PREDICTORS AND PSYCHOLOGICAL EFFECTS OF SEXUAL VIOLENCE AMONG FEMALE COLLEGE STUDENTS IN KISUMU COUNTY, KENYA

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DECLARATION

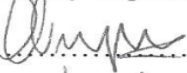This thesis is my original work and has not been presented to award a degree in any university.

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SUPERVISORS APPROVAL

This thesis has been submitted to Maseno University for examination with our approval as University Supervisors.

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DEDICATION

I dedicate this thesis to my late husband Mr. Robert Guya for the financial support and encouragement entire period that he was alive, my late father Dixons Omanje, my mother Dorine and my children Leila Dorine, Bob Koffi, Queen Esther and Chloe blessing for the encouragement and sacrifices throughout the entire study period. I love you very much and may Almighty God bless you always.

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ABSTRACT

Sexual violence against women is a public health issue with major health consequences for women. According to the World Health Organization (WHO), sexual violence affects 35% of college women worldwide. They experience either physical and/or sexual intimate partner violence or non-partner sexual violence. The resulting effect of sexual violence is the psychological effects with prevalence of exposure to violence being higher among college going women aged between 18 and 24 years. This study therefore sought to identify the predictors and psychological effects of sexual violence among female college students in Kisumu County. The objectives of the study were to: determine the relationship between socio-demographic characteristics and sexual violence, establish the relationship between socio-cultural factors and sexual violence and examine the psychological effects of sexual violence on female college students in Kisumu County, Kenya. The study used the socio-ecological theory to explain the key predictors and psychological effects of sexual violence experienced by female college students while adopting a mixed method research design. The target population included 4 public universities and 4 public tertiary colleges with a population of 13, 326 female students. A total of 384 female students were sampled using stratified and simple random sampling techniques. Data was collected using semi-structured questionnaire, in-depth interview guide and focus group discussion guide. Reliability and validity tests were done, where validity was tested through a pilot study while reliability coefficient was done using Cronbach alpha 0.839 using test re-test method (r_{tt}) and the internal consistency was good. Quantitative data was analysed using inferential statistics. Qualitative data was transcribed and analysed for emergent themes and sub-themes. The study findings revealed that there was a moderate, positive and significant correlation between socio-demographic characteristics (*age, r = .008, p = < .875; parental occupation r = -.065, p = < .208; place of residence r = . 107*, p = < .036; and, year of study r = -.084, p = < .101*) and sexual violence among the female students. Socio cultural predictors were found to account for 22.3% of the variance R^2=.22, $F_{(3,377)}$=36.136, p<.01) in sexual violence with campus norms having the strongest unique contribution to sexual violence (β=.199, *p*=.000), followed by socio-cultural beliefs and actions (β=.176, *p*=.000) and finally, socio cultural peer culture (β=.171, *p*=.000).Campus norm had the strongest correlation (*r*=.370) with sexual violence, followed by socio-cultural peer culture (*r*=.365) and finally socio-cultural beliefs and actions (*r*=.357). The study findings also revealed that the most felt psychological effects of sexual violence among the girls were difficulty in sleeping and concentration, change in sex drive, feelings of anxiety, and increase in stress and fear levels and the least reported effect was varying emotions throughout. The study concluded that socio-demographic and socio-cultural factors that surrounded the female students in Kisumu County were determining factors to their exposure to sexual violence; sexual violence had psychological effects on the victims. The study will be significant to the government and non-governmental organisations in developing and implementing programs aimed at reducing and eliminating prevalence and effects of sexual violence amongst college female students.

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OPERATIONAL DEFINITIONS OF TERMS

Psychological effects   Dealing with, or affecting the mind, especially as a function of awareness, feeling, or motivation

Rape or forced sex: The act of any person having sexual intercourse with another person who is not his spouse without the consent of that other person

Sexual violence: Any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances directed against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting.

Sexual experience: Having practiced sexual intercourse.

Socio-demographic: Refers to a group defined by its sociological and demographic characteristics. It involves a combination of social and demographic factors.

Socio-cultural: Means factors that have to do with the culture and social norms and values of an individual or group

LIST OF ABBREVIATIONS AND ACRONYMS

GBV: Gender Based Violence

GVRC: Gender Violence Recovery Centre

IPV: Intimate Partner Violence

JOOUST: Jaramogi Oginga Odinga University of Science and Technology

KDHS: Kenya Demographic Health Survey

KMTC: Kenya Medical Training College

KU: Kisii University

KYP: Kisumu National Polytechnic

RIAT: Ramogi Institute of Advanced Technology

SDGs: Sustainable Development Goals

STIs: Sexually Transmitted Infections (STIs)

TMLC: Tom Mboya Labour College

UN: United Nations

UNICEF: United Nations Children Funds

UoN: University of Nairobi

WHO: World Health Organization

CHAPTER ONE: INTRODUCTION

1.1: Background of the Study

Globally, sexual violence against women is a major public health issue with major health consequences for women and considerable socio-economic costs for governments, communities, and individuals (Snipes, Jackson, and Albert, 2014). According to the World Health Organization (2013), sexual violence is any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or otherwise directed, against a person's sexuality using coercion. This can be by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work place.

The United States' legacy of slavery and the unabated commodification of African bodies that ensued have invariably influenced the experience of sexual violence perpetrated against African American college women. Until the late 1950's, African American women working outside the home as maids and washerwomen were routinely the victims of sexual assault and harassment committed by the men in the families for which they worked (Neville & Pugh, 1997). An estimated 15% of American women are living at or below poverty level and approximately 40% of the homeless population is made up of women (U.S. Census, 2005). Different scholars (White and Hingson 2014) observed that as a global phenomenon, gender-based sexual violence is characterised by physical, psychological, and sexual abuse. Sexual harassment has posed a tremendous challenge to African women both in the workplace and educational setting, and this problem has impacted women's self-esteem as well as their academic, social, and psychological wellbeing. Studies in Poland indicate a consistent picture presented by the international evidence regarding the role of alcohol in the context of sexual interactions in increasing the risk of sexual

aggression. Abbey, Jacques-Tiura and LeBreton (2011) in their study indicated that for both the victim and perpetrator perspectives, in about half of the cases of either committed or experienced sexual aggression, both sides had been drinking alcohol.

Though many women are suffering the consequences of sexual violence, only few victims speak out as it is sensitive and prone to stigma. Any sexual act or attempt, unwelcomed sexual advances, against a person's sexuality using force, by any person regardless of their relationship to the victim, in any setting is considered sexual violence (Ellsberg, Watts, Heise, and Moreno 2001).

Fisher, Cullen and Turner (2000), posit that one in five college women are victims of acquaintance rape during their academic career and less than 5% of college women who are victims of sexual assault report their victimization. The World Health Organisation (2017) noted that one in three (35%) women across the world have experienced either physical and/or sexual violence either from their intimate partners or non-partners. The socio-ecological theory of gender based sexual violence by Heise (1998), cited in WHO, (2005), therefore conceptualized socio-demographic characteristics, socio-cultural, and psychological effects as the main predictors of sexual violence. Şahin (2010) conducted a study in Turkey, which established that more than 50% of women interviewed were exposed to sexual violence within their homes, aggravated by factors such as teenage and arranged marriages and large number of children amongst others.

Breiding, Browne, Warner, and Krebs (2011) performed a study in Swaziland and established that compared with respondents who had been close to their biological mothers as children,

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victims who had not been close to their biological mothers had higher odds of having experienced sexual violence. While conducting a retrospective study in a medical center in Taipei, Taiwan, Hwa, Chen, Wu, Shun, Liu, Lee, and Chang Chen (2010) established that the majority of patients that sought emergency services for assault were teenagers aged between 13 and 20 years. Moreno (2013) on the other hand conducted a retrospective study in Bizkaia, Spain, between 2009 and 2010 and established that sexual assaults with evidence of physical injury in the examination were significantly associated with age of victims.

In South Africa, out of 1,275 young men that participated in a study, 11% reported that they had perpetrated sexual violence against their current or ex-girlfriends, and that alcohol consumption, among other psychoactive substances, facilitated the act (Dunkle et al., 2006). The current study was therefore anchored on the Social Ecological Theory to explain predictors of sexual violence among female college students. A study in Ethiopia considered a 41.8% proportion of sexual coercion that was used from a study conducted in Addis Ababa University female students at 95% certainty and margin of error 0.05. El-Din, Elkholy, Metwally, and Farag (2015) performed a retrospective study on females in Qalyubia Governorate, Egypt, which confirmed that 58% of the sexually assaulted women were in the age group of between 12 and 24 years.

Advocates for Youth body (2015) indicate that surveys conducted within the Sub-Saharan Africa reported sexual violence prevalence at 60%, 46%, and 42% in Tanzania, Uganda, and Kenya respectively (Advocatesforyouth.org, 2015). At above 20%, the implications are that more than one out of every five women experience sexual violence routinely. Rape against women is a public health problem in Tanzania, and it is estimated that about 20% of adult women in an urban setting have experienced a completed rape.

In Kenya, statistics from the Gender Violence Recovery Centre (GVRC, 2017) indicate that 45% of women aged between 15 and 49 years in Kenya have experienced either physical or sexual violence. In Kenya it is estimated that nearly half of Kenyan college women have experienced sexual violence in their lifetime although it is still regarded as a private family matter. Violence against women by an intimate partner has strong traditional and cultural considerations in Kenya. In a study conducted by FIDA (2012), it is demonstrated that college women are most often violated by their male relations mostly because of a skewed power equation at the domestic level. These women are discriminated against, as they are not economically empowered to adequately meet their own basic needs and therefore cannot take charge of their sexuality and livelihoods. This situation predisposes them to mistreatment in key aspects of their lives.

Most University students who fall prey to sexual violence are those who are not from financially empowered backgrounds. Wafula (2016) reported that in Kenyan Universities, gender-based violence stands at 83% for women and that girls in Kenya report one or more episodes of physical abuse in childhood. Odhiambo (2015), while addressing the National Conference on Gender Based Violence in 2014, noted that annually, 38% of women aged between 15 and 49 years reported physical violence and 14% reported having experienced sexual violence.

In a more recent study among women seeking antenatal care at the Kisumu District Hospital, it was reported that the prevalence of lifetime overall sexual Intimate Partner Violence (IPV) stood at 53% (Makayoto, Omolo, Kamweya, Harder and Mutai 2013).

Reviewed studies on age and income cannot be generalized to other settings or areas of studies. Even though they have information on relationship between socio-demographic factors and sexual violence, they were basically quantitative in nature. Quantitative research is always

limited in terms of providing explorations or explanations as to why two or more variables relate. Sexual violence has a number of psychological effects; hence the need to find ways of reducing or eliminating its prevalence (Chen, et. al., 2010; Ansara & Hindin, 2011). Studies by Chen, et al. (2010) through review of literature from 9 databases, confirmed that indeed sexual violence in some cases results into lifetime psychiatric disorders amongst the victims. The current study therefore adopted a combination of qualitative and quantitative research designs for purposes of examining predictors and psychological effects of sexual violence among female college students in Kisumu County.

From a different perspective, Şahin (2010), Breiding et al. (2011) and Reed, Amaro, Matsumoto and Kaysen (2009), investigated the relationship between socio-cultural factors and sexual violence. In addition, Juma, Askew, Alaii, Bartholomew, and Borne (2014) also investigated the relationship between socio-cultural factors and sexual violence. They also discovered that social practices that inclined teenager's vagrants and non-vagrants to hazardous sexual practices included: adolescent sleeping arrangements, funeral ceremonies, replacing a deceased married daughter with her younger sister in marriage, widow inheritance among boys, early marriage among girls, and preference for boys/sons. Nonetheless, the findings of these studies cannot be replicated to Kisumu County based on the fact that they were specific to some areas in addition to focusing on numerous socio-cultural factors. Moreover, the studies inclined towards one method, either qualitative or quantitative. As a result, it was difficult to explain the relationship between sexual violence and socio-demographic factors in quantitative research or provide a numerical justification. In this respect, there was a need to establish how socio-cultural predictor factors influence sexual violence not only from the qualitative perspective but also quantitative perspective.

Despite a number of studies that examined prevalence of sexual violence, very little had been done towards establishing specific predictors, which would set stage for identifying the most effective and efficient policies towards mitigation and eradication. Majority of the studies that had been done on sexual violence worldwide and particularly in Kenya (UNICEF, 2017; Stoltenborgh, IJzendoorn, Euser, and Bakermans-Kranenburg 2011; Krug, Dahlberg, Mercy, Zwi and Lozano 2002; Banyard, Bennett, and Edwards 2010; Abdulkadir, Umar, Musa, Ayoola, Oyeniyi, Musa HH 2011; and Deokar et al., 2015) focused on the prevalence of sexual violence, the plight and welfare of the victims; types of sexual violence; psychosocial support; voices of sexually abused children and the health and nutritional status of sexually abused victims; to mention but a few. Predictors of sexual violence in Kenya, especially in urban areas, have been shrouded in mystery (Omari, et. al., 2014). This is partly because of the social stigma attached to this problem among several socio-cultural and socio-economic groups in the country. Sexual and gender based violence in Kenyan universities with reference to predictors and psychological effects remain largely understudied, unreported and unpunished. Moreover, the studies conducted also adopted a mono research strategy, which was either qualitative or quantitative research. This approach clearly has limitations.

Sexual violence remains the biggest human rights issues in Kisumu County with 2,203 victims reportedly raped or defiled in 2017. A report by the Western Kenya Human Rights Network in collaboration with the Kenya National Commission on Human Rights indicated that the cases may be more, as the report captured only cases which have been reported. According to the report titled 'Soldiers of Justice, a case for increased citizen participation in promoting security within Kisumu County' released during the International Human Rights Day, there was minimal justice to the victims of sexual violence, with only 200 out of those reported being in court. In

addition, another study by the Kenya National Bureau of Statistics (KNBS, 2014) on Kenya Demographic Health survey across the counties in Kenya revealed that 53 % of women majority of whom were in colleges and universities and a few with age ranging between 15 and 49 years reported that they have experienced either physical or sexual violence; Kisumu County having the highest rate of violence against women and girls of 51% compared to the national rates.

Despite this problem, scholars have not delved into studies on the predictors of sexual violence on female students in the county. Specifically, little had been done on the effect of socio-demographic and socio-cultural on sexual violence, and psychological effects on sexual violence in Kisumu. This study therefore sought to determine predictors and psychological effects of sexual violence amongst female college students in Kisumu County, Kenya

1.2: Statement of the Problem

The number of cases reported on sexual violence among female college students is increasing; however, very few victims speak out because it is sensitive and prone to stigma. The global prevalence of sexual violence stand at 35% and regarded as high. Similar prevalence rate is reported in Kenya (WHO 2013). About 45% of women between ages 15 and 49 in Kenya have experienced either physical or sexual violence (Ondicho, 2018).

Despite the prevalence of GBV in Nyanza being the highest in Kenya (35%) according to WHO, UNICEF (2012) indicates that violence against young women and children is a serious problem in Kenya: 32 and 66% of females aged 18 to 24 reported at least one experience of sexual or physical violence respectively prior to age 18, and 11 and 49% of females aged 13 to 17 reported experiencing some type of sexual violence or physical violence respectively in the past 12 months. In Kisumu County about 2,203 victims reported cases of rape in the 2017 (Godia

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2017). While many GBV cases are reported, fewer cases of sexual violence are reported as observed by Godia (2017), the cases of sexual violence are more than the cases which are reported. According KNCHR (2015) there is minimal justice to the victims of sexual violence, with only 200 cases being prosecuted in court while many fail to be reported.

This study therefore sought to determine predictors and psychological effects of sexual violence amongst female college students in Kisumu County, Kenya. The current study will help develop interventions that will assist the government, non-governmental organisations, Institutions of higher learning and tertiary colleges in developing and implementing programs aimed at reducing and eliminating prevalence and effects of sexual violence amongst college female students.

