

**PERCEIVED INFLUENCE OF SELECTED PSYCHOSOCIAL FACTORS ON  
RISKY SEXUAL BEHAVIOURS AMONG UNDERGRADUATE STUDENTS:  
A CASE OF EGERTON AND KABARAK MAIN CAMPUSES IN NAKURU  
COUNTY, KENYA**

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**A Thesis Submitted to the Institute of Postgraduate Studies of Kabarak University  
in Fulfilment of the Requirements for the Award of Doctor of Philosophy in  
Counselling Psychology**

**KABARAK UNIVERSITY**

**NOVEMBER 2021**

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## **DEDICATION**

I dedicate this study to all immediate and extended family members, notwithstanding the young people as well. Special dedication to my late grandmother Tabel Gaa (Cheboriro) who named me after my grandfather “Koserem Ku Chumbin” meaning a person who explores the world like the white people, and indeed by the greatness of the Almighty I have accomplished the exploration in the world of academics to thus far. I also dedicate this study to my dear parents Mr Robert Koech & Mrs Martha Koech who laid a good foundation in my academic journey and my siblings Borness, late Philemon, Kipngeno, late Geoffrey and David for their moral support. This work is also dedicated to my immediate family: My dear wife-Mrs Nelly Langat, children: Jared, Jair, Nelvin, and Neriah for their understanding and moral support at every stage of this study. I also dedicate this study to the late Elder Musa of Motosiet and his family who used to call me Professor even before I got my Master’s degree, may his family flourish forever. Finally, I dedicate this work to the church that laid my spiritual foundation and for God’s work and glory.

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## ABSTRACT

Psychosocial factors may shape sexual attitudes and behaviours of young people either positively or negatively. Risky sexual behaviours have become a challenge all over the world and may have major negative impact on the undergraduate students' experiences such as sexually transmitted diseases and unintended pregnancies, abortions, negative academic performance, inability to progress through the university academic years, decision to remain at university and overall psychological well-being. Therefore, the purpose of this research mainly dwelt on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students of Egerton and Kabarak main campuses in Nakuru County. The objectives of this study were; to determine the perceived influence of self-efficacy on risky sexual behaviours, to examine the perceived influence of sexual norms on risky sexual behaviours, to establish the perceived influence of socio-economic status on risky sexual behaviours, to assess the perceived influence of social media on risky sexual behaviours, to explore the perceived influence of substance abuse on risky sexual behaviours and to identify the mediating role of counselling services in mitigating risky sexual behaviours. Social Learning Theory by Albert Bandura, Social Exchange Theory by George Homans and Person-Centred Theory by Carl Rogers guided the study. The study was carried out among 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students from main campuses in Nakuru County. The study adopted a correlational research design. The target population was 18570 undergraduate students. The accessible population was 8456 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students whose sample was 367. Simple random sampling technique was used to select the respondents. The sample included 10 peer counsellors and 2 student counsellors from the Egerton University and Kabarak University main campuses who were selected through purposive sampling. The total number of respondents was 379. Data were obtained using questionnaire, focus group discussions guide and interview schedule. Validation of research instruments was done through peer and expert review and through pilot testing which was done in Mount Kenya University (MKU)- Nakuru Campus that was not among the main campuses studied. The pilot sample consisted of 15 undergraduate students, 5 peer counsellors and 1 student counsellor. Cronbach Alpha Coefficient was used to establish reliability coefficient, which was 0.79, and was based on the threshold of 0.7. Descriptive statistics of frequencies and percentages were used, and inferential statistics of chi-square statistics was also used to analyse quantitative data using SPSS Version 25. The analysed data was presented in tables, graphs, and narratives. The researcher considered ethics of confidentiality and informed consent. The outcome indicated that most of the sampled students and staffs jointly agreed that self-efficacy, sexual norms, socio-economic status, social media, and substance abuse influence risky sexual behaviours among undergraduate students. Further findings indicated that counselling services have mediating role in mitigating risky sexual behaviours. The study concluded that the selected psychosocial factors have statistically significant perceived influence on risky sexual behaviours among undergraduate students. Therefore, the study recommends inclusion of human sexuality as a subject in the curriculum from primary school to university level. The study also recommends the enhancement of regulations on use of social media in order to curb exchange of pornographic messages and videos hence reduce risky sexual behaviours among undergraduate students.

**Key Words:** *Perceived Influence, Selected Psychosocial factors, Risky sexual behaviours, Undergraduate Students, Main campuses.*

## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>ii</b>
<b>RECOMMENDATION</b> .....	<b>iii</b>
<b>COPYRIGHT</b> .....	<b>iv</b>
<b>DEDICATION</b> .....	<b>v</b>
<b>ACKNOWLEDGEMENT</b> .....	<b>vi</b>
<b>ABSTRACT</b> .....	<b>vii</b>
<b>TABLE OF CONTENTS</b> .....	<b>viii</b>
<b>LIST OF TABLES</b> .....	<b>xii</b>
<b>ABBREVIATIONS AND ACRONYMS</b> .....	<b>xv</b>
<b>OPERATIONAL DEFINITION OF TERMS</b> .....	<b>xvi</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
<b>INTRODUCTION</b> .....	<b>1</b>
1.1 Introduction .....	1
1.2 Background of the Study.....	1
1.3 Statement of the Problem .....	9
1.4 Purpose of the Study .....	10
1.5 Objectives of the Study .....	10
1.6 Research Hypotheses .....	11
1.7 Justification of the Study.....	12
1.8 Significance of the Study .....	12
1.9 Scope of the Study .....	13
1.10 Assumptions of the Study .....	14
1.11 Limitations of the Study.....	14
<b>CHAPTER TWO</b> .....	<b>15</b>
<b>LITERATURE REVIEW</b> .....	<b>15</b>
2.1 Introduction .....	15
2.2 Overview of Risky Sexual Behaviours among Undergraduate Students.....	15
2.3 Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students.....	18
2.4 Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students.....	23
2.5 Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students .....	29



2.6 Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students.....	36
2.7 Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students.....	41
2.8 The Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students.....	45
2.9 Theoretical Framework .....	53
2.9.1 Social Learning Theory by Albert Bandura .....	53
2.9.2 Social Exchange Theory by George Homans .....	56
2.9.3 Person Centred Theory by Carl Rogers .....	59
2.10 Conceptual Framework .....	62
<b>CHAPTER THREE .....</b>	<b>64</b>
<b>RESEARCH DESIGN AND METHODOLOGY .....</b>	<b>64</b>
3.1 Introduction .....	64
3.2 Research Design.....	64
3.3 Research Philosophy .....	65
3.4 Location of the Study .....	66
3.5 Target Population of the Study .....	67
3.6 Sample Procedure and Sample Size.....	68
3.6.1 Sampling Procedure .....	68
3.6.2 Sample Size.....	68
3.6.3 Sampling Techniques .....	69
3.7 Research Instrumentation.....	70
3.7.1 Questionnaire for Undergraduate Students .....	70
3.7.2 Focus Group Discussions Guide for Peer Counsellors .....	71
3.7.3 Interview Schedule for Student Counsellors.....	72
3.7.4 Validity, Pilot Testing, and Reliability of Research Instruments.....	73
3.8 Data Collection Procedure .....	76
3.9 Data Analysis Procedure .....	77
3.10 Ethical Considerations .....	79
<b>CHAPTER FOUR.....</b>	<b>81</b>
<b>DATA ANALYSIS, PRESENTATION AND DISCUSSION.....</b>	<b>81</b>
4.1 Introduction .....	81
4.2 Response Rates of the Respondents .....	82

4.3 Demographic Characteristics of the Respondents.....	82
4.3.1 Gender of the Respondents .....	83
4.3.2 Age Bracket of the Respondents.....	84
4.3.4 Family Background of the Respondents.....	86
4.3.5 Religious Affiliation of the Respondents .....	89
4.4 Overview of Frequency of Risky Sexual Behaviours among Undergraduate Students.....	90
4.4.1 Undergraduate Students’ Responses on the Frequency of Risky Sexual Behaviours..	91
4.4.2 Qualitative Data on the Frequency of Risky Sexual Behaviours among Undergraduate Students.....	98
4.5 Findings According to the Research Objectives and Hypotheses.....	100
4.6 Perceived Influence of Self-Efficacy on Risky Sexual Behaviours among Undergraduate Students.....	100
4.7 Perceived Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students.....	113
4.8 Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students.....	131
4.9 Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students.....	142
4.11 The Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students.....	165
<b>CHAPTER FIVE .....</b>	<b>189</b>
<b>SUMMARY, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>189</b>
5.1 Introduction.....	189
5.2 Summary of Major Research Findings .....	189
5.3 Conclusions.....	193
5.4 Recommendations.....	194
5.4.1 General Recommendations .....	194
5.4.2 Policy Recommendations .....	195
5.5 Suggestions for Further Research .....	196
<b>REFERENCES .....</b>	<b>197</b>
<b>APPENDICES.....</b>	<b>215</b>

<b>Appendix I: KREJCIE and Morgan Table for Determining Sample Size of a Known Population .....</b>	<b>215</b>
<b>Appendix II: Introduction Letter .....</b>	<b>216</b>
<b>Appendix III: Questionnaire for Undergraduate Students .....</b>	<b>217</b>
<b>Appendix IV: Focus Group Discussion Guide for Peer Counselors .....</b>	<b>222</b>
<b>Appendix V: Interview Schedule for Student Counselors.....</b>	<b>224</b>
<b>Appendix VI: Introduction Letter from Kabarak University .....</b>	<b>226</b>
<b>Appendix VII: NACOSTI Research Permit.....</b>	<b>227</b>
<b>Appendix VIII: Research Authorization from Nakuru County Commissioner .....</b>	<b>228</b>
<b>Appendix IX: Research Authorization from Nakuru County Director of Education.....</b>	<b>229</b>
<b>Appendix X: Research Authorization from Egerton University .....</b>	<b>230</b>
<b>Appendix XI: Research Authorization from Kabarak University.....</b>	<b>231</b>
<b>Appendix XII: List of Publications .....</b>	<b>232</b>
<b>Appendix XIII: Certificate for Publication .....</b>	<b>235</b>
<b>Appendix XIV: List of Certificates of Participation in an International Research Conference 1 .....</b>	<b>236</b>
<b>Appendix XV: Map of Kenya Indicating Nakuru County .....</b>	<b>239</b>

