=691)</b>									
No	239(34.6)	156	46.4	83	23.4				
Yes	452(65.4)	180	53.6	272	76.6	-0.689	9.950(1)	0.002	0.502(0.327-0.770)
<b>Financial Adequacy(n=691)</b>									
Enough to Get us by	343(49.6)	162	48.2	181	51.0				1.00
Barely Enough	348(50.4)	174	51.8	174	49.0	0.067	0.109(1)	0.742	0.935(0.627-1.394)

#### **4.2.7.4 Community Factors**

The model with the explanatory variable was significant,  $p=0.005$  ( $df=7$ ) and fit Hosmer Lemeshow test,  $\chi^2= 9.57$ ,  $p= 0.214$  ( $df=7$ ). The model without the predictors correctly classified 51.4% of the cases while that with the predictors correctly classified 74.4% of the cases. The variability explained by the set of independent variables in the model was between 25.9%-34.5%.

Having strong sanctions against GBV OR=0.142, 95% CI [0.094-0.217], ease of access to legal help for GBV violations OR= 0.304, 95% CI [0.202-0.459] were protective of GBV. The association between GBV and the population density, security, and ease of access to treatment was not significant, Table 4.6.

**Table 4.6: Community Factors Associated with GBV during Pregnancy**

		GBV+		GBV-					
Variable	Total (%)	n=336	%	n=355	%	B	Wald(df)	p-Value	Adjusted OR (95% CI)
<b>Strength of Sanctions Against GBV (n=691)</b>									
Weak	228(33.0)	188	56.0	40	11.3				1.00
Strong	463(67.0)	148	44.0	315	88.7	-1.949	82.397(1)	0.005	0.142(0.094-0.217)
<b>Access to Treatment for GBV Violations(n=691)</b>									
Difficult	128(18.5)	89	26.5	39	11.0				1.00
Easy	563(81.5)	247	73.5	316	89.0	0.011	0.002(1)	0.967	1.011(0.592-1.726)
<b>Access to Legal Help for GBV Violations(n=691)</b>									
Difficult	276(40.0)	201	59.8	75	21.1				1.00
Easy	415(60.0)	135	40.2	280	78.9	-1.189	32.399(1)	0.005	0.304(0.202-0.459)
<b>Population Density(n=691)</b>									
Low	60(8.7)	33	9.8	27	7.6				1.00
Average	492(71.2)	233	69.3	259	73.0	-0.407	1.593(1)	0.207	0.666(0.354-1.252)
High	139(20.1)	70	20.8	69	19.4	-0.686	3.293(1)	0.070	0.504(0.240-1.056)
<b>Security(n=691)</b>						0.262(2)	0.877		
Safe	185(26.8)	80	23.8	105	29.6				1.00
Fairly Safe	350(50.7)	173	51.5	177	49.9	0.094	0.190(1)	0.663	1.099(0.719-1.680)
Unsafe	156(22.6)	83	24.7	73	20.6	0.003	0.005(1)	0.990	1.004(0.581-1.732)

### **4.3 Follow up Phase**

One hundred and nine, 109 representing 77.3% of the participants in the psychosocial group (intervention arm) completed all the three supportive sessions, 22(15.6%) completed two supportive sessions and 10(7.1%) completed one session before taking the last interview.

#### **4.3.1 Selected Baseline Characteristics by Type of Care**

A comparison between the usual ANC and the intervention group on selected baseline socio-demographic characteristics and exposure to violence between parents/guardians found no significant differences, Table 4.7.

**Table 4.7: Selected Baseline Characteristics by Type of Care**

Characteristic	Usual ANC Group[n=142 ] n (%)	Intervention Group [n=141] n (%)	p- value
<b>Age at Sexual Debut (Years; Mean±SD)</b>	16.2±2.06	16±2.51	0.417 <sup>a</sup>
<b>Age</b>			
< 22 years	47(33.1)	60(42.6)	0.171 <sup>b</sup>
23-26 years	50(35.2)	37(26.2)	
+27 years	45(31.7)	44(31.2)	
<b>Currently Living with a Man/Partner</b>			
No	21(14.8)	18(12.8)	0.622 <sup>b</sup>
Yes	121(85.2)	123(87.2)	
<b>Age Difference with Spouse/Partner</b>			
0-4 years	77(54.2)	63(44.7)	0.108 <sup>b</sup>
> 4 years	65(45.8)	78(55.3)	
<b>Respondent's Level of Education</b>			
Primary or Less	103(72.5)	93(66.0)	0.231 <sup>b</sup>
Post- Primary	39(27.5)	48(34.0)	
<b>Partner's Level of Education</b>			
Primary or Less	89(62.7)	83(58.9)	0.511 <sup>b</sup>
Post-Primary	53(37.3)	58(41.1)	
<b>Woman has Own Income Source</b>			
No	78(54.9)	82(58.2)	0.584 <sup>c</sup>
Yes	64(45.1)	59(41.8)	
<b>Number of Children</b>			
< 3	121(85.2)	113(80.1)	0.259 <sup>b</sup>
≥ 3	21(14.8)	28(19.9)	
<b>Respondent Drinks Alcohol</b>			
No	117(82.4)	113(80.1)	0.627 <sup>b</sup>
Yes	25(17.6)	28(19.9)	
<b>Witnessed Violence as child</b>			
No	54(38.0)	51(36.2)	0.746 <sup>b</sup>
Yes	88(62.0)	90(63.8)	

<sup>a</sup>t-test   <sup>b</sup>Chi Square

#### **4.3.2 Experience of Recent and Current IPV at Baseline**

Intimate partner violence and violence by non-partner scores are reported for the past 12months referred hereafter as ‘recent’ and during the current pregnancy hereafter ‘current’. The usual ANC group had higher and more varied mean scores for recent total IPV and IPV in all other subscales. The groups differed significantly in the all recent IPV mean scores except in the severe combined violence subscale. For current IPV, the groups had significantly different baseline scores in total IPV, and in all the four IPV subscales, Table 4.8. A general trend of the decrease in scores between the baseline and the end of the study was observed in both groups with the largest decline in scores occurring in the intervention group’s total IPV score (8.5points) followed by physical (4.1points) and emotional violence (2.3 points).

**Table 4.8: Recent and Current IPV at Baseline**

IPV Measure	Recent IPV			Current IPV		
	Usual ANC Group, n=142	Intervention Group, n=141	t (p-value)	Usual ANC Group, n=142	Intervention Group, n=141	t (p-value)
	Mean[SD]	Mean[SD]		Mean[SD]	Mean[SD]	
Total CAS IPV Score	33.89(21.9)	28.95(12.88)	2.521(0.012)*	35.18(22.8)	26.39(12.8)	4.23(<0.001)*
Severe Combined Violence	5.61(4.51)	5.19(3.21)	0.979(0.328)	5.62(4.8)	4.24(3.1)	3.07(0.002)*
Physical Violence	8.12(6.49)	11.63(3.11)	-6.325(<0.001)*	8.17(7.2)	10.36(3.4)	-3.59(<0.001)*
Emotional Violence	14.33(9.53)	10.66(6.68)	4.088(<0.001)*	15.69(10.6)	10.76(6.5)	5.23(<0.001)*
Harassment	5.91(3.77)	4.68(2.56)	3.516(0.001)*	5.49(3.5)	4.58(2.7)	2.79(0.006)*

\* Significant at 5% Level

### **4.3.3 Other Acts of GBV by Intimate and Non-Partners at Baseline**

The intervention group reported significantly lower recent economic violence (being chased away from home by an IP) compared to the usual ANC group,  $p= 0.020$ , but a significantly higher prevalence of physical violence by a non-partner,  $p=0.013$ . The groups did not differ in terms of recent perpetration of violence against an IP by the respondents. The proportion of women reporting current acts of violence such as partner's refusal to use a condom ( $p= 0.003$ ) and physical violence by a non-partner ( $p=0.014$ ) was significantly higher in the intervention group compared to the usual care group. The groups, however, did not differ in other forms of current abuse by IP and non-partners, Table 4.9.

**Table 4.9: Other Acts of GBV by Intimate and Non-Partners at Baseline**

<b>Acts of Violence</b>	<b>Recent</b>			<b>Current</b>		
	<b>Usual ANC Group (n=142)</b>	<b>Intervention Group (n=141)</b>	<b>p-value</b>	<b>Usual ANC Group (n=142)</b>	<b>Intervention Group (n=141)</b>	<b>p-value</b>
<b>By Intimate Partner</b>	<b>Yes (%)</b>	<b>Yes (%)</b>		<b>Yes (%)</b>	<b>Yes (%)</b>	
Refused to use a condom	104(73.2)	115(81.6)	0.092	105(73.9)	124(87.9)	0.003*
Tried to force me to get pregnant	35(24.6)	40(28.4)	0.470			
Neglected financially	101(71.1)	99(70.2)	0.868	101(71.1)	110(78.0)	0.184
Chased from home	83(58.5)	63(44.7)	0.020*	67(47.2)	54(38.3)	0.131
<b>By Other Persons</b>						
Sexual abuse	14(9.9)	20(14.2)	0.267	10(7.0)	19(13.5)	0.072
Physically abuse	22(15.5)	39(27.7)	0.013*	15(10.6)	30(21.3)	0.014*
<b>Respondent's Perpetration of Physical Violence</b>	9(6.3)	9(6.4)	0.973	7(4.9)	3(2.12)	0.201

\* Significant at 5% Level

#### **4.3.4 Antepartum Depression at Baseline**

The usual ANC and intervention groups did not differ significantly in the proportions with depression score  $\geq 13$ , 72.78%, 95% CI [66.9-80.5] versus 65.27%, 95% CI [56.9-72.5], respectively. The mean depression scores ( $p= 0.32$ ) in the two groups did not differ significantly at baseline. The usual ANC group had a mean depression score of 15.58, SD=3.74 versus 14.07, SD=4.27 in the intervention group, Table 4.10.

#### **4.3.5 General Health at Baseline**

The mean general health scores in the two groups did not differ significantly at baseline ( $p= 0.28$ ). The usual ANC group had a mean general health score of 23.31, SD=14.6 versus 24.91, SD=12.2 in the intervention group, Table 4.10.

#### **4.3.6 Adjusted Safety Behaviors Performed at Baseline**

The mean adjusted safety behaviors performed at baseline were significantly higher in the usual ANC group 5.18, SD=1.9 versus 4.64, SD=1.6 for the intervention group,  $p= 0.006$ , Table 4.10.

**Table 4.10: Antepartum Depression, General Health and Adjusted Safety Behaviours at Baseline**

Measure	Baseline		
	Usual ANC Group, n=142	Intervention Group, n=141	t (p-value)
<b>EPDS Score</b>			
Total EPDS	15.58(3.74)	14.07(4.27)	1.00(0.32)
<b>RAND 36-Item</b>			
General health	23.31(14.6)	24.91(12.2)	1.09(0.28)
<b>Adopted Safety Behaviours</b>			
Adjusted Total Behaviors Performed	5.18(1.9)	4.64(1.6)	2.79(0.006)*

\* Significant at 5% Level

#### **4.3.7 Specific Safety Behaviors Performed at Baseline**

The two most prevalent safety behaviors in both groups at baseline were having available a national identity card and important phone numbers. All the safety behaviours were performed by similar proportions in both groups at baseline except for establishing a code with trusted family/friend which was reported by 23.4% in the usual ANC and 34.3% in the intervention group, and asking neighbours for help in case of violence reported by 21.9% in the usual ANC and 5.7% in the intervention group, Table 4.11.

**Table 4.11: Percentage of Women who Performed Specific Safety Behaviours at Baseline**

<b>Safety Behavior</b>	<b>Usual ANC Group (n=142)</b>		<b>Intervention Group (n=141)</b>	
	<b>Behavior applicable to;</b>	<b>Yes (%)</b>	<b>Behavior applicable to;</b>	<b>Yes (%)</b>
Saved/kept Money	140	56(40.0)	139	68(48.9)
Kept an extra set of house keys	135	63(46.7)	133	60(45.1)
Established a code with trusted family or friends	137	32(23.4)	140	48(34.3)
Asked for neighbors' help/asked them to call police if violence begins	137	30(21.9)	140	8(5.7)
Removed/hid weapons from/in the house	136	56(41.2)	140	50(35.7)
<b>Had available</b>				
Birth certificates(own and child(ren)	137	64(46.7)	126	66(52.4)
My national identity card	137	119(86.9)	137	115(83.9)
Bank account numbers	49	11(22.4)	55	14(25.5)
Insurance policy numbers(NHIF)	92	18(19.6)	45	7(15.5)
Marriage Certificate	29	5(17.2)	25	3(12.0)
Something valuable that I could sell	129	30(23.3)	134	21(15.7)
Important phone numbers	141	91(64.5)	138	101(73.2)
A hidden bag with extra clothing	140	26(18.6)	140	22(15.7)

## **4.4 Effect of the Psychosocial Intervention**

### **4.2.1 IPV Post Intervention**

Table 4.12 summarizes the mean total IPV scores and scores for the four IPV subscales post-intervention. After adjusting for baseline scores, there was a significant difference between the psychosocial intervention and the usual ANC groups in the mean total IPV score and physical violence scores, with a small effect size of partial eta = 0.196 and 0.305, respectively. A strong relationship between the pre-intervention and post-intervention total IPV and physical violence scores was also established, partial squared eta = 0.824 and 0.724, respectively. The difference in the post-intervention subscale scores for severe combined violence, emotional violence, and harassment was significant after adjustment for pre-intervention scores ( $p<0.001$ ) but the effect sizes were very small (Table 4.12). A strong relationship between the pre and post-intervention scores in all the subscales was established; severe combined violence (partial squared eta=0.819), emotional violence (partial squared eta=0.770) and harassment partial squared eta=0.758).

### **4.4.2 Antepartum Depression Post Intervention**

Depression scores declined in both groups between the baseline and the end of the study. The intervention group had a significantly lower mean depression score compared to the usual ANC group post-intervention,  $F (1,280) = 106.25$ ,  $p < 0.001$ , with a medium between the groups effect size (ES) of 0.500, Table 4.12.

### **4.4.3 General health Post Intervention**

A general trend of increase in mean general health scores in both groups between the baseline and the end of the study was evident, with higher percentage increases observed in the intervention group. The intervention group had a significantly higher mean general health score ( $p<0.001$ ) post-intervention compared to the usual ANC group. The

magnitude of the intervention effect on general health was small ( $ES=0.252$ ), Table 4.12.

#### **4.4.4 Adjusted Safety Behaviours Performed Post Intervention**

There was an increase in the mean adjusted safety behaviors performed by both groups between the baseline and the end of the study. The intervention group had a significantly higher mean adjusted safety behaviors ( $p<0.001$ ), post-intervention compared to the usual ANC group. The magnitude of the intervention effect on adoption of safety behaviors was medium ( $ES=0.611$ ), Table 4.12.

**Table 4.12: Mean IPV, Antepartum Depression, General Health and Adjusted Safety Behaviours Post Intervention**

CAS Measure	Intervention Group, n=141	Usual ANC Group, n=142	Between Groups Difference	F(df)	Partial Eta Squared
Total IPV	17.70(11.12)	31.22(20.17)	13.51*	79.98(1,280)	0.196
<b>CAS Subscales</b>					
Severe Combined violence	2.79(2.78)	4.51(4.24)	1.72*	15.78(1,280)	0.046
Physical violence	5.20(3.45)	6.76(5.8)	1.57*	144.2(1,280)	0.305
Emotional violence	8.52(5.56)	14.57(9.43)	6.09*	27.80(1,280)	0.078
Harassment	3.90(2.59)	5.55(3.24)	1.65*	30.81(1,280)	0.086
<b>EPDS Score</b>					
Total EPDS	5.34(4.23)	12.46(4.22)	7.12*	106.25(1,280)	0.500
<b>RAND 36-Item</b>					
General health	40.03(8.32)	27.36(16.71)	-12.67*	111.11(1,280)	0.252
<b>Adopted Safety Behaviors</b>					
Adjusted Total Behaviors Performed	8.82(2.34)	5.56(2.03)	3.26*	52(1,280)	0.611

**\*Mean difference significant at 5% Level**

#### **4.4.5 Other Acts of GBV by Intimate and Non-Partners Post Intervention**

The proportions of those reporting other acts GBV by intimate and non-partners in the intervention group at the end of the study was slightly lower compared to the same at baseline. However, the proportions reporting these acts did not differ significantly between the two groups post-intervention, Table 4.13.

**Table 4.13: Other Acts of GBV by Intimate and Non-Partners Post Intervention**

<b>Acts of Violence</b>	<b>Intervention Group (n=141)</b>	<b>Usual ANC Group (n=142)</b>	<b>Chi-Square (df=1)</b>	<b>p-value</b>
<b>By Intimate Partners</b>	<b>Yes (%)</b>	<b>Yes (%)</b>		
Refusal to use condom	122(86.5)	115(81.0)	1.566	0.211
Neglected financially	107(75.8)	106(74.6)	0.054	0.816
Chased from home	41(29.1)	48(33.8)	0.722	0.395
<b>By Other Persons</b>				
Sexual violence	8(5.67)	6(4.22)	0.315	0.574
Physical violence	26(18.4)	18(12.7)	1.745	0.187
<b>Respondent's Perpetration of Physical Violence against an Intimate Partner</b>	<b>2(1.42)</b>	<b>6(4.22)</b>	<b>2.013</b>	<b>0.156</b>

\* Significant at 5% Level

#### **4.4.6 Specific Safety Behaviours Performed Post Intervention**

More women in the intervention arm compared to those in the usual ANC were more likely to save money, establish a code with trusted family/ friend, remove weapons, have available birth certificates, National Hospital Insurance Fund cards (NHIF), important phone numbers and a hidden bag with extra clothes at the end of the study.

There was an increase from 5.7% at baseline to 22.9% post-intervention of the women in the intervention arm who were likely to ask a neighbor for help or ask them to call the

police if violence started. However when compared to other safety behaviors, the proportion likely to ask a neighbor for help remained small, 22.9% in the intervention and 22.6% in the usual ANC arm, relative to the number of participants to whom the behavior was applicable. In the usual ANC arm, slight but notable increase in the performance of safety behaviors occurred for 11 out of the 13 behaviors at the end of the study. There was a positive association of medium strength ( $\phi= 0.3$ ) between the type of care and adoption of two safety behaviours; establishing a code with trusted family or friend and keeping hidden a bag with extra clothing. A positive albeit weak association was established between the type of care and the adoption of five other safety behaviours, Table 4.14.

**Table 4.14: Percentage of Women who Performed Specific Safety Behaviours Post Intervention**

Safety Behavior	Intervention Group (n=141)		Usual ANC Group (n=142)		Chi-Square p-value	<i>Phi</i> ( $\phi$ )
	Behavior Applicable to	Yes (%)	Behavior Applicable to	Yes (%)		
Saved/kept Money	139	78(56.1)	140	62(44.3)	0.048*	0.1
Kept Extra set of house keys	133	69(51.9)	135	67(49.6)	0.699	
Established a code with trusted family or friends	140	73(52.1)	137	33(24.1)	<0.001*	0.3
Asked for neighbors' help/asked them to call police if violence begins	140	32(22.9)	137	31(22.6)	0.952	
Removed/hid weapons from the house	140	86(61.4)	136	63(46.3)	0.011*	0.2
<b>Had available</b>						
Birth certificates(own and child(ren)	126	80(63.5)	137	54(39.4)	<0.001*	0.2
My national identity card	137	124(90.5)	137	121(88.3)	0.549	
Bank account numbers	55	19(34.5)	49	12(24.5)	0.068	
Insurance policy numbers (NHIF)	45	17(37.7)	92	20(21.7)	0.003*	0.2
Marriage Certificate	25	3(12.0)	29	5(17.2)	0.216	
Something valuable that I could sell	134	43(32.1)	129	32(24.8)	0.498	
Important phone numbers	138	119(86.2)	141	95(67.4)	0.0002*	0.2
A hidden bag with extra clothing	140	79(56.4)	140	33(23.6)	<0.001*	0.3

\* Chi-Square p-value Significant at 5% Level

## **CHAPTER FIVE**

### **DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Prevalence of GBV among Pregnant Women**

Forty two percent (42%) of the women in this study reported experiencing physical violence in the past year, an indication that a history of violence before pregnancy may be a strong predictor of violence during pregnancy. Thirty nine percent (39%) reported experiencing physical violence during pregnancy. This is high compared to the 9% prevalence of IPV during pregnancy reported from a population-based sample of ever-pregnant women (Government of Kenya & KNBS, 2015), but comparable to proportions reported in clinic-based studies of 42.3% in South Africa (Groves *et al.*, 2015) and 46.2% in Zimbabwe (Shamu *et al.*, 2013). Methodological differences often account for variations in the prevalence of GBV but clinic-based studies generally yield higher reporting compared to population-based samples (WHO, 2011, Abramsky *et al.*, 2011). Use of specific questions such as “have you ever been slapped, kicked, forced to perform sexual activities”, conducting interviews in private rooms nested in the ANC, research assistants’ friendly and active inquiry of GBV may have favoured higher disclosures. Research has shown that disclosure of partner violence is highly influenced by interviewer factors as well as privacy and context of the interview–factors that are more difficult to control in national surveys designed for other purposes [Abramsky *et al.*, 2011]. Physical violence was less common during pregnancy than during the past one year before pregnancy (39% vs 42%). This may have been due to partner’s fear of hurting the unborn baby or due to the cultural unacceptability of hurting a pregnant woman (Idoko *et al.*, 2015, Kataoka *et al.*, 2016). However, the findings of this study indicate that being pregnant does not necessarily protect a woman against IPV.