1.3 Research Questions

The current study examined the predictors and psychological effects of sexual violence among female college students in Kisumu County, Kenya. The study aimed to answer three critical questions which were:

i.   What is the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya?

ii.   What is the relationship between socio-cultural predictors and sexual violence amongst female college students in Kisumu County, Kenya?

iii.   What are the psychological effects of sexual violence on female college students in Kisumu County, Kenya?

1.4 Objectives of the Study

The objectives of the study were:

i. To determine the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya.

ii. To establish the relationship between socio-cultural predictors and sexual violence amongst the female college students in Kisumu County, Kenya.

iii. To examine the psychological effects of sexual violence on female college students in Kisumu County, Kenya

1.5 Significance of the Study

The study will have a potential contribution towards understanding predictors and psychological effects of sexual violence among female college students in Kisumu County. The outcome of predictors and psychological effects of sexual violence among female students will be of great benefit to institutions, counselors, students, parents, policy makers, scholars in education sector and actors. From the findings, female students in colleges may be able to understand the role that socio-demographic and socio-cultural factors play in promoting sexual violence. Parents, tutors, and individuals-in-charge of colleges may also understand these predictors; hence, come up with ways of ensuring that the female students are not exposed to sexual violence. Counselors on the other hand may understand the plight of female college students with respect to sexual violence and be able to provide them with improved services like appropriate counseling services. Other than informing on recommended areas for further research, the findings of this study may form a basis for literature review amongst scholars. The findings may also be helpful to the community,

the Ministry of Health and non-governmental organization seeking to help young women achieve reproductive and sexual health. In general, this study may contribute to female college students' empowerment.

1.6 Scope and Limitations of the Study

This study sought to determine the predictors and psychological effects of sexual violence amongst female college students in Kisumu County, Kenya. The study was carried out between September 2018 and December 2018 in public universities and colleges in Kisumu County. These were Maseno University (MU), Kisii University (KU), Jaramogi Oginga Odinga University of Science and Technology (JOOUST), University of Nairobi (UoN), Kenya Medical Training College (KMTC), Kisumu Polytechnic (KP), Ramogi Institute of Advanced Technology (RIAT), and Tom Mboya Labour College (TMLC). The study used the socio-ecological model to explain the key predictors and psychological effects of sexual violence experienced by female college students while adopting a descriptive cross-sectional research design with mixed method approach comprising both quantitative and qualitative approaches. The study was confined to only two predictor factors of sexual violence (socio-demographic and socio-cultural predictors) and psychological effects of sexual violence on the victims. Under socio-demographic factors the study focused on the current year of study of the respondent (college female students) and family income background. Family composition or structure and role of family dynamics as the socio-cultural factors that would result into exposing female college students to sexual violence were also investigated. The study also focused mainly on depression and post-traumatic stress disorders as psychological effects resulting from sexual violence. The study was limited to female students aged between 18 and 24years from 4 Tertiary

institutions and 4 Universities within Kisumu County, Kenya. With regard to the study design, inequality between different methods (use of mixed methods) may result in unequal evidence within the study, which can be a disadvantage when interpreting the results.

1.7   Theoretical Framework

This study focused on the Socio-Ecological Theory to explain predictors of sexual violence among female college students (Heise 1998, cited in WHO, 2005). The socio-ecological theory of gender based sexual violence proposes that GBSV, whether it is in the form of isolated acts or systematic patterns of violence, is not caused by any single factor. The theory postulates that it is a combination of several factors that increase the risk of a man committing violence and the risk of a woman experiencing violence.

The figure below explains this theory;

Source: Heise 1998   © UNFPA and WAVE 2014
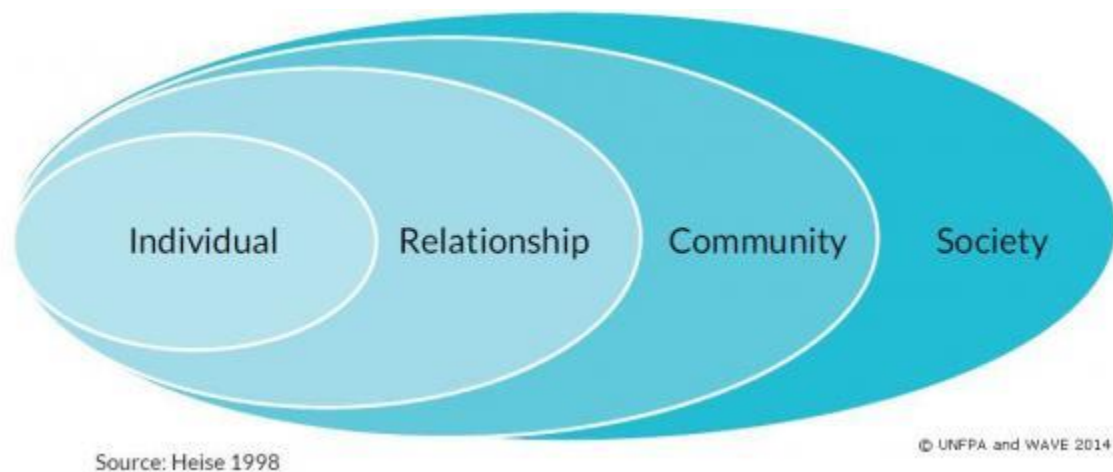
Figure 1. 1 Socio-Ecological Theory for Understanding Predictors of Sexual Violence against Women

The Theory was developed by Heise and it distinguishes risk factors at four levels: the individual, the relationship, the community and the society (Heise 1998, cited in WHO 2005).

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These factors are associated with an increased likelihood that an individual will become a victim or a perpetrator of violence. This theory offers a comprehensive framework for understanding the risk factors of GBV and their interplay, and may therefore be used as a guide for designing interventions in the fields of prevention and response (WHO/LSHTM 2010).

Individual-level factors are biological and personal history factors that increase the risk of violence. For example, a low level of education, young age (early marriage) and low-economic status/income have been identified as risk factors for both experiencing and perpetrating intimate partner violence. Past experiences of violence also play a role; exposure to sexual abuse and intra-parental violence during childhood as well as a history of experiencing (for women) or perpetrating (for men) violence in previous intimate relationships increases the likelihood of violence in future relationships. Pregnant women are also at high risk of experiencing violence by an intimate partner. While several studies point to a strong association between harmful use of alcohol and the perpetration of intimate partner violence and sexual violence, there is only weak evidence for a truly causal relationship between the use of alcohol and the perpetration of violence. Attitudes also play an important role; there is a strong correlation between women and men perceiving violence as acceptable behaviour and their exposure to intimate partner and sexual violence (as both, survivors and perpetrators) (WHO/LSHTM 2010 with multiple references).

Relationship-level factors contribute to the risk of GBV at the level of relationships with peers, intimate partners and family members. For instance, men having multiple partners are more likely to perpetrate intimate partner violence or sexual violence. Such men are also more likely to engage in risky behaviours with multiple sexual partners by refusing to use condoms, thus

exposing themselves and their intimate partners to a higher risk of HIV infection. Other factors associated with an increased risk of intimate partner violence include partnerships with low relationship satisfaction and continuous disagreements, as well as disparities in education status between the partners. Furthermore, family responses to sexual violence that blame women and concentrate on restoring "lost" family honour, rather than punishing men, create an environment in which rape can occur with impunity (WHO/LSHTM 2010 with multiple references).

Community-level factors refer to the extent of tolerance towards GBV in contexts at which social relationships are embedded, such as schools, workplace or the neighbourhood. Research by WHO 2010 found that societies that had community sanctions against violence, including moral pressure for neighbours to intervene, in place and where women had access to shelter or family support had the lowest levels of intimate partner and sexual violence. While intimate partner and sexual violence do cut across all socio-economic groups, several studies found women living in poverty to be disproportionately affected. However, it has not been clearly established whether it is poverty as such that increases the risk of violence or rather other factors accompanying poverty. Poverty can be seen as a "marker" for a variety of social conditions that combine to increase the risk faced by women. For instance, rural women living in poverty who work in the fields or collect firewood alone may be at a higher risk of rape. Poverty may also put women under pressure to find or maintain jobs and in turn render them vulnerable to sexual coercion, or push them in to occupations that carry a high risk of sexual violence, such as sex work (WHO/LSHTM 2010).

Society-level factors include the cultural and social norms that shape gender roles and the unequal distribution of power between women and men. Intimate partner violence occurs more

often in societies where men have economic and decision-making powers in the household and where women do not have easy access to divorce and where adults routinely resort to violence to resolve their conflicts. Further, ideologies of male sexual entitlement that are common in many cultures exclude the possibility that a woman is entitled to make autonomous decisions about participating in sex and to refuse a man's sexual advances and are used to legitimize the use of sexual violence. Social breakdown due to conflicts or disasters further increase the risk of rape in conflict and post-conflict situations (WHO/LSHTM 2010 with multiple references). The theory therefore linked the study variables, which are demographic characteristics and socio-cultural factors on sexual violence using the four levels of the socio- ecological model.

The model was used to explain the variables. For example regarding objective one and three, looking at the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya, variables such as age, year of study, place of residence, level of income, schooling or level of education for the person, family and parents occupation, history of exposure to abuse and sexual violence among the respondents and the psychological factors such as depression and post-traumatic stress disorder were investigated.

For objective two which focused on the relationship between socio-cultural factors and sexual violence, variables such as beliefs, peer culture and campus community norm and practices, Society-level factors such as cultural and social norms that shape gender roles and the unequal distribution of power between women and men, ideologies of male sexual entitlement that are common in many cultures excluding the possibility that a woman is entitled to make autonomous decisions about participating in sex and to refuse a man's sexual advances and are used to legitimize the use of sexual violence, increased arousal, difficulty in sleeping and concentration,

experience of change in sex drive, stress and fear, reduced pain tolerance and capacity to experience pleasure were studied in relation to sexual violence.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section is a review of empirical literature on predictors and psychological effects of sexual violence. The main literature reviewed included the socio-demographic characteristics and sexual violence, socio-cultural predictors and sexual violence and finally the psychological effects of sexual violence among female students. This section will further analyze existing literature from Academic journal articles and high-quality psychology publications with a view to understand the research questions.

2.2 Socio-Demographic Factors and Sexual Violence

Various studies have examined different aspects of socio-demographic characteristics and their association to various variables. In this study, their relation to sexual violence is reviewed in different contexts. However, their geographical consideration varies from one place to another based on the study subjects and their problems. For instance, a study by Hwa et al., (2010) in a medical center in Taipei, Taiwan on a total of 114 sexual assault cases indicated unbiased sexual violence on gender; 93.9% females and 6.1% males. The study further established that majority of patients that sought emergency services for sexual assault were teenagers of between 13 and 20 years. This study is important because it shows that young people are at risk of sexual violence. It went further to examine whether college going students within similar age bracket are at risk of sexual violence. However Hwa's study was carried out in a Medical Centre hence the results cannot be generalized to community and college samples. This is because those that go to health centers are very few. The study also focused on teenagers between 13 years and 20

years. The study also found out that majority of patients examined later than 72 hours after the last sexual assault were from low income families. As a result, the findings could not be compared to the Kenyan scenario and especially for college students. What's more, a teenager aged below 15 years may be considered helpless and gullible as opposed to teenagers above 18 years. It is also not clear quantitatively how age and gender was associated with sexual violence based on other statistical methods such as correlational analysis which can quantify the magnitude, and strength of the relationship. The study outcomes are also not clear how they affect female students in the present study area. Therefore, the current study sought to establish whether socio-demographic factors were predictors of sexual violence for female college students in Kenya who were above 18 years using a correlational method.

In a different study, Rickert and Wiemann (2008) conducted a medline and current concepts search for articles relating to date rape and then systematically reviewed all relevant articles. The study revealed that adolescents and young adults were four times more likely to be victims of sexual assault than women in older ages from low income backgrounds. The researchers found out that demographic characteristics that increase vulnerability to rape included younger age at first date, early sexual activity, earlier age of menarche, a past history of sexual abuse or prior sexual victimization, and being more accepting of rape myths and violence toward women. Even though the study established the odds of sexual vulnerability based on age, it's not clear how the studied variables could be associated to sexual violence. From the study it is clear that younger people are at greater risk of sexual violence and for this reason this study focused on young adults aged between 18-24 years enrolled in colleges within Kisumu County. They also found that women in lower income groups were at higher risk of sexual violence than those in higher income groups. However, Medline & current concept research were based mainly on findings on

western population studies which are very different from the African set up and they studied females aged below 24 years. Besides establishing the relationship between demographic factors and sexual violence amongst female college students in Kisumu County, this study also sought to establish the relationship between socio-economic status and sexual violence among female college students in Kisumu County, Kenya.

Moreno (2013) conducted a study to describe the characteristics and ascertain risk factors of sexual assault victims in three age groups of children, adolescents, and adults. The researcher noted that Spain had been experiencing increasing levels of sexual assaults amongst children, adolescents, and adults over the last decade. The study conducted in Bizkaia, Spain, gathered data retrospectively from databases of forensic medical examination records in a period of two years, from 2009 to 2010. A combination of descriptive statistics, uni-variate and multivariate analyses was used to make sense of the data. According to the study, the researcher established that sexual assaults with evidence of physical injury in the examination were significantly associated with age of victims. Majority of the identified victims were found to have come from low income level backgrounds. In addition, he found out that sexual assaults with penetration were significantly related to older age groups. However, findings of this study could not be replicated in Kenyan scenario due to the difference in the level of development. Therefore, there was a need for a study that would establish quantitative relationships between age, economic status and sexual assault amongst female college students in Kisumu County.

El-Din et al. (2015) were motivated by the fact that sexual assault is a serious social problem that affects women's life. Their goals were to estimate the prevalence and the characteristics of sexual assault against female in Qalyubia Governorate, Egypt. A retrospective study was

preferred to other cohort studies owing to the fact that it takes less time to complete and provides a basis for analyzing multiple outcomes. The study was conducted between 2009 and 2013 and focused on a total of 130 female assault cases. While adopting descriptive statistical approach of using percentages, the study established that the mean age of victims was 15.2 years even though the sample had individuals between ages 4 and 40 years. From the study, they found that 58% of the sexually assaulted women were in the age group of between 12 and 18 years, which implies that adolescents were the most affected. In addition, majority of the victims were from low income level families. The study adopted a descriptive statistical analysis, which only provided the percentage of participants in terms of age that experienced sexual violence. In other words, there was no knowledge as to whether age and sexual violence were correlated. This motivated the current study amongst female college students in Kisumu County.

Kimuna and Djamba (2008) conducted a study in Kenya with the aim of exploring factors associated with physical and sexual wife abuse on a sample of 4,876 married women aged between 15 and 49 years. The researchers adopted descriptive statistical analysis in which percentages were used to explore the factors. Multivariate analysis was also adopted to find out the different factors associated with sexual violence. The findings indicated that living in poorer households as well as age (20-34 years) significantly increases the risk of wives being physically or sexually abused. The ages of wives under investigation were significantly associated with physical abuse. It was established that women from poorer households are more likely to be sexually abused. In this respect, there was a significant association between age, income levels, and sexual violence in Kenya. Even though the study had provided a better understanding of the relationships between age, income levels, and sexual violence in Kenya, it concentrated mainly on wives who were predisposed to sexual violence by the partners. Moreover, the study only

concentrated on descriptive statistics. There was no measure of the strength and direction of the relationship among the variables. In this respect, there was a need to conduct a study which had both qualitative and quantitative measures of how sexual assault related to both age and income levels of female college students in Kisumu County.

The above studies have examined the effect of socio-demographic characteristics on sexual violence. For instance, Hwa et al., (2010) revealed unbiased sexual violence that is high among women as compared to men while Rickert and Wiemann (2008) revealed that adolescents and young adults were four times more likely to be victims of sexual assault than women in older ages from low income backgrounds. Moreno's (2013) study indicates that sexual assault is significantly associated with age of victims whereas El-Din et al. (2015) found that there was a higher percentage of women that are young who are more prone to sexual violence. Other studies such as Kimuna and Djamba (2008) also support a relationship between age, schooling, gender, economic status and sexual violence. These studies are however selective in variables and do not address all the demographic characteristics among the college students.