## LIST OF TABLES

<b>Table 1:</b> The Main Campuses and Population of the Undergraduate Students in Nakuru County.....	67
<b>Table 2:</b> Main Campuses and Population of 3 <sup>rd</sup> and 4 <sup>th</sup> year Undergraduate Students ....	68
<b>Table 3:</b> Sample Distribution.....	69
<b>Table 4:</b> Measures of Internal Consistency.....	76
<b>Table 5:</b> Summary of Data Analysis.....	78
<b>Table 6:</b> Distribution and Rate of Return of Questionnaires for Undergraduate Students.....	82
<b>Table 7:</b> Representation of Respondents by Gender.....	83
<b>Table 8:</b> Representation of Respondents by Age.....	84
<b>Table 9:</b> Representation of Respondents by Year of Study.....	86
<b>Table 10:</b> Representation of Respondents by Family Background.....	87
<b>Table 11:</b> Representation of Respondents by Religious Affiliation .....	89
<b>Table 12:</b> Likert Scale Score of Undergraduate Students' Perception of the Influence of Self-efficacy on Risky Sexual Behaviours .....	101
<b>Table 13:</b> Chi-square Statistical Test of the Perceived Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students .....	106
<b>Table 14:</b> Risk Factor Analysis of the Perceived Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students.....	111
<b>Table 15:</b> Likert Scale Score of Undergraduate Students' Perception of the Influence of Sexual Norms on Risky Sexual Behaviours.....	114
<b>Table 16:</b> Chi-square Test Statistics on the Perceived Influence of Sexual Norms on Risky Sexual Behaviours among the Undergraduate Students.....	123
<b>Table 17:</b> Risk Factor Analysis of the Perceived Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students.....	129
<b>Table 18:</b> Likert Scale Score of Undergraduate Students' Perception of the Influence of Socioeconomic Status on Risky Sexual Behaviours .....	132
<b>Table 19:</b> Chi-square Test Statistics on the Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students.....	136
<b>Table 20:</b> The Risk Factor Analysis of the Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students.....	140
<b>Table 21:</b> Likert Scale Score of Undergraduate Students' Perception of the Influence of Social Media on Risky Sexual Behaviours .....	142

<b>Table 22:</b> Chi-square Test Statistics on the Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students .....	147
<b>Table 23:</b> Risk Factor Analysis on the Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students.....	151
<b>Table 24:</b> Likert Scale Score of Undergraduate Students' Perception of the Influence of Substance Abuse on Risky Sexual Behaviours .....	154
<b>Table 25:</b> Chi-square Test Statistics on the Perceived Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students .....	158
<b>Table 26:</b> The Risk Factor Analysis of the Perceived Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students .....	163
<b>Table 27:</b> Likert Scale Score of Undergraduate Students' Perception of the Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students.....	166
<b>Table 28:</b> Chi-square Test Statistics on the Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate students .....	177

## LIST OF FIGURES

<b>Figure 1:</b> Relationship between the perceived influence of selected psycho-social factors and risky sexual behaviours.....	62
<b>Figure 2:</b> A Display of Frequency of Unprotected Sexual Intercourse among Undergraduate Students.....	91
<b>Figure 3:</b> A Depiction of Frequency of Multiple Sexual Partnerships among Undergraduate Students.....	93
<b>Figure 4:</b> A Depiction of Frequency of Prostitution on Campus among Undergraduate Students.....	95
<b>Figure 5:</b> A Display of Frequency of Sexual Coercion and Abuse among Undergraduate Students.....	97

## ABBREVIATIONS AND ACRONYMS

<b>AI:</b>	Artificial Intelligence
<b>AIDS:</b>	Acquired Immunodeficiency Syndrome
<b>ASE:</b>	Attitude, Social influences, and Self-efficacy model
<b>BT:</b>	Behavioural Theory
<b>CBT:</b>	Cognitive Behavioural Therapy
<b>CSE:</b>	Comprehensive Sexuality Education
<b>FGD:</b>	Focus Group Discussion
<b>GHQ:</b>	General Health Questionnaire
<b>HCP:</b>	Health Care Providers
<b>HCT:</b>	HIV Counselling and Testing
<b>HIV:</b>	Human Immunodeficiency Virus
<b>IMB:</b>	Information, Motivation, and Behavioural Skills model
<b>KUCCPS:</b>	Kenya Universities and Colleges Central Placement Services
<b>LGBTQ:</b>	Lesbian, Gay, Bisexual, Trans Gender, and Queer
<b>MSM:</b>	Men having Sex with Men
<b>NACOSTI:</b>	National Commission for Sciences, Technology and Innovation
<b>OSA:</b>	Online Sexual Activities
<b>PIU:</b>	Pathological Internet Use
<b>PIU:</b>	Problematic Internet Use
<b>PMT:</b>	Protection Motivation Theory
<b>RSB:</b>	Risky Sexual Behaviours
<b>SEM:</b>	Sexually Explicit Materials
<b>SET:</b>	Sexually Explicit Texts
<b>SLT:</b>	Social Learning Theory
<b>SPSS:</b>	Statistical Package for Social Sciences
<b>SRH:</b>	Sexual and Reproductive Health
<b>STI:</b>	Sexually Transmitted Infections
<b>TFP:</b>	Treatment for prevention
<b>TPB:</b>	Theory of Planned Behaviour

## OPERATIONAL DEFINITION OF TERMS

**Case Study:** It involves an up-close, in-depth, and detailed examination of the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students.

**Counselling:** It refers to a professional relationship between a student counsellor and undergraduate client designed to help the client understand his/her views on sexual behaviours and solve their own issues after making well informed choices.

**Counselling services:** Refers to a variety of programs offered by student counsellors to the undergraduate students including psycho-education programs, counselling awareness programs, counselling outreach, therapeutic intervention programs, and referral services in order to curb risky sexual behaviours.

**Main Campuses:** Often, a university system is referred to as a multi-campus university, with its main campus as the primary location and its satellites serving communities geographically distributed across the state or region. Therefore, main campuses refer to mother universities, in this case Egerton and Kabarak main campuses.

**Multiple Sexual Partners:** Engaging in sexual intercourse with two or more partners among undergraduate students.

**Perceived Influence:** Refers to the seemed impact that the selected psychosocial factors may have on the thinking, feeling and sexual behaviours of undergraduate students.

**Prostitution:** Engaging in sexual intercourse for monetary or material gain among undergraduate students.

**Risky Sexual Behaviours:** Risky sexual behaviours refer to unprotected penetrative sexual contact, which may involve unprotected sexual intercourse, prostitution, multiple sexual partners, sexual intercourse under coercion and sexual abuse among undergraduate students.



**Selected Psychosocial Factors:** These are psychosocial factors that are distinguished from other factors and may range from but not limited to self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse that may influence risky sexual behaviours among undergraduate students.

**Self-efficacy:** Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment. Undergraduate's sense of self-efficacy can play a major role in how they can approach goals, tasks, and challenges including risky sexual behaviours.

**Sexual Coercion:** That range of experiences that compel undergraduate students to have sex against their will, including violence, threats, verbal insistence, deception, cultural expectations and economic circumstances resulting in risky sexual behaviours.

**Sexual Intercourse:** An act among undergraduate students whereby a male inserts his penis into a female's vagina.

**Sexual Norms:** These are social norms regarding sexuality that may consist of certain sex acts between individuals who meet specific criteria of age, race, social role and socio-economic status, which may determine risky sexual behaviours among undergraduate students.

**Social Media:** It refers to websites and applications that enable undergraduate students to create and share content or to participate in social networking which may contribute to pornography and cybersex hence risky sexual behaviours.

**Socio-economic Status:** Socioeconomic status is the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation. Socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control which may contribute to risky sexual behaviours among undergraduate students.

**Student Counsellor:** Student Counsellor is a trained professional designated as being in charge of counselling services in the universities.

**Substance Abuse:** Substance abuse involves the chronic use of alcohol and drugs including marijuana, cocaine and heroin, which can result in risky sexual behaviours among undergraduate students.

**Unprotected Sexual Intercourse:** Engaging in sexual intercourse without a contraceptive among undergraduate students.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter covers the background of the study, statement of the problem, purpose of the study, objectives of the study, research hypotheses, significance of the study, scope of the study, assumptions of the study, and limitations of the study. This study focused on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students with a special focus on Egerton and Kabarak main campuses in Nakuru County. The selected psychosocial factors that may influence risky sexual behaviours among undergraduate students were as follows: Self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse. The mediating role of counselling services in mitigating risky sexual behaviours have been discussed as well. The risky sexual behaviours among undergraduate students discussed in this chapter include unprotected sexual intercourse, multiple sexual partnerships, prostitution and sexual coercion and abuse.

#### **1.2 Background of the Study**

Psychosocial factors may shape sexual attitudes and behaviour of young people either positively or negatively (Blanc, Byers & Rojas, 2018). Taghreed (2016) examined the social risks university students in Beirut associated with premarital sex, as well as explored the various strategies they employed when dealing with the risks and found that decisions about engaging in, or refraining from, premarital sex were shaped by social pressures and control, social norms and moral values. University can be a challenging time for young adults, as many are experiencing life on their own for the first time, adjusting to new lifestyles, new social groups, and new ways to express their selves (Coulter, Marzell, Saltz, Stall & Mair, 2016).