Violence in this study was self-reported and corroborating the information provided by the pregnant women with that of their intimate partners and other individuals from their communities without placing them at an elevated risk of violence was not possible. The possibility of intentional and/or inadvertent exaggeration was real but the likelihood of underreporting GBV exposure may have been even greater (Ntaganira *et al.*, 2008) due to self-blame and shame associated with GBV. Ninety-six percent (96.6%) of pregnant women in Kisumu County utilize ANC from qualified healthcare providers and the survey was done in 12 public primary health care facilities distributed across all the 6 sub-counties. Given that primary health care facilities are the most accessible to a majority of the Kenyan population, the survey captured a representative sample of the pregnant women in Kisumu County and not merely the abused pregnant women.

## **5.2 Factors Associated with GBV during Pregnancy**

Krug *et al.* (2002) explained an individual's exposure to violence to be the result of factors at the individual, relationship, community and society levels. This study is among the first in Kenya to adopt Krug's ecological model in the investigation of the factors associated with GBV during pregnancy in Kisumu County which has the highest prevalence of GBV among women of reproductive age in the country. An overall significant effect between age and GBV ( $\chi^2=9.65$ ,  $p=0.008$ ) was established in this study. Younger age has been reported as a risk factor for IPV in pregnant and non-pregnant women. The risk of IPV was higher in pregnant women married before the age of 15 years in Ethiopia (Yimer *et al.*, 2014), women aged 15-30 years (OR=1.84) in Rwanda (Rurangirwa *et al.* 2016), in adolescent (<20 years) compared to non-adolescents (> 20 years),  $p<0.0001$  in Nigeria (Fowole *et al.*, 2008), and in non-pregnant women aged 15-19 years (Abramsky *et al.*, 2011). In this study, an increase in age had a protective effect on GBV which was significant in the 23-26 years age group. Younger women  $\leq 22$  years may be less emotionally mature to handle relationships and are also often economically dependent on their husbands or spouses, which places them

in a position of vulnerability. Further, younger women may experience a stressful transition to parenthood which can trigger conflict and violence (UNICEF, 2009).

Men with a post-primary level of education in this study were less likely to abuse their partners ( $OR=0.39$ ). This may be the result of greater awareness of the health risks associated with violence and/or less economic stress because such are more likely to have better employment opportunities. Similar findings that women whose husbands or partners had more years of education were less likely to report violence in Kenya, Bangladesh, the Dominican Republic, Rwanda, and Zimbabwe have been documented (Hindin *et al.*, 2008). Higher educational level for husbands was also found to be associated with lower odds of a lifetime and recent IPV in India (Ackerson *et al.*, 2008).

There was a positive association between post-primary level of education and violence in the women ( $OR= 2.09$ ) in this study. Studies on the relationship between IPV and education level of women yielded mixed results. Whereas Silva *et al.*, (2015), Shiyun *et al.*, (2013) and Abramsky *et al.*, (2011) report low level of education in women as a risk factor for IPV, Olagbuji *et al.*, 2010 and Ezechi *et al.*, 2009 found no association between the education level and IPV. Vulnerability to GBV increases with economic disadvantage and education provides a woman with skills and knowledge and thus better opportunities for financial independence (Ackerson *et al.*, 2008). An economically independent woman can choose to leave an abusive husband or partner more easily than one who is not (Krishnan, 2005). Further, the knowledge that abusing an educated wife or partner could spur her to leave him may provide additional protection from abuse (Panda and Agarwal, 2005). Education however also changes a woman's attitudes towards abuse and as such educated women are unlikely to tolerate attitudes that favour IPV (Khar, 2017). This awareness of their rights and assertiveness can place them at risk of IPV particularly in a community where unequal social norms and beliefs that promote IPV exist. A qualitative study in Kisumu found transgression of gender norms to be a driver of IPV in pregnant women (Hatcher *et al.*, 2013). This might explain the observed positive association between IPV and having post-primary education in women in this study.

An association between occasional alcohol use by an intimate partner and IPV (OR=2.48) was established in this study, which is consistent with findings in other studies (Yimer *et al.*, 2014, Olagbuji *et al.*, 2010, Ntaganira *et al.*, 2009, Ntaganira *et al.*, 2008). Having an intimate partner who drinks ‘2-3 times per week’ or drinks ‘heavily’ was associated with two and three-fold increase in IPV respectively (Yimer *et al.*, 2014). ‘Occasional’ drinking, OR=3.85 and ‘heavy’drinking, OR=2.52 increased likelihood of IPV in pregnant women (Ntaganira *et al.*, 2009). The influence that alcohol use by male partners has on IPV can be complex. Intoxication can result to irresponsible behavior like violence and the dis-inhibition associated with it may result in a low threshold to violence as well as impaired judgment (Yimer *et al.*, 2014, Ntaganira *et al.*, 2008). In this study women whose husbands or partners consumed alcohol ‘sometimes’ were more likely to report IPV. This may be because some men occasionally drink alcohol in order to ‘hide’ behind the drunkenness to engage in violence against their partners (Ntaganira *et al.*, 2008). Research using real and mock alcoholic beverages showed that people who believed they had consumed alcohol acted more aggressively, regardless of whether they had consumed an alcoholic beverage or not (Bushman, 1997).

Witnessing violence (OR=3.80), an experience of physical violence since the age of 15years (OR=13.11) and a history of sexual violence (OR=4.20) were associated with increased violence in this study. Although studies measure the history of violence as well as the types differently, there is strong evidence that a history of violence is positively associated with GBV in adult life (Abramsky *et al.*, 2011, Shamu *et al.*, 2011, Yimer *et al.*, 2014). Women who had a history of violence (witnessing violence or experiencing violence as a child) were more likely to report violence in a Multi-country study (Abramsky *et al.*, 2011). The Odds Ratio for women who reported witnessing violence ranged between 1.7 -2.7 and that of those who had experienced any form of violence as a child ranged between 1.4 -23.9 in all the study sites (*Ibid*). The association between having a history of violence (witnessing or having been exposed to physical or sexual violence) and increased risk of IPV during pregnancy can be explained by the

normalization of violence as an adult and learned subordination (Shamu *et al.*, 2011). It may also be an indication that violence is a learned behavior that is passed from generation to generation (Toufique *et al.*, 2007), meaning that GBV interventions need to address childhood abuse and respond appropriately to children who have witnessed or have been victims of violence (Abramsky *et al.*, 2011).

An association between male dominance in decision making and increased risk of GBV was established in this study. The patriarchal social system makes male dominance in decision making commonplace (Samuels *et al.*, 2012) and women are perceived as ‘insubordinate’ when they make decisions without ‘consulting’ the partners or husbands. Violence is often meted on such women as a way of ‘instilling discipline’. Hindin *et al.*, (2008) found women who did not consult their intimate partners in health care decisions were more likely to experience IPV. A study in Kenya reported IPV in pregnant women who agreed to routine HIV testing without consulting their husbands or partners (Hatcher *et al.* 2013), while another in Zimbabwe (Shamu *et al.*, 2011) reported an increased risk of violence in pregnant women who conceived without ‘consulting’ their husband or partners.

Infidelity by the man ( $OR=9.90$ ) or the woman ( $OR=4.33$ ) was associated with increased violence in this study like in a similar study done in Rwanda (Ntaganira *et al.*, 2008), where pregnant women whose husbands or partners had another wife or sexual partners were more likely to report IPV ( $OR=2.18$ ). Sexual risk factors such as having a partner with multiple sexual partners ( $OR\ 1.53$ ) (*Ibid*), and having sex with another man whilst in marriage,  $OR=2.80$ , (Karamagi *et al.*, 2006) have also been positively associated with experiencing IPV.

Strong community sanctions against GBV protected against violence in this study. Evidence has shown that community-based approaches for the prevention of GBV emphasizing respect for rights especially those of women and children and encouraging individuals to speak out and act to prevent violence have the potential to prevent GBV (Raising Voices, 2005, Jewkes *et al.*, 2007). Ease of access to legal help for GBV was

also associated with reduced GBV in this study suggesting that a perceived potential of legal action against GBV perpetrators may act as a deterrent to violence. The association established between certain beliefs with increased GBV in this study is an indication of the important influence that societal norms and beliefs have on individuals' behavior. Primary interventions must thus, go beyond the individual to challenge norms and beliefs that perpetuate violence.

### **5.3 Effect of the Psychosocial Intervention on GBV and Antepartum Depression**

The follow-up phase of this study is among the first in Kenya to investigate the effect of a psychosocial intervention for abused pregnant women in a primary health care setting. The interventionists were trained community health volunteers supported by the lead and co-investigators and two professional counselors (experienced in GBV). Utilization of non-professionals to deliver the intervention was informed by the human resource constraints particularly counselors experienced in GBV in primary health care facilities in Kenya. Some studies used community workers (Matseke and Peltzer, 2013), social workers (Cocker *et al.*, 2012, Cripe *et al.*, 2010) or mentor mothers (Taft *et al.*, 2011, Prosman *et al.*, 2014) to deliver interventions aimed at reduction in IPV, improvement of safety and wellbeing. This approach is supported by growing evidence that non-professional befriending models have their role in the spectrum of professional and non-professional responses to GBV (Taft *et al.*, 2011).

The high response rate in the follow-up phase was an indication that clients are willing to disclose and speak about their experiences of violence in a safe and non-judgemental environment where they are treated with dignity and respect, contrary to the assumption that getting women to disclose violence is difficult. The response rate shows that clients can talk to health care providers about GBV if the latter play an active role in the disclosure of violence (Sarkar, 2008). It also points to the potential role that primary health care facilities can play in the identification and management of GBV during pregnancy (Devries *et al.*, 2010).

Exposure to violence before and during pregnancy by intimate partners and non-partner was found to be common hence the need to accord GBV priority when addressing the health care needs of pregnant women. A facility-based study in rural Kisumu found the integration of GBV services into ANC acceptable and feasible to both healthcare providers and users (Turan *et al.*, 2013).

Both groups showed a reduction in scores for mean total IPV, severe combined violence, physical and emotional violence as well as harassment post-intervention, but the reduction was much higher in the intervention group. The psychosocial intervention arm had a small but not negligible effect on total IPV ( $ES=0.2$ ) and physical violence scores ( $ES=0.3$ ). This finding indicates that the intervention had beneficial effects of lowering the mean scores of the total and physical IPV. Evidence from the few existing interventions which quantified the intervention effect on IPV during pregnancy reported findings in favour of the intervention like a reduction in IPV scores (Matseke and Peltzer, 2013, Prozman *et al.*, 2014), reduction in the proportion of women reporting violence (Kiely *et al.*, 2010), reduction in minor physical violence (Tiwari *et al.*, 2005) or a declining trend of IPV (Taft *et al.*, 2011; Coker *et al.*, 2012). The effect of the intervention on severe combined violence, emotional violence, and harassment, produced negligible effect sizes. The intervention spanned a period of 4 months and the last interview was conducted immediately after the last psychosocial session. Given that ending violence can be a long-term and complex process (Khaw & Hardesty, 2007) it is possible that the relatively short duration between the psychosocial sessions and the post-intervention interview contributed to the failure to find meaningful effects in the 3 IPV subscales. A recent systematic review of interventions to reduce IPV in women reported a pooled point estimate indicative of a non-significant interventions' effect on emotional abuse (Rivas *et al.*, 2016).

There was a general reduction in the proportion of those reporting other forms of IPV and non- partner violence in both groups post-intervention although these proportions did not differ significantly between groups. Although the intervention group was encouraged to save money and consider acquiring valuables that could be sold to take

care of household needs, this would take time considering that abusive partners often deprive their victims of finances so as to maintain a cycle of dependency. Reducing economic violence may, therefore, require elaborate approaches that target economic empowerment. Approaches targeting norms, beliefs and other gender-related inequalities in the wider community known to contribute to physical and sexual violence by non-partners are potential components in primary prevention which can complement facility-based efforts.

The psychosocial intervention group had significantly lower mean depression scores post-intervention with a substantial effect size of 0.5. GBV during pregnancy has been associated with antepartum depression (Mahenge *et al.*, 2013; Nasreen *et al.*, 2011; Melville *et al.*, 2010; Lancaster *et al.*, 2010), and many abused women often suffer in silence and self-blame. The psychosocial intervention offered women a rare opportunity to have someone validate their feelings, encourage and listen to them in an empathetic and non-judgmental environment. The cathartic effect of releasing pent-up tension (Tiwari *et al.*, 2005) may explain the reduction in antepartum depression in this study. The safety component of the intervention may have resulted in increased self-efficacy which in turn reduced the sense of helplessness and despair associated with antepartum depression. Further, knowing that GBV affects a substantial number of other pregnant women and the sense of increased support may have borne relief besides reducing the feeling of stigma and isolation associated with poor QoL and mental health. Significant differences in depressive symptoms between the intervention and control groups have been reported in studies which utilized advocacy and empowerment. Cocker *et al.* (2012) reported lower depression scores in the intervention group (that received support and linkage to community services) compared to the control group at 24 months of follow up,  $F=3.10$ ,  $p=0.01$ . Tiwari *et al.* (2005) found fewer women (9) in the empowerment intervention group to have a depression score of  $\geq 10$ , compared to 25 women in the control group. A trend of declining depression scores was also reported in a study utilizing mentor-mothers to provide support to abused women (Taft *et al.*, 2011).

## **5.4 Effect of the Psychosocial Intervention on Perceived General Health and Adoption of Safety Behaviours**

This study found the intervention group to have a significantly higher mean general health score compared to the usual ANC group post-intervention, with an effect size of 0.3. This shows that the psychosocial intervention had a positive effect on improving participants' perception of their general health. Evidence of interventions' effect on the quality of life from past studies reported mixed results. A Hong Kong study (Tiwari *et al.*, 2005) found an empowerment intervention to be beneficial in improving physical functioning and reducing role limitation due to physical and emotional problems but not effective in improving participants' perception of their general health (*Ibid*). Taft *et al.* (2011), Cocker *et al.* (2012) and Cripe *et al.* 2010 did not establish significant differences between the intervention and control groups in the general health outcome. The difference in the intensity of the intervention, a single 30 minutes session in Tiwari *et al.* (2005) and Cripe *et al.* (2010) versus three 30-35 minutes sessions in this study might explain the significantly higher mean general health score in this study. The mentor mother intervention by Taft *et al.* (2011) acknowledged a potential selection bias due to the low numbers in the control group compared to the intervention arm which may have had an impact on the sample size and hence the power to show better evidence for the intervention effect.

The ability to take steps to enhance the safety of the pregnant and that of her unborn child is critical in abusive environments. This study reports a substantial increase in the proportions adopting safety behaviors in the intervention arm post-intervention, and a slight increase in the proportions adopting 11 out of the 13 behaviors in the usual ANC arm. Overall, the mean adjusted safety behaviors adopted by the intervention arm was higher with a medium effect size (ES =0.61). This means that 61% of the observed difference in the mean adjusted safety behaviors adopted was attributable to the intervention. This finding is in line with that by McFarlane *et al.* (2000) who found safety planning to contribute substantially to the adoption of safety behaviors (McFarlane *et al.*, 2002). Although the research assistants did not assume the role of an

advisor, the face to face interaction with the participants allowed for a more candid assessment of the potential risks and the benefits of adopting the safety behaviors and this may have had a positive effect on their perceived ability to adopt and maintain the behaviours. Significantly higher proportions in the intervention group saved money, established a code with trusted family and friends, removed weapons, kept vital documents, phone numbers and had a bag with extra clothing. This shows that women in an abusive relationship can, if sensitized, adopt behaviors that enhance their safety and that of the unborn children. The low proportion (less than a quarter) of those who reported asking for neighbors' help or asking them to call police in case violence began may be indicative of the entrenched sense of self-blame and stigma associated with GBV in the community.

This study investigated the effect of a psychosocial intervention, compared to usual ANC, on GBV, antepartum depression, perceived general health, and adoption of safety behaviors irrespective of the number of psychosocial sessions the participants received. This is because the research assistants could not be overly persistent in their attempts to negotiate appointments for participants who missed their ANC visits and by extension the psychosocial support session due to safety reasons. Majority of the participants in the intervention arm (77%) however, completed all 3 supportive sessions, 16% completed 2 sessions and 7% completed one session before taking the last interview. Similar studies with pregnant women (Cripe *et al.*, 2010, Tiwari *et al.*, 2005) reported delivering one 30 minutes session of the intervention before the post-intervention interview. The attendance rate recorded for the intervention in this study was commendable considering the percentage (59%) of pregnant women in the county who manage to make at least four ANC visits during pregnancy (Government of Kenya and KNBS, 2015).

## **5.5 Conclusion and Recommendations**

### **5.5.1 Conclusion**

GBV during pregnancy in Kisumu County is high, particularly violence perpetrated by intimate partners. The risk factors for increased GBV were found to be related to individual characteristics of the women and their partners, decision making and infidelity as well as beliefs that influence a woman's attitude and response to GBV.

The ANC based psychosocial intervention had the beneficial effect of lowering the total IPV, physical IPV, and antepartum depression scores and improving abused women's perception of their general health. It also increased the mean adjusted safety behaviours adopted. The intervention did not produce meaningful effects in the reduction of severe combined violence, emotional violence, harassment, acts of GBV by intimate partners (refusal to use a condom and economic violence) and non-partner physical and sexual violence.

### **5.5.2 Recommendations**

The County Government of Kisumu in collaboration with other stakeholders needs to engage in advocacy against GBV and come up with systematic community-led initiatives such as community and school workshops to promote changes in social norms, beliefs and behavior that promote gender inequality hence GBV against women in general and pregnant women.

Feasibility and acceptability of integrating GBV services into ANC in Kisumu County have already been established (Turan *et al.*, 2013). The high prevalence of GBV among pregnant women in Kisumu County points to an urgent need to routinely screen pregnant women attending ANC for GBV in order to identify those experiencing violence for follow up support and care.

In the context of human resource constraints, trained GBV advocates (community workers and volunteers) can be used to engage with abused women to offer psychosocial support, empower them and link them with community services including available psychological interventions.

In order to strengthen the evidence base for advocacy and stimulate a vibrant national policy in the area GBV during pregnancy, there is the need for more information from a nationally representative sample of pregnant women, on the prevalence and risk factors for GBV during pregnancy. Further research can be conducted to assess whether extending the psychosocial intervention into the postpartum period can produce better benefits.

## REFERENCES

- Abramsky, T., Devries, K., Kiss, L., Nakuti, J., Kyegombe, N., Starmann, E., & Watts, C. (2014). Findings from the SASA! Study: A cluster randomized controlled trial to assess the impact of a community mobilization intervention to prevent violence against women and reduce HIV risk in Kampala, Uganda. *BMC Medicine*, 12, 122.
- Abramsky, T., Watts, C.H., Garcia-Moreno, C., Devries, K., Kiss, L., Ellsberg, M., Jansen, H.A & Heise, L. (2011). What factors are associated with recent intimate partner violence? Findings from the WHO multi-country study on women's health and domestic violence. *BMC Public Health*, 11, 109.
- Ackerson, L. K., Kawachi, I., Barbeau, E. M., & Subramanian, S. V. (2008). Effects of Individual and Proximate Educational Context on Intimate Partner Violence: A Population-Based Study of Women in India. *American Journal of Public Health*, 98(3), 507–514. <http://doi.org/10.2105/AJPH.2007.113738>
- Alhabib, S., Nur, U., & Jones, R. (2009). Domestic Violence against Women: Systematic Review of Prevalence Studies. *Journal of Family Violence*, 25, 369–382.
- Anderson, A. (2005). *The Community Builder's Approach to Theory of Change: A Practical Guide to Theory Development*. New York: The Aspen Institute Roundtable on Community Change.
- Andersson, N., Cockcroft, A., & Shea, B. (2008). Gender-based violence and HIV: relevance for HIV prevention in hyperendemic countries of southern Africa. *AIDS*, 22(Suppl.4), S73–S86.