2.3   Socio-Cultural Factors and Sexual Violence

Little is known about the relationship between socio-cultural factors and sexual violence from most of the studies that have explored the two variables. Mixed studies explore the two variables independently without crosschecking the relationship using a scientific statistical tool such as Pearson product moment correlation. This is evident from a few close studies that were reviewed.

For instance, in a study by Casey and Lindhorst, (2009); DeGue et al., (2012) on the public health epidemic of sexual violence on college campuses with the guiding research question: To what extent do individual characteristics and campus climate measures contribute to the variation in campus sexual assault victimization? Logistic regression analysis utilized the individual perceptions and self-reported behaviors of 6,643 students and institutional-level predictors to determine the contribution of each variable to the variation in sexual violence victimization on 38 campuses of 4-year universities. Results revealed that the type of institution was a significant predictor only until other institutional characteristics were known. Individual behaviors, experiences, and peer groups explained the overwhelming variation between students who were and were not sexually assaulted. Findings also revealed that 96% of the victims of sexual assault have experienced additional forms of sexual assault or discrimination, creating a constellation of violence in their lives. Implications for administrators include identifying the subcultures that support high-risk behaviors and recognizing the comorbidity of sexual violence. While the study by Casey & Lindhorst, (2009) and DeGue et al. (2012) used Logistic regression analysis, the current study utilized both descriptive and correlation data analysis together with interviews to triangulate the study findings. Moreover, the former study did not indicate whether it was conducted on both the male and female college students or on one gender, but the current study was conducted on female college students. The current study will also further establish the extent to which campus norm contributes to sexual violence in the context of Kenyan University.

 In Turkey, Şahin (2010) conducted a study to determine the extent to which childhood trauma, the type of marriage, and level of self-esteem matched to sexual violence in married women. A total of 750 women aged 20 years and above took part in the study. A face to face interview was preferred as the mode of collecting data. On the basis of descriptive statistics using percentages,

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the study found out that more than 50% of women interviewed had been exposed to sexual violence within their homes. Such exposure was found to be aggravated by other factors including teenage and arranged marriages and large number of children amongst others. Nonetheless, the study was conducted amongst women who were already married and had had families. In this respect, it would not be known whether such predictor factors also applied to college students. The study failed to provide quantitative relationship between these predictors and sexual violence. In addition, the study was conducted in Turkey and could not be generalized to Kenya because of the difference in the socio-cultural practices. The study also employed one way of data collection (interviews), while the current study utilized both questionnaires and interviews to collect data.

Breiding et al. (2011) explored the risk factors for sexual violence in childhood in a nationally representative sample of females aged 13 to 24 years in Swaziland. The research focused on household survey through bivariate and multivariate logistic regression. The findings from this study indicated that one of the many factors associated with sexual violence is closeness with the biological mother, which is about family composition and dynamics. The study found out that compared with respondents who had been close to their biological mothers as children, victims who had not been close to their biological mothers had higher odds of having experienced sexual violence. In addition, it was established that those who had a close relationship with their mothers had lower odds of having experienced sexual violence compared to those who were not in very close relationship with their mothers. Another finding was that childhood sexual violence was found to be positively associated with the number of people the respondent had lived with at any one time. It was not however clear the strength of the relationship between these parental associations and the extent of sexual violence. The current study seeks to determine the

relationship between socio-cultural factors and sexual violence among female college students in Kisumu County. Moreover, the study by Breiding et al. (2011) utilized quantitative data studies while the current study used mixed method approach to get rid of the notion of assumptions from the questionnaire responses that could be caused by the floor and ceiling effect. The former study was also conducted on respondents from age 13 to 24 years while the current study was done to respondents from age 18 years.

According to a study on married adolescent girls carried out by Mwanukuzi & Nyamhanga (2021), shows that the tradition and culture plays a very important role in marriages in Tanzania. The study focused on young women aged 15 to 24 where a qualitative study using a phenomenological approach to describe married girls' experiences of sexual violence in the Shinyanga Region, an area with the highest prevalence (59%) of child marriage in Tanzania. Data were collected from 20 married girls aged 12–17 years. The study identified four analytical themes regarding the experience of sexual violence, namely: forced sex; rape; struggling against unpleasant and painful sex; and inculcation of the culture of tolerance of sexual violence. While this study focused on women aged aged 12–17 years, the current study focused on 18 to 24 year. While culture played a critical role in tolerance of sexual violence, the current established the relationship between socio-cultural factors and sexual violence.

Another type of sexual violence referred to as Intimate partner violence (IPV) is a common issue in sub-Saharan African countries Deuba et al (2016). In addition, An analysis of Demographic and Health Survey (DHS) data in eight African countries including Kenya indicated that 20–50% of married women report having experienced sexual violence (Durevall, 2015). Unacceptably high levels of physical and sexual violence against women have also been reported in Tanzania. A report by, the World Health Organization published in 2005 shows that 41% of ever-partnered

women in Dar es Salaam and 56% in Mbeya had ever experienced physical or sexual violence perpetrated by a male partner. McCloskey et al (2005) reported that 21% of women in Moshi experienced physical and/or sexual violence. Stocklet et al. (2014) report that 33% of young women aged 15 to 24 in Tanzania have ever experienced IPV. Why are these cases more visible in east African communities? Does culture plays a dominant role? The current study established the relationship between socio-cultural factors and sexual violence.

Juma et al. (2014) investigated group community perceptions of cultural beliefs and practices that may increase sexual risk behaviour of adolescents with a view to unraveling their importance on the way of life and how they uncover juvenile vagrants and non-vagrants to higher dangers in a high HIV and adolescent pregnancy predominance setting. Utilizing a subjective expressive cross-sectional plan, 14 center gathering talks were led with 78 youths and 68 guardians/gatekeepers purposively chose to speak to their groups. Thirteen key informant interviews were additionally directed with group pioneers, human services and youngster welfare specialists, and teenagers who were likewise chosen purposively. The two strategies were utilized to investigate how social convictions and practices incline immature vagrants and non-vagrants to hazardous sexual practices. Information was examined through line-by-line coding, gathered into families and recovered as subjects and sub-topics. Juma et al. (2014) discovered that social practices that inclined teenager's vagrants and non-vagrants to hazardous sexual practices included: adolescent sleeping arrangements, funeral ceremonies, replacing a deceased married daughter with her younger sister in marriage, widow inheritance among boys, early marriage among girls, and preference for boys/sons. Cultural risks perceived to equally affect both orphans and non-orphans were sleeping arrangements, funeral ceremonies, and sister replacement. Factors associated more with orphans than non-orphans were widow inheritance

among boys and a preference for boy over girl children. This study was based on subjective expressive cross-sectional plan study design; the current study used a descriptive and correlational design. In the former study, no relationship was established between these socio-cultural factors and sexual violence while in the current study, the relationship between socio-cultural factors and sexual violence was established.

Lindo et al. (2018) carried out a study on football, college party culture and sexual assault among undergraduate students in the USA. This study was conducted using web- based survey of random samples of undergraduate students in two large public universities, one from south and the other from the Midwest. The study population was 5446 undergraduate female college students and 1375 undergraduate male college students. Random sampling design was used on students aged 18-25 years enrolled at least three quarters time at each university. The study revealed that 4.7% of the female students were victims of physical sexual assault, 7.8% were sexually assaulted when they were incapacitated after voluntary consuming drugs or alcohol, and 0.6% were sexually assaulted when they were incapacitated after having been given a drug without their knowledge. These findings indicate that there is a culture of drug abuse and sexual participation or orientation at the campuses which leads to violence. It was not however indicated whether there was any relationship between these socio-cultural practices and sexual violence. While the study utilized a web-based survey, the current study adopted a descriptive correlational design.

Cantor et al. (2017) assessed the incidence, prevalence, and characteristics of incidents of sexual assault and misconduct as well as the overall campus climate on perceptions of risk, knowledge of resources available to victims and perceived reactions to the incidences. The study sample size

was 779,170 students from 26 of the 27 schools enrolled undergraduates and professionals who were 18 years and above. The findings revealed that 11.7% of the students reported experiencing nonconsensual penetration or sexual touching by force or incapacitation since enrolling, among undergraduate females, about as many individuals reported penetration by incapacitation (5.4%) as by physical force (5.5%). For sexual touching, a larger percentage of the undergraduate females reported being physically forced when compared to being incapacitated (12.8% vs. 6.6%). The offender's affiliation to the institution of higher learning was most often described as a student (91.6%). This was more common among undergraduate students (94.6% of female undergraduates, 93.8% of male undergraduates than among graduate/professional students (82.0% female graduate/professional students, and 85.7% male). These findings indicate that there is a specific college culture leading to sexual violence. The findings did not however explore the effect on the culture on sexual violence as sought in the study. The study also focused on both male and female students while the current study focused solely on female students.

A study by Yohannes et al. (2017) on sexual violence against female students in Ethiopia sought to assess the prevalence and factors associated with sexual violence among female students of Wolaita Sodo University, South Ethiopia. Institution based cross-sectional study was conducted among 462 regular female students. Participants were selected by simple random sampling. Data was collected using a self-administered questionnaire. Data entry and analysis was done by EPI info and SPSS statistical packages respectively; bivariate and multivariate analyses were also carried out to identify predictors of sexual violence. The results showed that the age of respondents ranged from 18 to 26 years. Lifetime sexual violence was found to be 45.4%. However, 36.1% and 24.4% of respondents reported experiencing sexual violence since entering

university and in the current academic year respectively. Life time sexual violence was positively associated with witnessing inter-parental violence as a child, rural childhood residence, having regular boyfriend, alcohol consumption and having friends who drink regularly; while it was negatively associated with discussing sexual issues with parents. From the study it was concluded that the sexual violence is a common phenomenon among the students. The current study, in addition to questionnaires, used interviews to gather information from study participants. The current study will also help to develop prevention and intervention strategies of sexual violence against female college students in Kenya.

Şahin (2010) conducted a study to determine childhood trauma, the type of marriage, and level of self-esteem as matched to sexual violence in married women and found that a large percentage of women were exposed to sexual violence. Breiding et al. (2011) on the other hand found that victims who had not been close to their biological mothers had higher odds of having experienced sexual violence. Studies by Reed et al. (2009) found that among females, most types of substance use were related with sexual exploitation while Juma et al. (2014) found that social practices that inclined teenager's vagrants and non-vagrants to hazardous sexual practices included: adolescent sleeping arrangements, funeral ceremonies, replacing a deceased married daughter with her younger sister in marriage, widow inheritance among boys, early marriage among girls, and preference for boys/sons. Lindo et al. (2018) revealed that 4.7% of the female students were victims of physically forced sexual assault, 7.8% were sexually assaulted when they were incapacitated after voluntary consuming drugs or alcohol, and 0.6% were sexually assaulted when they were incapacitated after having been given a drug without their knowledge. Other studies such as Cantor et al. (2017) linked socio-cultural factors to sexual violence among female students. These studies indicate a relationship between socio-cultural predictors and

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sexual violence but fall short of the college age group category. Kisumu County has many colleges and higher learning institutions with many cases of female sexual violence and therefore it was important to explore the influence of socio-cultural practices on sexual violence among female college students.

2.4   Psychological Effects of Sexual Violence

There are many emotional and psychological reactions that victims of sexual violence experience. Psychological effects are reactions that affect the mind, especially as a function of awareness, feeling, or motivation. This study focused on Post traumatic stress disorder and depression.

Ansara and Hindin (2011) examined the psychosocial factors associated with different patterns of physical violence, sexual coercion, psychological abuse, and controlling behavior using data from 676 women and 455 men courtesy of the 2004 Canadian General Social Survey on Victimization. Women were found to be particularly more affected especially with respect to chronic patterns of abuse, psychosocial consequences. Depression and post-traumatic stress disorders were some of the main psychological effects. The study also established that trauma experienced by victims of sexual violence may result into a disorder known as the post-traumatic stress disorder. This is a mental health condition that's triggered by a terrifying event; either when a person experiences or witnesses it. It is characterized by one having flashbacks, nightmares and severe anxiety, as well as uncontrollable thoughts about the event. Sexual violence in this study was observed from the basis of intimacy in relationships. Even though this study provided a good understanding of how sexual violence results into depression and post-traumatic stress disorders, which are some of the psychological effects, it was conducted in

Canada. Canada has dissimilar cultural settings with Kenya. There are different beliefs in Canada and Kenya, which is the interest of study. In addition, the study focused on men and women in general. It was therefore imperative to investigate whether female college students in Kenya, particularly in Kisumu, also experienced the aforementioned psychological effects after experiencing sexual violence.

Chen et. al. (2010) conducted a review of literature obtained from various databases including MEDLINE, EMBASE, CINAHL, Current Contents, PsycINFO, ACP Journal Club, CCTR, CDSR, and DARE with a view to assessing the evidence for an association between sexual abuse and lifetime diagnosis of psychiatric disorders. On the basis of their search, they obtained 37 eligible studies, 17 case-control and 20 cohorts, with 3,162,318 participants. From these studies, the researchers established a statistically significant association between sexual abuse and a lifetime diagnosis of anxiety disorder, depression, eating disorders, post-traumatic stress disorder, sleep disorders, and suicide attempts. The aforementioned psychiatric conditions were identified as fatal especially in the long run. In their views, the researchers established that a history of sexual abuse is associated with an increased risk of a lifetime diagnosis of multiple psychiatric disorders. The implication here is that when a victim is exposed to numerous sexual assaults, then there is a very high likelihood that such a victim will suffer various psychological effects. On the basis of the findings, the researchers have confirmed that there is a significant relationship between sexual assault, post-traumatic disorder, and depression. All these factors notwithstanding, it was imperative to perform a study within the Kenyan context and establish psychological effects of sexual assault amongst female college students.

Hetzel-Riggin et al. (2007) carried out a meta-analytic investigation of therapy modality outcomes for sexually abused children and adolescents in the United States. The study was exploratory in nature with the main aim of finding out the independent effects of different treatment elements on a number of secondary problems related to childhood and adolescent sexual abuse as well as investigating the different moderators of treatment effectiveness. A total of 28 studies that provided treatment outcome results for the study respondents who had been sexually abused were included. Different aspects of psychological treatment such as individual, cognitive-behavioral and psychological distress were investigated. The findings revealed a meta-analysis effect size of (d=.72, Standard Error=.02) implying that psychological treatment after childhood or adolescent sexual harassment tended to better outcome and lead to less distress. These findings imply that there is psychological distress after sexual harassment among adolescent. The findings therefore are close to the objective variable-wise but still limited to adolescent and young subjects age-wise whereas student at colleges are exposed to an environment of independence social wise. In addition, the study was carried out in a developed country as compared to Kisumu in Kenya where there is still a large gap in academic and other forms of development. It was therefore necessary to carry out a study on the psychological effects of sexual violence among female college students in Kisumu County.

Rampal (2012) examined the prevalence of sexual harassment and its associated factors among registered nurses that worked in government hospitals in Melaka State in Malaysia. The study adopted a cross-sectional survey design on a sample of 455 female registered nurses who had worked for a period of more than one year in three government hospitals. Structured questionnaire was the main instrument for data collection. The findings of the study indicated that 74.7% of the victims suffered from psychological effects brought upon by their encounter

with various types of sexual harassment at work. In as much as the study shade some light on the effects of sexual harassment as psychological, it is imperative to note that it is devoid of the particular aspects of psychological effect. The study was therefore general and limited to assumption as psychological despite the many forms of psychology. In addition, the study was conducted among nurses that had worked for a period of one year and above. Clearly, the effects may be the same but there are different age groups as compared with the campus female students. Besides, the occupation of the study participants is clearly varied such that those who are working have some form of empowerment, especially economic as compared to female students who mostly are still dependents on their guardians. Therefore, the study is general but relevant to the topic of the current study.

A study on the impact of different forms of psychological abuse on battered women was carried out by Sackett and Saunders, (1999). Respondents consisted of 60 women who had sought help from a domestic violence agency in midsized Midwestern city. All the study respondents had undergone physical violence at least once. Most of the women, 63% were in colleges while 25% were college graduates. The study findings revealed a positive and significant relationship between sexual abuse and depression, implying that the more the sexual abuse the more the women were depressed. Other effects of sexual abuse were found to be fear, and low self-esteem. The study variables are almost similar to the current study on the psychological effects of sexual violence but differ in the age categories and physical locations. Kisumu County makes a different niche and therefore such a study was relevant in order to explore the psychological effects of sexual violence among the college students.