Self-efficacy may influence risky sexual behaviours among undergraduate students. Lebeso, Maputle, Mabunda, and Chauke (2017) found that pregnancy among young people seemed to be an increasing problem due to lack of knowledge, attitudes and perception that helps in building self-efficacy of students in order to counteract risky sexual behaviours.

Sexual norms may also influence risky sexual behaviours among undergraduate students in the sense that according to the literature reviewed parents are perceived to emphasise relational sex and abstinence messages more than peers (Fletcher, Ward, Thomas, Foust, Levin & Trinh, 2014). Diiorio, Pluhar, and Belcher (2009) noted that the family plays an important and powerful role in the sexual socialisation of children and adolescents. According to the study, parent-child communication about sexuality-content and process; predictors of parent-child communication; and behavioural outcomes associated with communication are key in shaping sexuality of young people (Diiorio et al., 2009). Trinh, Ward, Day and Levin (2013) observed that receiving more parent sexual communication is generally linked to a later age of first sexual intercourse and less sexual risk taking. Sexual norms are noted to play a key role in developing sex, gender roles and sexual attitudes and behaviour of undergraduate students (García-Vega, Rico, & Oviedo, 2017).

Exposure to peer messages that are accepting of casual sex is associated with more sexual partners, casual sex encounters, and sexual experience (Trinh et al., 2013; Fletcher, Ward, Thomas, Foust, Levin & Trinh, 2014; Ngidi, Moyo, Zulu, Adam, Babu & Krishna, 2016). Religious sexual norms may influence risky sexual behaviour among undergraduate students (Garceau & Ronis, 2017; Bayissa, Mebrahtu, Guta, & Yeshambel, 2016). Adejimi, Sabageh and Adedokun (2016) noted the importance of

friends and family support in dealing with sexual behaviour. Sexual activity was associated with various factors including religiosity, perceived parental attitudes towards sex, living arrangements, and school characteristics (Kabiru, & Orpinas, 2008).

Socioeconomic status may also influence risky sexual behaviours among undergraduate students, as one of the factors statistically associated with risky sexual behaviour is financial hardship (Levesque, Rodrigue, Beaulieu-Prevost, Blais, Boislard & Levy, 2016). Mellins, Walsh, Sarvet, Wall, Gilbert, Santelli, Thompson, Wilson, Khan, Benson, Bah, Kaufman, Reardon & Hirsch (2017) noted that one of the factors associated with increased risk for group and multiple sexual partners included difficulty paying for basic necessities. Rios-Zertuche et al. (2017) noted that poor adolescents in Costa Rica begin sexual activities early and undertake behaviours that increase their risk for unwanted pregnancies and sexually transmitted infections. In Africa, socioeconomic status was identified as one of the psychosocial factors that may influence risky sexual behaviour (Adanikin, Adanikin, Orji, & Adeyanju, 2017; Berhan & Berhan, 2015). In Kenya, Embleton et al. (2015) noted that young people living in HIV endemic settings face unique sexual health risks, and in the context of abject poverty, orphan-hood, social marginalisation, and discrimination, young people may be particularly at-risk of horizontal HIV transmission.

Globally, social media has also been noted to influence risky sexual behaviour among undergraduate students as observed in research that undergraduate students' online sexual experiences for example pornography use, sexual chatting, sexualised social media use, and nude image exchange provide a new context for sexual socialisation (Maas, Bray, & Noll, 2019; Irawan, Gultom, & Amsani, 2018). Numerous studies have investigated the impact of socialisation agents (social media) on domestic university students' academic performance and psychological well-being (Saha & Karpinski, 2016;

Coyne, Ward, Kroff, Davis, Holmgren, Jensen, Erickson, & Essig, 2019; Traeen, Hald, Noor, Iantaffi, Grey & Rosser, 2014).

Social media has been noted to enhance risky sexual behaviours among undergraduate students (Currin, Hubach, Sanders, & Hammer, 2017; Ouytsel, Gool, Walrave, Ponnet & Peeters, 2017; Machimbarrena, Calvete, Fernandez-Gonzalez, Alvarez-Bardon, Alvarez-Fernandez & Gonzalez-Cabrera, 2018; Guadagno, Okdie, & Kruse, 2012; Sumter, Vandenbosch, & Ligtenberg, 2016; Condran, Gahagan, & Kiely, 2017; Whyte & Torgler, 2017). According to Marino, Gini, Vieno, and Spada (2017) abuse of social media can lead to anxiety, stress, and depression. In Asia, social media was noted to have global influence on all aspects of life and has become a growing concern contributing to risky sexual behaviours (Lau, Gross, Wu, Cheng & Lau, 2017; Tang, Tang, Qin, Zhang, Zhang, Liu, SzeTso, Wei, Yang, Huang, Yang & Tucker, 2016; Young, Fujimoto, & Schneider, 2018). Choi et al., (2016) found in their study that there was a robust association between using dating apps and sexual risk behaviours, suggesting that app users have greater sexual risks.

In Africa, some research has been done on the influence of social media on risky sexual behaviours (Abdullahi & Abdulquadri, 2018; Audu, Ugande, Aliегда, Gobir, Kusugh & Ojabo, 2017; Akibu, Gebresellasie, Zekarias, & Tsegaye, 2017). Adebayo and Ojedokun (2018) noted that cyber pornography was fast gaining ground in the Nigerian cyber environment with undergraduate students among its major consumers. In Uganda, Kemigisha, Bruce, Nyakato, Ruzaaza, Ninsiima, Mlahagwa, Leye, Coene and Michielsen (2018) noted that majority (85%) of youth reported accessing sexual reproductive health information in the media with 35% reporting accessing media with sexual content. In Kenya, social media has also been identified to influence risky sexual behaviours (Wamathai, Merecia, Sirera, & Mwenje, 2014). Wanjiku (2018) also noted

that the country has experienced an increase in proliferation of modern communication technology due to the affordability, easy availability and accessibility of gadgets such as computers and internet enabled mobile phones that have brought negative impact of proliferation of non-consensual pornography on the social media platforms. In Nakuru, Esho et al. (2018) did a study about the young people's risky sexual behaviours and found that it was but natural to exchange the half-baked feelings and experiences with peers and the environment that includes public media has sexually suggestive flavours. The study found that a large number of older adolescents wished that their parents had talked to them about sexual matters.

Substance abuse has been also found to influence risky sexual behaviours among undergraduate students (James et al., 2019). Greater attendance at large private parties predicted more frequent intercourse for females in the not drunk or high context, and greater attendance at bars without dance floors predicted more frequent intercourse for males in the drunk or high context (James et al., 2019; Chanakira, O'Cathain, Goyder, & Freeman, 2014; Amaranganie et al., 2018). Alcohol consumption and attending nightclubs were associated with risky sexual behaviour among young people (Rice, Lynch, Norris, Davis, Fields, Ervin & Turner, 2016; Herbenick, Fu, Dodge, & Fortenberry, 2018; Mellins, Walsh, Sarvet, Wall, Gilbert, Santelli, Thompson, Wilson, Khan, Benson, Bah, Kaufman, Reardon & Hirsch, 2017).

In Africa, researchers have noted that having sex at early age, having multiple sexual partners, having sex while under the influence of alcohol or drugs and unprotected sexual behaviours are the common characteristics of risky sexual behaviour which increases risk of individuals to sexuality and reproductive health problems among young people (Kabede, Molla & Gerensea, 2017; Tefera, 2015; Abate, Tareke, Tirfie, Semachew, Amare & Ayalew, 2018; Adere, Yimer, Kumsa, & Liben, 2017; Kasahun, Yitayal,

Girum & Mohammed, 2017; Choudhry, Agardh, Stafstrom, & Ostergren, 2014; Ware, Tura, Alemu, & Andarge, 2018).

In Kenya, Mangeni, and Mbuthia (2018) noted that substance abuse among university students was a major public health concern and drugs such as tobacco and alcohol are now widely and easily available in the universities. Colleges therefore form the main locus of substance abuse, with more than 40% of students already affected. Othieno et al. (2015) noted that younger age, being female; tobacco use and previous diagnosis of STI were significantly associated with inconsistent condom use.

In Nakuru, Boit (2016), noted that the main objective of higher institutions of learning in Kenya was to provide education and growth experiences for its students but alcohol abuse had continued to be a problem in the university campuses that was slowing down their progress and the Kenya vision 2030 that envisages a healthy population free from the impact of alcohol abuse through the reduction of the prevalence and the impact of alcohol abuse disorders in order to attain the highest possible level of physical, social and mental health. The study found out that the prevalence of alcohol abuse among Egerton University students was 21.1 %. The study found significant association between the prevalence of alcohol abuse and the year of study, marital status, family's economic status and the living arrangements that may contribute to risky sexual behaviours among undergraduate students, therefore this study sought to explore the perceived influence of substance abuse on risky sexual behaviours among undergraduate students.

Young people in campus require counselling services and educational initiatives to sensitise them on STI, methods of contraception and positive social behaviours and there is need to improve the accessibility of reproductive health services through strengthening of services provided at campus health clinics (Mbugua, & Karonjo, 2018). Njeri (2016)



noted that high risk sexual behaviour and its consequences among university students continues to be a serious concern for learning institutions, parents, researchers and policy makers. This concern has been marked by the increased number of reproductive health interventions worldwide aimed at ensuring young adults have access to reproductive health information and services therefore, this study sought to identify the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students in Nakuru County.