- Antoniou, E., Vivilaki, V., & Daglas, M. (2008). Correlation of Domestic Violence during Pregnancy with Postnatal Depression: Systematic Review of Bibliography. *Health Science Journal*, 2(1), 15-19.
- Arango, D.J., Morton, M., Gennari, F., Kiplesund, S., & Ellsberg, M. (2014). *Interventions to Prevent or Reduce Violence Against Women and Girls: A Systematic Review of Reviews*. Washington, DC.: World Bank
- Asling-Monemi, K., Peña, R.M.C., & Persson, L.A. (2003). Violence against women Increases the risk of infant and child mortality: a case-referent study in Nicaragua. *Bulletin of the World Health Organization*, 81(1), 10–16.
- Auerbach, J.D., Parkhurst, J.O., & Caceres, C.F. (2011). Addressing social drivers of HIV/AIDS for the long-term response: conceptual and methodological considerations. *Global Public Health*, 6(Suppl. 3), 293–309.
- Australian Bureau of Statistics (2006). *Census Community Profile Series: Victoria (electronic), in Community Profile Series*. Commonwealth of Australia, Canberra: Australian Bureau of Statistics.
- Ayodapoa, A.O., Sekonib, O.O., & Asuzu, M.C., (2017). Pattern of intimate partner violence disclosure among pregnant women attending ante-natal clinic in Oyo East Local Government, Nigeria. *South African Family Practice*, 59(2), 67–71.
- Babyak, M.A. (2004). What You See May Not Be What You Get: A Brief, Nontechnical Introduction to over fitting in Regression-Type Models. *Psychosomatic Medicine*, 66, 411–421.
- Bacchus, L., Mezey, G., & Bewley, S.A. (2006). Qualitative exploration of the nature of domestic violence in pregnancy. *Violence against Woman*, 12(6), 588–604.

- Bair-Merritt, M., Jennings, J., Chen, R., Burrell, L., McFarlane, E., Fuddy, L., & Duggan, A. (2010). Reducing maternal intimate partner violence after the birth of a child. A randomized controlled trial of the Hawaii healthy start home visitation program. *Archives of Pediatrics & Adolescent Medicine*, 164(1), 16-23.
- Bakas, T., McLennan, S. M., Carpenter, J. S., Buelow, J. M., Otte, J. L., Hanna, K. M., & Welch, J. L. (2012). Systematic review of health-related quality of life models. *Health & Quality Life Outcomes*, 10(1), 134. Retrieved from: <http://dx.doi.org/10.1186/1477-7525-10-134>
- Bamiwuye, S.O., & Odimegwu, C. (2014). *Reproductive Health*. Retrieved from: <http://www.reproductive-health-journal.com/content/11/1/45>
- Barker, G., & Ricardo, C. (2005). Young men and the construction of masculinity in Sub-Saharan Africa: *Implications for HIV/AIDS, conflict and violence. Conflict prevention and reconstruction*. Washington D.C. World Bank
- Bond, V., Chase, E., & Aggleton, P. (2002). Stigma, HIV/AIDS and prevention of mother-to-child transmission in Zambia. *Evaluation and Program Planning*, 25, 347–356.
- Bonomi, A.E., Thompson, R.S., Anderson, M., Reid, R.J., Carrell, D., Dimer, J.A., & Rivara, F.P. (2006). Intimate partner violence and women's physical, mental, and social functioning. *American Journal of Preventive Medicine*, 30, 458–466.
- Bott, S., Morrison, A., & Ellsberg, M. (2005). Preventing and responding to gender-based violence in middle and low-income countries: A global review and analysis. Working Paper.

- Brown, S.J. (2012). Fecal incontinence during the first 12 months postpartum: complex causal pathways and implications for clinical practice. *Obstetrics & Gynecology*, 119(2, Part 1), 240–249.
- Bushman, B.J., (1997). *Effects of alcohol on human aggression: Validity of proposed explanations*. In Recent Developments in Alcoholism (Vol.13. Pp 227-243). New York: Plenum Press.
- Calderon, S.H., Gilbert, P., Jackson, R., Kohn, M.A., & Gerbert, B. (2008). Cueing prenatal provider's effects on discussions of intimate partner violence. *American Journal of Preventive Medicine*, 34(2), 134–7.
- Campbell, J.C., & Soeken, K., (1999). Women's responses to battering over time: an analysis of change. *Journal of Interpersonal Violence*, 14(1), 21–40.
- Chang, J.C., Dado, D., Ashton, S., Hawker, L., Cluss, P.A., & Buranosky, R. (2006). Understanding behavior change for women experiencing intimate partner violence: mapping the ups and downs using the stages of change. *Patient Education and Counseling*, 62, 330-339.
- Chirawu, S. (2006). Till Death Do Us Part. Marriage, HIV/AIDS and the Law in Zimbabwe. *Cardozo Women's Law Journal*, 13, 23–50.
- Cocker, A.L., Smith, P.H., Whitaker, D.J., Le, B., Crawford, T.N., & Flerx, V.C. (2012). Effect of an in-clinic IPV advocate intervention to increase help seeking, reduce violence and improve well-being. *Violence against Women*, 18(1), 118-31.
- Cox, J.L., Holden, J.M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782-786.

- Cripe, S.W., Sanchez, S., Sanchez, E., Quintanilla, B.A., Alarcon, C.H., Gelaye, B., & Williams, M.A. (2010). Intimate Partner Violence (IPV) During Pregnancy: A Pilot Intervention Program in Lima, Peru. *Journal of Interpersonal Violence*, 25(11), 2054–2076.
- Curry, M.A., Durham, L., Bullock, L., Bloom, T., & Davis, J. (2006). Nurse case management for pregnant women experiencing or at risk for abuse. *Journal of Obstetric Gynaecologic and Neonatal Nursing*, 35, 181–192.
- Daoud, N., Urquia, M.L., O'Campo, P., Heaman, M., Janssen, P.A. (2012). Prevalence of abuse and violence before, during, and after pregnancy in a national sample of Canadian women. *American Journal of Public Health*, 102, 1893–1901. DOI 10.2105/AJPH.2012.300843.
- Darlington, R.B. (1990). *Regression and Linear Models*. Columbus, OH: McGraw-Hill Publishing Company.
- Decker, M.R., Seage, G.R., Hemenway, D., Raj, A., Saggurti, N., Balaiah, D., & Silverman, J.G. (2009). Intimate partner violence functions as both a risk marker and risk factor for women's HIV infection: findings from Indian husband-wife dyads. *Acquired Immune Deficiency Syndrome*, 51(5), 593–600.
- Devries, K.M., Kishor, S., Johnson, S.H., Bacchus, S., Garcia-Moreno, C., & Watts, C. (2010). Intimate partner violence during pregnancy: analysis of prevalence data from 19 countries. *Reproductive Health Matters*, 18(36), 158–170.
- Dietz, P.M., Gazmararian, J.A., & Goodwin, M.M., (1997). Delayed entry into prenatal care: effect of physical violence. *Obstetrics and Gynaecology*, 90(2), 221–24.

- Dobash, R.P., Dobash, R.E., Wilson, M., & Daly, M. (1992). Myth of sexual symmetry in marital violence. *Social Problems*, 39(1), 71- 91.
- Dunkle, K.L., Jewkes, R.K., Brown, H.C., Gray, G.E., & McIntyre, J.A. (2004). Gender-Based Violence, Relationship Power, and Risk of HIV Infection in Women Attending Antenatal Clinics in South Africa. *Lancet*, 363(9419), 1415–1421.
- Dupont, W.D., & Plummer, W.D. (1990). Power and Sample Size Calculations: A Review and Computer Program. *Controlled Clinical Trials*, 11, 116-28.
- Dutton, M., (1992). *Empowering and Healing the Battered Woman; a Model for Assessment and Intervention*. New York: Springer Publishing Company.
- Eaton, L.A., Kalichman, S.C., Sikkema, K.J., Watt, M.H., Pieterse, D., & Pipitan, E. (2012). Pregnancy, Alcohol Intake, and Intimate Partner Violence among Men and Women Attending Drinking Establishments in a Cape Town, South Africa Township. *Journal of Community Health*, 37(1), 208–216.
- Efetie, E.R., & Salami, H.A. (2007). Domestic violence on pregnant women in Abuja, Nigeria. *Journal of Obstetrics and Gynaecology*, 27, 379–382.
- El Kady, D., Gilbert, W.M., & Xing, G. (2005). Maternal and neonatal outcomes of assault during pregnancy. *Obstetrics and Gynaecology*, 105(2), 357–63.
- Ellsberg, M.C., (2006). Violence against women: a global public health crisis. *Scandinavian Journal of Public Health*, 34, 1-4.
- Escriba-Aguir, V., Ruiz-Perez, I., Montero-Pinar, M.I., Vives-Cases, C., Plazaola-Castano, J., & Martin-Baena, D. (2010). Partner violence and psychological well-being: buffer or indirect effect of social support. *Psychosomatic Medicine*, 72, 383-389.

- Ezechi, O., Gab-Okafor, C., Onwujekwe, D., Adu, R., & Amadi, E. (2009). Intimate partner violence and correlates in pregnant HIV positive Nigerians. *Archives of Gynaecology and Obstetrics*, 280, 745–752.
- Fanslow, J., Silva, M., Robinson, E., & Whitehead, A. (2008). Violence during pregnancy: Associations with pregnancy intendedness, pregnancy-related care, and alcohol and tobacco use among a representative sample of New Zealand women. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 48, 398–404.
- Fanslow, J.L., & Robinson, E.M. (2010). Help-seeking behaviors and reasons for help seeking reported by a representative sample of women victims of intimate partner violence in New Zealand. *Journal of Interpersonal Violence*, 25, 929-951.
- Fawole, A.O., Hunyinbo, K.I., & Fawole, O.I. (2008). Prevalence of violence against pregnant women in Abeokuta, Nigeria. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 48, 405–414.
- Fawole, A.O., Hunyinbo, K.I., & Fawole, O.I. (2008). Prevalence of violence against pregnant women in Abeokuta, Nigeria. *Australian and New Zealand Journal of Obstetrics and Gynaecology*, 48, 405–414.
- Federer, G., Ramsay, J., Dunne, D., Rose, M., Arsene, C., & Norman, R. (2009). How far does screening women for domestic (partner) violence in different health-care settings meet criteria for a screening programme? Systematic reviews of nine UK National Screening Committee criteria. *Health Technology Assessment*, DOI: 10.3310/hta13160.
- Feseha, G., Mariam, A.G., & Gerbaba, M. (2012). Intimate partner physical violence among women in Shimelba refugee camp, northern Ethiopia. *BMC Public*

*Health*. 12(1), 125. Retrieved from: <https://doi.org/10.1186/1471-2458-12-125>.

Fiona, S., Nicola, J. Taveeshi, G. Anita, G., Rozina, K., Ruchira, T. Naved, K., & Yount, M. (2017). *Men and intimate partner violence Overseas* Blackfriars Road London: Development Institute.

Fox, N., Hunn, A., & Mathers, N. (2007). *Sampling and Sample Size Calculation*. The NIHR RDS for the East Midlands / Yorkshire & the Humber.

Frye, V., Ompad, D., Chan, C., Koblin, B., Galea, S., & Vlahov, D. (2011). Intimate partner violence perpetration and condom use-related factors: associations with heterosexual men's consistent condom use. *AIDS Behavior*, 15, 153–162.

Ganatra, B., Coyaji, K. & Rao, V. (1998). Too far, too little, too late: a community - based case control study of maternal mortality in rural west Maharashtra, India, *Bulletin of the World Health Organization*, 76(6), 591-598.

Garcia-Moreno, C., Jansen, H.A., & Ellsberg, M. (2005). *WHO Multi-Country Study on Women's Health and Domestic Violence against Women: initial results on prevalence, health outcomes and women's responses*. Geneva: World Health Organization.

García-Moreno, C., Jansen, H.A., Ellsberg, M. (2005). *WHO Multi-Country Study on Women's Health and Domestic Violence against Women: initial results on prevalence, health outcomes and women's responses*. Geneva: World Health Organization.

Garcia-Moreno, C., Jansen, H.A., Ellsberg, M., Heise, L., & Watts, C. (2006). Prevalence of intimate partner violence: finding from WHO multi-country study on women's health and domestic violence. *Lancet*, 368, 1260–1269.

- Gazmararian, J.A., Lazorick, A., Spitz, A.M., Ballard, T.J., Saltzman, L., & Marks, J.S. (1996). Prevalence of violence against pregnant women. *Journal of the American Medical Association*, 275, 1915–20.
- Gharacheh, M., Azadi, S., Mohammadi, N., Montazeri, S., & Khalajinia, Z. (2016). Domestic Violence during Pregnancy and Women's Health-Related Quality of Life. *Global Journal of Health Science*, 8(2), 27-34. DOI:10.5539/gjhs.v8n2p27.
- Golding, J.M. (1999). Intimate partner violence as a risk factor for mental disorders: a meta-analysis. *Journal of Family Violence*, 14(2), 99–132.
- Government of Kenya and Kenya National Bureau of Statistics (2015). *Kenya Demographic and Health Survey 2014*. Nairobi: KNBS.
- Government of Kenya and the County Government of Kisumu. (2013). *First County Integrated Development Plan 2013-2017*. Kisumu: County Government of Kisumu
- Greenfield, L.A., & Craven, D. (1998). *Analysis of data on crimes by current or former spouses, boyfriends, and girlfriends*. Violence by Intimates. Washington DC: US Department of Justice.
- Groves, A.K., Moodley, D., McNaughton-Reyes, L., Martin, S.L., Foshee, V., & Maman, S. (2015). Prevalence and rates of intimate partner violence among South African women during pregnancy and the postpartum period. *Maternal and Child Health Journal*, 19(3), 487–495. DOI:10.1007/s10995-014-1528-6.
- Hatch, S.L. (2005). Conceptualizing and identifying cumulative adversity and protective resources: implications for understanding health inequalities. *Journal of*

*Gerontology Series B Psychological Sciences and Social Sciences*, 60, 130-134.

Hatcher, A.M., Romito, P., Odero, M., Bukusi, E.A., Onono, M., & Turan, J.M. (2013). Social context and drivers of intimate partner violence in rural Kenya: implications for the health of pregnant women. *Culture, Health & Sexuality*, 15(4), 404–419.

Hegarty, K., Bush, R., & Sheehan, M. (2005). The composite abuse scale: further development and assessment of reliability and validity of a multidimensional partner abuse measure in clinical settings. *Violence Victims*, 20(5), 529-547.

Heise, L., & Garcia-Moreno, C. (2002). *Violence by intimate partners*. In *World Report on Violence and Health*. Edited by Krug E, Dahlberg LL, Mercy JA. Geneva. Switzerland: World Health organization.

Heise, L., Ellsberg, M. & Gottemoeller, M. (1999). *Ending violence against women*, *Population Reports, Series L No.11*. Baltimore, MD: Johns Hopkins University.

Hindin, M., Kishor, S., & Ansara, D. (2008). *Intimate partner violence among couples in 10 DHS countries: Predictors and health outcomes*. DHS Analytical Studies No 18. Calverton, MD: Macro International.

Holt, S., Buckley, H., & Whelan, S. (2008). The impact of exposure to domestic violence on children and young people: a review of the literature. *Child Abuse & Neglect*, 32(8), 797-810.

Hoque, M.E., & Kader, S.B. (2009). Prevalence and experience of domestic violence among rural pregnant women in KwaZulu-Natal, South Africa: original research. *Southern African Journal of Epidemiology and Infection*, 24, 34–37.

- Hosmer, D.W., Lemeshow, S., & Sturdivant, R.X. (2013). *Applied Logistic Regression*, (3<sup>rd</sup> ed.), New York: John Wiley and Sons, Inc.
- Humphreys, J., Tsoh, J.Y., Kohn, M.A., & Gerbert, B. (2011). Increasing Discussions of Intimate Partner Violence in Prenatal Care Using Video Doctor Plus Provider Cueing: A Randomized, Controlled Trial. *Womens Health Issues*, 21, 136–144.
- Idoko, P., Ogbe, E., & Jallow, O. (2015). Burden of intimate partner violence in The Gambia: a cross sectional study of pregnant women. *Reproductive Health*, 12, 34.
- Jahanfar, S., Howard, L.M., & Medley, N. (2014). Interventions for preventing or reducing domestic violence against pregnant women (Review). *Cochrane Database of Systematic Reviews*, 11. Article No.CD009414. DOI:10.1002/14651858.
- James, L., Brody, D. & Hamilton, Z. (2013). Risk Factors for Domestic Violence During Pregnancy: A Meta-Analytic Review. *Violence and Victims*, 28(3), 359-80
- Jasinski, J. (2004). Pregnancy and domestic violence a review of the literature. *Trauma, Violence and Abuse*, 5(1), 47-64.
- Jejeebhoy, S.J., Santhyaa, K.G., & Acharyaa, R. (2013). Physical and sexual violence and Symptoms of gynaecological morbidity among married young women in India. *Global Public Health*, 8(10). <http://www.tandfonline.com/loi/rgph20>
- Jewkes, R. (2002). Intimate partner violence: causes and prevention. *The Lancet*, 359(9315), 1423 29.

- Jewkes, R., Dunkle, K., Koss, M.P., Levin, J.B., Nduna, M., Jama, N., & Sikweyiya, Y. (2006). Rape perpetration by young, rural South African men: prevalence, patterns and risk factors. *Social Science Medicine*, 63, 2949–2961.
- Jewkes, R., Nduna, M., Levin, J., Jama, N., Dunkle, K., Wood, K., Koss, M., Puren, A., & Duvvury, N. (2007). Evaluation of Stepping Stones: a gender transformative HIV prevention intervention. Policy Brief. 2007. South Africa Medical Research Council. Pretoria. Retrieved from: <http://www.mrc.ac.za/policybriefs/steppingstones.pdf>.
- Jewkes, R., Nduna, M.N., Levin, J.L., Jama, N., Dunkle, K., Puren, A., & Duvvury, N. (2008). Impact of stepping stones on incidence of HIV and HSV-2 and sexual behaviour in rural South Africa: Cluster randomised controlled trial. *British Medical Journal*, 337, a506.
- Jewkes, R.K., Dunkle, K., Nduna, M., & Shai, N. (2010). Gender partner violence, relationship gender power inequity, and incidence of HIV infection in young women in South Africa: a cohort study. *The Lancet*, 367, 41–48.
- Johnson, H., Ollus, N., & Nevala S. (2007). *Violence against Women: An International Perspective*. New York: Springer.
- Karamagi, C.A., Tumwine, J.K., Tylleskar, T., & Heggenhougen, K. (2006). Intimate partner violence against women in eastern Uganda: implications for HIV prevention. *BMC public health*, 6, 284.
- Kataoka, Y., Imazeki, M., & Shinohara, E. (2016). Survey of intimate partner violence before and during pregnancy among Japanese women. *Japan Journal of Nursing Science*, 13:189–95.

- Kaye, D. (2004). Gender inequality and domestic violence: implications for human immunodeficiency virus (HIV) prevention. *African Health Science*, 4(1), 67–70.
- Kaye, D., Bantebya, G., Kaye, D., & Mirembe, F. (2002). Risk factors, nature and severity of domestic violence among women attending antenatal clinic in Mulago Hospital, Kampala, Uganda. *Central African Journal of Medicine*, 48, 64–67.
- Kaye, D.K., Mirembe, F.M., Bantebya, G., Johansson, A., & Ekstrom, A.M. (2006). Domestic violence during pregnancy and risk of low birth weight and maternal complications: a prospective cohort study at Mulago Hospital, Uganda. *Tropical Medicine & International Health*, 11, 1576–1584.
- Keller, J., Mboya, B.O., Sinclair, J., Githua, O.W., Mulinge, M., Bergholz, L., & Kapphahn, C. (2015). A 6-week school curriculum improves boys' attitudes and behaviors related to gender-based violence in Kenya. *Journal of Interpersonal Violence*, 1–23. <http://dx.doi.org/10.1177/0886260515586367>
- Kenya Ministry of Medical Services, (2011). *Kenya Service Provision Assessment Survey 2010*, Nairobi: Kenya National Bureau of Statistics (KNBS), ICF Macro.
- Khar, A. (2017). *The Role of Female Education on Intimate Partner Violence in Households of Pakistan*, Unpublished Master's Thesis, Washington, D.C.: Georgetown University.
- Khaw, L., & Hardesty, J.L. (2007). Theorizing the Process of Leaving: Turning Points and Trajectories in the Stages of Change. *Family Relations*, 56, 413-425.