Ansara and Hindin (2011) examined the psychosocial consequences associated with different patterns of physical violence, sexual coercion, psychological abuse, and controlling behavior.

Women were found to be particularly pronounced especially with respect to chronic patterns of abuse, which resulted into psychosocial consequences. Similarly, Chen et al. (2010) established a statistically significant association between sexual abuse and a lifetime diagnosis of anxiety disorder, depression, eating disorders, posttraumatic stress disorder, sleep disorders, and suicide attempts. Studies by Hetzel-Riggin et al. (2007) have also found that psychological treatment after childhood or adolescent sexual harassment tended to better outcome and lead to less distress. These findings thus imply that there is psychological distress after sexual harassment among adolescent. Likewise and Rampal (2012) revealed that 74.7% of the sexual violence victims in colleges suffered from psychological effects brought upon by their encounter with various types of sexual harassment at work while Sackett and Saunders (1999) revealed a positive and significant relationship between sexual abuse and depression. These studies were not however clear on the type of psychological effects of sexual violence, or did not exhaust all the study variables thus making it necessary to study the psychological effects of sexual violence among college and campus female students in Kisumu County, Kenya. This research will therefore add to the body of knowledge on the consequences of Sexual Violence.

CHAPER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section focused on the research design; area of study, target population, sampling and sampling procedures, research instruments, data collection procedures, data analysis, and research ethics.

3.2 Research Design

This study adopted descriptive cross-sectional research design with mixed method approach (McMillan & Schumacher, 2010) comprising both quantitative and qualitative approaches. The concurrent use of these mixed methods permitted triangulation of the data from the different sources for validity and reliability of the study.

The method was one phase mixed method design in which quantitative and qualitative data was collected and analyzed during the same phase of the research process and then merged together into one interpretation (Creswell & Plano Clark, 2007). This was accomplished by combining the strengths of quantitative research (large sample sizes, contextual details, in-depth description) (Patton, 1990). This design was considered relevant to the current study given that it enabled the researcher to explore in details issues of sexual violence and their predictors.
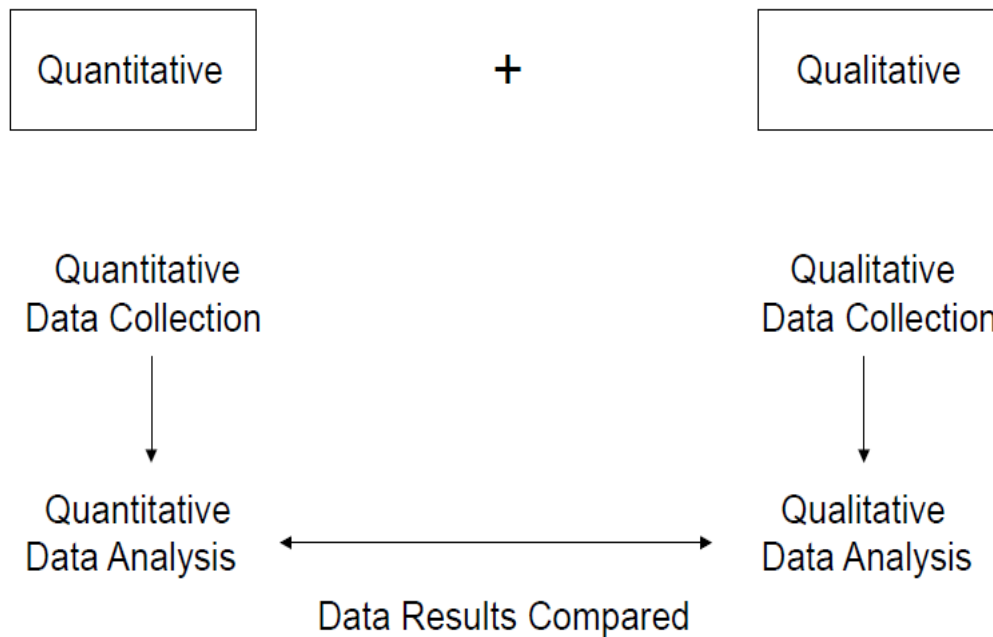
Figure 3.1: Concurrent Triangulation Mixed Research Method

As illustrated in Figure 3.1 above, a descriptive cross-sectional research design with mixed method approach research design is a procedure for collecting, analyzing, and "mixing" both quantitative and qualitative research and methods in a single study to understand a research problem. The approach advances the systematic integration of quantitative and qualitative data within a single investigation. It provides for the collection of both qualitative and quantitative data in response to research question; and the analysis of both qualitative and quantitative data. The use of the mixed methods permit triangulation which is essentially corroboration of research results from different research methods.

In this respect, concurrent triangulation and mixed research method was one of the most appropriate strategies for the study especially with respect to establishing the predictors of sexual violence amongst female college students in the study area.

3.3 Study Area

The study was conducted in Kisumu County, Kenya. **Appendix V** shows the map of Kisumu County. It covers an area of 1,131 square meters (3,711 ft). Based on the 2009 census, Kisumu has a total population of 409,928 (204,863 males and 205,065 females). Other than being considered as the 3rd largest city in Kenya, it is the principal city of western Kenya, and the headquarters of Kisumu County. Since it is the largest city in the Nyanza region as per the new systems of governance and the most important city after Kampala in the greater Lake Victoria basin, Kisumu is considered as a commercial city with numerous activities. Consequently, there are numerous colleges within the region. Many cases on sexual violence are often reported in the region with minimal reports of the causes of these cases. There are universities, medical colleges, and tertiary colleges. **Appendix VI** contained the list of colleges that are within Kisumu County.

3.4 Study Population

The target population was female college students within the Institutions of Higher Learning and Tertiary Institutions in Kisumu County. The Kenya National Bureau of Statistics, KNBS (2015) approximates total number of females in Tertiary Institutions and Institutions of Higher Learning to be 13,326. The four main public universities in Kisumu are Jaramogi Oginga Odinga University of Science and Technology, Maseno University, Kisii University, and University of

Nairobi. The public tertiary institutions are, Kenya Medical Training College, Kisumu Polytechnic, Ramogi Institute of Advanced Technology, and Tom Mboya Labour College. These institutions were chosen because they have the highest number of enrolment with cases of sexual violence. The study therefore sought to shed light on the predictors and psychological effects of sexual violence amongst female college students among these institutions in Kisumu County, Kenya.

3.5 Sampling Procedure and Sample Size

In order to determine the sample size, Fisher et al. (1991) formula was used as indicated below:

$$n = \frac{z^2 pq}{d^2}$$

Where-:

n - The desired sample size (assuming the population is greater than 10,000)

z - The standard normal deviation, set at 1.96, which corresponds to 95% confidence level

p - The proportion in the target population estimated to have a particular characteristic.

According to Fisher *et al* (1991), if there is no reasonable estimate, then 50 percent is used (the study used 0.50).

$$q = 1 - p$$

d = the degree of accuracy desired, here set at 0.05 corresponding to the 1.96.

$$n = \frac{1.96^2 \times 0.5 \times (1 - 0.5)}{0.05^2}$$

$$= 384$$

The distribution of participants in the sample is as illustrated in table 3.1 below.

Table 3. 1 Study Population

Institution	Population	Proportion of the total Population	Samples
Maseno University	6,319	47.42%	182
Kisii University	459	3.44%	13
JOOUST	1,001	7.51%	29
University of Nairobi	1,239	9.30%	36
KMTC	928	6.96%	27
Kisumu National Polytechnic	1,826	13.70%	53
RIAT	876	6.57%	25
Tom Mboya Labour College	678	5.09%	20
Total	**13,326**	**100%**	**384**

In order to select participants, a combination of stratified and simple random sampling strategies was used. The study population was broken down to different strata (public universities and

tertiary colleges). The list of all the public universities and tertiary colleges in Kisumu was obtained. The universities included universities which have satellite campuses in Kisumu County. Simple random sampling was used to select 8 institutions for the study which included 4 tertiary colleges and 4 public universities. Simple random sampling strategy was used as it offers equal chances to every participant in each stratum to form the representative sample. Proportional allocation was further used to get the samples from each institution.

3.6   Reliability and Validity

3.6.1   Validity of the Research Instrument

Validity is the degree to which results obtained from the analysis of the data actually represent the phenomena under study (Mugenda & Mugenda, 2003). Content validity was used to determine the validity of the instruments whereby a pilot study was conducted in Masinde Muliro University and Kibabii University which were not part of the representative sample. The questionnaires were issued to a total of 38 female college students forming the pilot study sample, this was 10% of the sample population as stated by (Kirlinger, 2009) that 10% of the study population is representative enough to give required information. Through the pilot study, the researcher was able to determine ambiguities in the items. The items that failed to measure the variable intended were modified and others discarded. The pilot study was done to test the reliability and validity of the instruments.

3.6.2   Reliability of the Research Instrument

Mugenda and Mugenda (2003) define reliability as a measure of the degree to which a research instrument yields consistent results or data after repeated trial. To test the reliability of the

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instruments, the researcher employed the test-retest during the pilot study. The researcher administered the questionnaire to a random sample of 38 female students from Masinde Muliro University and Kibabii University which were not part of the representative sample, (Kirlinger, 2009). After one week the researcher administered the same instruments to the same respondents. The test re-test helped determine the reliability of the study instruments and to perfect the questionnaire concepts and wording. The reliability coefficient of the instruments was done using Cronbach alpha 0.839 and the internal consistency was good. Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group.

3.7   Data Collection Instrument

This study used self-administered student questionnaires for the female college students and semi-structured interviews together with FGDs with psychologists within the host institutions.

3.7.1   Questionnaire

A self-administered questionnaire was used to gather data for the purposes of having a deeper understanding of predictor factors and psychological effects of sexual violence (Bordens & Abbott, 2002). The researcher adopted and modified the KAMAL's sexual harassment experience questionnaire (SHEQ) for the study. The questionnaire items were scored using the 5 items likert scale (strongly agree, agree, neutral, disagree, and strongly disagree).

Data was collected using a questionnaire which contained short-structured questions with multiple choices. The questionnaire was designed according to the objectives of the study and the study variables. The questionnaire was self –administered and contained two main parts,

namely, demographic composition and sexual violence predictors and its psychological effects. The second part was sub-divided further into types of sexual violence (sexual coercion, gender harassment and unwanted sexual attention), socio-demographic factors (place of stay, frequency of partying, current year of study, having partners in college, use of drugs and alcohol, age, financial levels and extend of socializing with males), socio-cultural factors (cultural beliefs, peer culture and campus norm), and psychological effects of sexual violence (stress, anxiety, loss of appetite, difficulty in sleeping and concentration, change in sexual desire etc). The questionnaire gathered information from the female college students.

3.7.2   Semi-Structured Interview

Semi-structured interview using an interview schedule was employed in gathering information from psychologists, who were the counselors and education psychology lecturers within the host institutions. Semi-structured interviews were used to gather information especially with respect to socio-demographic (frequency of partying, financial status, place of stay, age, current year of study) and socio-cultural predictors (peer cultures, campus norm and cultural beliefs) of sexual violence and the psychological effects (depression, anxiety, loss of appetite, change in sex drive, stress, reduced concentration, avoidance of people and places) of sexual violence amongst female college students in Kisumu County. The interview schedule contained open-ended questions addressing the identified variables.

A list of psychologists in the selected institutions was developed from where the psychologists were selected randomly. Using a simple random sampling method, either one psychologist, counselor or lecturer working in the office of student affairs or directorate of Gender studies was

selected. From each institution, one psychologist was interviewed giving a total of eight psychologists interviewed.

3.7.3   Focus Group Discussions

A focus group discussion involves gathering people from similar backgrounds or experiences together to discuss a specific topic of interest. It is a form of qualitative research where questions are asked about their perceptions attitudes, beliefs, opinion or ideas. In focus group discussion participants are free to talk with other group members.

Focus Group Discussions were carried out to gather more useful information from the female college students on predictors and psychological effects of sexual violence amongst female college students in Kisumu County. A total of eight college students (1 from each of the selected colleges) were engaged in a FGD to help in obtaining more information. In addition, only one student was sampled from each of the eight institutions to ensure all the selected institutions were represented. All the eight students were asked to come to one central point for the FGD. The FGD was conducted using an FGD guide which was validated through rigorous pretesting.

The use of FGD assisted the study to gather opinions, views, and even expressions of emotions and frustrations from the female college students.

3.8: Data Collection Procedures

The researcher obtained a formal introduction letter of permission from the Director Board of Post Graduate Studies of Maseno University. Additionally, the researcher obtained a permit to conduct the research from the Maseno University Ethics Review Committee and consequently clearance from Kisumu County. The researcher then made preliminary visits to the colleges for

the purpose of establishing rapport with the administration as well as students. Upon receiving permission from the administration, the researcher clarified to all the respondents regarding other important ethical issues such as privacy and confidentiality of the information given to her, anonymity and respecting their right to withdraw from the study and treating them with dignity. Consent was then sought from the participants and different dates and times to collect data from each institution were agreed upon. On the agreed dates to collect data, all the female student participants were assembled within the designated classrooms and the questionnaires administered to them. Participants were asked to fill the questionnaires to the best of their knowledge. The respondents were given up-to 30 minutes to respond to their questionnaires, after which they handed them over to a specific central place. The questionnaire was designed such that it required approximately 20 to 25 minutes to respond to all the questions. Data collection was done for a period of one month.

3.9   Data Analysis and Presentation

In this study, attributes and characteristics of the population were classified to reduce the raw data into homogenous groups to get meaningful relationships. The quantitative data was then analyzed using statistical package for social sciences (SPSS). Quantitative data was entered into SPSS (Version 24) spreadsheet and cleaned. Measurement scales (nominal, ordinal, interval and ratio) scales were then related with variables.

Thereafter, descriptive statistics were linked to summarize available data. The descriptive statistics that were used included mean, median, frequency, percentages and standard deviation.

Inferential statistics were also used to make inferences about the study population. Correlations were used assesses the relationship between two variables whereas regression analysis was further used to understand cause and effect between variables.

The results of the analysis were presented in form of frequency distribution tables, percentages and means and standard deviations. All the quantitative results were augmented and justified by the qualitative results collected.

In order to determine the relationship between socio-demographic characteristics and sexual violence amongst female college students, **Pearson correlation coefficient**, **r**, in a range of values from +1 to -1 was computed. A value of 0 indicates that there is no association between the two variables. In addition, Multiple Linear Regression Analysis was used for causal analysis. Regression analysis models the relationship between a response variable and one or more predictor variables. In this study, the analysis was used to describe the relationship between a set of independent variables and the dependent variable. The independent variable being socio-demographic characteristics including age, parental occupation, year of study and place of residence and the dependent variable as sexual violence. The mean and standard deviation were also computed.

Subsequently, to determine the relationship between socio-cultural factors and sexual violence among female college students **Pearson correlation coefficient**, **r**, in a range of values from +1 to -1 was computed. A value of 0 indicates that there is no association between the two variables. In addition, Multiple Linear Regression Analysis was used for causal analysis. The independent variable being socio-cultural factors including peer culture, campus norms and socio-cultural

beliefs as well as actions; the dependent variable as sexual violence. The mean and standard deviation were also computed.

Mean and standard deviation were carried out to examine the psychological effects of sexual violence amongst female college students. The independent variables being Psychological Effects which included post-traumatic stress disorder (PTSD) and depression while dependent variable was Sexual Violence.

In order to know the most contributory of this relationship between the variables, the multiple regressions was conducted. A significance level of 95% (p value of 0.05) was used in the study.

Regression analysis models the relationship between a response variable and one or more predictor variables. Although no hypotheses were being tested in this study, the analysis was used to describe the relationship between a set of independent variables (socio demographic characteristic as well as socio-cultural factors) and the dependent variable (psychological effects of sexual violence).