Risky sexual behaviours have become a challenge all over the world affecting youth and may lead to sexually transmitted diseases and unintended pregnancies (Amaranganie, Perera, & Abeysena, 2018). According to World Health Organisation (WHO), youth are young people aged between 15-24 years old and studies reported that more than half of all new HIV infections occur among people between the ages of 15 and 24 years where most undergraduate students fall under (Kasahun, Yitayal, Girum & Mohammed, 2017). Risky sexual behaviours can have major effects on undergraduate students' experiences that may include negative academic performance, inability to progress through the university academic years, decision to remain at university and overall psychological well-being (Abels & Blignaut, 2011). Young-Powell and Page (2014) attributed risky sexual behaviours to many people viewing university as the best stage of one's life because students are generally thought to have more free time, more parties and more sex.

A research that was done in the USA found that 92% of men and 77% of women undergraduate students had masturbated and most participants reported experience with accessing sexual information (89.8 %) and sexual entertainment (76.5 %) online. Almost half (48.5 %) reported browsing for sexual products, and a substantial minority (30.8%) reported having engaged in cybersex (Döring & Pöschl, 2018). In Denmark 97.8% of

males and 79.5% of females watched pornography among 1002 people aged from 18–30 years old (Hald,2006). In Asia, researchers have noted that while university students are potential human resources, this population group is particularly involved in health risk behaviours and preventing risky sexual behaviours among them would contribute to prevention of HIV, sexually transmitted infections (STIs), and unwanted pregnancies, which have posed a great burden on population health (Yi, Te, Pengpid, & Peltzer, 2018; Zou et al., 2013; Yu, Guo, & Sun, 2013; Yang et al., 2019).

African universities have been called to respond to the social issues of trauma, adversity, injustice and inequality including risky sexual behaviours that trouble their embedding communities, their staff and their students (Coulter, & Rankin, 2017). Several studies particularly in Sub- Saharan Africa have documented high and increasing premarital sexual activities among undergraduate students as they face social, peer and cultural pressure to engage in risky sexual behaviour that may expose them to the risk of unintended pregnancy, early marriage, abortion and STIs/HIV/AIDS (Teferra, Erena, & Kabede, 2015; Amare, Yeneabat, & Amare, 2019; Kabede, Molla, & Gerensea, 2018; Gebresllasie, Tsadik, & Berhane, 2015; Derby, Assefa, Mekonnen, & Biadglegne, 2016; Berhan & Berhan, 2015; Fetene & Mekonnen, 2018; Onoya et al., 2015). Other studies which were done in Zambia and South Africa concurred that a large number of students were engaging in risky sexual behaviours, such as having multiple sexual partnerships, inconsistent contraceptives use, and intergenerational sex (Menon, Sidney, Thankian & Lwatula, 2016; Hoque, Ntsipe, & Mokhatle, 2012; Onoya et al., 2015).

In Kenya, Othieno, Okoth, Peltzer, Pengoid and Malla (2015) determined associations between HIV risky sexual behaviour and depression among undergraduate students at the University of Nairobi and found that the percentage of those who had ever been diagnosed with sexually transmitted infections (STIs) was 19.66% (males 8.65%;

females 11.01%); and for HIV 6.07% (males 2.02%; females 4.05%), and nearly 30% reported having had multiple partners in the previous 12 months, 27.4% of the students did not use condoms with sexual partners and 21% had engaged in sex after drinking within the previous 3 months (Othieno et al., 2015; Adam, & Mutungi, 2007; Waswa, 2006). Ochieng' (2013) observed that globally, the average age at which young people begin to have sex has steadily decreased. Ssewanyana et al. (2018) noted that a lack of research existed around the most common forms of sexual risk behaviours among young people, including their underlying factors and found that transactional sex, early sexual debut, coerced sex, and multiple sexual partnerships were prevalent. In agreement, Kabiru and Orpinas (2008) found that approximately 50% of the males and 11% of females were reported having had sexual intercourse at least once in their lifetime with a significant proportion reporting multiple sexual partnerships.

While there exists a number of studies expressing the influence of psychosocial factors on risky sexual behaviours among the teens and youths in both Western and African Nations those studies have been seldomly conducted in various Kenyan campuses and specifically in Nakuru County focusing on undergraduate students, therefore this study purposed to investigate the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students: A case of Egerton and Kabarak main campuses in Nakuru County.

### **1.3 Statement of the Problem**

Psychosocial factors may shape sexual attitudes and behaviour of young people either positively or negatively. Risky sexual behaviours have become challenge to undergraduate students all over the world including the main campuses in Nakuru County and have affected the undergraduate students' lived experiences in many ways including exposure to sexually transmitted infections and unintended pregnancies,

abortions, negative academic performance, inability to progress through the university academic years, decision to remain at university and overall psychological well-being. In the context of this study the risky sexual behaviours may refer to unprotected penetrative sexual contact, prostitution, multiple sexual partnerships, sexual intercourse under the influence of alcohol and drugs, lack of contraceptive use, sexual intercourse under coercion and sexual abuse among undergraduate students. Research has been done globally and regionally on the influence of psychosocial factors on risky sexual behaviours among undergraduate students. However, there was little research on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students in Kenya and particularly Nakuru County. The selected psychosocial factors that were perceived to influence risky sexual behaviors among undergraduate students included self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse. This study therefore, sought to close this gap by investigating the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students: A case of Egerton and Kabarak main campuses in Nakuru County, Kenya.

#### **1.4 Purpose of the Study**

The researcher purposed to investigate the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students: A case of Egerton and Kabarak main campuses in Nakuru County, Kenya.

#### **1.5 Objectives of the Study**

This study was guided by the following objectives:

- i. To determine the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in Nakuru County

- ii. To examine the perceived influence of sexual norms on risky sexual behaviours among undergraduate students in Nakuru County
- iii. To establish the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students in Nakuru County
- iv. To assess the perceived influence of social media on risky sexual behaviours among undergraduate students in Nakuru County
- v. To explore the perceived influence of substance abuse on risky sexual behaviours among undergraduate students in Nakuru County
- vi. To identify the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students in Nakuru County

## **1.6 Research Hypotheses**

To achieve the objectives, the study formulated the following hypotheses at 0.05, statistical level of significance:

**H<sub>01</sub>:** Self-efficacy has no statistically significant influence on risky sexual behaviours among undergraduate students in Nakuru County.

**H<sub>02</sub>:** Sexual norms have no statistically significant influence on risky sexual behaviours among undergraduate students in Nakuru County.

**H<sub>03</sub>:** Socioeconomic status has no statistically significant influence on risky sexual behaviours among undergraduate students in Nakuru County

**H<sub>04</sub>:** Social media has no statistically significant influence on risky sexual behaviours among undergraduate students in Nakuru County.

**H<sub>05</sub>:** Substance abuse has no statistically significant influence on risky sexual behaviours among undergraduate students in Nakuru County.

**H<sub>06</sub>:** Counselling services have no statistically significant mediating role in mitigating risky sexual behaviours among undergraduate students in Nakuru County.

### **1.7 Justification of the Study**

This section deals with justification of the study. Research justification refers to the rationale for the research, or the reason why the research is being conducted, including an explanation for the design and methods employed in the research. The researcher applied correlational research design. Correlational research is a type of non-experimental research in which the researcher measures two variables and assesses the statistical relationship between them with little or no effort to control extraneous variables (Kalla, 2011). The reason why the researcher chose correlational research design is the statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical (Kalla, 2011). The design was relevant to the study because the researcher investigated the opinions of the respondents on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County. In addition, as explained by Gall, Borg and Gall (1996), in this approach the researcher does not manipulate the variables under study but instead examines the variables in their existing condition. Therefore, the researcher conducted the study within the existing undergraduate students' perceived influence of selected psychosocial factors on risky sexual behaviours. This was the arrangement of conditions for collection and analysis of data in a way that combined their relationship with the purpose of the research to the economy of procedures.

### **1.8 Significance of the Study**

The outcome from this research poses significant implications to Students, Counsellors, University policy makers and management bodies and parents with regard to addressing

prevalent risky sexual behaviours among undergraduate students. The research data serves to strengthen efforts by the university policy makers and management bodies to enhance the counselling departments to deal with risky sexual behaviours. The research output has also added to the field of knowledge hence a key basis in which other researchers may refer. It is hoped that if the students interact with the study, they will be able to understand the perceived influence of selected psychosocial factors on risky sexual behaviours and consequently change their sexual behaviour. It also benefits university counsellors on adding knowledge on the perceived influence of selected psychosocial factors on risky sexual behaviours. It benefits parents to gain knowledge on how to socialize their children on the perceived influence of selected psychosocial factors on risky sexual behaviours as well as able to encourage, monitor and guide their children in order to overcome the risky sexual behaviours.

### **1.9 Scope of the Study**

The study was carried out in two main campuses in Nakuru County that were purposively selected. The County has ten university campuses. The two main campuses were selected because of the prevalence of risky sexual behaviors due to the population of undergraduate students as well as the accommodation facilities for students within and outside the campuses including hostels. The study focused on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. For the purpose of this study, only 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students were considered appropriate because they have been in campus for long and may understand well the selected psychosocial factors that were perceived to influence risky sexual behaviours, and some may have utilised the counselling services in order to address the risky sexual behaviours. In addition, the study targeted ten peer counsellors and two student counsellors. The peer counsellors and student counsellors were chosen because

they deal with counselling issues and interact with undergraduate students on regular basis.

### **1.10 Assumptions of the Study**

The study was based on the following assumptions:

- i. Information provided by the respondents in their respective questionnaire, Focused Group Discussion (FGD) and interview schedule was genuine indicators of perception of undergraduate students on the influence of selected psychosocial factors on risky sexual behaviours in the main campuses in Nakuru County, Kenya.
- ii. All the respondents selected for the study had adequate knowledge of selected psychosocial factors perceived to influence risky sexual behaviours in the main campuses in Nakuru County, Kenya.
- iii. Risky sexual behaviors among undergraduate students may be caused by other variables such as age, gender, religion or personality factors, which were not investigated in the study.