- Kiely, M., El-Mohandes, A., El-Khorazaty, M., & Gantz, M. (2010). An integrated intervention to reduce intimate partner violence in pregnancy: a randomized controlled trial. *Obstetrics and Gynaecology*, 115(2), 273-283.
- Kishor, S., & Johnson, K. (2004). *Profiling domestic violence: a multi-country study*. Calverton MD: ORC Macro. dhsprogram.com/pubs/pdf/od31/od31.pdf
- Kiss, L., d'Oliveira, A.F., Zimmerman, C., Heise, L., Schraiber, L.B., & Watts, C. (2012). Brazilian policy responses to violence against women: government strategy and the help-seeking behaviors of women who experience violence. *Health and Human Rights*, 14, E64-77.
- Krishnan, S. (2005). Do structural inequalities contribute to marital violence? Ethnographic evidence from rural South India. *Violence against Women*, 11, 759–775.
- Krug, E., Dahlberg, L., Mercy, J., Zwi, A., & Lozano, R. (2002). *World Report on Violence and Health*, Geneva: World Bank.
- Lancaster, C.A., Gold, K.J., Flynn, H.A., Yoo, H., Marcus, S.M., & Davis, M.M. (2010). Risk factors for depressive symptoms during pregnancy: a systematic review. *American Journal of Obstetrics Gynecology*, 202(1), 5–14.
- Lewis, G., (Ed). (2007). *Confidential Enquiry into Maternal and Child Health. Saving Mothers' Lives: reviewing maternal deaths to make motherhood safer, 2003–2005*. Seventh Report on Confidential Enquiries into Maternal Deaths in the United Kingdom. London: CEMACH.
- Ludermir, A.B., Lewis, G., Valongueiro, S.A., de Araújo, T.V., & Araya, R. (2010). Violence against women by their intimate partner during pregnancy and postnatal depression: a prospective cohort study. *The Lancet*, 376(9744), 903-10.

- Mahenge, B., Likindikoki, S., Stockl, H. & Mbwambo, J. (2013). Intimate partner violence during pregnancy and associated mental health symptoms among pregnant women in Tanzania: a cross-sectional study. *British Journal of Obstetrics & Gynaecology*, 120, 940–947. DOI: 10.1111/1471-0528.12185.
- Maman, S., Mbwambo, J., Hogan, N., Kilonzo, G., Campbell, J.C., & Weiss, E. (2002). HIV-positive women report more lifetime partner violence: findings from a voluntary counseling and testing clinic in Dar-es-Salaam, Tanzania. *American Journal of Public Health*, 92(8), 1331–1337.
- Maman, S., Yamanis, T., Kouyoumdjian, F., Watt, M., & Mbwambo, J. (2010). Intimate partner violence and the association with HIV risk behaviors among young men in Dar es Salaam, Tanzania. *Journal of Interpersonal Violence*, 25, 1855–72.
- Martin, S.L., Arcara, J., & Pollock, M.D. (2012). Violence during Pregnancy and the Postpartum Period 2012. *National Resource Centre on Violence against Women*. Retrieved from: VAWnet.org
- Matseke, G., & Peltzer, K.D., (2013). Screening and brief intervention for intimate partner violence among antenatal care attendees at primary healthcare clinics in Mpumalanga Province, South Africa. *South African Journal of Obstetrics & Gynaecology*, 19(2), 40-43.
- Mburia-Mwalili, A., Clements-Nolle, K., Lee, W., Shadley, M., & Wei, Y. (2010). Intimate partner violence and depression in a population-based sample of women: can social support help? *Journal of Interpersonal Violence*, 25, 2258-2278.
- McCloskey, L.A., & Boonzaier, F. (2016). Steinbrenner SY and Hunter T. Determinants of Intimate Partner Violence in Sub-Saharan Africa: A Review of Prevention and Intervention Programs. *Partner Abuse*, 7(3), 277-315.

- McCosker-Howard, H., & Woods, A.B. (2006). *How is intimate partner Abuse experienced by childbearing women, in Intimate partner abuse and health professionals: new approaches to domestic violence*. Ed. Roberts, G., Hegarty, K., & Feder. G. London, Churchill Livingstone: Elsevier.
- McFarlane, J., & Parker, B. (1994). *Abuse during pregnancy. A protocol for prevention and intervention*. New York: National March of Dimes Birth Defects Foundation.
- McFarlane, J., Malecha, A., Gist, J., Watson, K., Batten, E., Hall, I., & Smith, S. (2002). An Intervention to Increase Safety Behaviors of Abused Women. Results of a Randomized Clinical Trial. *Nursing Research*, 5(6), 347-354.
- McFarlane, J., Soeken, K., & Wiist, W. (2000). An evaluation of interventions to decrease intimate partner violence to pregnant women. *Public Health Nursing*, 17(6), 443–451.
- McFarlane, J.M., Groff, J.Y., O'Brien, J.A., & Watson, K. (2006). Secondary prevention of intimate partner violence: a randomized controlled trial. *Nursing Research*, 55(1), 52–61.
- Melville, J.L., Gavin, A., Guo, Y., Fan, M.Y., & Katon, W.J. (2010). Depressive Disorders during Pregnancy: Prevalence and Risk Factors in a Large Urban Sample. *Obstetrics & Gynecology*, 116(5), 1064–1070.
- Messman, T.L., & Long, P.J. (1996). Child sexual abuse and its relationship to re-victimization in adult women: A review. *Clinical Psychology Review*, 16, 397–420.
- Mezey, G., & Bewley, S. (1997). Domestic violence in pregnancy. *British Journal of Obstetrics & Gynecology*, 104, 528-531.

- Mittal, M., Senn, T.E., & Carey, M.P. (2011). Mediators of the relation between partner violence and sexual risk behavior among women attending a sexually transmitted disease clinic. *Sexually Transmitted Diseases*, 38, 510–515.
- Mogos, M.F., August, E.M., Salinas-Miranda, A.A., Sultan, D.H., & Salihu, H.M. (2013). A Systematic Review of Quality of Life Measures in Pregnant and Postpartum Mothers. *Applied research in quality of life*, 8(2), 219–250.
- Moraes, C.L., Amorim, A.R., & Reichenheim, M.E. (2006). Gestational weight gain differentials in the presence of intimate partner violence. *International Journal of Gynaecology and Obstetrics*, 95(3), 254–60.14.
- Mugume, A., Muwa, B., Kasaija, J., Buzaalirwa, L., Nkwake, A. & Kintu, P. (2007). *Interventions to Mitigate Gender based Violence: Experiences from Uganda* Retrieved from: [www.upholduganda.org](http://www.upholduganda.org).
- Murphy, C.C., Schei, B., Myhr, T.L., & Du Mont, J. (2001). Abuse: a risk factor for low birth weight? A systematic review and meta-analysis. *Canadian Medical Association Journal*, 164(11), 1567–72.
- Nagle, G.A. (2002). *Maternal participation, depression and partner violence in a state run child abuse prevention program: Louisiana nurse home visitation 1999-2002*, Louisiana: Tulane University.
- Nasreen, H.E., Kabir, Z.N., Forsell, Y., & Edhborg, M. (2011). Prevalence and associated factors of depressive and anxiety symptoms during pregnancy: A population based study in rural Bangladesh. *BMC Women's Health*, 11, 22.
- National AIDS and STI Control Programme. (2014). *Kenya AIDS Indicator Survey 2012: Final Report*. Nairobi: National AIDS and STI Control Programme.

National Center on Domestic and Sexual Violence. (2018). *The power and control wheel*. Domestic Abuse Intervention Project. 202 East Superior Street. Retrieved from: <http://www.ncdsv.org/images/PowerControlwheel.pdf>

Noel, N.L., & Yam, M. (1992). Domestic violence: The pregnant battered woman. *Women's Health*, 27, 871-884.

Ntaganira, J., Muula, A.S., Masaisa, F., Dusabeyezu, F., Sizya, S., & Rudatsikira, E. (2008). Intimate partner violence among pregnant women in Rwanda. *BMC women's health*, 8, 17–17.

Olagbuji, B., Ezeanochie, M., Ande, A., & Ekaete, E. (2010). Trends and determinants of pregnancy-related domestic violence in a referral centre in southern Nigeria. *International Journal of Gynaecology and Obstetrics*, 108, 101–103.

Olds, D.L., Robinson, J., Pettitt, L., Luckey, D.W., Holmberg, J., Isacks, K., Sheff, K., & Henderson, C.R. (2004). Effects of home visits by paraprofessionals and by nurses: Age 4 follow-up results of randomized trial. *Paediatrics*, 114, 1560–1568.

Onoh, R.C., Umeora, O.U.J., Ezeonu, P.O., Onyebuchi, A.K., Lawani, O.L., & Agwu, U.M. (2013). Prevalence, Pattern and Consequences of Intimate Partner Violence During Pregnancy at Abakaliki Southeast Nigeria. *Annals of Medicine and Health Science Research*, 3(4), 484–491. DOI: 10.4103/2141-9248.122048

Pallitto, C., & Campbell, J.C. (2005). Intimate Partner Violence Associated with Unintended Pregnancy? A Review of the Literature. *Trauma Violence Abuse*, 6(3), 217-235.

- Panda, P., & Agarwal, B. (2005). Marital violence, human development and women's property status in India. *World Development*, 33, 823–850.
- Parker, B., McFarlane, J., Soeken, K., Silva, C., & Reel, S. (1999). Testing an intervention to prevent further abuse to pregnant women. *Research in Nursing & Health*, 22, 59–66.
- Population Reference Bureau (2010). *Gender-Based Violence: Impediment to Reproductive Health*. Retrieved from: [www.prb.org/igwg\\_media/gbv-impediment-to-RH.pdf](http://www.prb.org/igwg_media/gbv-impediment-to-RH.pdf)
- Pourhoseingholi, M.A., Baghestani, A.R., & Vahedi, M. (2012). How to control confounding effects by statistical analysis. *Gastroenterology and hepatology from bed to bench*, 5(2), 79-83.
- Pronyk, P.M., Hargreaves, J.R., Kim, J.C., Morison, L.A., & Phetla, G. (2006). Effect of a structural intervention for the prevention of intimate-partner violence and HIV in rural South Africa: a cluster randomised trial. *The Lancet*, 368, 1973–1983.
- Pronyk, P.M., Kim, J.C., Abramsky, T., Phetla, G., Hargreaves, J.R. (2008). A combined microfinance and training intervention can reduce HIV risk behavior in young female participants. *AIDS*, 22, 1659–1665.
- Prosman, G.J., Lo F., Wong, S.H., & Lagro-Janssen, A.L.M. (2014). Support by trained mentor mothers for abused women: a promising intervention in primary care. *Family Practice*, 31(1), 71–80.
- Pulerwitz, J., Martin, S., Mehta, M., Castillo, T., Kidnau, A., Verani, F., & Tewolde, S. (2010). *Promoting gender equity for HIV and violence prevention: Results from the PEPFAR male norms initiative evaluation in Ethiopia*. Washington, DC: PATH.

- Rahman, M., Nakamura, K., Seino, K., & Kizuki, M. (2012). Intimate partner violence and use of reproductive health services among married women: evidence from a national Bangladeshi sample. *BMC Public Health*, 12, 913. <https://doi.org/10.1186/1471-2458-12-913>
- Raising Voices (2005). *Preventing violence against women: the approach in action. Reproductive Health*. Retrieved from [http://www.prb.org/igwg\\_media/gbv-impediment-to-RH.pdf](http://www.prb.org/igwg_media/gbv-impediment-to-RH.pdf)
- Rivas, C., Ramsay, J., Sadowski, L., Davidson, L.L., Dunne, D., Eldridge, S., ... & Feder, G. (2016). Advocacy Interventions to Reduce or Eliminate Violence and Promote the Physical and Psychosocial Well-Being of Women who Experience Intimate Partner Abuse: A Systematic Review. *Campbell Systematic Reviews*, 2. DOI: 10.4073/csr.2016.
- Rodrigues, T., Rocha, L., & Barros, H. (2008). Physical abuse during pregnancy and preterm delivery. *American Journal of Obstetrics and Gynecology*, 198(2), 171.e1–e6.
- Romero, M., Vivas-Consuelo, D., & Alvis-Guzman, N. (2013). Is Health Related Quality of Life (HRQoL) a valid indicator for health systems evaluation? *Springer Plus*, 2(1), 1-7. Retrieved from: <http://dx.doi.org/10.1186/2193-1801-2-664>
- Rurangirwa, A.A., Mogren, I., Ntaganira, J., & Krantz, G. (2016). Intimate partner violence among pregnant women in Rwanda, its associated risk factors and relationship to ANC services attendance: a population-based study *BMJ Open*, 2017, 7, e013155. doi:10.1136/bmjopen-2016-013155
- Safe Ireland, (2015). A Framework for Domestic Violence Service Provision to Women and Children in Ireland. Retrieved from: [www.safeireland.ie](http://www.safeireland.ie).

- Sagrestano, L.M., Carroll, D., Rodriguez, A.C., & Nuwayhid, B. (2004). Demographic, Psychological, and Relationship Factors in Domestic Violence during Pregnancy in a Sample of Low-Income Women of Colour. *Psychology of Women Quarterly*, 28(4), 309-322.
- Salazar, M., Valladares, E., Öhman, A., & Högberg, U. (2009). Ending Intimate Partner Violence after pregnancy: Findings from a community-based longitudinal study in Nicaragua *BMC Public Health*, 9, 350. Retrieved from: <https://doi.org/10.1186/1471-2458-9-350>.
- Sanchez-Lorente, S., Blasco-Ros, C., & Martinez, M. (2012). Factors that contribute or impede the physical health recovery of women exposed to intimate partner violence: a longitudinal study. *Womens Health Issues*, 22, e491-500.
- Sarkar, N.N. (2008). The impact of intimate partner violence on women's reproductive health and pregnancy outcome. *Journal of Obstetrics & Gynaecology*, 28, 266–271.
- Seth, P., Raiford, J.L., Robinson, L.S., Wingood, G.M., & Diclemente, R.J. (2010). Intimate partner violence and other partner-related factors: correlates of sexually transmissible infections and risky sexual behaviors among young adult African American women. *Sex Health*, 7, 25–30.
- Shah, J. (2010). Maternal exposure to domestic violence and pregnancy and birth outcomes: a systematic review and meta-analyses. *Journal of Women's Health*, 19(11), 2017–31.
- Shamu, S., Abrahams, N., Temmerman, M., & Zarowsky, C. (2013). Opportunities and obstacles to screening pregnant women for intimate partner violence during antenatal care in Zimbabwe. *Culture, health & sexuality*, 15(5), 511-524.

- Shamu, S., Abrahams, N., Temmerman, M., Musekiwa, A., & Zarowsky, C.A. (2011). Systematic review of African studies on intimate partner violence against pregnant women: prevalence and risk factors. *PLoS One*, 6, e17591 doi:10.1371/journal.pone.0017591.
- Sharps, P., Alhusen, L., Bullock, L., Bhandari, S., Ghazarian, S., & Udo, E. (2013). Engaging and retaining abused women in perinatal home visitation programs. *Paediatrics*, 132, S134–S139.
- Shi, C.F., Kouyoumdjian, F.G. & Dushoff, J. (2013). Intimate partner violence is associated with HIV infection in women in Kenya: A cross-sectional analysis. *BMC Public Health*, 13, 512.
- Shiyun, S.C., Hazizan, A., Meng , L.X., Wee, L.Y., Hung, S.T.E., Winarto,H., & Maidarti, M.(2013). Age, Low Education and Unemployment are Associated with Intimate Partner Violence among Women. *Indonesian Journal of Obstetrics & Gynecology*, 37, 63-70.
- Silva, E.P., Valongueiro, S., Barreto de Araújo, T.V., & Ludermir, A.B. (2015). Incidence and risk factors for intimate partner violence during the postpartum period. *Rev Saúde Pública*, 49, 46 DOI:10.1590/S0034-8910.2015049005432
- Silverman, J.G., Decker, M. R., Saggurti, N., Balaiah, D. & Raj, A. (2008). Intimate partner violence and HIV infection among married Indian women. *Journal of the American Medical Association*, 300(6), 703–710.
- Slep, A.M.S & O’Leary, S.G. (2005). Parent and Partner Violence in Families with Young Children: Rates, Patterns, and Connections. *Journal of Consulting and Clinical Psychology*, 73(3), 435– 444.

- Slep, A.M.S., Foran, H.M., Heyman, R.E., & Snarr, J.D. (2010). Unique risk and protective factors for partner aggression in a large scale Air Force survey. *Journal of Community Health*, 35(4), 375–83.
- Soeken, K.L., McFarlane, J., Parker, B., & Lominack, M.C. (1998). The abuse assessment screen: a clinical instrument to measure frequency, severity, and perpetrator of abuse against women. In: JC Campbell (Eds). *Empowering Survivors of Abuse: Health Care for Battered Women and Their Children*. Thousand Oaks, CA: Sage Publications.
- Sørensen, J., Kruse, M., Gudex, C., Helweg-Larsen, K., & Brønnum-Hansen, H. (2012). Physical violence and health-related quality of life: Danish cross-sectional analyses. *Health and quality of life outcomes*, 10(1), 1-9.
- Stoltzfus, J.C. (2011). Logistic Regression: A Brief Primer. *Academic Emergency Medicine*, 18, 1099–1104.
- Strecher, V.J., & Rosenstock, I.M. (1996). The health belief model. In Glanz K, Rimer BK, Lewis M (Eds.). *Health behavior and health education: Theory, research, and practice*: 41-59. San Francisco: Jossey-Bass.
- Swan, H., & Connell, D.J. (2012). The impact of intimate partner violence on women's condom negotiation efficacy. *Interpersonal Violence*, 27, 775–792.
- Tabachnick, B.G., & Fidell, L.S. (2007). *Using Multivariate Statistics*. (5<sup>th</sup> Ed.) Boston, MA: Pearson Education, Inc.
- Taft, A.J. & Watson, L.F. (2007). Termination of pregnancy: associations with partner violence and other factors in a national cohort of young Australian women. *Australian and New Zealand Journal of Public Health*, 31(2), 135–42.

- Taft, A.J., Small, R., Hegarty, K.L., Watson, F.L., Gold, L., & Lumleyo, J.A. (2009). MOSAIC (Mothers' Advocates in the Community): protocol and sample description of a cluster randomized trial of mentor mother support to reduce intimate partner violence among pregnant or recent mothers. *BMC Public Health*, 9(1), 159.
- Taft, A.J., Small, R., Hegarty, K.L., Watson, L.F., Gold, L., & Lumleyo, J.A. (2011). Mothers' Advocates in the Community (MOSAIC) - non-professional mentor support to reduce intimate partner violence and depression in mothers: a cluster randomized trial in primary care. *BMC Public Health*, 11, 178. Retrieved from: <http://www.biomedcentral.com/1471-2458/11/178>
- Taft, A.J., Small, R., Humphreys, C., Hegarty, K., Walter, R., & Adams, C. (2012). Enhanced maternal and child health nurse care for women experiencing intimate partner/family violence: protocol for MOVE, a cluster randomised trial of screening and referral in primary health care. *BMC Public Health*, 11, 178. Retrieved from <http://www.biomedcentral.com/1471-2458/11/178>.
- Taillieu, T.L., & Brownridge, D.A. (2011). Violence against pregnant women: Prevalence, patterns, risk factors, theories, and directions for future research. *Aggression and Violent Behavior*, 15, 14–35.
- Tavoli, Z., Tavoli, A., Amirpour, R., Hosseini, R. & Montazeri, A. (2016). Quality of life in women who were exposed to domestic violence during pregnancy. *BMC Pregnancy and Child birth*, 16, 19.
- Tenaw, Y., Tesfaye, G., Gudina, E., & Habtamu, M. (2014). Magnitude of Domestic Violence and Associated Factors among Pregnant Women in Hulet Ejju Enessie District, Northwest Ethiopia. *Advances in Public Health*, 2014, 8 <http://dx.doi.org/10.1155/2014/484897>

- Tiwari, A., Leung, W.C., Leung, T.W., Humphreys, J., & Parker, B. (2005). A randomized controlled trial of empowerment training for Chinese abused pregnant women in Hong Kong. *International Journal of Obstetrics and Gynecology*, 112(9), 1249-1256.
- Toufique, M. & Razzaque, M. (2007). *Domestic Violence against Women: Its Determinants and Implications for Gender Resource Allocation*, Dhaka, Bangladesh: University of Dhaka.Karamagi, C.A., Tumwine, JK, Tylleskar T, & Heggenhougen, K. (2006). Intimate partner violence against women in eastern Uganda: implications for HIV prevention. *BMC public health*, 6, 284.
- Townsend, L., Jewkes, R., Mathews, C., Johnston, L., & Flisher, A. (2010). HIV Risk Behaviors and their Relationship to Intimate Partner Violence (IPV) Among Men Who Have Multiple Female Sexual Partners in Cape Town, South Africa. *AIDS and Behavior*, 1–10.
- Turan, J. M., Hatcher, A. M., Odero, M., Onono, M., Kodero, J., Romito, P., & Bukusi, E. A. (2013). A community-supported clinic-based program for prevention of violence against pregnant women in rural Kenya. *AIDS research and treatment*, 2013.
- Turan, J.M., Hatcher, A.H., Medema-Wijnveen, J., Onono, M., Miller, S., Bukusi, E.A., Turan, B., & Cohen, C.R. (2012). The role of HIV-related stigma in utilization of skilled childbirth services in rural Kenya: a prospective mixed-methods study. *PLOS Medicine*, 9(8).
- Undie, C., Maternowska, C., Mak'anyengo, M., Birungi, H., Keesbury, J. & Askew, I. (2012). *Routine screening for intimate partner violence in public health care settings in Kenya: An assessment of acceptability*. Nairobi: Population Council.