Table 3. 2 Data Analysis Matrix

Research Question	Independent Variable	Dependent Variable	Statistical Test
1. What is the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya?	Socio-demographic Characteristics	Sexual Violence	• Mean and standard deviation • Regression and correlation
2. What is the relationship between socio-cultural predictors and sexual violence amongst female college students in Kisumu County, Kenya?	Socio-cultural Predictors	Sexual Violence	• Mean and standard deviation - • Regression and correlation
3. What are the psychological effects of sexual violence amongst female college students in Kisumu County, Kenya?	Sexual Violence ----- -	Psychological Effects	• Mean and standard deviation

Source: Researcher (2018)

Qualitative data was analyzed using content analysis method which involved the researcher reading through the transcripts over and over again, identifying themes and interpreting them. The raw data from interviews was organized, coded, and analyzed according to emerging

themes, (Braun and Clarke, 2006, p. 79). It minimally organizes and describes data sets in (rich) details.

3.10   Ethical Considerations

The researcher sought ethical approval from Maseno University Ethical Review Committee (MUERC). The researcher ensured responsible use of data and respected the dignity and welfare of all study participants. The study adhered to the universal principles underlying research such as honesty and respect for the rights of individuals or personalities in the study. Consequently, the researcher in this study sought consent from the respondents individually before participation (Grey, 2002). Participation in the study was voluntary and the study participants were allowed to withdraw from the study at any time. Responses given by an individual were not shared by any other persons except those directly involved in the study (researcher and research assistants) and were only used for academic purposes. All respondents were assured of confidentiality that their names would not be written on the questions or reports. Data collection forms were kept in lockable storage area and all documents containing identifying information were destroyed after the project and data entry was completed. Data was maintained in a de-identified electronic database that is password-protected. No major risks would be involved, however risks related to psychological or emotional stress on evoking memories on sexual violence could be experienced. This was handled through psychological counselling that was given to these study participants. The researcher ensured that the research assistants employed for the study were those qualified in psychological counselling to help handle the study participants' psychological issues. The researcher paid attention to plagiarism. No work was used without attribution. The researcher also ensured that every work would not be used verbatim and that proper paraphrasing would ensue.

CHAPTER FOUR   DATA ANALYSIS, PRESENTATION AND DISCUSSIONS

4.1   Introduction

This chapter contains the findings which were obtained from the field and the discussion of these findings as per the objectives of the study. The objectives of the study were: To determine the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya; to establish the relationship between socio-cultural characteristics and sexual violence amongst the female college students in Kisumu County, Kenya and to examine the psychological effects of sexual violence on female college students in Kisumu County, Kenya

4.2   Response Return Rate

For this study, a total of 384 questionnaires were administered to the female college students in four main public universities and four public tertiary institutions in Kisumu County. The four public universities included Jaramogi Oginga Odinga University of Science and Technology, Maseno University, Kisii University, and University of Nairobi whereas the public tertiary institutions were, Kenya Medical Training College, Kisumu Polytechnic, RIAT and Tom Mboya Labor College. Out of this, 381 (99.2%) students gave feedback resulting to 381 out of 384 questionnaires that were analyzed. Two questionnaires were not returned and one was not adequately filled in and therefore was discarded. JOOUST, Kisii University, KMTC, Kisumu polytechnic and Tom Mboya labour college had a 100.0% return rate. However, Maseno University had a response rate of 99.5%, University of Nairobi had a response rate of 97.2% and RIAT had a response rate of 96.0%. Table 4.1 presents the demographic information and mean of sexual violence in summarized statistics.

4.3 Socio-demographic Characteristics

Table 4. 1 Socio-Demographic Characteristics

		Frequency	Percent
Age	Less than 18 years	0	0
	Between 18 and 21 years	357	93.7
	Between 22and 24 years	24	6.3
	Total	**381**	**100**
Parental Occupation	Farmers	66	17.3
	Day laborers	30	7.9
	Government employees	108	28.3
	Private employees	30	7.9
	Self employed	141	37
	Others	6	1.6
	Total	**381**	**100**
Place of residence	In campus	351	92.1
	Outside campus	30	7.9
	Total	**381**	**100**
Year of study	Year 1	321	84.2
	Year 2	24	6.3
	Year 3	6	1.6
	Year 4	30	7.9
	Total	**381**	**100**

A total of 381 respondents were surveyed. The demographic characteristics of the respondents are contained in the table 4.1 above. Majority of the students belonged to the age bracket 18-21 years and accounting for 93.7% of the study population. Besides, most (28.3%) of the students surveyed reported that their parents were government employees.

In addition, majority of the students interviewed reported that they were residing in campus as opposed to 7.9% who residing outside campus. With regard to the year of study, the study revealed that majority (84.2%) of the students was in their first year of study whereas the least proportion (1.6%) was in their third year of study.

4.4 Sexual Violence: Gender Harassment

In order to determine the prevalence/presence of sexual violence among college students in Kisumu County, participants were expected to respond to items on their experience of gender harassment, unwanted sexual attention and sexual coercion. Their response was on a five-point Likert scale where 1=strongly agree, 2=agree, 3=neutral, 4= disagree and 5=strongly disagree. The results were presented using, percentages, frequencies, means, standard deviations as shown.

Table 4. 2 Summary Statistics

	Mean	Std. Deviation
Sexual harassment	3.5814	.90075
Unwanted Sexual Attention	2.9081	1.02040
Sexual Coercion	3.9018	1.34043
Mean of sexual violence	3.4638	.81549
Valid N (listwise)		

The finding indicated that sexual harassment had a mean of 3.58 with a standard deviation of 0.900 while unwanted sexual attention and sexual coercion had mean and standard deviation of (M=2.90, SD=1.02) and (M=3.90, SD=1.34) respectively. The overall mean of sexual violence was 3.46 with a standard deviation of 0.815 implying that sexual violence practice was high.

Table 4. 3 Summary Statistics (Demographic and Mean Sexual Violence)

	N	Minimum	Maximum	Mean	Std. Deviation
Age	381	1	3	1.90	.470
Parent Occupation	381	1	4	2.57	1.078
Place of residence	381	1	2	1.08	.270
Year of study	381	1	4	1.33	.853
Mean of sexual violence	381	1.90	6.57	3.4638	.81549

The findings indicate that the mean age of the respondents was 1.90 with small deviations of 0.470. Most of the parents were in the category of low class business (M=2.57, SD=1.078) while most of the female students stayed inside the campus (Mean=1.08, SD=.270). The findings further indicate that most of the respondents were in year one of study (M=1.33. SD=.853) while the mean of sexual violence was moderate (M=3.46, SD=.815). This implies that there were practices of sexual violence in the campus.

4.5 Relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya

It was necessary to find out whether a relationship existed between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya. Pearson product moment correlation was then carried out between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya. The results are as shown in table 4.4.

The study findings in Table 4.3 revealed the existence of a moderate positive and significant relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya, (r=.396, p=.000). This implied that the socio-demographic characteristics of the female college students in Kisumu County to a moderate extent, predicted their vulnerability to sexual violence. The relationship being significant implied that the socio-demographic characteristic is a determinant of sexual violence.

Table 4. 4 Correlation between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County, Kenya (N=381)

		Age	Place of residence	Year of study	Parent Occupation	mean of sexual violence
Age	Pearson Correlation	1	.190**	.402**	-.204**	.008
	Sig. (2-tailed)		.000	.000	.000	.875
Place of residence	Pearson Correlation	.190**	1	.573**	.118*	.107*
	Sig. (2-tailed)	.000		.000	.022	.036
Year of study	Pearson Correlation	.402**	.573**	1	-.016	-.084
	Sig. (2-tailed)	.000	.000		.762	.101
Parent Occupation	Pearson Correlation	-.204**	.118*	-.016	1	-.065
	Sig. (2-tailed)	.000	.022	.762		.208
Mean of sexual violence	Pearson Correlation	.008	.107*	-.084	-.065	1
	Sig. (2-tailed)	.875	.036	.101	.208	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

The findings on the effect of some of the socio-demographic characteristics that included age of the respondents and current year of study were also presented as indicated in Table 4.5. The findings were presented using standardized coefficients (beta values).

From the findings, it is clear that socio-demographic characteristics have an influence on sexual violence. For instance, current year of study has a negative influence, such that the more the female students are new to college, the more likely they are to experience sexual violence (β=-.246, p=.001). The negative relationship indicated that the advancement in the current year of study reduced the vulnerability of the female students to sexual violence, and when the female students were new to college, their vulnerability to sexual violence increased.

On the other hand, place of residence had a positive influence on sexual violence such that those who stayed outside the campus were more likely to experience sexual violence as compared to those who stayed inside the campus.

Table 4. 5 Contribution of socio-demographic characteristics to sexual violence

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	2.997	.261		11.479	.000
	Age	.071	.097	.041	.730	.466
1	Year of study	-.235	.063	-.246	-3.742	.000
	Parent Occupation	-.068	.039	-.090	-1.726	.085
	Place of residence	.760	.187	.251	4.054	.000

a. Dependent Variable: mean of sexual violence

The summary findings on the overall percentage change in sexual violence accounted for by the current year of study were presented as indicated in Table 4.5.

From the findings as indicated in Table 4.5, it is clear that the age and current year of study accounted for 5.4% significant change in sexual violence, (R square=.054, p=.003). This implies that the students' current year of study may determine their exposure to sexual violence.

Table 4. 6 Model Summary on Effect of Year of Study (Socio-demographic) on Sexual Violence

					Change Statistics				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.232[a]	.054	.044	.79744	.054	5.349	4	376	.000

a. Predictors: (Constant), Place of residence, Parent Occupation, Age , Year of study

The results above were corroborated with findings from qualitative data. The quote below from one counselor indicated that there was a relationship between socio-demographic characteristics of students and exposure to sexual violence:

> *"Majority of the female students who are victims of sexual violence in these institutions come from poor families. They are therefore enticed by men who are rich; among them are government figures and college staffs and sometimes their fellow students. In most cases these men end up sexually violating the ladies when they are both under influence of drugs. These female students do so because they want to own things that their colleagues have, they want to dress, eat and travel like others from rich families."*

The study findings concur with those of Hwa et al. (2010) who found out that majority of patients examined later than 72 hours after the last sexual assault were from low income families.

In addition to these findings, the study, through focus group discussions established that some categories of female students were more vulnerable to sexual violence due to their age, parental occupation and year of study. Those whose parents had financially lower occupation easily fell prey over sexual demands. This also happened with those who were new in the colleges and those who stayed far away from the college. There this means that socio-demographic characteristics have an influence on female students and contributed to their sexual violence.

Moreno (2013) conducted a study to describe the characteristics and ascertain risk factors of sexual assault victims in three age groups of children, adolescents, and adults. According to the study, the researcher established that sexual assaults with evidence of physical injury in the examination were significantly associated with age of victims. Majority of the identified victims were found to have come from low income level backgrounds.

These findings concur with Rickert and Wiemann (2008) who noted in their study that adolescents and young adults were four times more likely to be victims of sexual violence than women in older ages from low income backgrounds. Moreno (2013) study indicates that sexual violence was significantly associated with age of victims whereas El-Din et al. (2015) found that there were a higher percentage of women that were young and more prone to sexual violence.

Other studies such as Kimuna and Djamba (2008) also confirm the relationship between age, schooling, economic status and sexual violence. These studies are however selective in variables and fail to address all the socio-demographic characteristics among the college students. Besides,

they do not give a clear picture of sexual violence among college students, and more so, in Kisumu County.

According to socio-ecological theory of gender based sexual violence, Individual-level factors increase the risk of violence. For example, a low level of education, young age (early marriage) and low-economic status/income have been associated as risk factors for both experiencing and perpetrating intimate partner violence. Past experiences of violence also play a role; exposure to sexual abuse and intra-parental violence during childhood as well as a history of experiencing (for women) or perpetrating (for men) violence in previous intimate relationships increases the likelihood of violence in future relationships.

From the findings of this study, it can therefore be deduced that the year of education, the place of residence and parents' occupation yield interesting findings such that as the year of education advances, there are less cases of sexual violence. The place of residence had a positive influence on sexual violence such that those who stayed outside the campus were more likely to experience sexual violence as compared to those who stayed inside the campus.

Even though parents' occupation does not form a significant finding, there is a negative correlation such that as their occupation becomes more lucrative in terms of income, the female students' cases of sexual violence become less evident. It is therefore on this backdrop that the study firmly concludes that socio-demographic characteristics had an influence on sexual violence among female students in Colleges in Kisumu County.

4.6   Relationship between Socio-Cultural Factors and Sexual Violence

The second objective of the study was to establish the relationship between socio-cultural characteristics and sexual violence amongst the female college students in Kisumu County,

Kenya. Some of the socio-cultural characteristics of sexual violence that the researcher looked at were: s, peer culture and campus community norm. The students were asked to give their opinions about each of the socio-cultural characteristics of sexual violence. Their views were measured on a five-point Likert type scale where 1=strongly agree, 2=agree, 3=neutral, 4= disagree and 5=strongly disagree. The findings revealed that socio-cultural characteristics had an overall high mean and low standard deviation (Mean=3.1389, SD=0.647). This implies that the selected socio-cultural characteristics were highly practiced or present in the institutions and there was no much difference or deviations in the agreement on their presence as indicated by the standard deviation. Analysis of the mean response for each of the socio-cultural characteristics was also done. The findings indicated that socio-cultural beliefs and actions had a high mean and low standard deviation (M=3.216, SD=.742), implying that the practices were carried out among the college women students in Kisumu County. The findings further indicated that peer culture had the highest mean and standard deviation compared to other socio-cultural predictors (M=3.415, SD=.834), which imply that peer culture was much more evident among the students. Finally, the findings indicate that campus norm was slightly lower as compared to other socio-cultural characteristics but evidently practiced among the female students (M=2.792, SD=.795). This implied that there was peer influence culture-wise in the institutions which was likely to alter other female students' behaviour. The descriptive statistics results are presented in summary form using means and standard deviations as shown in Table 4.7.

Table 4. 7 Summary Statistics on Socio-Cultural Factors

Socio-Cultural Predictors	N	Mean	Std. Deviation
Socio-cultural beliefs and action	381	3.216	.742
Socio-cultural peer culture	381	3.415	.834

Campus Norm	381	2.792	.795
Mean of Socio-cultural characteristics	381	3.139	.647
Valid N (listwise)	381		

For this reason, the study analysed Pearson product moment correlation between socio-characteristics and sexual violence amongst the female college students in Kisumu County, Kenya. The results were presented as shown in tables 4.7 and 4.8 below.

Table 4.7 indicated the results on the relationship between social cultural predictors and sexual violence among the universities under study. From the findings, all the socio-cultural predictors had significant correlation with sexual violence at a P value of 0.005. However, campus norm had the strongest correlation (r=.370), followed by socio cultural peer culture (r=.365) and finally socio cultural beliefs and actions (r=.357). From these findings, it can be deduced that sexual violence was associated with socio cultural predictors, with campus norm making the strongest relationship with sexual violence. Another implication of these findings is that, as campus norms dominate the institutions, sexual violence becomes more evident and therefore the female students become prone to sexual violence.

Table 4. 8 Relationship between socio-cultural factors and sexual violence amongst the female college students in Kisumu County, Kenya (N=381)

Correlations		Sexual Violence	Socio cultural beliefs action	Socio cultural andculture	Campus peerNorm
Sexual Violence	Pearson Correlation	1	.357**	.365**	.370**
	Sig. (2-tailed)		.000	.000	.000
Socio cultural beliefs and action	Pearson Correlation	.357**	1	.514**	.469**
	Sig. (2-tailed)	.000		.000	.000
Socio cultural peer culture	Pearson Correlation	.365**	.514**	1	.519**
	Sig. (2-tailed)	.000	.000		.000
Campus Norm	Pearson Correlation	.370**	.469**	.519**	1
	Sig. (2-tailed)	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 4.1 Scatter diagram on relationship between sexual violence and predictors

From the scatter plot in Figure 4.1, the findings shows that there is a relationship positive between predictors and sexual violence such that for all the predictors, there is an increase in sexual violence. Taking each of the predictors independently, the findings shows the scatter plot of individual relationship between sexual violence and predictors in Figure 4.2.