### **1.11 Limitations of the Study**

- i. The study encountered the following limitations: -
- ii. The measures in the study were based on undergraduate students' perceptions, and the extent to which these perceptions accurately reflected the perceived influence of selected psychosocial factors on risky sexual behaviours. The researcher analysed raw information from the responses of the sample.
- iii. This study was carried out among the undergraduate students in the two main campuses in Nakuru County. Therefore, the findings will be generalised with caution to other campuses in other counties as well as other settings.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviewed relevant literature on the overview of risky sexual behaviours, perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. These included influence of self-efficacy on risky sexual behaviours among undergraduate students, influence of sexual norms on risky sexual behaviours among undergraduate students, influence of socio-economic status on risky sexual behaviours among undergraduate students, influence of social media on risky sexual behaviours among undergraduate students, and influence of substance abuse on risky sexual behaviours among undergraduate students. Literature on the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students in Nakuru County was highlighted. This chapter also covered the theoretical framework and conceptual framework of the study.

#### **2.2 Overview of Risky Sexual Behaviours among Undergraduate Students**

Globally, risky sexual behaviour has become a challenge all over the world affecting undergraduate students and may lead to sexually transmitted diseases and unintended pregnancies (Amaranganie et al., 2018). Risky sexual behaviours have great influences on the student, which may include negative academic performance, inability to progress through the university academic years, decision to remain at university and overall psychological well-being (Harding, 2011). Stenhammar et al. (2015) studied female students' sexual and contraceptive behaviour and compared the results with earlier surveys and found that in 1989 age at first intercourse was 17.6 years versus 16.7 years in 2014, number of lifetime sexual partners was 4.0 versus 12.1 in 2014, and number of sexual partners during the previous 12 months was 1.0 versus 2.8 in 2014, and a total of

70% made use of pornography, and 48% considered their sexual behaviour affected by pornography (Kaestle & Allen, 2011; Doring, Daneback, Shaughnessy, Grov & Byers, 2017).

Young-Powell and Page (2014) attributed risky sexual behaviour to many people viewing university as the best stage of one's life because students are generally thought to have more free time, more parties and more sex. In Asia, university students are acknowledged as potential human resources, though involved in health risk behaviours and preventing risky sexual behaviours among them would contribute to prevention of HIV, sexually transmitted infections (STIs), and unwanted pregnancies, which have posed a great burden on population health (Yi, et al., 2018; Zou et al., 2013; Yu et al., 2013; Yang et al., 2019).

African universities have been called to respond to the social issues of trauma, adversity, injustice and inequality including risky sexual behaviours that trouble their embedding communities, their staff and their students (Coulter, & Rankin, 2017). Several studies particularly in Sub-Saharan Africa have documented high and increasing premarital sexual activities among undergraduate students as they face social, peer and cultural pressure to engage in risky sexual behaviour that may expose them to the risk of unintended pregnancy, early marriage, abortion and STIs/HIV/AIDS (Tefera, 2015; Amare et al., 2019; Kabede et al., 2018; Gebresllasie et al., 2015; Derbie et al., 2016; Berhan & Berhan, 2015; Fetene & Mekonnen, 2018; Onoya et al., 2015; Menon et al., 2016; Hoque, Ntsipe, & Mokhatle, 2012; Onoya et al., 2015).

In Kenya, Othieno et al. (2015) determined associations between risky sexual behaviour and depression among undergraduate students at the University of Nairobi and found that the percentage of those who had ever been diagnosed with sexually transmitted

infections (STIs) was 9.71% (males 8.65%; females 11.01%); and for HIV 3.04% (males 2.02%; females 4.05%), and nearly 30% reported having had multiple partners in the previous 12 months, 27.4% of the students did not use condoms with sexual partners and 21% had engaged in sex after drinking within the previous 3 months. On the other hand, Adam and Mutungi (2007) did a baseline surveillance data obtained from a representative sample of 1917 university students at Moi University in Eldoret, Kenya, and found that 71 % of males and 47.6% of females reported having had sex, only 49% of university students reported any HIV/AIDS education, and concluded that sexual activity on campus was high and many students considered themselves at risk.

Waswa (2006), noted that university students constituted a high risk group for HIV infection that is hugely contributed by their youthful age and lack of strict regulations in institutions of higher learning, leading to students engaging in reckless sexual relationships, have many sexual partners, engage in commercial sex, inconsistent use of condoms, taking of alcohol and other drugs before sexual intercourse, clubs visits and lack of testing for HIV. Ochieng' (2013) observed that globally, the number of young people who engage in early sex has steadily increased. Ssewanyana et al. (2018) noted that a lack of research existed around the most common forms of sexual risk behaviours among adolescents, including their underlying factors and found that transactional sex, early sexual introduction, coerced sex, and multiple sexual partnerships were prevalent. In agreement, Kabiru and Orpinas (2008) found that approximately 50% of the males and 11% of females were reported having had sexual intercourse at least once in their lifetime with a significant proportion reporting multiple sexual partnerships.

In Nakuru, Esho et al. (2018) did a study about young people and found that it was but natural to exchange the half-baked feelings and experiences with peers and the environment that includes public media has sexually suggestive flavours. The study

found that a large number of young people wished that their parents had talked to them about sexual matters and that there was a general conservative outlook that the students had.

### **2.3 Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students**

Self-efficacy refers to an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997). Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment. Undergraduate students' sense of self-efficacy can play a major role in how they can approach goals, tasks, and challenges including risky sexual behaviours. Self-efficacy may influence risky sexual behaviours among undergraduate students as noted in a wide range of literature globally, regionally and partly locally. In USA, Zamboni, Crawford, and Bryant (2017) used structural equation modelling to test variations of the Health Belief Model in predicting safer sex intentions among 151 African-American gay/bisexual men and found that including self-efficacy as a mediating variable improved the model and overall prediction of safer sex intentions. The study focused on gay/bisexual men, but this study sought to determine the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students.

Javier, Abrams and Moore (2016) noted that despite condom use being the most protective measure against the transmission of human immunodeficiency virus little was known about the intermediary relationships between condom negotiation, assertive sexual communication, and condom use efficacy. The study examined two samples of African American college women participating in two HIV prevention interventions, one of which was based on social learning theory ( $N = 214$ ). Findings revealed that condom use efficacy at post-test fully mediated the relationship between intervention effect and

assertive sexual communication at 3-month follow-up. In addition, condom use efficacy at post-test fully mediated the relationship between intervention effect and condom negotiation at 3-month follow-up. The study focused on condom efficacy whereas this study focused on the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students. Scull et al. (2019) examined the prevalence and risk factors associated with risky sexual behaviours in community college students and did a diverse sample of 18–19-year-old community college students ( $N = 264$ ) and found that higher intentions to engage in risky sexual behaviours were associated with having lower intentions to communicate with a sexual partner about pregnancy and STIs, and having higher gender norm endorsement due to lack of self-efficacy.

In China, Li et al. (2017) examined the potential mediating roles of peer norms and self-efficacy and did a nationwide cross-sectional online survey among Chinese MSM in 2015 and found that HIV/sexual health community engagement, condom use peer norms, condom use self-efficacy, and frequency of condom use were mutually correlated. HIV/sexual health community engagement was associated with frequency of condom use, which was directly mediated by condom use peer norms and indirectly through self-efficacy. The study suggested that condom use peer norms and self-efficacy might be mediators in the pathway between community engagement and condom use. The above study focused on self-efficacy and men who have sex with men, but this study sought to determine the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students.

In Africa, Louw, Peltzer, and Ramlagan (2018) investigated young women's self-esteem, sexual-risk behaviour and exposure to love life, a youth HIV prevention programme, and did a population-based household survey of youth aged between 18-24 years in four South African provinces using multi-stage stratified cluster sampling and found that not

having sex with someone older, partner reduction, self-efficacy, relationship control and having a sense of future predicted self-esteem, and concluded that being in control of the relationship (self-efficacy) and having a sense of future are important factors in understanding sexual-risk behaviour in young women. On the contrary, Aboussalam, Naude, Lens and Esterhuysen (2016) investigated the moderator effect of future time perspective in the relationship between self-efficacy and risky sexual behaviour and conducted a random cluster consisting of 467 learners from English medium high schools of central South Africa and found that both self-efficacy and future time perspective were negatively related to risky sexual behaviour. The study identified self-efficacy and future time perspective as qualities that protect young people from engaging in risky sexual behaviours. The study focused on self-efficacy of high school students in South Africa, whereas this study focused on the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in Nakuru County, Kenya.

In Ghana, Teye-Kwadjo, Kagee and Swart (2017) noted that attitudes towards condom use and perceived behavioural control (self-efficacy) over condom use were significantly positively associated with the intention to use condoms, and noted the importance of using behavioural beliefs, perceived control beliefs and behavioural intention as key variables in condom promotion programmes among youth. Asante, Osafo, and Doku (2016) did a cross-sectional study involving 518 university students in Accra, Ghana to determine how the Condom Use Self-efficacy Scale-Ghana can predict both actual condom use and future condom use and found that of all the participants, 84 % were sexually active but less than half of the sample (48 %) reported to have used condom during their last sexual intercourse, and a hierarchical regression analysis showed that components of the Condom Use Self-Efficacy Scale such as appropriation, assertiveness, pleasure and intoxication, and STDs predicted condom use and condom use intentions.