- UNEFPA & AIDOS. (2003). *Addressing violence against women: piloting and programming*. Rome: UNEFPA & AIDOS.
- UNICEF. (2009). *State of the World's Children*. New York: UNICEF.
- United Nations, (2006). *Ending violence against women from words to action*. Study of the Secretary-General. Geneva: UN.
- Usta, J., Dandashi, D., & Anani, G. (2012). *Working with Gender Based Violence survivors Reference Training Manual for Frontline Staff*. United Nations Relief and Works Agency for Palestine Refugees in the Near East. Retrieved from: <http://civilsociety-centre.org/resource/working-gender-based-violence-survivors-reference-training-manual-frontline-staff>
- Valladares, E., Ellsberg, M., Pen, R., Hoberg, V., & Persson, L.A. (2002). Physical partner abuse during pregnancy: A risk factor for low birth weight in Nicaragua. *Obstetrics and Gynecology*, 100, 700–705.
- Van Parys, A.S., Verhamme, A., Temmerman, M., & Verstraeten, H. (2014). Intimate Partner Violence and Pregnancy: A Systematic Review of Interventions. *PLoS ONE*, 9(1), e85084. <https://doi.org/10.1371/journal.pone.0085084>
- Wagman, J.A., Gray, R.H., Campbell, J.C., Thoma, M., Ndyanabo, A., Ssekasanvu, J., & Brahmbhatt, H. (2015). Effectiveness of an integrated intimate partner violence and HIV prevention intervention in Rakai, Uganda: Analysis of an intervention in an existing cluster randomised cohort. *Lancet: Global Health*, 3, e23–e33.
- Ware, J.E. Jr., & Sherbourne, C.D. (1992). MOS 36-Item Short-Form Health Survey (SF-36): I. Conceptual Framework and Item Selection. *Medical Care*, 30, 473-483.

- WHO. (2004). *Preventing Violence: A guide to implementing the recommendations of the World Bank Report on Violence and Health*. Geneva: WHO.
- WHO. (2005). *WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses*. Geneva: World Health Organization.
- WHO. (2008). *Preventing Violence and Reducing Its Impact: How Development Agencies Can Help*. Geneva: WHO.
- WHO. (2011). Intimate partner violence during pregnancy. Information sheet. 2011. Retrieved from whqlibdoc.who.int/hq/2011/WHO\_RHR\_11.35\_eng.pdf
- WHO. (2012). Understanding and addressing violence against women. Intimate Partner Violence, Retrieved from: [http://apps.who.int/iris/bitstream/10665/ 77432/1/WHO\\_RHR\\_12.36\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/ 77432/1/WHO_RHR_12.36_eng.pdf)
- WHO. (2013). Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Retrieved from www.who.int
- WHO. (2016). *Ethical and safety recommendations for intervention research on violence against women. Building on lessons from the WHO publication*. Geneva: World Health Organization.
- WHO/LSHTM. (2010). *Preventing intimate partner and sexual violence against women: taking action and generating evidence*. Geneva/London: World Health Organization/ London School of Hygiene and Tropical Medicine.
- Withers, M., & Erausquin, J.T. (Eds). (2017). A conceptual framework and intervention approach for addressing intimate partner violence in pregnancy by Hatcher, AM, Woollett N, Pallitto CC and Garcia-Moreno C. *Global Perspectives on*

*Women's Reproductive and Sexual Health Across the Life Course In press.:*  
New York: Springer Books.

Wittenberg, E., Joshi, M., Thomas, K.A., & McCloskey, L. A. (2007). Health and Quality of Life. *Health and quality of life outcomes*, 5, 67. Retrieved from: <http://dx.doi.org/10.1186/1477-7525-5-67>.

Yimer, T., Gobena, T., Egata, G., & Mellie T. (2014). Magnitude of Domestic Violence and Associated Factors among Pregnant Women in Hulet Ejju Enessie District, Northwest Ethiopia. *Advances in Public Health*, Article ID 484897, Retrieved from: <http://dx.doi.org/10.1155/2014/484897>

Zablotska, I.B., Gray, R.H., Koenig, M.A., Serwadda, D., Nalugoda, F., Kigozi, G., & Wawer, M. (2009). Alcohol Use, Intimate Partner Violence, Sexual Coercion and HIV among Women Aged 15–24 in Rakai, Uganda *AIDS Behavior*, 13, 225–233.

Zlotnick, C., Capezza, N.M., & Parker, D. (2011). An interpersonally based intervention for low-income pregnant women with intimate partner violence: a pilot study, *Archives of Women's Mental Health*, 14(1), 55–65.

## **APPENDICES**

### **Appendix I: Consent Forms**

#### **CONSENT FORM FOR PARTICIPATION IN THE RISK FACTORS SURVEY AND FOR GBV SCREENING**

**Title:** The Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County

**Principal investigator:** Redempta Mutisya, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

**Co- Investigators:** Dr. Christina Mwachari, Kenya Medical Research Institute, Nairobi and Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

#### **A. Introduction:**

Good morning/afternoon?

My name is Redempta Mutisya a student at the Jomo Kenyatta University of Agriculture and Technology (JKUAT), Institute of Tropical Medicine and Infectious Diseases (ITROMID) located in Kenya Medical Research Institute (KEMRI) Nairobi. My research team and I are here to conduct a study on ‘The Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County’. I would like to seek your permission to explain to you more about the study.

#### **B. The Purpose of the Study**

The aim of this study is to shed light on problem of GBV during pregnancy and to find out the factors that put pregnant women in Kisumu County in danger of such violence. This study will be useful to the County government of Kisumu and more so the Ministry

of Health in making decisions on what can be done to reduce or eliminate violence against pregnant women. The results of the study can also help the county government when deciding on what can be done to improve the care given to pregnant women who may be going through violence

### **C. Procedures**

- I. The purpose of this form is to obtain your voluntary consent to participate in an initial survey of the factors mentioned above. I will also ask for your consent to be asked 5 questions which will help us know whether or not you may be going through violence.
- II. If you choose to participate I will take 10-15 minutes to ask you some questions about yourself, current or former partner and how you two relate (d). I will also ask you about some factors in your community and how these, in your opinion influence to GBV. Lastly I will ask you 5 GBV assessment questions.
- III. If the 5-question assessment shows that you experiencing violence, I on behalf of the study team invite you participate in a follow- up. However more specific information on the follow-up will be shared with you during your next ANC visit.
- IV. If you choose not to participate the study team will respect your decision and no one will force you or treat you badly. You will not be denied ANC services or any other services if you choose not to participate.

### **D. Benefits**

You will not be given/paid any money or gifts if you choose to participate in the study. Your voluntary participation will however provide very good information which the Kisumu County government can use to plan for ways of reducing or doing away with violence during pregnancy and improve the care given to pregnant women who may be going through violence.

### **E. Risks**

The subject of GBV is treated as a very private matter. Some of the questions I ask you may be uncomfortable but it is very important that you give truthful answers so that the correct picture of GBV in pregnant women is understood.

In addition other people including the abusers would not be happy if they found out that you shared information on GBV with the study team. You may be stigmatized or even suffer more abuse. It is therefore very important that you do not discuss your participation in this study with anybody else. This will help ensure your safety and that of the study team.

#### **F. Confidentiality**

Due to the sensitive nature of the subject of GBV, the study team will not record your name on any of the two data collection instruments. You will be assigned a number which the team will use to identify you. This room is also private and no one can hear what you and I are discussing. No one is allowed to come in until the interview is over.

The answers you give will be kept as a big secret and will not be shared with anybody who is not part of the study team.

#### **G. Contact information**

If you may have any questions about the study, please feel free to contact the principal investigator through this number:

**Principal Investigator: Redempta Mutisya:** Mobile No. (day and night) 0724 563 316

If you have any questions concerning your rights of participation in the study, please feel free to contact the Scientific and Ethics Review Unit of KEMRI through the addresses and telephone numbers given.

P.O. BOX 54840-00200, Nairobi

Tel: +254717 719477, Email: seru@kemri.org

## **H. Compensation**

No compensation, money, gifts or favors will be given as a result of participating in this study.

## **H. Storage of Questionnaires**

The filled data collection instruments/questionnaires will be kept in locked cabinets. Only members of the study team will be allowed to open the cabinets.

Up to this point, do you want to ask me anything about the study?

### **Subject permission:**

I, whose signature/thumb print appears below, have understood the all information which has been fully explained to me. I have agreed to participate in this study willingly/voluntarily. I was given the chance to ask questions and I received satisfactory responses.

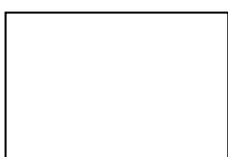
Name of Participant.....

*Literate participants*

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

*Illiterate Participant*

Participants thumb print



Witness Signature.....Date.....

Signature of the person obtaining consent \_\_\_\_\_ Date \_\_\_\_\_

*(Must be signed by the investigator or individual who has been designated to obtain consent)*

## **KALATAS MAR AYIE MAR KONYO E TIMO NONRO MATUT MAR GIK MARICHO MAKELO SANDRUOK MAR JOMA MINE KA OYA KUOM JOMA CHUO**

**Gima Nonro ni En:** Ber mar chiwo konyruok kod puonj ne mine mapek ma opon tho kaluwore kod sand ma gi yudo kaoya kuom joma chuo e Kisumu kaonti

**Jatim nonro maduong':** Redempta Mutistya, JKUAT, Nairobi

**Jotim nonro makonye:** Dr. Christina Mwacharia, KEMRI, Nairobi kod, Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

### **A. Weche ma awiye**

Nyinga en Redempta Mutisya, asomo e mbalariany ma JKUAT, kar somo yedhe kod tuoche mantiere KEMRI Nairobi. Joga ma watimo go nonro kod an duto ni ka mondo onon ‘ber mar chiwo kony kod puonj ne mine mapek ma opon tho ka luore kod sandruok ma guyudo ka oya kuom joma chuo e kaonti mar Kisumu ka. Koro abolora e mbeleu/mbeleni ka akwayo ni mondo uyiena/iyiena anyisi/anyisu mathoth ka luore kod nonro ni.

### **B. Gima omiyo watimo nonro ni**

Gima duong ma omiyo watimo nonro ni en ni mondo onyis chandruoge ma ikelo kod sandruok ma isando go mine ka oya kuom joma chuo ndalo ma gi pek kendo bende mondo onyis gik ma omiyo mine mapek e Kisumu kaonti ka yudo sandruoge aila go. Nonro ni ber ne Kisumu kaonti to ahinya ahinya ne migao mar thieth e neno gima inyalo tim mondo oduok chien sandruoge mag mine mapek. Duoko mar nonro ni biro konyo tend kauti seche ma gibiro kod gik ma inyalo tim mondo omed rit ne mine ma nyalo bedo ni isando.

### **C. Okenge mag nonro ni**

- I. Ler mar kalatas ni en ni mondo oyud yie mari ma ok ochun mondo ikony a e timo nonro ni kaka ne alero ni mbele kanyo. Abiro hero ni mundo ayud yie ka oya kuomi mondo apenji penjo abich (5) mabiro konyowa ngeyo ka bende in be iyudo sandruoge gi kata ooyo.
- II. Ka iyiero bedo achiel kuomwa e timo nonro ni, abohero ni akaw dakika magi 15 nyaka 20 mondo apenji penjo moko e wi jaherani/jaodi ma sani kata ma osekalo gi kaka ung'eru kode. Abohero mundo apenji gik moko e wi aluora mari gi kaka gigo, kod pachi, omakore kod sand ma mine kaloe. Mogik abopenji penjo abich (5) kaluore kod sand ma joma mine kaloe.
- III. Ka penjo abich go nyiso ni in iwuon ikalo e sandruoge go, e wi jok ma watimo go nonro ni, abogweli ikonywa e timo nonro bang' ma.
- IV. Ka ineno ni ok inyal bedo achiel kuomwa e timo nonro ni, waduto waboluoro chung' mari kendo onge ng'at ma bo Sandi kata miyi kum.

### **D. Ber ma inyalo yudo ka ikonyowa e timo nonro ni**

Ok bi chuli pesa moro amora kendo onge mich moro amora ma ibo miyi ka ikonyowa e timo nonro ni. To yie mari ma muol mondo ibed achiel kuomwa biro kelo weche mabeyo mag puonj ma tend Kisumu kaonti nyalo tiyo go ka gi ng'iyo yore mag duoko chien kata tieko chutho sandruoge mag mine ndalo ma gi pek mondo omed rit ma imiyo mine go manyalo bedo ni isando.

### **E. Rach Manyalo wuok ka luore gi nonro ni**

Wach mar sandruoge ma mine kaloe gin gik ma siri. Penjo moko ma anyalo penji nyalo bedo ni marach to en gima ber kaichiwo duoko ma adier mondo adier mar wach mar sandruogegi og'e. Ka i we mano, jomoko nyaka joma sando ji ok bi bedo mamor kodi ka gi yudo ni iwacho weche moko kaluore kod sand gi kod joga ma watimo go nonro ni. Gi biro bedo ni ok gidwari kendo ok gi mor kodi kendo ginyalo bedo ni gi medo yanyi kata

sandi. Koro en gima ber ni kik iwach ne ng'ato ang'ata ni in achiel kuom joma otimo nonro ni. Timo kamano bo miyi arita kwe maber nyako kwe ne joma moko ma otimo nonro ni.

#### **F. Siri mar nonro ni**

Ka luore gi weche mag sandruok ma mine kaloe bedo kod dondruok mathoth, ok wa bindiko nyingi, wabiro mana miyi namba ma wabotiyogo kaka nyingi. Ot ma wantiere ni be en mar siri kendo onge nga't manyalo winjo gik ma wawacho. Onge ng'at ma oyiene donjo e iye ka nyaka watieki. Duoko ma ibo chiwonwa ibiro kan kaka siri maduong' kendo ok bi mi ng'at ang'ata ma onge kodwa ka.

#### **G. Yor tudruok kodwa**

Ka inyalo bedo gi penjo e noro ni, wakwayi ni bed thuolo mondo itudri kod jatelo maduong' mar nonro ni

**Jatelo maduong'**: Redempta Mutisya

**Namba simu:** 0724563316(otieno kod odiochieng')

Ka in kod penjo ka luore kod ratiro mari mar bedo achiel ma timo nonro ni, wakwayi mondo ibed thuolo mondo itudri kod; Scientific Ethic Review Unit mar KEMRI e sanduku

PO BOX 54840-00200, Nairobi

Namba sim: 0717719477

Email margi en: seru@kemri.org

## **H. Chudo ma balang'**

Onge chudo, pesa, mich kata konyruok ma ibiro miyi kaluwore kod konyo e nonro ni.

## **I. Kano weche kod gik mayudo e nonro ni**

Faende mag gik ma watiyo go ka watimo nonro ni ibiro kan e kabat ma ogo kiful. Mana jok ma wan go ka ema ibiro yiene gi mondo oyaw kabede go

Nyaka kuma wachopenim be in kod penjo moro amora ka luore kod nonro ni?

### **Ayie**

An, ma koke/picha yi lith luete mathuon ni ka, asewinjo weche ma oseler na maber. Aseyie mondo akony e timo nonro ni kuom hero mara maonge achuna. Ne omiya thuolo ma oromo mundo apenj penjo kendo ayudo duoko malong'o.

Nyingi..... Tarik.....

*Ng'at ma ong'eyo somo*

Ket koki ka.....tarik.....

*Ng'at ma okia somo*

I lith lueti mathuon

Janeno.....tarik.....

Ket koki ka.....tarik.....

*(nyaka kete kogno gi ja tim nonro kata ng'at ma oketi ni mondo oyud ayie kuom ji)*

***FOR PARTICIPANTS RECEIVING THE PSYCHOSOCIAL SUPPORT  
(INTERVENTION GROUP, IG)***

**Title:** The Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County

**Principal investigator:** Redempta Mutisya, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

**Co- Investigators:** Dr. Christina Mwachari, Kenya Medical Research Institute, Nairobi and Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

**A. Introduction:**

Good morning/afternoon?

On behalf of the study team, I would like to thank you so much for accepting to participate in the follow-up study. As you were informed earlier, my team and I are here to carry out a study whose aim is to find out the ‘Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County’.

I would like to seek your permission to explain to you what you will be requested to do from now till the end of the study.

**B. The Purpose of the Study**

The aim of this study is to find out what the effects of providing support and information to abused pregnant women are, in Kisumu County. This study will be useful to the county government of Kisumu and more so the Ministry of Health in deciding on the measures they can take to help abused pregnant women.

**C. Procedure**

The purpose of this form is to obtain your consent to participate in the follow-up, that is, in the first assessment (Baseline), the follow-up supportive sessions and in the last assessment.

If you choose to participate in the follow-up study:

- I. I will take 15-20 minutes of your time to ask you some questions. The questions will touch of violence that you have gone through or you are undergoing, your state of mental wellbeing, how you feel about your life and future and the actions you have taken to stay safe from abuse.
- II. This will be followed (on the same day) by a 20-30 minutes discussion with you, on some of the challenges you may be facing because of the violence, what you are doing to cope and some measures you can take to improve your safety and that of the baby you are carrying. This will be the only day when we shall request for at least 50 minutes of your time. I, on behalf of the study team promise to do our best to take only 50 minutes or less of your time.
- III. I will also request you to spare 20-30 minutes every time you come for your ANC appointment for us to share on this serious problem of violence affecting you. We shall have only more 2 meetings of sharing before you deliver. In the last session one of the members of the research team will have the last 15-20 minute interview with you. The study team and I shall try our best to ensure that the meetings fall on the same dates as your ANC appointments.
- IV. If you are requested you to come for a supportive session/meeting on a date that is not your ANC clinic day, you shall be reimbursed the cost of transport and provided with a snack. This will not be payment but a way of refunding you the fare and appreciating you for taking your time to come.
- V. You will be requested to provide us with a number which I or any member of the study team can use to contact you just in case we need to communicate some information. If it is not your own, it can be that of someone who you trust. The caller will only introduce myself as staff from the health center and shall not disclose that you are part of this study.

- VI. I and the study team encourage you to participate to the end. However, you are allowed to leave the study any point, without giving reasons for leaving. You will not be punished or treated badly. You will not be denied ANC services or any other services if you choose to leave.
- VII. Remember also that there is no right or wrong answer to the questions; we would just like to learn about your true personal thoughts and experiences. If you do not understand a question, please tell me or the person who will be talking to you.

#### **D. Benefits**

You will not be given/paid any money or gifts if you choose to participate in the study. Your voluntary participation will however provide very good information which the Kisumu County government can use to plan for ways of reducing or doing away with violence during pregnancy and improve the care given to pregnant women who may be going through violence.

#### **E. Risks**

The subject of GBV is treated as a very private matter. Some of the questions I ask you may be uncomfortable but it is very important that you give truthful answers so that the correct picture of GBV in pregnant women is understood.

In addition other people including the abusers would not be happy if they found out that you shared information on GBV with the study team. You may be stigmatized or even suffer more abuse. It is therefore very important that you do not discuss your participation in this study with anybody else like a spouse/partner, family member or friend. This will help ensure your safety and that of the study team.

If you feel like you are being abused or are suffering more violence since joining the study, please call the Principal Investigator through the hotline number: 0771 411 324(day and night). If a participant reports an increase of violence, whether or not it is as a result of participating in the study these steps will be taken: she will be withdrawn

from the study, referred and facilitated to get to the nearest GBVRC and discreet monitoring of her safety will be done until she delivers.

#### **F. Confidentiality**

Due to the sensitive nature of the subject of GBV, the study team will not record your name on any of the data collection instruments. You will be assigned a number which the team will use to identify you.

This room where the supportive sessions and interviews will be held is private and so that no one hears what you and I will be discussing. No one will be allowed to come in until the interview is over.