Scatter diagram on relationship between sexual violence and predictors
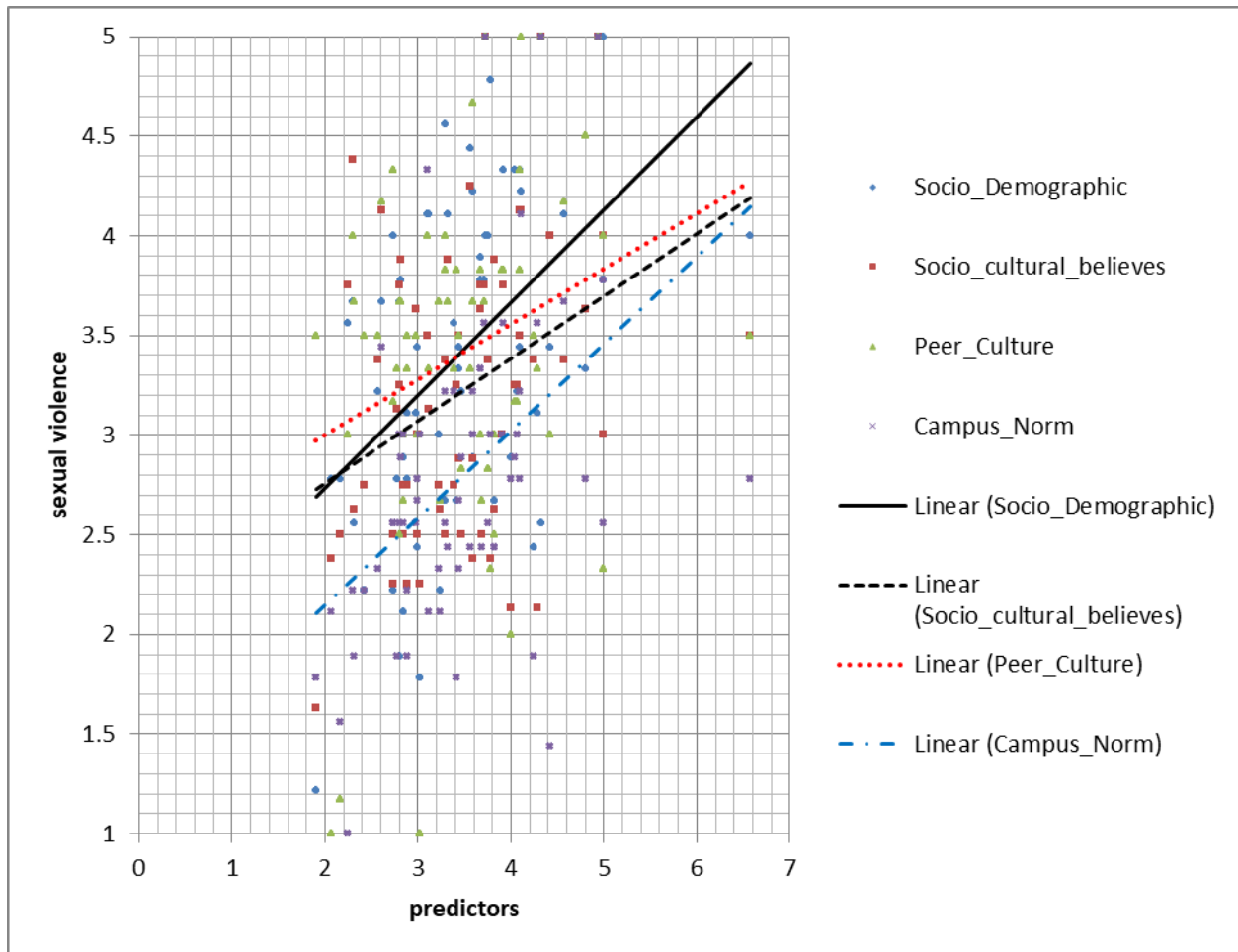
Figure 4. 2 Individual Scatter plot of predictors and sexual violence

Figure 4.2 further shows that there is a significant correlation between sexual violence and each of the predictors.

A standard multiple regression models were also carried out to determine the effect or contribution of each of the predictors on sexual violence. Therefore, sexual violence was regressed on all the three predictors. The findings on the model coefficients are presented as shown in Table 4.8 and reported using beta values.

The findings indicate that all the socio- cultural predictors had significant positive contributions to sexual violence. More specifically, campus norms had the strongest unique contribution to

sexual violence (β=.199, p=.000), followed by socio cultural beliefs and actions (β=.176, p=.000) and finally socio- cultural peer culture (β=.171, p=.000). These findings implied that sexual violence increased in the colleges as a result of these predictors. Further implication showed that a one- unit change in campus norms led to 0.199 increase in the cases of sexual violence in the campuses. Similarly, a one increase unit of standard deviation in socio cultural beliefs leads to 0.176 unit increase in cases of sexual violence and as well as for the increase in 0.171 units or cases in sexual violence for socio cultural peer culture.

Table 4. 9 Model Coefficients on the Effect of Socio-Cultural factors on Sexual Violence

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	1.634	.209		7.806	.000
1	Socio cultural peer culture	.184	.062	.171	2.955	.003
	Campus Norm	.226	.064	.199	3.549	.000
	Socio cultural beliefs and action	.214	.068	.176	3.149	.002

a. Dependent Variable: Sexual Violence

The findings on the summary model results for the effect of socio cultural predictors on sexual violence are presented as shown in Table 4.10 that follows.

The findings in Table 4.9 indicate that socio cultural predictors accounted for 22.3% change or variance in sexual violence (R Square=.223, p=.000). The findings were also found to be

significant $F_{(3, 377)}=36.139$, P=.000. This implies that socio cultural predictors have an influence on sexual violence and therefore are strongly related.

Table 4. 10 Summary Model Results on the Effect of Socio-Cultural Factors on Sexual Violence

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.473ᵃ	.223	.217	.72153	.223	36.139	3	377	.000

a. Predictors: (Constant), Campus Norm, Socio-cultural beliefs and action, Socio-cultural peer culture

Further analysis of the key informants' views was also carried out. They were quoted and reported in verbatim as they gave their qualitative feedback on the state of the socio-cultural beliefs and actions, peer culture and campus norms. Therefore, apart from the quantitative findings, qualitative findings from various interviews were also presented. As shown by the quotes below from one psychologist:

"There is a big problem in our communities when it comes to cultural beliefs. Majority of our ladies in the institutions are exposed to sexual violence due to these cultures. For instance, there are adolescent sleeping arrangements, early marriages and the tendency of adolescents attending funeral ceremonies. The sleeping arrangements and attendance of the funeral ceremonies are usually done during the night; most of these ladies come out sexually violated. To some of our students, campus sexual violence is normal and as much as the institutions prohibit it and intervene in cases of its occurrence, it still exists."

These findings imply that these cultures are existent in the institutions with their inception which could be traced back to the community from where some of the students come from. For

instance, adolescent sleeping arrangements could be a culture that extends to the colleges and institutions but emanates from the background of the female students. Thus, when they come to the campus, they are used to that kind of system or culture and therefore it becomes a normal routine. At this point the institution authorities become unable to completely tame such a culture due to having attained advanced level.

Another finding on peer culture and sexual violence was also reported. From the FGD, it was clear that there was effort in the institutions by both the students and administrators in ending sexual violence.

"In our institutions, majority of the female students don't fear talking about sexual violence. We have had cases where they condemn the act and empathize with the sexual violence victims; by so doing they support the interveners in the quest to end sexual violence. The only challenge is that the victims themselves fear talking about sexual violence; they keep silent in most cases."

From these findings, in as much as there was peer influence, there was openness in exploring the effect on sexual violence since the female students talked about the issues. The cases came out clear in the institutions and the perpetrators are condemned. It is also clear that there are some measures put in place to curb the problems, which entail support to the interviewers to end the problem. However, these efforts experience some challenges, which are stigmas among the victims due to fear of exposure.

Further findings from focus group discussions revealed that socio-cultural factors have more serious effects on sexual violence among college students. For instance, the findings established

that campus peer culture partly contributed to sexual violence since most of the newly joined college students had more freedom to do their own errands and ended up being sexually exploited. Besides, the some came from backgrounds that took sexual exploitation as normal practices through community beliefs.

More qualitative analysis was drawn from other quotes on campus community norm as reported in the two quotes below from psychology lecturer and a counselor.

> *"Most male students in our institutions think they have a right to sexually abuse female students because they feel entitled and have privileges to sex. Some students make party spices for sexual violence; however, we still support and believe the sexual violence survivors." University counselor*

> *"There are cases where the office colludes with sexual perpetrators in these institutions; which has always left the female students with the fear to report the cases of sexual violence because they think that no action will be taken. However, there is social support to end sexual violence." Education psychology lecturer*

Further, the findings from the FGDs with the key informants were also presented.

> *"Socio cultural factors play a very big role in the sexual orientation of the college students. Most people think that it only happens to the girls in the villages, every community has its own culture. In this college, many girls have suffered from sexual violence due to the socio-cultural practices; cultural beliefs, peer cultures and campus community norms."*

From these findings, the respondents' observation agrees with the numerically estimated percentage accounted for by socio-cultural factors. The sexual violence that occurs seems therefore to be partly because of the culture at the colleges. Therefore, socio-cultural beliefs are

factors that predict sexual violence among the college female students in Kisumu County. The study findings are in line with the findings of Juma et al. (2014) who discovered that social practices that inclined teenager's vagrants and non-vagrants to hazardous sexual practices included: adolescent sleeping arrangements, funeral ceremonies and early marriage among girls. However, they also found out that replacing a deceased married daughter with her younger sister in marriage, widow inheritance among females and preference for boys/sons were other factors that inclined teenagers to sexual practices, which this study did not look at. While Juma et al. (2014) focused on teenagers in general; the current study focused on female college students. Similarly in Turkey, Şahin et al. (2010) conducted a study to determine childhood trauma, the type of marriage, and level of self-esteem as correlated to sexual violence in married women. They found out that more than 50% of women interviewed were exposed to sexual violence within their homes. Such exposure was found to be aggravated by other factors including teenage and arranged marriages and large number of children amongst others. These findings are also supported by the socio-ecological theory which revealed that a low level of education, young age (early marriage) and low-economic status/income have been associated as risk factors for both experiencing and perpetrating intimate partner violence.

It is therefore clear that studies such as Şahin et al. (2010) to determine childhood trauma, the type of marriage, and level of self-esteem as matched to sexual violence in married women support that large percentage of women who are exposed to sexual violence. Breiding et al. (2011) on the other hand supports that victims who had not been close to their biological mothers had higher odds of having experienced sexual violence. The study findings are also in line with studies by Reed et al. (2009) who found that among females, most types of substance utilize were related with sexual exploitation while Juma et al. (2014) found that social practices that

inclined teenager's vagrants and non-vagrants to hazardous sexual practices included: adolescent sleeping arrangements, funeral ceremonies, replacing a deceased married daughter with her younger sister in marriage, widow inheritance among boys, early marriage among girls, and preference for boys/sons. Lindo et al. (2018) revealed that 4.7% of the female students were victims of physically forced sexual assault, 7.8% were sexually assaulted when they were incapacitated after voluntary consuming drugs or alcohol, and 0.6% were sexually assaulted when they were incapacitated after having been given a drug without their knowledge. Other studies such as Cantor et al. (2017) linked socio-cultural factors to sexual violence among female students. These studies indicate a relationship between socio-cultural predictors and sexual violence but fall short of the college age group category.

According to socio-ecological theory, Society-level factors include the cultural and social norms that shape gender roles and the unequal distribution of power between women and men. Intimate partner violence occurs more often in societies where men have economic and decision-making powers in the household and where women do not have easy access to divorce and where adults routinely resort to violence to resolve their conflicts. These factors also occur in the form of socio-cultural activities where men are more empowered in campuses as compared to female college students.

Further, ideologies of male sexual entitlement that are common in many cultures exclude the possibility that a woman is entitled to make autonomous decisions about participating in sex and to refuse a man's sexual advances and are used to legitimize the use of sexual violence. Social breakdown due to conflicts or disasters further increase the risk of rape in conflict and post-conflict situations (WHO, 2010). The theory therefore linked the study variables, which are

socio-demographic characteristics and socio-cultural factors on sexual violence using the four levels of the socio-ecological model.

The findings generally indicate that all the socio- cultural predictors had significant positive contributions to sexual violence. More specifically, campus norms had the strongest unique contribution to sexual violence. These findings implied that sexual violence increased in the colleges as a result of these predictors. Therefore, based on the qualitative findings and the quantitative findings, it can be concluded that socio- cultural factors largely contribute to sexual violence among female students in colleges in campuses in Kisumu County.

4.7   Psychological Effects of Sexual Violence on female college students in Kisumu County, Kenya

The last objective of the study was to examine the psychological effects of sexual violence on female college students in Kisumu County, Kenya. To achieve this objective, the college female students were asked to give their views about how they were psychologically affected by sexual violence. Their views were measured on a five- point Likert type scale where 1=strongly agree, 2=agree, 3=neutral, 4= disagree and 5=strongly disagree. The results were presented using, percentages, frequencies, means, standard deviations as shown in table 4.10.

Among the extent of ratings of the psychological effects of sexual violence presented as indicated in Table 4.10, the findings revealed that experience in increased arousal; difficulty in sleeping and concentration was the highly rated effect (M=3.48, SD=1.448) with 134(35.2) respondents strongly agreeing with the fact. Experience of change in sex drive was another effect in which majority, 93(24.4%) of the students strongly agreed, 89(23.4%) agreed and the mean and standard deviation were (M=3.47, SD=1.406) respectively. The third severe effect was

feelings of anxiety (M=3.45, SD=1.788), by which also majority, 93(24.4%) of the respondents strongly agreed, and 89(23.4%) agreed. Majority, 117(30.7%) of the respondents strongly agreed that they experienced stress and fear while 65(17.1%) agreed on the same, with an overall mean and standard deviations of (M=3.39, 1.71).

It was also clear from the findings that majority 99(26.0%) of the respondents strongly agreed that they often experienced reduced pain tolerance and capacity to experience pleasure, with a rating (M=3.33, SD=1.34) which is also high. The study findings also revealed that experience of emotional numbness and avoidance of places, people, and activities (M=3.24, SD=1.39) was another effect of sexual violence that female college students in Kisumu County experienced. The female college students also had experiences of recollections of events, flashbacks, and nightmares; a (M=3.17, SD=1.51) indicated that this was a psychological effect of sexual violence among the female college students. Furthermore, experiences of low self-esteem (M=3.21, SD=1.36) and change in appetite and weight (M=3.16, SD=1.40) were other psychological effects of sexual violence.

Table 4. 11 Psychological Effects of Sexual Violence on female college students in Kisumu County, Kenya

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
I often experience sadness and hopeless	76(19.9)	77(20.2)	82(21.5)	65(17.1)	81(21.3)	2.99	1.423
I experience lowered self-esteem	48(12.6)	94(24.7)	57(15.0)	95(24.9)	87(22.8)	3.21	1.369
Have a change in appetite and weight	59(15.5)	83(21.8)	70(18.4)	77(20.2)	92(24.1)	3.16	1.409
I often experience varying emotions throughout	53(13.9)	136(35.7)	47(12.3)	52(13.6)	93(24.4)	2.99	1.425
I experience change in sex drive	41(10.8)	70(18.4)	75(19.7)	60(15.7)	135(35.4)	3.47	1.406
I often experience reduced pain tolerance and capacity to experience pleasure	47(12.3)	59(15.5)	94(24.7)	82(21.5)	99(26.0)	3.33	1.340
I have feelings of anxiety	40(10.5)	77(20.2)	82(21.5)	89(23.4)	93(24.4)	3.45	1.788
I experience stress and fear	47(12.3)	94(24.7)	58(15.2)	65(17.1)	117(30.7)	3.39	1.715
I experience emotional numbness and avoidance of places, people, and activities	53(13.9)	77(20.2)	75(19.7)	77(20.2)	99(26.0)	3.24	1.395
I often experience increased arousal; difficulty in sleeping and concentration	53(13.9)	58(15.2)	59(15.5)	77(20.2)	134(35.2)	3.48	1.448
I have experienced recollections of events, flashbacks, and nightmares	60(15.7)	106(27.8)	46(12.1)	47(12.3)	122(32.0)	3.17	1.513

In addition to the quantitative findings, qualitative findings from interviews and FGDs were also presented as indicated by the verbatim report.