Ugoji (2014) noted that, in the last three decades, it was observed that there was a substantial increase in the proportion of adolescents who engaged in sexual activity while at school and did a survey design investigating perceived effect of emotional intelligence, self-esteem, religiosity and media on risky sexual behaviour of 300 secondary school students from 10 secondary schools within Asaba metropolis and found that relationships among risky sexual behaviour and the independent variables were significant; however, the relationships between risky sexual behaviour and emotional intelligence/religiosity were negatively significant. It was recommended that incorporating emotional intelligence and self-esteem training into the school curriculum of students' religious activities should be encouraged as well to enhance moral development of adolescents, hence a strong self-efficacy. The study focused on self-esteem among the adolescents whereas the present study determined the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students. Scoloven (2016) noted that HIV/AIDS knowledge was associated with self-efficacy for limiting sexual risk behaviour.

Thompson, Lewis, and Neilson (2016) noted that risky sexual behaviour is a serious public health problem as they found in research that trauma symptoms predicted unprotected sex and mediated effects of emotional maltreatment on unprotected sex and on assertiveness in sexual refusal and the effects of sexual abuse on unprotected sex. The study focused more on trauma effect on assertiveness resulting in risky sexual behaviours among children.

Bulduk and Erdogan (2012) investigated how HIV/sexually transmitted infection peer education affected HIV knowledge, perceived prevention self-efficacy, and risky sexual behaviours among Turkish university students who were sexually active but did not use condoms. The study found that significant differences according to group time

interaction in the variables of HIV knowledge, self-efficacy for condom use and refusing sexual intercourse, and vaginal-oral-anal intercourse with condom, talking with the partner about condom use, refusing sexual intercourse with someone not using a condom, and taking alcohol before sexual intercourse. No differences were found according to group time interaction in self-efficacy for asking potential partners questions, using drugs before and after sexual intercourse, and sexual partner. Peer education should focus on safer sexual behaviours to develop strategies to increase self-efficacy. In Botswana, Moore et al. (2017) noted that impulsivity and extraversion have demonstrated associations with risky sexual behaviour and potentially traumatic events. Results indicated that impulsivity and extraversion were significantly positively associated with risky sexual behaviour.

In Kenya, Omanyo (2016) established the relationship between personality sub-types and involvement in risky sexual behaviour among secondary school students in Nyakach Sub-county using a Correlation research design, and found that there was a relationship between personality and involvement in risky sexual behaviour, and that personality subtypes are significant predictors of involvement in risky sexual behaviour at 67.9%. The study focused on the relationship between personality and risky sexual behaviours among secondary students in Nyakach Sub-county.

Nydegger, DiFranceisco, Quinn, and Dickson-Gomez (2017) noted that unequal gender norms and age-disparate sexual relationships can lead to power imbalances and are associated with intimate partner violence, sexual coercion and violence, and sexual risk behaviours. Female participants who had been in age-disparate sexual relationships were more likely to have been pregnant due to low self-efficacy. Traeen et al. (2014) found that the association between the use of sexually explicit material and sexual risk behaviour was mediated by condom use self-efficacy in an indirect path. The study noted



that in order to promote STI prevention, the actors in SEM may be used as role models in managing condom use in sexual contexts, hence building self-efficacy.

Tenkorang and Maticka-Tyndale (2014) examined associations between both community and individual level characteristics and sexual debut among youth in Sub-Saharan Africa. Cross-sectional survey data collected from 8,183 youth aged 11–17 in 160 schools in Nyanza, Kenya, were used to examine the relationships between individual and community measures and the timing of sexual debut. Youth with higher abstinence self-efficacy had a reduced risk of sexual debut. These researchers observed that in other parts of sub-Saharan Africa, youth in Kenya reported low rates of condom use. Using the Theory of Planned Behaviour (TPB), the study examined whether beliefs and attitudes around condoms influenced intentions and actual condom use and found a direct relationship between attitudes and condom use for male respondents and an indirect relationship between these two variables for females.

Mbugua and Karonjo (2018) noted that reproductive health knowledge was vital in the growth and development of young people's self-efficacy and could influence greatly on their educational and personal outcome as they proceed to adulthood. The study dwelled on the importance of reproductive health knowledge in building self-efficacy which impacts on risky sexual behaviours. These studies show the role of guidance and counselling in schools at various levels of education in order to build self-efficacy to counter risky sexual behaviours among students.

## **2.4 Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students**

Sexual norms refers to personal or social norms regarding sexuality that may consist of certain sex acts between individuals who meet specific criteria of age, race, social role and socio-economic status which may determine risky sexual behaviours among

undergraduate students (Bozon, Michel, Rennes & Juliette, 2015). Sexual norms may influence risky sexual behaviours among undergraduate students as Mustanski, Green, Ryan and Whitton (2014) observed that lesbian, gay, bisexual, and transgender (LGBT) youth experienced multiple sexual health inequities driven, in part, by deficits in parental and peer support, school-based sex education programs, and community services. Parental sex norms do influence risky sexual behaviour of undergraduate students as noted in the USA by Arbor (2018) that the first year of college presents a unique opportunity for new students to experiment with various risk behaviours and parental messages about these behaviours can have varying impacts on how students choose to partake in risk behaviours, especially when looking at how culture affects how that communication takes place. The study was conducted to examine the impact of parent-adolescent communication about risk behaviours on student engagement in risk behaviours among first year college students in three cultural subgroups; African American, Caribbean and Continental African parents. A cohort of 102 Black students attending HBCUs were recruited and classified into the three cultural groups according to their parents' birthplace. The data indicated cultural differences in substance use behaviours but no differences in parent-adolescent communication or its influence on student risk behaviours. This study therefore, examined the perceived influence of sexual norms on risky sexual behaviors among undergraduate students in Nakuru County.

Hardy, Hurst, Price, and Denton (2019) examined the socialisation of conservative attitudes about sex and pornography use in later adolescence and tested socialisation model whereby there was anticipation that parent conservative sex attitudes would more strongly predict teen conservative sex attitudes when more frequent and higher quality parent-teen communication was present. Path analyses found that teen sex attitudes mediated the negative link between parent sex attitudes and subsequent teen pornography

use, but frequency and quality of parent-teen communication extensiveness and quality did not moderate the association between parent and teen sex attitudes. However, communication extensiveness did moderate relations between parent sex attitudes and later teen pornography use.

Wright and Vangeel (2019) used national probability data gathered between 1990 and 2016 to explore associations between pornography consumption and sexual permissiveness within and between the sexes, as well as permissiveness differences between the sexes across categories of pornography use. In support of social learning: pornography consumption was associated with higher permissiveness within sex; associations between pornography use and permissive sexual attitudes were generally stronger for men than women; and attitudinal sex differences among non-consumers became smaller over time. Martyniuk and Stulhofer (2018) found in research that relatively there were low levels of permissiveness, but substantial pornography use, particularly among adolescent men that may be contributed by peer pressure and parental permissiveness to use of social media.

Parental sexual norms involve sex communication that parents pass to the young people. Trinh et al. (2013) observed that receiving more parent sexual communication was generally linked to a later age of first sexual intercourse and less sexual risk taking. Young women generally received more messages promoting abstinence, traditional sex roles, and sex within a relational context than their male counterparts. Young men, however, reported greater parent and peer communications that were accepting of casual sex. In China, parental sexual norms were noted to influence risky sexual behaviour among undergraduate students (Ko, Wang, Liu, Yen, Chen, & Yen, 2014). Therefore, this study examined the perceived influence of sexual norms on risky sexual behaviours among undergraduate students.

In Africa, Somefun (2019) noted that parents' religion played an important role in youth behaviours, making it a significant factor in the discourse on youth sexuality in sub-Saharan Africa. Several studies have found that religion and religiosity play an important role in the sexual behaviours of young people. However, little research in Nigeria had examined the mechanisms through which religiosity influences youth sexual behaviour and if parents' religion moderates this relationship. Data for the study came from 2399 male, female youth aged 16–24 years, and abstinence was the sexual behaviour of interest. Results showed that 68% of the youth had never had sex. Religiosity was a protective factor for youth sexual behaviour and this positive association was still evident even after controlling for other covariates. Youth who were highly religious had significantly higher odds of abstaining compared to their counterparts who were not religious. Therefore, parents' religiosity helps in imparting sexual norms of abstinence and self-discipline to counteract risky sexual behaviours among the undergraduate students.

From a community based cross-sectional study in Eastern Ethiopia, Dessie, Berhane, and Worku (2015) noted that parent-adolescent sexual and reproductive health (SRH) communication is very limited and associated with adolescent poor behavioural beliefs and subjective norms. The study investigated the factors that limit or improve parent-adolescent SRH communication in Harar, Eastern Ethiopia and found that the adolescents who were more likely to practice poor-very poor SRH communication were those who had poor behavioural beliefs on and poor subjective norms of communicating sexual issues with parents and those who perceived their parents' reproductive health (RH) knowledge as poor. Curtailing the adolescents' underlying poor beliefs and norms, and improving adolescent-parent communication quality, self-disclosure, and television

co-viewing and discussions were essential to engage the parents in sexual and reproductive health education of the adolescents (Dessie et al., 2015).

Peer sexual norms do influence risky sexual behaviour among undergraduate students. Wright, Tokunaga, and Kraus (2016) found that pornography consumption was associated with lower estimations of peers' condom use, and lower estimations of peers' condom use were associated with personally engaging in condom-less sex. Barman-Adhikari et al. (2017) observed that most studies of condom-less sex among homeless youth have focused on peer norms, while excluding other potentially pertinent influences. The study explored how different types of relationships contributed to norms about condom-less sex and whether such norms were associated with engagement in condom-less sex among homeless youth. Multivariate analyses indicated that perception of peer condom use and communication with sexual partners was significantly associated with not engaging in condom-less sex.