The answers you give will be kept secret and will not be shared with anybody who is not part of the study team.

You will never be interviewed or taken through the supportive session if you come for ANC accompanied by your husband/partner, family member, friend or any other person.

A card containing information on organizations you can approach for help on GBV will be given to you, together with other ANC reading materials.

#### **G. Contact information**

If you may have any questions about the study, you will be free to contact the principal investigator through this number:

**Principal Investigator:** Redempta Mutisya: Mobile No. (Day and night) 0724 563 316

If you have any questions concerning your rights of participation in the study, feel free to contact the Scientific and Ethics Review Unit of KEMRI through the addresses and telephone numbers given below.

P.O. BOX 54840-00200, Nairobi

Tel: +254717 719477, Email: seru@kemri.org

#### **H. Compensation**

If you are requested you to come for a supportive session/meeting on a date that is not your ANC clinic day and you spend money to pay for your fare, the amount spent shall be calculated based on the current rates and refunded. The amounts to be refunded will range between KSh 40-100. A snack (a soda and a half loaf of bread) will also be provided. This will not be payment but a way of refunding you the fare and appreciating you for taking your time to come.

#### **H. Storage of Questionnaires**

The filled data collection instruments/questionnaires will be kept in locked drawers. Only members of the study team will be allowed to open the cabinets.

Up to this point, do you want to ask me anything about the study?

#### **Subject permission:**

I, whose signature/thumb print appears below, have understood the all information which has been fully explained to me. I have agreed to participate in the follow-up study willingly/voluntarily. I was given the chance to ask questions and I received satisfactory responses.

Name of Participant.....

*Literate participants*

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

*Illiterate Participant*

Participants thumb print



Witness Signature..... Date.....

Signature of the person obtaining consent \_\_\_\_\_ Date \_\_\_\_\_

*(Must be signed by the investigator or individual who has been designated to obtain consent)*

**KALATAS AYIE NE JOMA BO KONYO E TIMO NONRO MALUWO NONRO  
NI**

**NE JOK MA YUDO KONYRUOK MAR PARO MABER BANG' SAND**

**Gima nonro en:** Ber mar chiwo konyruok kod puonj ne mine mapek ma opon tho kaluwore kod sand ma gi yudo ka oya kuom joma chuo e Kisumu kaonti

**Jatim nonro maduong':** Redempta Mutistya, JKUAT, Nairobi

**Jotim nonro makonye:** Dr. Christina Mwacharia, KEMRI, Nairobi kod Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

### **Weche ma awiye**

Nyinga en Redempta Mutisya, asomo e mbalariany ma JKUAT, kar somo yedhe kod tuoche mantiere KEMRI Nairobi. Joga ma watimo go nonro kod an duto ni ka mondo onon ‘ber mar mar miyo mine mapek ma opon tho ka luore kod sandruok ma giyudo ka oya kuom joma chuo kony kod puonj e kaonti mar Kisumu ka. Koro abolora e mbeleu/mbeleni ka akwayo ni mondo uyiena/iyiena anyisi/anyisu mathoth ka luore kod nonro ni.

#### **A. Gima omiyo watimo nonro ni**

Gima duong ma omiyo watimo nonro ni en ni mondo onyis chandruoge ma ikelo kod sandruok ma isando go mine ka oya kuom joma chuo ndalo ma gi pek kendo bende mondo onyis gik ma omiyo mine mapek e Kisumu kaonti ka yudo sandruoge aila go. Nonro ni ber ne Kisumu kaonti to ahinya ahinya ne migao mar thieth e neno gima inyalo tim mondo oduok chien sandruoge mag mine mapek. Duoko mar nonro ni biro konyo tend kauti seche ma gibiro kod gik ma inyalo tim mondo omed arita ne mine ma nyalo bedo ni isando.

#### **B. Okenge mag nonro ni**

- I. Ler mar kalatasni en ni mondo oyud yie mari ma onge achuna mondo ikony e timo nonro ni ma iluwogo nonro ma okwongo cha.

Ka ineno kuom yie mari ni inyalo konyowa e timo nonro ni ma iluwogo nonro ma okwongo cha;

- II. Abokao dakika 15-20 mari mondo apenji go penjo. Penjo go bo mulo chandruok ma ma iyudo, ler mar paro mari, kaka iwinjo e ngimani sani kod ndalo mabiro kod gik ma itimo mundo idag maonge ayany kod sandruok.
- III. Ma ibiro lu kod (chieng' onogo ono) gi dakika 20-30 ka wawuoyo kodi e chandruok ma iyudo nikech sand ma joma chuo, gima itimo mundo ing'i kod chandruoge go kendo gik ma itimo modo iket ngima ni kod ngima nyathi ma itingo obed maber. Ma e chieng' ma wabokwayi e dakika 50 mari. E wi jogi te, asingoni ni wabotimo ber duto mondo wakaw dakika 50 kata matin ne mano mari. Abokwayi kendo dakika 20-30 seche duto ma ilimo wa mondo wapogre e paro e weche mag sandruok mag mine mahinyi. Wabobedo gi romo ariyo mag pogruok e paro ka pok ikonyori. E romo ma ogik, achiel kuomwa biro gombo mondo okaw dakika 15-20 ka penji penjo. Waduto wabotimo duto manyalore mondo romo kodi otimre e Tarik achie ma ibiro e klinik.
- IV. Ka poni okwayi mondo ibi e romo mar kony Tarik ma ok mar biro e klinik, waboduokoni pesa mar safar kendo wabomiyi soda moro mondo imadh. Ma ok en chudo to en mana mar duoko ni erokamano kuom chiwruok mari.
- V. Ka okwayi ni mundo ikony wa gi namba sim moro ma wanyalo tudre godo kodi ka wach moro nitie ma wadwa nyisi, ka ok en mari, we obed mar ng'at ma in go gi adier. Ja go simu bo wacho ni en ma oya e kar thieth to ok obi wacho ni en in achiel kuom joma timo nonro ni.
- VI. Waduto te wabomiyi mijing'o mar bedo achiel kuomwa ka nyaka giko. To kata kamano, oyieni mondo iwuogi sa moro amora kata ka ok iwacho gima omiyo iwuok. Ok bi miyi kum kata sand moro amora. Ok bi tami yudo kony mag klinik kata moro amora ka iyiero ni iwuok.
- VII. Par kendo ni onge duoko ma kare kata ma ooyo e penjo. Ka ok iwinjo penjo, akwayi ni nyisa kata inyis ng'ato ang'ata ma bobedo ni konyi.

### **C. Ber ma inyalo yudo ka ikonyowa e timo nonro ni**

Ok bi chuli pesa moro amora kendo onge mich moro amora ma ibo miyi ka ikonyowa e timo nonro ni. To yie mari ma muol mondo ibed achiel kuomwa biro kelo weche mabeyo mag puonj ma tend Kisumu kaonti nyalo tiyo go ka gi ng'iyo yore mag duoko chien kata tieko chutho sandruoge mag mine ndalo ma gi pek mondo omed rit ma imiyo mine go manyalo bedo ni isando.

### **D. Rach Manyalo wuok ka luore gi nonro ni**

Wach mar sandruoge ma mine kaloe gin gik ma siri. Penjo moko ma anyalo penji nyalo bedo ni marach to en gima ber kaichiwo duoko ma adier mondo adier mar wach mar sandruogegi og'e. kai we mano, jomoko nyaka joma sando ji ok bi bedo mamor kodi ka gi yudo ni iwacho weche moko kaluore kod sand gi kod joga ma watimo go nonro ni. Gi biro bedo ni ok gdwari kendo ok gi mor kodi kendo ginyalo bedo ni gi medo yanyi kata sandi. Koro en gima ber ni kik iwach ne ng'ato ang'ata ni in achiel kuom joma otimo nonro ni. Timo kamano bo miyi arita kwe maber nyako kwe ne joma moko ma otimo nonro ni.

Koro en gima ber mondo kik iwach weche ma wa wacho gi kod ng'ato ang'ata machal gi jaodi/osiep ni kata familia mari. Maa bo keto arita mari kod marwa bedo maber. Ka iparo ni iyudo ayany kata sand manyeny nyaka ne idonj kuomwa, wakwayi ni mondo igochne janonro maduong' e namba ne **0771411324** otieno kata odiochieng'. Ka achiel kuomwa ka ma watimo go nonro ni nyiso wa duoko mar medruok mar sand, obed nikech bedo achiel kuomwa e timo nonro ni kata ooyo, wabotimo kama; wabogole e timo nonro ni, ibotere kendo konye ochop kar hocho mar joma mine man machiegni kendo wabo luwo chal mare nyaka okonyre.

## **E. Siri mar nonro ni**

Ka luore gi weche mag sandruok ma mine kaloe bedo kod dondruok mathoth, ok wa bi ndiko nyingi, wabiro mana miyi namba ma wabotiyogo kaka nyingi. Ot ma wantiere ni be en mar siri kendo onge nga't manyalo winjo gik ma wawacho. Onge ng'at ma oyiene donjo e iye ka nyaka watieki. Duoko ma ibo chiwonwa ibiro kan kaka siri maduong' kendo ok bi mi ng'at ang'ata ma onge koodwa ka.

Ok bi penji penjo kata teri e puonj mar kony kai biro e klinik gi jaodi/osiepni kata familia mari. Kadi ma oting'o kuma inyalo dhiye yudo kony e wi sandruok ibo chiw kod buge ma isomo mag klinik.

## **F. Yor tudruok kodwa**

Ka inyalo bedo gi penjo e noro ni, wakwayi ni bed thuolo mondo itudri kod jatelo maduong' mar nonro ni

**Jatelo maduong'**: Redempta Mutisya

**Namba simu:** 0724563316(otieno kod odiochieng')

Ka in kod penjo ka luore kod ratiro mari mar bedo achiel ma timo nonro ni, wakwayi mondo ibed thuolo mondo itudri kod; Scientific Ethic Review Unit mar KEMRI e sanduku

PO BOX 54840-00200, Nairobi

Namba sim: 0717719477

Email margi en: seru@kemri.org

## **G. Chudo ma balang'**

Ka okwayi ni mondo ichopi e romo mar konyruok kata e bura e tarik ma ok en chieng'i mar dhi e klinik to itiyo gi pesa ni e chulo mtoka, pesa ma itiyo go no ibiroduokni.Pesa ma ibiro duokni biro bedo e kind siling 40 kod siling 100. Gir yueyo chuny (soda kod nus Makati) ibiro chiw. Ma ok bi bedo chudo to biro bedo yo mar duokoni pes wuoth kendo duoko ni erokamano kuom kao sani mondo ibi.

## **H. Kano weche kod gik mayudo e nonro ni**

Faende mag gik ma watiyo go ka watimo nonro ni ibiro kan e kabat ma ogo kiful. Mana jok ma wan go ka ema ibiro yiene gi mondo oyaw kabede go

Nyaka kuma wachopenim be in kod penjo moro amora ka luore kod nonro ni?

### **Ayie**

An, ma koke/picha yi lith luete mathuon ni ka, asewinjo weche ma oseler na maber. Aseyie mondo akony e timo nonro ni kuom hero mara/maonge achuna. Ne omiya thuolo ma oromo mundo apenj penjo kendo ayudo duoko malong'o.

Nyingi..... Tarik.....

*N Ng'at ma ong'eyo somo*

Ket koki ka.....tarik.....

*Ng'at ma okia somo*

I lith lueti mathuon



Janeno.....tarik.....

Ket koki ka.....tarik.....

*(nyaka kete kogno gi ja tim nonro kata ng'at ma oketi ni mondo oyud ayie kuom ji)*

## **CONSENT FORM FOR PARTICIPATION IN THE FOLLOW-UP STUDY**

### ***FOR PARTICIPANTS RECEIVING THE USUAL ANC SERVICES (CONTROL GROUP, CG)***

**Title:** The Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County

**Principal investigator:** Redempta Mutisya, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

**Co- Investigators:** Dr. Christina Mwachari, Kenya Medical Research Institute, Nairobi and Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

#### **A. Introduction:**

Good morning/afternoon?

On behalf of the study team, I would like to thank you so much for accepting to participate in the follow-up study. As you were informed earlier, my team and I are here to carry out a study whose aim is to find out the ‘Effects of Providing Support and Information to Pregnant Survivors of Gender Based Violence in Kisumu County’.

I would like to seek your permission to explain to you what you will be requested to do from now till the end of the study.

#### **B. The Purpose of the Study**

The aim of this study is to find out what the effects of providing support and information to abused pregnant women are, in Kisumu County. This study will be useful to the county government of Kisumu and more so the Ministry of Health in deciding on the measures they can take to help abused pregnant women.

## **C. Procedure**

The purpose of this form is to obtain your consent to participate in the follow-up, that is, in the first assessment (Baseline) and in the last assessment.

If you choose to participate in the follow-up study:

- I. I will take 15-20 minutes of your time to ask you some questions. The questions will touch of violence that you have gone through or you are undergoing, your state of mental wellbeing, how you feel about your life and future and the actions you have taken to stay safe from abuse.
- II. You will be given a card containing the contacts of organizations from where you can seek help for violence. The card will be given together with other ANC reading materials
- III. If you are requested you to come for the last assessment/interview on a date that is not your ANC clinic day, you shall reimbursed the cost of transport and provided with a snack. This will not be payment but a way of refunding you the fare and appreciating you for taking your time to come.
- IV. You will be requested to provide us with a number which I or any member of the study team can use to contact you just in case we need to communicate some information. If it is not your own, it can be that of someone who you trust. The caller will only introduce herself as staff from the health center and shall not disclose that you are part of this study.
- V. I and the study team encourage you to participate to the end. However, you are allowed to leave the study any point, without giving reasons for leaving. You will not be punished or treated badly. You will not be denied ANC services or any other services if you choose to leave.
- VI. Remember also that there is no right or wrong answer to the questions; we would just like to learn about your true personal thoughts and experiences. If you do not understand a question, please tell me or the person who will be talking to you.

#### **D. Benefits**

You will not be given/paid any money or gifts if you choose to participate in the study. Your voluntary participation will however provide very good information which the Kisumu County government can use to plan for ways of reducing or doing away with violence during pregnancy and improve the care given to pregnant women who may be going through violence.

#### **E. Risks**

The subject of GBV is treated as a very private matter. Some of the questions I ask you may be uncomfortable but it is very important that you give truthful answers so that the correct picture of GBV in pregnant women is understood.

In addition other people including the abusers would not be happy if they found out that you shared information on GBV with the study team. You may be stigmatized or even suffer more abuse. It is therefore very important that you do not discuss your participation in this study with anybody else like a spouse/partner, family member or friend. This will help ensure your safety and that of the study team.

If you feel like you are being abused or are suffering more since joining the study, please call the Principal Investigator through the hotline number: 0771 411 324(day and night). If a participant reports an increase of violence, whether or not it is as a result of participating in the study these steps will be taken: she will be released from the study, referred and facilitated to get to the nearest GBVRC and discreet monitoring of her safety will be done until she delivers.

#### **F. Confidentiality**

Due to the sensitive nature of the subject of GBV, the study team will not record your name on any of the data collection instruments. You will be assigned a number which the team will use to identify you.

This room where the supportive sessions and interviews will be held is private so that no one hears what you and I will be discussing. No one will be allowed to come in until the interview is over.

The answers you give will be kept as a secret and will not be shared with anybody who is not part of the study team.

You will never be interviewed or taken through the supportive session if you come for ANC accompanied by your partner, family member, friend or any other person.

The card which will contain information of organizations you can approach for help on GBV will be given together with other ANC reading materials.

## **G. Contact information**

If you may have any questions about the study, you will be free to contact the principal investigator through this number:

**Principal Investigator: Redempta Mutisya:** Mobile No. (Day and night) 0724 563 316

If you have any questions concerning your rights of participation in the study, feel free to contact the Scientific and Ethics Review Unit of KEMRI through the addresses and telephone numbers given below.

P.O. BOX 54840-00200, Nairobi

Tel: +254717 719477, Email: [seru@kemri.org](mailto:seru@kemri.org)

## **H. Compensation**

If you are requested you to come for the last assessment/interview on a date that is not your ANC clinic day, and you spend money to pay for your fare, the amount spent shall be calculated based on the current rates and refunded. The amounts to be refunded will vary

between KSH 40-100. A snack (a soda and a half loaf of bread) will also be provided. This will not be payment but a way of refunding you the fare and appreciating you for taking your time to come.

#### **H. Storage of Questionnaires**

The filled data collection instruments/questionnaires will be kept in locked cabinets. Only members of the study team will be allowed to open the cabinets.

Up to this point, do you want to ask me anything about the study?

#### **Subject permission:**

I, whose signature/thumb print appears below, have understood the all information which has been fully explained to me. I have agreed to participate in the follow-up study willingly/voluntarily. I was given the chance to ask questions and I received satisfactory responses.

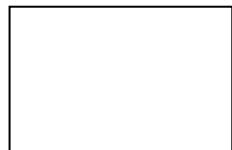
Name of Participant.....

*Literate participants*

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

*Illiterate Participant*

Participants thumb print



Witness Signature..... Date.....

Signature of the person obtaining consent \_\_\_\_\_ Date \_\_\_\_\_

*(Must be signed by the investigator or individual who has been designated to obtain consent)*

## **KALATAS AYIE MAR JOMA BO KONYO E TIMO NONRO MALUWO NONRO MA OKWONGO**

### **NE JOMA MINE MAPEK MA YUDO KONY MAR KLINIK MA KAWAIDA**

**Gima Nonro ni En:** Ber mar chiwo konyruok kod puonj ne mine mapek ma opon tho kaluwore kod sand ma gi yudoka oya kuom joma chuo e Kisumu kaonti

**Jatim nonro maduong':** Redempta Mutistya, JKUAT, Nairobi

**Jotim nonro makonye:** Dr. Christina Mwacharia, KEMRI, Nairobi kod Prof. Kenneth Ngure, Prof. Kenneth Ngure, Jomo Kenyatta University of Agriculture and Technology, Nairobi.

#### **A. Weche ma awiye**

Nyinga en Redempta Mutisya, asomo e mbalariany ma JKUAT, kar somo yedhe kod tuoche mantiere KEMRI Nairobi. Joga ma watimo go nonro kod an duto ni ka mondo on ‘ber mar mar miyo mine mapek ma opn tho ka luore kod sandruok ma guyudo ka oya kuom joma chuo kony kod puonj e kaonti mar Kisumu ka. Koro ahero mundo akwayi ni ki yie mundo alerni gima ibokwayi ni iti e chakruok nyaka giko mar nonro ni.

#### **B. Gima omiyo watimo nonro ni**

Gima duong ma omiyo watimo nonro ni en ni mondo onyis chandruoge ma ikelo kod sandruok ma isando go mine ka oya kuom jonma chuo ndalo ma gi pek kendo bende mondo onyis gik ma omiyo mine mapek e Kisumu kaonti kay udo sandruoge aila go. Nonro ni ber ne Kisumu kaonti to ahinya ahinya ne migao mar thieth e neno gima inyalo tim mondo oduok chien sandruoge mag mine mapek. Duoko mar nonro nin biro konyo tend kauti seche ma gibiro kod gik ma inyalo tim mondo omed rit ne mine ma nyalo bedo ni isando.

### **C. Okenge mag nonro**

- I. Ler mar kalatasni en ni mondo oyud yie mari ma onge achuna mondo ikony e timo nonro ni ma iluwogo nonro ma okwongo cha. Ka ineno kuom yie mari ni inyalo konyowa e timo nonro ni ma iluwogo nonro ma okwongo cha;
- II. Abokao dakika 15-20 mari mondo apenji go penjo. Penjo go bo mulo chandruok ma iyudo, ler mar paro mari, kaka iwinjo e ngimani sani kod ndalo mabiro kod gik ma itimo mundo idag maonge ayany kod sandruok.
- III. Ma ibiro lu kod (chieng' onogo ono)gi dakika 20-30 ka wawuoyo kodi e chandruok ma iyudo nikech sand ma joma chuo, gima itimo mundo ing'i kod chandruoge go kendo gik ma itimo modo iket ngima ni kod ngima nmyathi ma itingo obed maber. Ma e chieng' ma wabokwayi e dakika 50 mari. E wi jogi te, asingoni ni wabotimo ber duto mondo wakaw dakika 50 kata matin ne mano mari. Abokwayi kendo dakika 20-30 seche duto ma ilimo wa mondo wapogre e paro we weche mag sandruok mag mine mahinyi. Mabobedo gi romo ariyo mag pogruok e paro ka pok ikonyori. E romo ma ogik, achiel kuomwa biro gombo mondo okaw dakika 15-20 ka penji penjo. Waduto wabotimo duto manyalore mondo romo kodi otimre e Tarik achie ma ibiro e klinik.
- IV. Ka poni okwayi mundo ibi e romo mar kony Tarik ma ok mar biro e klinik, waboduokoni pesa mar safar kendo wabomiyi soda moro mondo imadh. Ma ok en chudo to en mana mar duoko ni erokamano kuom chiwruok mari.
- V. Ka okwayi ni mundo ikony wa gi namba sim moro ma wanyalo tudre godo kodi ka wach moro nitie ma wadwa nyisi, ka ok en mari, we obed mar ng'at ma in go gi adier. Ja go simu bo wacho ni en ma oya e kar thieth to ok obi wacho ni en in achiel kuom joma timo nonro ni.
- VI. Waduto te wabomiyi mijing'o mar bedo achiel kuomwa ka nyaka giko. To kata kamano, oyieni mondo iwuogi sa moro amora kata ka ok iwacho gima omiyo iwuok. Ok bi miyi kum kata sand moro amora. Ok bi tami yudo kony mag klinik kata moro amora ka iyiero ni iwuok.