"After a case of sexual violence among our female students, those who open up do report that they experience hopelessness, anxiety, lack of concentration in class and some have lowered self-esteem. This has later affected their social life and studies to some extent." University counselor

From the FGD, it was also evident that the female students were psychologically affected by sexual violence.

"We have seen cases where some of our female students who are victims of sexual violence become stressed up, fearful and avoid places, people and activities. Some of those who open up to us say they experience changes in sex drive, they have difficulties in sleeping and concentration; and to some they say they become anxious with increased arousal and varying emotions."

Further findings using focus group discussions revealed that sexual violence had very serious psychological effects on female college students. This is because after the incidences, most of the students lost their dignity, developed low self esteem and lost focus in their studies. Psychologically, they were very much affected in the general lives and no longer had respect for themselves. This implies that sexual violence has negative consequences on these female college students.

These findings agree with those of Ansara and Hindin (2011) who examined the psychosocial consequences associated with different patterns of physical violence, sexual coercion, psychological abuse, and controlling behavior. Women were found to be particularly pronounced

especially with respect to chronic patterns of abuse, which resulted into psychosocial and psychological consequences. Similarly, Chen et. al. (2010) established a statistically significant association between sexual abuse and a lifetime diagnosis of anxiety disorder, depression, eating disorders, post-traumatic stress disorder, sleep disorders, and suicide attempts. Studies by Hetzel-Riggin et al. (2007) also found that psychological treatment after childhood or adolescent sexual harassment tended to better outcome and led to less distress. These findings thus imply that there is psychological distress after sexual violence among adolescent. Likewise, Rampal (2012) revealed that 74.7% of the sexual violence victims in colleges suffered from psychological effects brought upon by their encounter with various types of sexual harassment at work while Sackett and Saunders (1999) revealed a positive and significant relationship between sexual abuse and depression. From these studies, the researchers established a statistically significant association between sexual violence and a lifetime diagnosis of anxiety disorder, depression, eating disorders, post-traumatic stress disorder, sleep disorders, and suicide attempts. The aforementioned psychiatric conditions were identified as fatal especially in the long run. On the basis of the findings, the researchers have confirmed that there is a significant association between sexual violence, post-traumatic stress disorder, and depression which is strongly hinged on the socio-ecological model of gender based sexual violence as proposed by Heise (1998), cited in WHO, (2005).

From both the quantitative and qualitative findings, it can be deduced that there were psychological effects of sexual violence among the female college students in Kisumu County. The most felt psychological effects of sexual violence among the female college students were difficulty in sleeping and concentration, change in sex drive, feelings of anxiety, and increase in stress and fear levels.

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CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1   Introduction

This chapter presents the summary of the findings, conclusions, and recommendations as per the objectives of the study. These are presented in the subsequent sections.

5.2   Summary of the findings

Basing on the study findings, the following summaries were made as per the objectives:

5.2.1   Relationship between Socio-Demographic Characteristics and Sexual Violence

The first objective of the study sought to determine the relationship between socio-demographic characteristics and sexual violence against female college students in Kisumu County, Kenya. The constructs underlying demographic characteristics included; place of stay, newness of the student at the campus, involvement in drug use, attendance of parties, adolescent sleeping arrangements, attendance of funeral ceremonies, early marriages, social status and parental level of income. Out of these variables, the findings revealed that the place of stay, parental income level, social status and newness of the student contributed to sexual violence. The least was frequent party meetings or attendance. Pearson Product Moment Correlation Coefficient revealed that there was a moderate positive significant correlation between socio-demographic characteristics and sexual violence among the female students.

5.2.2 Relationship between Socio-Cultural Predictors and Sexual Violence

The second objective of the study sought to establish the relationship between socio-cultural predictors and sexual violence amongst the female college students in Kisumu County, Kenya. The socio-cultural predictors that were tested included beliefs, peer culture and campus community norm. Examining the extent of their ratings, the findings revealed that peer culture had the highest mean of 3.4151 followed by beliefs and actions with a mean of 3.2156 and finally campus norm with a mean of 2.7921. From these predictors, it emerged that campus norm had the strongest correlation ($r=.370$), followed by socio cultural peer culture ($r=.365$) and finally socio cultural beliefs and actions ($r=.357$). Socio cultural predictors were found to account for 22.3% in sexual violence with campus norms having the strongest unique contribution to sexual violence ($\beta=.199$, $p=.000$), followed by socio cultural beliefs and actions ($\beta=.176$, $p=.000$) and finally socio-cultural peer culture ($\beta=.171$, $p=.000$).

5.2.3 Psychological Effects of Sexual Violence

The final objective of the study was to examine the psychological effects of sexual violence on female college students in Kisumu County, Kenya. The study employed only descriptive statistics to examine this. The findings revealed that the most felt psychological effects of sexual violence among the girls were difficulty in sleeping and concentration, change in sex drive, feelings of anxiety, and increase in stress and fear levels. The least reported effect was varying emotions throughout.

5.3   Conclusions

Based on the study findings, the following conclusions were made:

5.3.1   Relationship between Socio-Demographic Factors and Sexual Violence

Socio demographic characteristics are very important in the university setting in determination of various factors compositing of the students. However, they are also important determiners of sexual violence. The main determinants include the place of residence, current year of study in college, social status and parental levels of income. It was also concluded that the community usually takes advantage of the new students to harass them sexually with more causalities remaining to be female students.

5.3.2   Relationship between Socio Cultural Predictors and Sexual Violence

Socio-cultural predictors, which included campus norm, beliefs and peer culture are very important to student's studies. These factors in the campus setting also land the students in sexual violence problems. The campus norm or cultures are the most dangerous factors, whereby, when the new students join the university, they find some kind of culture that does not prohibit sexual violence. These learners therefore remain the victims and thereafter end up suffering stigma.

5.3.3   Psychological Effects of Sexual Violence

There are various psychological effects of sexual violence which leave the learners under circumstances that need absolute guidance and counselling. The study concluded that the main

effects are difficulty in sleeping and concentration, change in sex drive, feelings of anxiety, and increase in stress and fear levels.

5.4   Recommendations

From the findings of the study, the subsequent sections recommendations were made based on the objectives.

Based on objective one which was to determine the relationship between socio-demographic characteristics and sexual violence amongst female college students in Kisumu County; the study recommends that during admission of the first years in a college or any institution, the administrative units should ensure that these students are protected from exploitation. They should ensure that there is good accommodation for the students inside the campus with clear distinction between the age groups and gender.

Based on objective two which was to establish the relationship between socio-cultural predictors and sexual violence amongst the female college students in Kisumu County; the study recommends that the universities should also review the campus culture, norms and beliefs and find a way of turning them in positive benefits to the students. Policies on students with diverse backgrounds and cultures should be developed and implemented by the universities to enhance diversity and inclusivity in the universities and avoid erosion of the college culture.

Finally, based on objective three which sought to examine the psychological effects of sexual violence on female college students in Kisumu County; the study recommends that the counselling units in the colleges be intensified to help the sexual victims to recover and pick up in their studies. More personnel should be considered for dealing with stress related issues to

sexual violence and also manage change in sex drive, feelings of anxiety, and increase in stress and fear levels.

5.5   Suggestion for Further Studies

The study recommended the following areas to be researched on in universities and colleges:

i.   A study on the factors contributing to unprepared pregnancies in the colleges with respect to demographic characteristics.

ii.   A study on the Intervening aspect of socio cultural beliefs on perceived sex drive and violence among the college students.

iii.   Further studies can also be carried out to determine the psychological effect of sexual violence of students' performance.

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APPENDICES

Appendix 1: Consent Form/Letter

Investigator:

My name is Omanje Betha, and I am a graduate student, school of arts and social sciences at Maseno University. I am inviting you to participate in a research study. Involvement in the study is voluntary, so you may choose to participate or not. Please feel free to ask any questions that you may have about the research; I will be happy to explain anything in greater detail.

I am interested in learning more about predictors and psychological effects of sexual violence among female college students in Kisumu County. You will be asked to read and give responses on study questions. This will take approximately 25 minutes of your time. All information will be confidential. I will therefore assign a number to your responses, and only I will have the key to indicate which number belongs to which participant. You are also free to leave the study at any time or seek more clarifications on your involvement in the study. The benefit of this research to understand the contributors of female sexual violence in institutions of higher learning to inform policy and practice. This information should therefore help us to mitigate sexual violence meted on female students and related negative health outcomes. The risk to you for participating in this study is answering questions that you may not feel comfortable in answering. The risk will be minimized by keeping the responses confidential and concealing your name.

Participant- All of my questions and concerns about this study have been addressed. I choose, voluntarily, to participate in this research project.

Name of participant

_____   _____

Signature of participant   date

_____

Name of investigator

_____   _____

Signature of investigator   date

Questions or concerns about the study should be directed to:

Be-tha Awuor Omanje   Email address: bethaguya@gmail.com   Mobile: 0728363743

Appendix II: Questionnaire

Dear Respondent,

Thank you for agreeing to participate in this Survey. The survey focuses on **"Predictors and psychological effects of sexual violence among female college students in Kisumu County, Kenya**". You have been selected as one of the respondents for the study because your institution is participating in the survey. The purpose of this letter is to request you to respond to the attached questionnaire

It should take no more than 15 minutes to complete the questionnaire – most questions can be answered simply by clicking boxes. All responses are anonymized and treated in the strictest confidence; no individual will be identifiable in the published reports.

Thank you very much for your time and effort in responding to this questionnaire.

If you have any technical or other issues while completing the survey, kindly contact the researcher through 0728363743

BERTHA AWUOR OMANJE

Consent:
Please check one of the two options below: □ I have read the information above and I choose to participate by completing this questionnaire.

INSTRUCTIONS

Please complete the attached questionnaire and return it according to the instructions provided.

We appreciate your valuable time and commitment to completing this questionnaire.

Please turn the page to proceed with the questionnaire

SECTION A: DEMOGRAPHIC DATA

Instructions: Kindly answer to the best of your knowledge. Tick in the parenthesis the most relevant answer in every question:

1. What is your age?

    1) Less than 18 years   [ ]

    2) Between 19 and 21 years   [ ]

    3) Between 22 and 24 years   [ ]

    4) Above 25 years   [ ]

2. What is your parents/guardian occupation?

    1) Farmers   [ ]

    2) Day labourers   [ ]

    3) Government employees   [ ]

    4) Private employees   [ ]

    5) Self-employed   [ ]

    6) Other (Kindly specify)   [ ]

3. What is your current place of residence?

    1) In campus   [ ]

    2) Outside campus   [ ]

    3) Other   (Kindly specify) …………………………..

4. What is your religion

    1) Christian   [ ]

    2) Muslim   [ ]

    3) Hindu   [ ]

    4) Other (Kindly specify)…………………………………

5. Which type of college do you attend?

    1) University   [ ]

2) Tertiary   [ ]

3) Other (Kindly specify)…………………………………

6. Indicate your year of study

    1. Year 1   □   **2.** Year 2   □

    3. Year 3   □   **4.** Year 4   □

7. Which of the following best describes the setup you grew up in

    1. Rural   □   **2.** Urban   □

    3. Peri-urban   □

8. What is the nature of your family?

    1. Single Parent   □   **2.** Both parents living together   □

    3. Divorced   □   **4.** Living with a guardian   □

SECTION B: SEXUAL VIOLENCE, PREDICTORS, AND PSYCHOLOGICAL EFFECTS

a) Sexual Violence: Gender Harassment

The following questions focus on your personal experience on sexual violence. For each of the following statements, please choose the answer that best reflects your personal feelings of the experience you have encountered in the near past.

Please tick (☐) only one answer for each statement.

Have you ever been in a situation where a male did any of the following to you;

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
I was told suggestive stories around sex that I were not comfortable with							
My male counterparts made crude sexual remarks							
A male friend made offensive remarks							

towards me						
A male friend displayed offensive materials						
A male friend made sexist comments (made a discriminative comment against me on basis of your gender)						
I have experienced sexual assault from a male friend or stranger						

b) **Sexual Violence: Unwanted Sexual Attention**

The following questions focus on your personal experience on unwanted sexual attention. For each of the following statements, please choose the answer that best reflects your personal feelings of the experience you have encountered in the near past.

Please tick (☐) only one answer for each statement.

I have been in a situation where a male did any of the following me;

S.N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
USA01	….attempted to discuss sex when I did not want					
USA02	….made unwanted sexual comments					
USA03	….stared or leaned at me					
USA04	….attempted to establish a sexual relationship with me					
USA05	….repeatedly requested for drinks, dinner, despite my					

S.N	Statement					
	rejection					
USA06	….touched me in a way that made you feel uncomfortable					
USA07	….attempted to stroke or fondle me					

c) Sexual Violence: Sexual Coercion

The following questions focus on your personal experience on unwanted sexual attention.

For each of the following statements, please choose the answer that best reflects your personal feelings of the experience you have encountered in the near past.

Please tick (□) only one answer for each statement.

I have been in a situation where a male;

S.N	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
SC01	….subtly bribed me					
SC02	….subtle threatened me					
SC03	….made it necessary to cooperate to be well treated					
SC04	….made me afraid of poor treatment if i didn't cooperate					
SC05	….made me experience the					

	consequences of refusing					

d) Socio-Demographic Predictors of Sexual Violence

The following questions focus on your personal socio-demographic. For each of the following statements, please choose the answer that best reflects your personal feelings of the experience you have encountered in the near past.

Please tick (□) only one answer for each statement.

Do you feel;

S.N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
SDPOI.	My place of stay makes me more vulnerable to sexual violence					
SDP02.	When I was a new student, I experienced more sexual violence than continuing students					
SDP03.	Sexual Violence perpetrators are those that use drugs and Alcohol					

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SDP04 .	Female college students with partners are more likely to be sexually violated					
SDP05 .	My frequent party meetings could make me a victims of sexual violence					
SDP06 .	My age could make me vulnerable to sexual advances					
SDPO 7	My male counterparts take advantage of my lack of money to violet me sexually					
SDPO 8	Being too social to my counterparts has once landed me in sexual assault					
SDPO 9	My parental status makes me vulnerable to sexual violence					

e) Socio-Cultural Predictors of Sexual Violence

The following questions focus on your opinion about institutional culture. For each of the following statements, please choose the answer that best reflects your personal feelings, community and campus wide opinions and experience

Please tick (☐) only one answer for each statement.

Socio-cultural beliefs and action

S.N	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
ICB01	Campus sexual violence is common and normal among students					
ICB02	I rarely condemn individual sexual violence					
ICB04	In my institution consent is a norm					
ICB05	Institution intervenes where there is a culture of violence					
ICB06	My institution does not prohibit sexual violence					
ICB07	There are adolescent sleeping arrangements in our community					

ICB08	Funeral ceremonies are source of sexual assault					
ICB09	Early Marriage is common					

Peer Culture

S.N	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
PC01	There is fear of speaking about sexual violence in my institution					
PC02	I have once blamed a sexual violence victim					
PC03	I support the silence of Peers, Alumni and administration on sexual violence					
PC04	I have once discriminated against sexual violence survivors and interveners in our institution					
PC06	I recognizes the role of interveners in ending sexual violence					
PC07	I have been empowered to act on sexual violence events/cases.					

Campus Community Norm

In my institution;

S.N	Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
CCN01	There is a common heteronormative male privileges and entitlement to sex					
CCN02	Males students feel they have a right to sexually abuse female students					
CCN03	Ladies are valued based on sexual desirability					
CCN04	The office protects, colludes with (some) perpetrators of sexual violence					
CCN5	There is social support for change on sexual violence					
CCN6	Students create safe party spices for sexual violence					
CCN7	There is intersectional discussion of inequality and privileges					
CCN8	Sexual violence survivors are					

		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
	supported and believed					
CCN9	Rape myths are busted					

f) Psychological Effects of Sexual Violence

The following questions focus on your opinion about psychological effects on sexual violence. For each of the following statements, please choose the answer that best reflects your personal feelings.