Johnson (2017) did a literature review providing a summary of the sexual risk literature focused on black college students and identified some of the risk factors associated with African American women attending historically black colleges and universities. The results indicated that peer social norms, religiosity, gender ratio imbalances on campus, and perceived STD risk remained important factors associated with the sexual behaviours of African American women. Exposure to peer messages that were accepting of casual sex was associated with more sexual partners, casual sex encounters, and sexual experience (Trinh et al., 2013). An example of peer sex norms was sex orgy behaviour, where undergraduate students spank one another before coupling up and having sex in front of a gathered audience, and there is many spanking couples turning into foursomes and fivesomes (Whitaker, 2018).

In Asia, Kamruzzaman and Hakim (2016) observed that prostitution is a worldwide popular and valid occupation, and found in their study that about 36.67% family conflicts and divorce, 20% unemployment and 16.67% peer pressure were the big forces that turned the child into child sex worker including undergraduate students. The respondents were abused physically (16.66%), sexually (16.66%) and psychologically (36.67%). Bongardt et al. (2017) examined the relations between observed normativity and deviance during adolescents' and young adults' conversations about sex with their friends and their individual perceptions of sexual peer norms and found that more deviance was related to perceiving friends to be more sexually active, more approving of having sex, and engaging in more risky sex, whereas more normativity was related to perceptions in the opposite direction. The findings demonstrated the importance of assessing the dyadic nature of youth's sexual communication with friends, their relation to individual sexual peer norm perceptions, and gender differences.

Having multiple sexual partners happens under peer influence that pose as a risky sexual behaviour that may require counselling intervention as Kebede et al. (2017), found in an assessment of risky sexual behaviour using institution based cross-sectional study design on 287 randomly selected subjects among Aksum University students that almost 60% students reported to have ever had sexual activity, of which 186 (83.5%) and 112 (64.4%) reported having inconsistent condom use and multiple sexual partners respectively. Sexual coercion happens under peer pressure. Growing worldwide evidence shows that the experience of sexual coercion was prevalent among young people and was associated with risky sexual behaviour thereafter (Agardh et al., 2011; Bayissa et al., 2016).

Rogan et al. (2011) examined how gender and socioeconomic status moderate the effects of norms and attitudes on higher-risk sexual behaviours among secondary school learners in a low-income community in South Africa. The findings suggested that gender interacts significantly with peer norms to predict sexual behaviour. Peer norms and the experience of intimate partner violence were significantly associated with sexual risk behaviour among girls. These studies show the need of proper impartation of sexual norms to children as they develop psychosocially hence help curb risky sexual behaviours among undergraduate students. This study therefore, sought to examine the perceived influence of sexual norms on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County.

## **2.5 Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students**

Socioeconomic status is the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation. Socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control which may contribute to risky sexual behaviours among undergraduate students (APA, 2019). Research has shown that socioeconomic status of an individual can lead to risky sexual behaviours including prostitution (Kamruzzaman & Hakim, 2016; Vanwesenbeeck, 2017; Picos, Gonzalez, & Gutierrez, 2017). Sanders and Hardy (2015) observed that robust academic research on the topic of students involved in the sex industry was in its infancy, yet the relationship appeared consistent and permanent. Sagar et al. (2015) discussed student sex workers in higher education in Wales from an institutional perspective and found that staff members' knowledge on the legalities of sex work and on appropriate referral pathways was inadequate. While some institutions and some of their staff deemed that student sex work would bring the

reputation of the university and/or the profession for which the student was training into disrepute, other institutions and staff indicated that student sex work required an individualised approach, which can offer support in different areas.

In USA, Updegrave, Muftic and Niebuhr (2018) drew upon the economic model of risky sexual behaviour of prostitution to explore the relationship between gender, prostitution role, and criminal justice system outcomes. Benoit, Jansson, Smith and Flagg (2017) observed that stigma was a fundamental determinant of behaviour, well-being, and health for many marginalised groups, but sex workers were notably absent from their analyses and therefore gave special attention to its negative effect on the working conditions, personal lives, and health of sex workers. Prostitution among undergraduate students has to do with benefits motivations (Stein, Mongeau, Posther & Veluscek, 2018). In China, Bay-Cheng and Goodkind (2016) observed that young women's orientation toward romantic relationships and being single was shaped not only by hetero-normative gender expectations but also by their socioeconomic status (SES). The above study focused on women's romantic relationships influenced by socioeconomic status.

In Africa, socio-economic status may influence risky sexual behaviours (Schalkkwyk, 2018). In agreement, Kangiwa (2015) researched on the problem of prostitution in Ojoo community in Ibadan, Nigeria. The study identified the socio-economic factors and conditions that were associated with prostitution. Prostitutes were found to have pathological problems at their backgrounds and the social relations amongst them were based on elemental pattern. Ranganathan et al. (2016) noted that young adolescent women in sub-Saharan Africa were three to four times more likely to be HIV-positive than boys or men. One of the relationship dynamics that was likely to be associated with young women's increased vulnerability to HIV was transactional sex. Transactional sex



was defined as a commercial, non-marital sexual relationship whereby sex was exchanged for money and/or gifts (Ranganathan et al., 2016).

Roth, Benoit, Jansson, and Hallsgrimdottir (2017) noted that Sub-Saharan African HIV/AIDS research emphasised situating studies in locales where new sexual partnerships form and HIV transmission risk is high. The consequences of campus prostitution are dire as Poku (2017) noted that Sub-Saharan Africa was a region devastated by HIV/AIDS. In addition, in South Africa, Coetzee, Jewkes, and Gray (2017) noted that the rate of HIV in the prostitution population was exceedingly high. The above studies focused on the effects of prostitution.

According to Ampt et al. (2017), new interventions were required to reduce unintended pregnancies among female sex workers in low-and middle-income countries and to improve their nutritional health. Derby et al. (2016) noted that youth were the foundation of any society. Neglecting their sexual and reproductive health leads to high social and economic crisis. Prostitution has become a lucrative business field, for those with money and sex orientation (Irawan, et al., 2018).

In Uganda, Swahn et al. (2016) examined the prevalence of and risk factors for engaging in prostitution among youth living in Kampala, Uganda. According to the study, engaging in prostitution was associated with being female, being an orphan, ever drinking alcohol, and experiencing any rape. Stoebenau, Heise, Wamovi, and Bobrova (2016) did a historically grounded, comprehensive literature review on the nature and motivations for women's participation in prostitution in sub-Saharan Africa. According to the study, important commonalities in the structural factors that shape the three paradigms of prostitution are gender, inequality and processes of economic change.

In South Africa, those who practiced risky sexual behaviours with young people because of their socioeconomic status yet they are older than them by ten years were called blessers/blesses. Thobejane, Mulaudzi, and Zitha, (2017) noted that most undergraduate students were getting involved with “blessers” mainly for resources or material gain. The majority of the young females indicated that they wouldn’t be in a relationship with a person who doesn’t support them financially, some indicated that if they would be in a relationship with a person who does not provide for them, they would find an alternative man (blesser) who will support them financially (Thobejane et al., 2017; Mavhandu-Mudzusi, 2017; Phumla, 2016). Age desperate relationships also contributed to prostitution among undergraduate students (Jean, 2017).

The socio-economic factor in Africa is a key influence on risky sexual behaviours among undergraduate students especially enhancing campus prostitution. This contributes very much too to the young people’s vulnerability to unhealthy psychosexual practices including engaging in premarital sex with older people who are referred as ‘sponsors’ by the university students. Tenkorang and Tyndale (2008) noted that socio-economic environment that prevails in most Sub-Saharan countries encourages early sexual activity especially among females. Young females’ tendency to give in to the sexual pressures of older males is influenced by their youth and inexperience, their socialization to acquiesce to male authority and their potential economic dependence on male partners. In Kenya, both male and females undergraduate students spoke of financial pressures and motivations to engage in sex with older partners, contributing to both sugar mommy and sugar daddy relationships (Tenkorang & Tyndale, 2008).

In Ghana, Amo-Adjei, Kiumi-Kyereme, and Tuoyire (2014) discussed the research findings about female undergraduate students’ engagement in prostitution in campus by noting that young women were not simple victims, the relationships were the result of

complex and conscious choices. The young people did not want to marry the partners and were clear that these were short-term relationships primarily for material gain, which nevertheless kept secret from family and most friends for fear of stigma, particularly in blighting future marriage prospects. The youth protected themselves from emotional involvement, although they often saw the partners as loving, taking the provision of gifts as a sign of affection and sometimes a replacement for parental love.

The motivation was primarily economic, to fulfil “wants” not survival “needs” – the relationships enabled them to purchase the trappings of affluent society such as clothes, hairstyles, fast food and gadgets. The young people were also motivated by the enhanced experiences these relationships allowed, such as feeling protected, respected, part of a daring elite of women and being able to travel and continue their education. The unequal nature of the relationships in a society, in which parents, older people and men are given unquestioning respect, reduced their abilities to negotiate safe sex practices. In so far as the undergraduates practiced safer sex it was to avoid pregnancy rather than disease, believing they would be able to tell from physical signs if the partner was infected (Amo-Adjei et al., 2014).

In Kenya, Aseka (2017) reported that sex commercialization has hit universities hard more than ever before, sexual immorality, substance abuse and criminal acts have become the new nightmare among students in the local universities. In fact, academic excellence has become secondary to the vices. Whatever it takes, students will go to any length to ensure that they enjoy a luxurious lifestyle and every good thing life brings their way. ‘Sexually transmitted degrees, while a good percentage of students work hard on their academic work, others opt to take the shortcut and collude with lecturers who award them good grades in exchange for sexual favors.

Sex commercialization has hit universities hard as Oginga (2017) reported that, though some of the campus girls find themselves in sex commercialization through peer pressure and experimentation, most of them are there simply for the money. A number of female students confessed that pressure to belong to a certain class in campus by owning, among other things, several designer bags, expensive shoes, dresses and change of hairstyle at least every month is a major contributor to prostitution in the campus. Further inquiry revealed some more insight into how the girls land themselves the big guys. One has to know the girls in the business, the madams, befriend them and they will be glad to get one a hook up. It only takes a night. The following morning, depending on how good one's negotiation skills are, one may do their walk of shame back to school Sh7, 000 to Sh15, 000 richer, and a second invite secured (Oginga, 2017).