VII. Par kendo ni onge duoko ma kare kata ma ooyo e penjo. Ka ok iwinjo penjo, akwayi ni nyisa kata inyis ng'ato ang'ata ma bobedo ni konyi.

#### **D. Ber ma inyalo yudo ka ikonyowa e timo noppnro ni**

Ok bi chuli pesa moro amora kendo onge mich moro amora ma ibo miyi ka ikonyowa e timo nonro ni. To yie mari ma muol mondo ibed achiel kuomwa biro kelo weche mabeyo mag puonj ma tend Kisumu kaonti nyalo tiyo go ka gi ng'iyo yore mag duoko chien kata tieko chutho sandruoge mag mine ndalo ma gi pek mondo omed rit ma imiyo mine go manyalo bedo ni isando.

#### **E. Rach Manyalo wuok ka luore gi nonro ni**

Wach mar sandruoge ma mine kaloe gin gik ma siri. Penjo moko ma anyalo penji nyalo bedo ni marach to en gima ber kaichiwo duoko ma adier mondo adier mar wach mar sandruogegi og'e. kai we mano, jomoko nyaka joma sando ji ok bi bedo mamor kodi ka gi yudo ni iwacho weche moko kaluore kod sand gi kod joga ma watimo go nonro ni. Gi biro bedo ni ok gidwari kendo ok gi mor kodi kendo ginyalo bedo ni gi medo yanyi kata sandi. Koro en gima ber ni kik iwach ne ng'ato ang'ata ni in achiel kuom joma otimo nonro ni. Timo kamano bo miyi arita kwe maber nyako kwe ne joma moko ma otimo nonro ni.

Koro en gima ber mondo kik iwach weche ma wa wacho gi kod ng'ato ang'ata machal gi jaodi/osiep ni kata familia mari. Maa bo keto arita mari kod marwa bedo maber. Ka iparo ni iyudo ayany kata sand manyeny nyaka ne idonj kuomwa, wakwayi ni mondo igochne janonro maduong' e namba ne **0771411324** otieno kata odiochieng'. Ka achiel kuomwa ka ma watimo go nonro ni nyiso wa duoko mar medruok mar sand, obed nikech bedo achiel kuomwa e timo nonro ni kata ooyo, wabotimo kama; wabogole e timo nonro ni, ibotere kendo konye ochop kar hocho mar joma mine man machiegni kendo wabo luwo chal mare nyaka okonyre.

## **F. Siri mar nonro ni**

Ka luore gi weche mag sandruok ma mine kaloe bedo kod dondruok mathoth, ok wa bi ndiko nyingi, wabiro mana miyi namba ma wabotiyogo kaka nyingi. Ot ma wantiere ni be en mar siri kendo onge nga't manyalo winjo gik ma wawacho. Onge ng'at ma oyiene donjo e iye ka nyaka watieki. Duoko ma ibo chiwonwa ibiro kan kaka siri maduong' kendo ok bi mi ng'at ang'ata ma onge ko0dwa ka.

Ok bi penji penjo kata teri e puonj mar kony kai biro e klinik gi jaodi/osiepni kata familia mari. Kadi ma oting'o kuma inyalo dhiye yudo kony e wi sandruok ibo chiw kod buge ma isomo mag klinik.

## **G. Yor tudruok kodwa**

Ka inyalo bedo gi penjo e noro ni, wakwayi ni bed thuolo mondo itudri kod jatelo maduong' mar nonro ni

**Jatelo maduong'**: Redempta Mutisya

**Namba simu:** 0724563316(otieno kod odiochieng')

Ka in kod penjo ka luore kod ratiro mari mar bedo achiel ma timo nonro ni, wakwayi mondo ibed thuolo mondo itudri kod; Scientific Ethic Review Unit mar KEMRI e sanduku

PO BOX 54840-00200, Nairobi

Namba sim: 0717719477

Email margi en: seru@kemri.org

## **H. Chudo ma balang'**

Ka okwayi ni mondo ichopi e romo mar konyruok kata e bura e tarik ma ok en chieng'i mar dhi e klinik to itiyo gi pesa ni e chulo mtoka, pesa ma itiyo go no ibiroduokni. Pesa ma ibiro duokni biro bedo e kind siling 40 kod siling 100. Gir yueyo chuny (soda kod nus Makati) ibiro chiw. Ma ok bi bedo chudo to biro bedo yo mar duokoni pes wuoth kendo duoko ni erokamano kuom kao sani mondo ibi.

## **I. Kano weche kod gik mayudo e nonro ni**

Faende mag gik ma watiyo go ka watimo nonro ni ibiro kan e kabat ma ogo kiful. Mana jok ma wan go ka ema ibiro yiene gi mondo oyaw kabede go

Nyaka kuma wachopenim be in kod penjo moro amora ka luore kod nonro ni?

### **Ayie**

An, ma koke/picha yi lith luete mathuon ni ka, asewinjo weche ma oseler na maber. Aseyie mondo akony e timo nonro ni kuom hero mara/maonge achuna. Ne omiya thuolo ma oromo mundo apenj penjo kendo ayudo duoko malong'o.

Nyingi..... Tarik.....

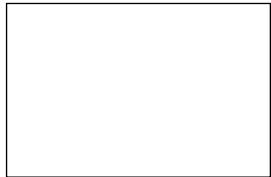
*Ng'at ma ong'eyo somo*

Ket koki ka..... tarik.....

*Ng'at ma okia somo*

I lith lueti mathuon

Janeno.....tarik.....



Ket koki ka.....tarik.....

*(nyaka kete kogno gi ja tim nonro kata ng'at ma oketi ni mondo oyud ayie kuom ji)*

## **Appendix II: Data Collection Tools**

### **GBV IN PREGNANCY**

**Sub-County** \_\_\_\_\_ **Health Facility** \_\_\_\_\_

#### **Individual Factors**

1. Age (self) .....(Years)

2. Are you:

Currently married/living with a man =1

Formerly married/ lived with a man =2

Never married/ never lived with a man= 3

3. Age difference between you and your partner/ spouse

0-4 years =1       5-10 yrs= 2       More than 10 years=3

4. Marital status

Married=1       Cohabiting=2       Single=3       Divorced/separated=4

5. Highest Level of education/certification (SELF)

None/ Did not complete primary education= 1       Completed Primary school=2  
 Completed Primary school +certificate/diploma=3       Secondary school=4  
 High school + Diploma/certificate=5       University=6

6. Highest Level of education/certification (FORMER/CURRENT PARTNER/ SPOUSE)
- None/ Did not complete primary education= 1      Completed Primary school=2
- Completed Primary school +certificate/diploma=3    Secondary school=4
- High school + Diploma/certificate=5                           University=6
7. Employment/Occupation (SELF)
- House wife=1    Self-employed=2     Casual laborer=3     Employed=4
8. Employment (FORMER/CURRENT PARTNER/ SPOUSE)
- Self-employed=1      Casual laborer=2       Employed=3
9. Number of children
- Less than 3 =1      4-6=2      More than 6=3
10. Age of oldest child .....Months/ Years
11. Age of the youngest child .....Months/Years
12. Presence of children not born to Former/current partner/ spouse
- Yes= 1     No=2
13. How often do you get drunk?
- 1=Often     2= only sometimes     3= Never
14. How often does (did) your partner/spouse get drunk?
- 1=Often     2= only sometimes     3= Never
15. As far as you know, did your father ever beat your mother or did your guardians fight in your presence?
- Yes=1       No=2       Don't know=3

16. From the time you were 15 years old has anyone other than (former) husband/partner hit, slapped, kicked, or done anything else to hurt you physically?

Yes =1       No=2

17. Who hurt you in this way?

- |  |  |  |
|--|--|--|
| <input type="radio"/> Mother/Step-Mother       | <input type="radio"/> Father/Step-Father | <input type="radio"/> Sister/Brother         |
| <input type="radio"/> Daughter/Son             | <input type="radio"/> Other Relative     | <input type="radio"/> Former Husband/Partner |
| <input type="radio"/> Current Boyfriend        | <input type="radio"/> Former Boyfriend   | <input type="radio"/> Father-In-Law          |
| <input type="radio"/> Mother-In-Law            | <input type="radio"/> Other In-Law       | <input type="radio"/> Teacher                |
| <input type="radio"/> Employer/Someone at Work |  | <input type="radio"/> Police/Soldier         |
| <input type="radio"/> Other (Specify).....     |  |  |

18. How old were you at the time of first sexual intercourse? .....years

19. The first time you had sexual intercourse, would you say that you had it because you wanted to, or because you were forced to have it against your will?

Wanted to=1       Forced to =2       Refused to answer/ no response=3

20. At any time in your life, as a child or as an adult, has anyone ever forced you in any way to have sexual intercourse or perform any other sexual acts?

Yes=1       No=2       Refused to answer/no answer=3

## **Relationship Factors**

21. Does (did) your partner/spouse involve you in family decision making?

Yes=1       No=2

22. Do (did) you feel like your partner/spouse dominates/dominated in all family decisions?

Yes=1       No=2

23. How often did/do you have marital conflicts?

Often= 1       Only sometimes=2       Never

24. Do/did you feel satisfied in your relationship?

Yes=1       No=2

25. Do/ did you have other secret partners besides your former/current partner/spouse?

Yes=1       No=2

26. Has/did your partner/spouse ever raise(d) concerns about your fidelity?

Yes=1       No=2

27. As far as you know, did/does your partner/spouse have other partners besides you?

Yes=1       No=2

28. Did/have you ever raise (d) concerns about your partner/spouse's fidelity?

Yes=1       No=2

29. Do you believe that difference in your educational attainment and that of your partner/spouse has/had any negative effect on your relationship?

Yes=1       No=2

30. Do you believe that the difference in job status between you and your partner/spouse  
Have/had any negative effect on your relationship?

Yes=1       No=2

31. How would you describe the adequacy of money for your family?

Barely enough=1     Enough the help us get by=2     Adequate=3

### **Community and Societal Factors**

32. How would you describe your neighborhood in terms of the population density/  
overcrowding?

Low/not overcrowded=1       Average=2       High/Overcrowded=3

33. How would you describe your neighborhood in terms of access to clean water?

Adequate=1       Fairly adequate=2       Inadequate=3

34. How would you describe your neighborhood in terms of security?

Safe=1       Fairly safe=2       Unsafe=3

35. How would you describe your neighborhood in terms of access to schools?

Adequate=1       Fairly adequate=2       Inadequate=3

36. Does the community have existing ways of dealing with individuals who perpetrate?

GBV? Yes=1     No=2

37. How would you describe the community sanctions against GBV?

Strong=1       Fairly strong=2       Weak=3

38. How would you describe the acceptance of violence as a means to resolve conflict in  
your community?

Acceptable=1     Sometimes acceptable=2     Not acceptable=3

39. How would you describe the process of seeking treatment for GBV atrocities in your Community/area?

Easy=1

Fairly easy=2

Difficult=3

40. How would you describe the process of seeking legal help for GBV atrocities in your area?

Easy=1

Fairly easy=2

Difficult=3

**The following is a list of some norms and beliefs. Please indicate your level of agreement with each.**

41. A man is considered socially superior to a woman

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

42. A man has a right to assert power over a woman

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

43. A man has a right to physically discipline a woman for ‘incorrect’ behaviour

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

44. Physical violence is an acceptable way to resolve conflict in a relationship

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

45. Sexual intercourse is a man’s right in marriage

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

46. A woman should tolerate violence in order to keep her family together

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

47. There are times when a woman deserves to be beaten

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

48. Sexual activity (including rape) is a marker of masculinity

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

49. A woman/girl is responsible for controlling a man's sexual urges

- Strongly agree     Agree     Neutral  
 Disagree     Strongly Disagree

## **ABUSE ASSESSMENT SCREEN- ENGLISH**

***Instructions: Circle Yes or No for each question***

1. Have you ever been emotionally or physically abused by your partner or someone important to you? **YES/ NO**
  
2. Within the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone? **YES/ NO**

If **YES**, who? (**Circle all that apply**)

Husband      Ex-Husband      Boyfriend      Stranger

Other Multiple

Total no. of times \_\_\_\_\_

3. Since you've been pregnant, have you been slapped, kicked or otherwise physically hurt by someone? **YES/ NO**

If **YES**, who? (**Circle all that apply**)

Husband      Ex-Husband      Boyfriend      Stranger

Other Multiple

Total no. of times \_\_\_\_\_

4. Within the last year, has anyone forced you to have sexual activities? YES /NO

If **YES**, who? (Circle all that apply)

Husband      Ex-Husband      Boyfriend      Stranger

Other Multiple

Total no. of times \_\_\_\_\_

5. Are you afraid of your partner or anyone you listed above? **YES/ NO**

## **GIK MA OTUDRE KOND SAND MAG MINE NDALO MA GIPEK**

**Migao mar bunge** \_\_\_\_\_ **Namba mar karthieth** \_\_\_\_\_

### **Weche maluore gi kaka ng'ato en**

1. Hiki .....(Higni)
2. Be:
  - Okendi/idak gi dichwo=1
  - Ne okendi/Ne idak gi dichuo=2
  - Pok okendi/Ok idak gi dichuo=3
3. Pogruok ehiga ekind joot/jok ma okendre
  - 0-4 (nyaka higni angwen gi dichwo)=1
  - 5-10 (kindi higni abich nyaka apar)=2
  - Maloyo higni apar=3
4. Chalni ekend
  - Okendi=1
  - Udag adaka=2
  - Pok okendi kata pok ikendo=3
  - Ne uweru/dak mopogre=4
5. Sombi kata gik mar sombi
  - Onge kata ok natieko sombi primary=1
  - Atieko primary=2
  - Atieko primary ma ayudo certificate kata diploma=3
  - Atieko somo sekondari=4

- Atieko sekondari ma ayodo diploma kata certificate=5
  - Asomo nyaka mbalariany=6
- 6. Sombi ma malo mogik (Osipieni/machon, masani kata jaodi)
  - Onge kata ok natieko sombi primary-1
  - Atieko primary=2
  - Atieko primary ma ayudo certificate kata diploma=3
  - Atieko somo sekondari=4
  - Atieko sekondari ma ayodo diploma kata certificate=5
  - Asomo nyaka mbalarianyi=5
- 7. Tich/ Tiji (mari) Employment/Occupation (SELF)
  - Dhako maok ti=1
  - Tiyo tiji=2
  - Ja amali=3
  - Ondiki=4
- 8. Tiji (machon/osipieni masani/jaodi)
  - Tiyo tiji=1
  - Ja amali=2
  - Ondiki=3
- 9. Nyithindo ma in go
  - Matini ne adek=1
  - Agwen nyaka auchiel=2
  - Maloyo auchiel=3

10. Hik nyathi maduong ..... Dweche/higni  
11. Hik nyathi matin ..... Dweche/higni

12. Nyithindo mane okinywolo gi jaodi mokwongokata masani

1= Ee

2= Ooyo

13. Imer maromo nadi?

1= Mageny

2= Matin

3= Onge

14. Jaodi mer maromo nadi?

1= Mageny

2= Matin

3= Onge

15. Kaluore gi kaka ingeyo, be wuonu ne osegoyo minu kata jok ma idakago ogote ka ineno?

Ee=1

Ooyo=2

Akia =3

16. Chakre mane ibed jahigni apar gi abichi, be ng'ato nono osegoyi kata thali, gweyi kata timoni gi

amora ma hinyi?

Ee=1

Ooyo=2

17. Nga'ma hinyi kamano?

- Mamani kata minu ma thenge
- Babani/wuonu kata wuonu ma thenge
- Nyaminu kata owadu
- Nyari kata wuodi
- Wedegi mamoko
- Jaodi/chuori machon kata osiepni
- Osiepni mawoyi masani
- Osiepni mawoyo machon
- Wuon odu
- Min odu
- Jo odu mamoko
- Japuonj
- Ngama ondiki kata ngat ma utiyogo
- Polis kata jalweny
- Moko .....

18. Ne in gi higni adi ekisera makwongo ? .....

19. Mane ihango nindo gi ngato, ne ihero kose ne ochuni?

- Ne odwaro=1
- Ne ochuna=2
- Onge duoko=3

20. E ngimani, ka nyathi kata ngat madwong, be ngato osegachuni mondo inind kode ?

- Ee=1
- Ooyo=2
- Onge duoko =3

**Wat mane kindu**

21. Be ukonyorega gi osiepni kata jaodi echano weche mag odu?

- Ee=1
- Ooyo=2

22. Be inenoga ni osiepni kata jaodi dwarzni mondo en ema opang weche odu kende?

- Ee=1
- Ooyo=2

23. Ubedoga gi gwandruok edu maromo nade?

- 1=Digeny
- 2= Ka dichiel
- 3= Onge

24. Bende ne ibedo moromo kod bedo u e achiel?

- Ee =1
- Ooyo=2

25. Be ingi osiepe mamoko mak mana jaodi?

- Ee=1
- Ooyo=

26. Be osiepni kata jaodi osebedo gi chichi eyoteni masani kata machon?

Ee=1

Ooyo=2

27. Ka luore gi kaka ingeyo, osiepni kata jaodi ni gi osiepe mamoko?

Ee=1

Ooyo=

28. Be isebedo gi chich ewach ratiro mar osiepni kata jaodi?

Ee=1

Ooyo=

29. Be iparo pogruok esombu gi osiepi/jaodi osekelo pogruok, e kindu kata winjnuok maru?

Ee=1

Ooyo=2

30. Be iparo ni pogruok etich mautimo osekelor pogruok e kindu?

Ee=1

Ooyo=

31. Ere kaka inyalo wacho wach pesa moro efamilia ni?

Maokrom=1

Maromo=2

Maromo kabisa=3

**Weche anyola gi oganda**

32. Angoma inyalo wacho kuom ngeny mar joma udak go machiegni?

Tin/ok ngeny=1

Edieke =2

Ngeny/ ngeny ahinya=3

33. Angoma inyalo wacho kuom joma chiegni kodu koluore gi ler ma pii ?

Oromo=1

Oromo matin=2

Okromo=3

34. Angoma inyalo wacho kuom kwee mar kama udake?

Ber=1

Ber matin=2

Okromo=3

35. Angoma inyalo wacho kuom sikunde kanitie kama udake?

Oromo=2

Oromo matin=3

Okromo=

36. Be ongandau ni giyore mag tieko gwandruok ekind mon gi chow?

Ee=1

Ooyo=

37. Angoma inyalo wacho kuom chike ma anywola oketo ka luore gi gwandruok e kind joma

odak?

Motegno=1

Mategno ediere=2

Yom yom=

38. Be iyie ni dha /gwandruok en yoo mar kelo kwee e i anywola?

Yiego=1

Samoro iyiego=2

Ok yiego=3

39. Angoma inyalo wacho kuom jok ma dhi dwaro thieth bang ka gisegwandore?

Yot=1

Yot matin=2

Tek=3

40. Angoma inyalo wacho kuom jok ma dhi dwara kony mar ehik bang dha /gwandruok?

Yot=1

Yot matin=2

Tek=3

**Piny kae nitie chike ma ji oyie go. Nyiskaka iyie kodgi**

41. Joma chow okaw ni oteloni ni mon

Ayie go kabisa

Ayie

Onge gima anyalo wacho

Adagi

Adagi chuth

42. Ngama dichwo nigiteko mar timo gimoro amora e widhako

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

43. Ngama dichwo oyiene goyo dhako ka otimo gima okowinjore kata ka ketho

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

44. Dhaو en yo mar kelo kwee e kind joma odak

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

45. Nindruok en ratiro mar ng'ama dichuo e kend

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

46. Ngama dhako nyaka yie iweny ekaji nyalo dak kanyakla

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

47. Nitie seche ma dhako dwarore ni ogo

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

48. Nindruok (koriwo gi mako ngato githuon) en nyiso ni ngato tek

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

49. Dhako kata nyako ni gi teko mar chiko ngama dichwo eyor nindruok

- Ayie go kabisa
- Ayie
- Onge gima anyalo wacho
- Adagi
- Adagi chuth

## **RAMENY MAR DWARO NONRO YENYO**

*Lour ee kata ooyo epenjo ka penjo*

1. Bende jaodi/osipieni kata watni osehinyo chunyi kata dendi? Ee/Ooyo

2. Ehigani kata higa mokalo be ng'ato osegoyi, thali, gweyi kata hinyi e yo mora amora?

Ee/Ooyo

Ka en kamano, to en nga? (Lour duoko makare)

Jaodi/chuori

Jaodi mane uwerugo

Osipieni mawuoyi

Ng'at mi kia

Mamoko

Didi \_\_\_\_\_

3. Nyaka nibed mapek, be ose thali gweyi kata ohinyi eyo moramora? Ee/Ooyo

Ka komano, to en nga?