Please tick (☐) only one answer for each statement.

Sexual violence made me experience:

S.N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
PE01	I often experience sadness and hopeless					
PE02	I experience lowered self-esteem					
PE03	Have a change in appetite and weight					
PE04	I often experience varying emotions throughout					
PE05	I experience changed in sex drive					

PE06	I often experience reduced pain tolerance and capacity to experience pleasure					
PE07	I have feelings of anxiety					
PE08	I experience stress and fear					
PE09	I experience emotional numbness and avoidance of places, people, and activities					
PE10	I often experience increased arousal; difficulty in sleeping and concentration					
PE11	I have experienced recollections of events, flashbacks, and nightmares					

If you have any questions or comments related to this survey or sexual violence in general, please write them in the box below. As this survey is anonymous, please do not write your name or other identifying information.

Please verify that you have answered every question and return the questionnaire according to the instructions provided.

Thank you for participating in the Survey

-END-

Appendix III: Institutional Interview Guide

1. What is your gender? ....

2. How old are you? ....

3. How long have you handled any aspects relating to sexual violence in this institution?

4. What would you term as sexual violence? How often do you handle some cases? How common are sexual violence cases in your institution? What forms do the reported sexual violence cases take?

5. What would you say are the factors that predispose female students to sexual violence?

6. How does age expose any one to a situation of sexual violence?

7. How does family income background make someone vulnerable to sexual violence?

8. Do you think the family has a role to play in mitigating or enhancing sexual violence?

9. Talk to me about some college traditional practices and how they can enhance sexual violence

10. What are some of the expected symptoms of psychological depression and post-traumatic stress disorders that result from sexual violence? Have you noticed ay before with the students who come to you?

11. What are the Safety measures in your institution on sexual violence ?

12. What is the reporting Framework on cases of Sexual Violence in your institution? What are the challenges regarding reporting sexual violence by the students? Why would some student be reluctant or unable to report sexual violence?

13. What are the punitive measures for Sexual Assault in your institution?

14. Do you have Institutional Policies regarding Sexual Violence?

END

THANK YOU

Appendix IV: Focused group interview guide

Name of group interviewed: _____Date:_____Camp:_____

Time discussion started:_____Time ended:_____Team no:_____

Participants summary: _____ Women _____

Introduction

1. Introduce facilitators.

2. Introduce participants.

3. Explain why we are here:

    "We want help in understanding the health and security problems of ladies and girls in campus. We will be doing similar interviews in all campus this week." Our findings will provide important information on steps that the institution can take when addressing this significant issue.

4. Explain how all answers will be treated confidentially.

    "We are all from organizations working in the institution and will treat answers with respect and will not share them except as general answers combined from all people who talk to us. We will not give names of individuals, to make you feel comfortable in talking freely with us. Participation in the discussion is completely voluntary and you do not have to answer any questions that you do not want to answer." Ask campus members whether they are willing to participate in the group inter views.

I have understood the information and I choose to participate/Not participate in the Focus Group Discussion.

Discussion Guide

1. What problems have women and girls experienced in health and security in your community and institution? (PROBE on violence, not on health.)

2. Can you give examples of sexual violence in the campus? How common would you say they are?

3. Who is most likely to be sexually violated? Describe what would make a female student to be sexually violated?

4. When and where does sexual violence mostly occur? At what time and in which places?

5. Who are the perpetrators of sexual violence ? (PROBE: outside/inside of campus, people you know/don't know, age? Fellow students or college workers? Working or not working.)

6. What happens to the perpetrators? Are they reported? To who? What actions happen when they are reported?

7. What are the problems that women face after an attack? (PROBE: physical, psychological, social problems.)

8. How do survivors of sexual violence cope after the attack?

9. What are institutional responses when sexual violence occurs? What are the challenges with reporting of sexual violence? What is done to prevent violence? What is done to help survivors?

   How could these efforts be improved? Do women's support networks exist to help survivors?

10. What social and legal services exist to help address these problems? (PROBE: health, police, legal counselling, social counselling.) Who provides these services? What are the challenges experienced? How could these efforts be improved?

11. Has the problem of sexual violence gotten worse, better, or stayed the same since you arrived in the campus?

Closing

1. Thank people for their time and ideas, and express how helpful it has been to facilitators.

2. Explain next steps: "We will look at all information and will make a presentation of findings to representatives of the campus. Representatives can give you information after this meeting."

Appendix V: Map of Study Area: Kisumu County

Kisumu Municipality
(Main Areas and Sublocations)

Appendix VI: List of Colleges in Kisumu

African Institute of Research and Development Studies	Kisumu City Campus	College
Great Lakes University of Kisumu	Kisumu Town Campus – Milimani	Private University
Great Lakes University of Kisumu	Main Campus	Private University
Intraglobal Training Institute	Kisumu Campus	College
KAG East University	Kisumu Campus	Private University
Jaramogi Oginga Odinga University of Science and Technology	Kisumu Campus	Public University
KCA University	Western Campus	Private University
Kenya Medical Training College	Kisumu Campus	College
Kenya School of Professional Counsellors	Kisumu	College
Kenya Utalii College	Kisumu Campus	College
Kenya Water Institute	Kisumu Campus	TVET
Kisii University	Kisumu Campus	Public University
Kisumu Polytechnic	Kisumu	TVET
Maseno University	Kisumu City Campus	Public University
Maseno University	Main Campus	Public University
Nairobi Aviation College	Kisumu Campus	College

Ramogi Institute of Advanced Technology	Kisumu Main Camus	TVET
The Catholic University of Eastern Africa	Kisumu Campus	Private University
The University of Nairobi	Kisumu Campus	Public University
Thika School of Medical and Health Sciences	Kisumu Campus	College
Tom Mboya Labour College	Kisumu	TVET
University of Eastern Africa Baraton	Kisumu Extension Centre	Private University
Uzima University College	Uzima University College	College

Appendix VI1: Frequency Tables

Gender harassment as a predictor of sexual violence

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	Mean	SD
I was told suggestive stories around sex that I were not comfortable with	60(15.7)	88(23.1)	57(15.0)	111(29.1)	65(17.1)	3.09	1.353
My male counterparts made crude sexual remarks	41(10.8)	34(8.9)	78(20.5)	139(36.5)	89(23.4)	3.53	1.243
A male friend made offensive remarks towards me	41(10.8)	42(11.0)	53(13.9)	155(40.7)	90(23.6)	3.55	1.261
A male friend displayed offensive materials	23(6.0)	23(6.0)	47(12.3)	175(45.9)	113(29.7)	3.87	1.091
A male friend made sexist comments (made a discriminative comment against me on basis of your gender)	41(10.8)	65(17.1)	58(15.2)	116(30.4)	101(26.5)	3.45	1.330
I have experienced sexual assault from a male friend or stranger	35(9.2)	28(7.3)	18(4.7)	121(31.8)	179(47.0)	4.00	1.281

Unwanted sexual attention

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	mean	SD
….attempted to discuss sex when I did not want	70(18.4)	100(26.2)	23(6.0)	111(29.1)	77(20.2)	3.07	1.449
….made unwanted sexual comments	52(13.6)	106(27.8)	16(4.2)	135(35.4)	72(18.9)	3.18	1.381
….stared or leaned at me	99(26.0)	141(37.0)	34(8.9)	59(15.5)	48(12.6)	2.52	1.356
….attempted to establish a sexual relationship with me	105(27.6)	152(39.9)	24(6.3)	52(13.6)	48(12.6)	2.44	1.353
….repeatedly requested for drinks, dinner, despite my rejection	99(26.0)	99(26.0)	28(7.3)	101(26.5)	54(14.2)	2.77	1.443
….touched me in a way that made me feel uncomfortable	99(26.0)	112(29.4)	35(9.2)	82(21.5)	53(13.9)	2.93	2.803
….attempted to stroke or fondle me	57(15.0)	54(14.2)	29(7.6)	140(36.7)	101(26.5)	3.46	1.402

Sexual coercion

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	MEAN	SD
….subtly bribed me	18(4.7)	12(3.1)	33(8.7)	145(38.1)	173(45.4)	4.16	1.034
….subtle threatened me	36(9.4)	41(10.8)	22(5.8)	151(39.6)	131(34.4)	3.79	1.281

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	MEAN	SD
….made it necessary to cooperate to be well treated	42(11.0)	58(15.2)	40(10.5)	134(35.2)	107(28.1)	3.54	1.334
….made me afraid of poor treatment if i didn't cooperate	42(11.0)	53(13.9)	29(7.6)	126(33.1)	131(34.4)	4.17	4.794
….made me experience the consequences of refusing	36(9.4)	35(9.2)	23(6.0)	144(37.8)	143(37.5)	3.85	1.279

Socio-demographic predictors of sexual violence

S.N	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	MEAN	SD
SDPOI.	My place of stay makes me more vulnerable to sexual violence	65(17.1)	24(6.3)	35(9.2)	126(33.1)	131(34.4)	4.23	5.237
SDP02.	When I was new a new student, I experience more sexual violence than continuing students	82(21.5)	41(10.8)	42(11.0)	133(34.9)	83(21.8)	3.25	1.461
SDP03.	Sexual Violence perpetrators are those that use drugs and Alcohol	81(21.3)	95(24.9)	53(13.9)	98(25.7)	54(14.2)	2.87	1.382
SDP04.	Female college students with partners are more likely to be sexually violated	72(18.9)	94(24.7)	68(17.8)	76(19.9)	71(18.6)	2.95	1.396
SDP05.	My frequent party meetings could make me a victims of sexual violence	66(17.3)	78(20.5)	91(23.9)	93(24.4)	53(13.9)	2.97	1.305
SDP06.	My age could make me vulnerable to sexual advances	53(13.9)	88(23.1)	76(19.9)	93(24.4)	71(18.6)	3.11	1.330
SDPO7	My male counterparts take advantage of my lack of money to violet me sexually	46(12.1)	47(12.3)	22(5.8)	100(26.2)	166(43.6)	3.77	1.423
SDPO8	Being too social to my	58(15.2)	48(12.6)	58(15.2)	105(27.6)	112(29.4)	3.43	1.41

	counterparts has once landed me in sexual assault						6
SDPO9	My parental level of income makes me vulnerable to sexual violence	24(6.3)	16(4.2)	29(7.6)	113(29.7)	199(52.2)	4.17	1.143

Socio-cultural beliefs

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	MEAN	SD
Campus sexual violence is common and normal among students	106(27.8)	129(33.9)	36(9.4)	81(21.3)	29(7.6)	2.47	1.301
I rarely condemn individual sexual violence	47(12.3)	77(20.2)	87(22.8)	93(24.4)	77(20.2)	3.20	1.309
Consent is a norm	75(19.7)	35(9.2)	112(29.4)	93(24.4)	66(17.3)	3.10	1.345
Institution intervenes where there is a culture of violence	99(26.0)	65(17.1)	93(24.4)	83(21.8)	41(10.8)	2.74	1.340
My institution does not prohibit sexual violence	36(9.4)	35(9.2)	81(21.3)	87(22.8)	142(37.3)	3.69	1.309
There are adolescent sleeping	29(7.6)	76(19.9)	60(15.7)	95(24.9)	115(30.2)	3.63	1.607

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arrangements in our community						
Funeral ceremonies are source of sexual assault	29(7.6)	71(18.6)	35(9.2)	106(27.8)	140(36.7)	3.67	1.337
Early Marriage is common	47(12.3)	88(23.1)	71(18.6)	87(22.8)	88(23.1)	3.21	1.355

Peer Culture

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagreed	MEAN	SD
I fear speaking out about sexual violence in my institution	57(15.0)	78(20.5)	29(7.6)	117(30.7)	100(26.2)	3.33	1.435
I have once blamed a sexual violence victim	29(7.6)	54(14.2)	63(16.5)	122(32.0)	113(29.7)	3.62	1.254
I support the silence of Peers, Alumni and administration on sexual violence	29(7.6)	12(3.1)	23(6.0)	111(29.1)	206(54.1)	4.19	1.175
I have once discriminated against sexual violence survivors and interveners in	35(9.2)	53(13.9)	34(8.9)	136(35.7)	123(32.3)	3.68	1.303

Statement							
our institution							
I recognizes their role in ending sexual violence	101(26.5)	105(27.6)	76(19.9)	40(10.5)	59(15.5)	2.61	1.383
I have been empowered to act on sexual violence events/cases.	88(23.1)	46(12.1)	86(22.6)	89(23.4)	72(18.9)	3.03	1.428

Table 4.12: Campus Community Norm

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree	MEAN	SD
There is a common heteronormative male privileges and entitlement to sex	93(24.4)	69(18.1)	118(31.0)	59(15.5)	42(11.0)	2.71	1.293
Males students feel they have a right to sexually abuse female students	82(21.5)	133(34.9)	65(17.1)	60(15.7)	41(10.8)	2.59	1.279
Ladies are valued based on sexual desirability	95(24.9)	100(26.2)	78(20.5)	66(17.3)	42(11.0)	2.63	1.320
The office protects, colludes with (some) perpetrators of sexual violence	48(12.6)	70(18.4)	143(37.5)	36(9.4)	84(22.0)	3.10	1.288
Social support to end sexual violence	129(33.9)	94(24.7)	104(27.3)	24(6.3)	30(7.9)	2.30	1.220
Students create safe party	53(13.9)	108(28.3)	101(26.5)	72(18.9)	47(12.3)	2.87	1.229

spices for sexual violence							
Intersectional discussion of inequality and privileges	66(17.3)	63(16.5)	156(40.9)	48(12.6)	48(12.6)	2.87	1.214
Sexual violence survivors are supported and believed	60(15.7)	77(20.2)	125(32.8)	65(17.1)	54(24.2)	3.06	1.757
Rape myths are busted	54(14.2)	60(15.7)	146(38.3)	75(19.7)	46(12.1)	3.00	1.187

Appendix VIII

MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Office of the Dean

Our Ref: MA/FA/0090/2014

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 2nd August, 2018

TO WHOM IT MAY CONCERN

RE: PROPOSAL APPROVAL FOR AWUOR BETHA OMANJE — MA/FA/0090/2014

The above named is registered in the Master of Arts Programme in the School of Arts & Social Sciences, Maseno University. This is to confirm that her research proposal titled "Predictors and Psychological Effects of Sexual Violence among Female College Students in Kisumu County, Kenya" has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Prof. J.O. Agure
DEAN, SCHOOL OF GRADUATE STUDIES

Maseno University   *ISO 9001:2008 Certified*

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Appendix IX

MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622   Ext: 3050   Private Bag – 40105, Maseno, Kenya
Fax: +254 057 351 221   Email: muerc-secretariate@maseno.ac.ke

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FROM: Secretary - MUERC   **DATE:** 11th September, 2018

TO: Betha Awuor Omanje   **REF:** MSU/DRPI/MUERC/00614/18
              PG/MA/FA/0090/2014
              Department of Psychology
              School of Arts and Social Sciences, Maseno University
              P. O. Box, Private Bag, Maseno, Kenya

RE: Predictors and Psychological Effects on Sexual Violence among Female College Students in Kisumu County, Kenya. Proposal Reference Number MSU/DRPI/MUERC/00614/18.

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues raised at the initial review were adequately addressed in the revised proposal. Consequently, the study is granted approval for implementation effective this 11th day of September, 2018 for a period of one (1) year.

Please note that authorization to conduct this study will automatically expire on 10th September, 2019. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 15th August, 2019.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 15th August, 2019.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advice MUERC when the study is completed or discontinued.

Thank you.

Dr. Bonuke Anyona,
Secretary,
Maseno University Ethics Review Committee.

Cc: Chairman,
Maseno University Ethics Review Committee.

MASENO UNIVERSITY IS ISO   9001:2008 CERTIFIED