Jaodi/chuori

Jaodi mani uwerugo

Osipieni mawuoyi

Ng'at mi kia

Mamoko

Didi \_\_\_\_\_

4. Ehiga mosekalo, be ngato osechuni mondo inid kode? Ee/Ooyo

Ka komano, to en nga?

Jaodi/chuon

Jaodi mani uwerugo

Osipieni maSwuoyi

Ng'at mi kia

Mamoko

Didi \_\_\_\_\_

5. Be iluoro jaodi/chuori kata ng'ato ma indiko malo kanyo? Ee/Ooyo

## PREGNANT WOMENS' QUESTIONNAIRE

**READ TO THE RESPONDENT:** I would like to ask you questions about some important aspects of a woman's life. I know that some of these questions are VERY PERSONAL. However, your answers are very important in helping to understand the problem of GBV in Kisumu County. I assure you that your answers are COMPLETELY CONFIDENTIAL AND WILL NOT BE TOLD TO ANYONE AND NO ONE ELSE WILL KNOW THAT YOU WERE ASKED THESE QUESTIONS.

A. Are you:  Currently married/living with a man=1     Formerly married/ lived with a man     Never married/ never lived with a man=3

B. I would like to know if you experienced any of the actions listed below and **how often** it happened *both during the 12 months before you knew you were pregnant and since you have known you were pregnant*. Put a tick [√] in the box which matches the frequency.

My husband/partner:	During the 12 months before you knew you were pregnant					Since you've known you were pregnant			
	Never	Only Once	Some	Once/Month	Once/Week	Daily	Never	Only Once	Some
1.Told me that I wasn't good enough									
2. Kept me from going to the hospital									
3. Followed me									
4. Tried to turn my family, friends and children against me									
5. Locked me in the house/told me not to leave the compound									
6. Slapped me									
7. Forced to have sex									
8. Told me that I was ugly									
9. Tried to keep me from seeing or talking to my family									
10. Threw me									
11. Monitored/tracked my movement									
12. Blamed me for causing his violent behaviour									
13.Harassed me over the phone									
14.Shook me									
15.Tried to force me to have sex									
16.Harassed me at work/as I worked									
17.Pushed or grabbed me									

My husband/ partner:	During the 12 months before you knew you were pregnant					Since you've known you were pregnant					
	Never	Only Once	Some Times	Once/Month	Once/Week	Daily	Never	Only Once	Some Times	Once/Month	Once/Week
18.Used a knife/club/whip or other weapon against me											
19.Became annoyed if food/housework wasn't ready when he thought it should be											
20.Told me that I <b>had lost my mind /was mad</b>											
21.Told me that no one would ever want me											
22.Took my money and left me stranded											
23.Hit or tried to hit me with something											
24.Did not want me to socialize with my female friends											
25.Put foreign objects in my vagina											
26.Refused to let me work outside the home											
27.Kicked me, bit me or hit me with a fist											
28.Tried to <b>convince my friends, family or children that I was mad/mentally unstable</b>											
29.Told me that I was stupid											
30.Beat me up											
31. Refused to use a condom											
32. Forced me to become pregnant when I did not want to											
33. Forced me to perform sexual acts I did not want to											
34. Neglected me financially											
35. Chased me from home											
<b>Other Persons :</b>											

36. Forced me to have sexual intercourse against my will													
37. Hit, slapped, kicked, or physically hurt me													
<b>I HAVE:</b>													
38. Hit, slapped, kicked, or done anything else to physically hurt your (last) husband/partner at times when he <b>was not already beating or physically hurting you</b>													

**C. Who were these persons in QST 36 and 37? e.g brother, mother in law, police etc**

### **PENJO KUOM MIYO (DHAKO) MAYACH**

**Som ne ng'ama ipenjo penjo:** daher mar penji penjo moko ewi ngima mar ng'ama miyo. Ang'eyo ni moko kuom penjo gi, gin modoko kor kakori ahinya, kendo ng'ato ok onego ng'e. Katakanamo, duoko magi biro konyo ahinya e winjo matut tembe mag rochruok gi ratiro mag joma mine e kisumu county. Asingoni ni duoko mimiya, ok bi kon ng'ato kendo onge ng'at ma biro ng'eyo ni nopenji penjogi kata ng'at ma biro neno duokogi.

#### **A. Bende**

Sani Okendi/ Idak gi jaodi(dichuo)=1

Nene Okendi/ Nene idak gi chuo=2

Pok nene okendi/ pok ne idak gi dichuo=3

**B. Daher mar ng'eyo ka gik ma ondik piny kae gi osetimore ni ga, to kaka negi thoro timore, e kinde dweche 12 ka ne pok ki ng'eyo ni iyach(ipek) to gi ka ne iseng'eyo ni iyach. Ket okwajo(tick) kaluwore gi ndalo ma osekorochruok gi ratiro ni.**

<b>Jaodi/Ng'ama idakgo:</b>	<b>Dweche 12 kane pok ing'eyo ni iyach</b>					<b>Kane iseng'eyo ni ayach</b>					
	<b>Podi</b>	<b>Dichiel Kende</b>	<b>Sechemoko</b>	<b>Dichiel edwe</b>	<b>Dichiel e juma</b>	<b>Pile</b>	<b>Podi</b>	<b>Dichiel Kende</b>	<b>Sechemoko</b>	<b>Dichiel edwe</b>	<b>Dichiel e juma</b>
1.Nene okona ni ok along'o ahinya											
2. Notama dhi e od thieh											
3. Olaure koda kumora amora ma adhie											
4.Otemo ketha gi anyuolana, osiepe na, kod nyithindo											
5. Olorona e oot/ okona ni kik awuog oko mar laro mar oot											
6. Opada											
7. Ochuna mondo wanidi e achiel/ waterre kode											
8. Okona ni araracha											
9. Otama ni kik alos kod anyuola na/ otemo tama loso kod anyuola na											
10. Odhira matek											
11. Oluwo wuodhenen											
12. Ochaya ni an ema amiyo obedo malelo											
13. Okwodo wiya e ong'we yamo(simu)											
14.Oyienga											
15.Otemo chuna ni waterre/ wariure e achiel/ watim hera											
16.Okuodo wiya e kar tich											
17. Odhira/ ong'wana											
18. Otiyo gi pala/ rungu/ boka kuoma											
19. Iye ne owang' koda ka chiemo/ tije mag oot ok ne otimore e saa mane ogeno											

ni onego bed ni osetimgi												
20. Nokona ni wiya ollokore/neko dwa maka												
21. Okona ni onge ng'at ma nyalo dwara												
22. Okawo pesana( omwomna) to oweya kanyo												
23. Ogoya kata otomo goya gi gimoro												
23. Ogoya kata otomo goya gi gimoro												
24. Oknodwa ni ariuura gi osiepena ma nyiri												
25. Osoko/ keto gimoro mawendo e duong'na												
26. Otamre ni kik ati oko mar ot												
27. Ogweya, Okaya, ogoya ngum/ ogoya adhong'												
28. Otemo kono osiepena, anyuola na gi nyithindo ni wiya biro marach/ adwa bedo janeko												
29. Okona ni araura												
30.Ogoya												
31. Otamre tiyo gi rabuo yunga(condom)												
32. Ochuna modo mi abed mayach ka anto ne ok adwar												
33. Oketa ni mondo atim timbe mag hera/ terruok ma an ne ok adwar												
34. Oweyo konya e yor pesa(manyonge)												
35. Oriemba e dala												
<b>Jogo mamoko ( mopogre gi jaodi/ng'ama idakgo) :</b>												
36. Ochuna modo anind kode/ watim kode hera ka anto ok adwar												
37. Ogweya, Opada,kata oinyo denda												

<b>Gik ma asetimo:</b>											
38. Gweyo, pado, goyo kata timo gimoro manayalo hinyo dend Jaodi/ng'ama idakgo (mogikni) kane ento pok ne ogoyi kata ohinyo dendi.											

C. Magi ne jomage ma iwacho e **penjo namba 36&37?** Kuom ranyisi, Owadu, min chwori, Obila(ogul mama).

## **EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)**

Age: \_\_\_\_\_

As you are pregnant, we would like to know how you are feeling.

**Please check the answer THAT COMES CLOSEST TO HOW YOU HAVE FELT IN THE PAST 7 DAYS, not just how you feel today.**

Here is an example, already completed.

I have felt happy:

- Yes, all the time
- Yes, most of the time
- No, not very often
- No, not at all

**This would mean: “I have felt happy most of the time” during the past week.**

**Please complete the other questions in the same way.**

1. I have been able to laugh and see the funny side of things

- As much as I always could =0
- Not quite so much now =1
- Definitely not so much now =2
- Not at all =3

2. I have looked forward with enjoyment to things

- As much as I ever did= 0
- Rather less than I used to =1
- Definitely less than I used to= 2

Hardly at all =3

3. I have blamed myself unnecessarily when things went wrong

Yes, most of the time =3

Yes, some of the time =2

Not very often =1

No, never= 0

4. I have been anxious or worried for no good reason\*

No, not at all =0

Hardly ever= 1

Yes, sometimes =2

Yes, very often =3

5. I have felt scared or panicky for no very good reason\*

Yes, quite a lot =3

Yes, sometimes =2

No, not much= 1

No, not at all= 0

6. Things have been getting on top of me

Yes, most of the time I haven't been able to cope at all =3

Yes, sometimes I haven't been coping as well as usual =2

No, most of the time I have coped quite well =1

No, I have been coping as well as ever =0

7. I have been so unhappy that I have had difficulty sleeping

Yes, most of the time=3

Yes, sometimes= 2

Not very often= 1

No, not at all= 0

8. I have felt sad or miserable

Yes, most of the time= 3

Yes, quite often= 2

Not very often =1

No, not at all= 0

9. I have been so unhappy that I have been crying

Yes, most of the time =3

Yes, quite often= 2

Only occasionally= 1

No, never =0

10. The thought of harming myself has occurred to me

Yes, quite often =3

Sometimes= 2

Hardly ever =1

Never =0 \*

## **EDINBURGH POSTNATAL DEPRESSION SCALE (EPDS)-DHULUO**

Namba: \_\_\_\_\_ Address: \_\_\_\_\_ Chieng' nyoul:

**Esani miych dwacher ngayo kaka iwinjo.Ngiyanene duoko machiegni gi kaka isebedo e ndalo abinyo mokalo, ok mana kakaka iwinjo kawuono.**

Mae ranyisi :

Asebedo mamor

- Ee, seche te
- Ee, seche mageny
- Ooyo, ok seche te
- Ooyo , ok kata dichiel

**Mae tiende ni ‘Asebedo mamor seche mangeny’ e jumaa mokalo**

**Akanyo ni ipongana penjogi machalre**

1. Asebedo kaanyiero to aneneo gik malomba

- Nyadi ngeny kaka anyalo= 0
- Ok ngeny ahinya sani= 1
- Ok mangeny ahinya sani= 2
- Ok kata matin=3

2. Ang'yo mbele mar winjo maber gi gik mamoko

Kaka matimo= 3

Matin ni kaka ni atimo= 2

Matin ne kaka ne atimo= 1

Ok kata matin= 0

3. Asebedo kaparo ni an ema ok an kare seche ma gimoro odhi marach

Ee, seche mangeny= 3

Ee, samoro= 2

Ok ahinya= 1

Ooyo, ok kata matin= 0

4. Asebedo gi kibaji kata gi parruok maonge gima omiyo

Ooyo, ok kata dichiel= 0

Ok kata matin 1

Ee, samoro= 2

Ee, seche mangeny= 3

5. Asebedo giluoro kata kibaji maonge gimaomiyo

Ee, ahinya= 3

Ee, samoro= 2

Ooyo= 1

Onge kata matin= 0

6. Weche osebedo ka hinya

Ee, seche mangeny asebedo ka ok anyal= 3

Ee, samoro asebedo ka ok anyal kapile= 2

□Ooyo, seche mangeny asebedo ka nyalo= 1

□Ooyo, sebedo kanyalo kaka pile= 0

7. Asebedo gi kuyo ma ok anyal nondo

□Ee, seche te= 3

□Ee, samoro= 2

□Ok ahinya= 1

□ Onge kata matin= 0

8. Asebedo gi kuyo kata maonge mor

□Ee, seche te= 3

□Ee, samoro= 2

□Ok ahinya= 1

□ Onge kata matin= 0

9. Asebedo maonge moro ma asebedo mana kaaywak

□Ee, seche te= 3

□Ee, di mangeny= 2

□Ka dichiel= 1

□Ooyo, onge kata matin= 0

10. Paro mar hinyra osebiro e pacha

□Ee, di mangeny= 3

□Samoro= 2

□Podi nyaka nene= 1

□ Podi= 0 \*

## **THE RAND 36-ITEM HEALTH SURVEY 1.0-ENGLISH**

### **Questionnaire Items**

1. In general, would you say your health is:

Excellent	1
Very good	2
Good	3
Fair	4
Poor	5

**How TRUE or FALSE is each of the following statements for you. (Circle One Number on Each Line)**

	<b>Definitely True</b>	<b>Mostly True</b>	<b>Don't Know</b>	<b>Mostly False</b>	<b>Definitely False</b>
2. I seem to get sick a little easier than other people	1	2	3	4	5
3. I am as healthy as anybody I know	1	2	3	4	5
4. I expect my health to get worse	1	2	3	4	5
5. My health is excellent	1	2	3	4	5

## RAND 36-ITEM HEALTH SURVEY 1.0- *DHULUO*

### Gik mipenjo

1. E sani, inyalo wacho ni ngamani en;

Ber maloyo	1
Ber kabisa	2
Ber	3
Diere	4
Rach	5

Nyis kawache piny kae gin ADIER kata MIRIAMBO (**Lour namba achiel e line ka line**)

	Adier	Adier maloyo	Akia	Miriambو	Miriambو maloyo
2. Ahinyo bedo matuo maloyo jamoko	1	2	3	4	5
3. Angima man kaka jamoko	1	2	3	4	5
4. An geno ni ngima na biro bedo marach	1	2	3	4	5
5. Angima kabisa	1	2	3	4	5

## **THE SAFETY BEHAVIOR CHECKLIST- ENGLISH**

**The interviewer should ask the woman to answer YES, NO or NOTAPPLICABLE**

**Have you ever:**

1. Saved money? \_\_\_\_\_
2. Hid extra set of house keys? \_\_\_\_\_
3. Established code with family or friends? \_\_\_\_\_
4. Asked neighbors for help or asked them to call police if violence begins? \_\_\_\_\_
5. Removed/hid weapons from/in the house? \_\_\_\_\_

**Had available:**

6. Birth certificates (yours and children)? \_\_\_\_\_
7. Your ID? \_\_\_\_\_
8. Bank account numbers? \_\_\_\_\_
9. Insurance policies numbers (NHIF etc.)? \_\_\_\_\_
10. Marriage certificate? \_\_\_\_\_
11. Valuable jewelry/equipment/something you could sell? \_\_\_\_\_
12. Important phone numbers? \_\_\_\_\_
13. Hidden bag with extra clothing? \_\_\_\_\_

## **THE SAFETY BEHAVIOR CHECKLIST-DHULUO**

**Japenjo onego penj no ni oduok EE, OYO kata ok nyalre**

**Be nyaka nene:**

1. Isepando pesa? \_\_\_\_\_
2. Isepando kifungu machielo mar ot? \_\_\_\_\_
3. Loso kindi gi joodu kata osiepe? \_\_\_\_\_

4. Ne ikwayo jok ma udakgo ni mondo uluong polis ka lweny ochako? \_\_\_\_\_
5. Golo/pando gi lweny e ot? \_\_\_\_\_

**Ne ingii:**

6. Otas mar nyuol (mari gi mar nyithindo)? \_\_\_\_\_
7. Kipande mari? \_\_\_\_\_
8. Namba mar akaunti mari? \_\_\_\_\_
9. Namba mar insuarance (NHIF)? \_\_\_\_\_
10. Otas mar kend? \_\_\_\_\_
11. Gigeni mabeyo ma inyalo uso? \_\_\_\_\_
12. Nembni migeno mag sim? \_\_\_\_\_
13. Ofuko maipande lewni mamoko? \_\_\_\_\_

## Appendix III: Ethical Approval



### KENYA MEDICAL RESEARCH INSTITUTE

P.O. Box 54840-00200 NAIROBI - Kenya  
Tel: (254) (020) 2722541, 254 (020) 2713349, 0722-205901, 0733-400003 Fax (254) (020) 2720030  
Email: director@kemri.org info@kemri.org Website: www.kemri.org

**KEMRI/RES/7/3/1**

**March 04, 2016**

**TO:** REDEMPTA MUTISYA,  
PRINCIPAL INVESTIGATOR  
**THROUGH:** THE ACTING DIRECTOR, CRDR,  
NAIROBI

*Forwarded  
09 March 2016*

Dear Madam,

**RE: PROTOCOL NO. KEMRI/SERU/CRDR/008/3181 (RESUBMISSION 3 OF INITIAL SUBMISSION): THE EFFECTS OF A PSYCHOSOCIAL INTERVENTION ON GENDER BASED VIOLENCE IN PREGNANT WOMEN IN KISUMU COUNTY-(VERSION 5.0 DATED 29<sup>TH</sup> FEBRUARY, 2016)**

Reference is made to your letter dated 29<sup>th</sup> February, 2016. KEMRI/Scientific and Ethics Review Unit (SERU) acknowledges receipt of the revised study protocol on 4<sup>th</sup> March, 2016.

This is to inform you that the Committee notes that the issues raised at the 246<sup>th</sup> joint meeting of the KEMRI/SERU Committees B & C held on December 15, 2015 have been adequately addressed.

Consequently, the study is granted approval for implementation effective this day **4<sup>th</sup> March, 2016** for a period of one year. Please note that authorization to conduct this study will automatically expire on **3<sup>rd</sup> March, 2017**. If you plan to continue data collection or analysis beyond this date, please submit an application for continuation approval to SERU by **January 21, 2017**.

You are required to submit any proposed changes to this study to SERU for review and the changes should not be initiated until written approval from SERU is received. Please note that any unanticipated problems resulting from the implementation of this study should be brought to the attention of SERU and you should advise SERU when the study is completed or discontinued.

You may embark on the study.

Yours faithfully,

*Re: DR. EVANS AMUKOYE,  
ACTING HEAD,  
KEMRI/SCIENTIFIC AND ETHICS REVIEW UNIT*

In Search of Better Health

## **Appendix IV: Clearance by the County Government of Kisumu**

### **COUNTY GOVERNMENT OF KISUMU**

Telegams: "PRO.(MED)"  
Tel: 254-057-2020105  
Fax: 254-057-2023176  
E-mail: [kisumucdh@gmail.com](mailto:kisumucdh@gmail.com)



County Director of Health,  
Kisumu.  
P.O Box 721-40100,  
KISUMU.

### **MINISTRY OF HEALTH**

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REF: ST/GEN/5/VOL V/68

Date: 21/4/2016

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To The Officers Incharge

- Ober Kamoth
- Nyahera
- Migosi
- Lumumba
- Hongo Ogosa
- Nyang'ande
- Sondu
- Kusa
- Tamu
- Nyangoma
- Manyuanda
- Bodi

**RE: STUDY APPROVAL (The effects of a Psychosocial Intervention on Gender Based Violence in Pregnant Women in Kisumu County)**

This is to inform you that the above study has been approved by this office. It is noted that ethical approval has been granted by KEMRI (KEMRI/SERU/CRDR/008/3181) to be implemented from 4<sup>th</sup> March, 2016 to 3<sup>rd</sup> March, 2017.

By copy of this letter, you are hereby requested to facilitate data collection.

  
Dr. Onyango D. O  
County Director of Health  
Kisumu County



Cc: Sub County Medical Officers of Health - Kisumu County

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*From the office of the County Director of Health*