Furthermore, Oginga (2017) noted that in campuses in Nakuru, cars mostly pick students from campus on Fridays. Most refer to those who pick them up as Cousins and Uncles to seal their identity from their poor campus boyfriends. The lucrative business has also attracted university male students who play the middlemen roles of pimping the girls to willing men, who in turn award them financial tips once they deliver the girls. On a given venture, the pimps play a brother's role to the girls. The girls give him an agreed percentage from their kill. As a result, some of these students have transformed their hostel rooms into showrooms well furnished with state-of-the art music systems and TVs with fridges stocked with the best drinks money can buy (Oginga, 2017).

The Face book avenue is utilised by those who regard themselves as more private in the business of prostitution. Social media has become the way to go for the undergraduate students. The suitor tries his luck by in boxing or sending direct messages to female students, he may be interested in. In the message, he specifies his offer, noting his terms and conditions. Students from different universities identified different places as the hot

spot for transactional sex. Such places are also said to be frequented by prominent personalities ranging from those in politics, corporate to entertainment worlds, otherwise also referred to as 'heavy-spenders' by the students (Oginga, 2017).

Lowthers (2018) noted that young people are attracted to Naivasha's flower farms, which depend on a female migrant labour market that operates within a system of intense sexual-economic exchange. Mumbi and Orinda (2019) identified the demographic characteristics for female sex workers associated with uptake of HIV and AIDS combined prevention strategies in Nakuru County. The study adopted a descriptive cross-sectional research design and found that tertiary level of education, long duration in sex work increased likelihood of uptake of HIV, and AIDS combined prevention strategies. Female sex workers residing in Kibra, Kenya, experienced elevated exposure to adverse events, yet the prevalence of parental bereavement was not well characterised (Denckla et al., 2018). The above studies focused on the perceived influence of socioeconomic status on risky sexual behaviour among tertiary level students and adopted descriptive cross-sectional research design.

Ssewanvana, Mwangala, and Marsh (2017) noted a lack of research around the most common forms of sexual risk behaviours among adolescents, including their underlying factors, in Sub-Saharan Africa. The findings showed that transactional sex, early sexual entrance, coerced sex, and multiple sexual partnerships were prevalent and mostly driven by socioeconomic status. Percesepe et al. (2016) noted that early initiation of sex work was prevalent among female sex workers worldwide. Sex tourism was an aspect of socioeconomic status of prostitution among undergraduate students (Kibicho, 2016; Berman, 2017; Lorway et al., 2018; Cesnulyte, 2017). Longfield, Glick, Waithaka and Berman (2019) asserted that young women actively sought partners who were willing to spend money on them whereas men looked for partners who were well mannered, in

need of money and had certain physical attributes. Women's primary incentive for engaging in cross-generational sex was financial and material gain while men sought younger partners for sexual gratification (Longfield et al. 2019).

According to Ngunjiri (2018) risky sexual behaviours in the form of prostitution among undergraduate students in Nakuru County seems to be very lucrative because the town gets many visitors both local and foreign, coming for tourism, meetings, seminars, workshops, retreats and many other functions. He further noted that, one of the things raising the image of the lakeside is prostitution, which is thriving at an alarming rate, and sex workers operate during the day and openly. Therefore, this study sought to establish the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County.

## **2.6 Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students**

Social media refers to websites and applications that enable undergraduate students to create and share content or to participate in social networking which may contribute to pornography and cybersex hence risky sexual behaviours (Drury, 2020). Social media may influence risky sexual behaviours among undergraduate students as Irawan et al. (2018) noted that the actors who involve in the prostitution web were mostly college students. Their ability to use and apply technological results, which in the case was the internet and social media, resulted in a network of prostitution that was difficult to trace and hard to see by the common people. Prostitution through the social media was well organised and neat, complete with all the ease and practicality, by the ease of internet access itself.

In USA, numerous studies have investigated the impact of socialisation agents including social media on domestic university students' academic performance and psychological well-being, while the influence of these agents on the increasing population of international students at universities in the United States (US) remained understudied (Saha, & Karpinski, 2016). On the contrary, Freedman (2012) noted that the internet is ever-present in daily life. It has penetrated academic, work and family life, and to some degree, begun to lay foundations in shaping unique forms of human relating and attachment systems. Internet pornography and cybersex, in its expanding and varied venues, provided almost instantaneous sexual gratification often in ways one may not feel comfortable enacting in non-virtual life.

Globally, social media has been identified to influence risky sexual behaviours among young people. Coyne et al. (2019) noted that decades of research have examined the impact of exposure to non-explicit portrayals of sexual content in media. The results revealed that exposure to sexual media had a small but significant effect on both sexual attitudes and behaviours; the effect size was comparable to other media effects meta-analyses. Effects were stronger for adolescents than emerging adults. The study noted that exposure to non-explicit sexual media was associated with both sexual attitudes and behaviour, particularly during adolescence. Traeen et al. (2014) did a cross-sectional, Internet-based survey on exposure to SEM and sexual behaviour of 1,391 MSM in the United States was conducted in 2011. The results confirmed a significant association between the use of SEM picturing condom use and STI-related sexual risk behaviour among MSM was found. The study focused on the influence of sexually explicit material on risky sexual behaviours among men who have sex with men.

Social media may enhance sexting behaviour among undergraduate students. Currin et al. (2017) found that sexting was associated with negative psychological correlates and

risky sexual behaviours among non-university-based population. Analysis of individuals who indicated having vaginal or anal sex in the past 12 months and who identified as single showed that condom-less sex was independent of sexting behaviours. Results for those in committed relationships and having had vaginal or anal sex in the past 12 months also demonstrated condom-less sex and sexting behaviours were not related. The findings demonstrated that risky sexual behaviour and negative psychological correlates were associated with sexting and younger populations. The above study focused on the influence of sexting on risky sexual behaviours among non-university students.

Ouytsel et al. (2017) explored adolescents' perceptions of applications used for sexting, the motives for engaging in sexting, and the consequences they relate to sexting behaviour. The study conducted 11 same-sex focus groups among 57 adolescents (66.67% females;  $n = 38$ ) between 15 and 18 years old in Flanders, Belgium. The analysis revealed that sexting mostly occurs through Smartphone applications, such as Snap-chat, which are perceived to be a more intimate form of communication than other digital applications, such as social networking sites. The study explored on the influence of sexting among same sex adolescents.

Maas et al. (2019) observed that undergraduate students' online sexual experiences for example pornography use, sexual chatting, sexualised social media use, and nude image exchange provide a new context for sexual socialisation. In Denmark, Sumter et al. (2016) noted that social media has been enhanced by the availability of smart-phones which in turn influence cybersex. According to Marino et al. (2017), abuse of social media can lead to anxiety, stress, and depression. On the positive note, social media can be used positively to counteract cybersex as Condran et al. (2017) noted that social



media could present unique opportunities for sexual health promotion interventions that target social ecological levels beyond the intrapersonal, health promotion as a discipline.

In UK, social media has been noted to influence risky sexual behaviours including cybersex (Machimbarrena et al., 2018; Guadagno et al., 2012). In Asia, Lau et al. (2017) noted that internet use has global influence on all aspects of life and has become a growing concern contributing to risky sexual behaviours. In Australia, researchers acknowledged that social media and education level do influence risky sexual behaviours (Whyte & Torgler, 2017). Group sex events (GSEs) among heterosexuals and other groups may facilitate STI transmission by contributing to rapid partner exchange and links to high-risk partners (Scheidell et al., 2016). Brawner et al. (2015) observed that risky sexual behaviour accounts for the majority of new HIV infections regardless of gender, age, geographic location, or ethnicity.

In Asia, social media has also been noted to influence risky sexual behaviours including group sex. China was noted to be amidst a sexual revolution, with changing sexual practices and behaviours. Sex-seeking mobile phone applications (gay apps) that allowed multiple people to meet up quickly may facilitate group sex (Tang et al., 2016). The researchers evaluated group sex among Chinese MSM to better understand factors associated with group sex. Among gay app users, the likelihood of group sex increased with the number of sex partners and the number of sex acts with partners met through a gay app. Chinese MSM who engaged in-group sex was also more likely to engage in other risky sexual behaviours, and gay app use may facilitate group sex (Tang et al., 2016). Young et al. (2018) noted that online social networking sites (SNS) the Internet-based platforms that enable connection and communication between users were increasingly salient social environments for young adults and, consequently, offer tremendous opportunity for HIV behavioural research and intervention among vulnerable

populations like young men who have sex with men even in-group sex. The studies focused on gay apps that influence risky sexual behaviour.

In Africa, some research has been done on the influence of social media on risky sexual behaviours (Abdullahi & Abdulquadri, 2018; Audu et al., 2017). Adebayo and Ojedokun (2018) noted that cyber pornography was fast gaining ground in the Nigerian cyber environment with undergraduate students among its major consumers. In Uganda, Kemigisha et al. (2018) noted that majority (85%) of youth reported accessing SRH information in the media with 35% reporting accessing media with sexual content. Media remains an important source of information for SRH for this age group though it may be misused as some adolescents reported accessing sexual content that may be inappropriate. A large proportion of sexually active youth reported sexual risky behaviours. The study highlighted the need for an accurate and more comprehensive SRH education approach for youth in Uganda at an opportune age before the majority engages in sexual behaviour.

In Ethiopia, Akibu et al. (2017) noted that adolescents are susceptible to different social, peer and cultural pressures that drive them into earlier sexual experimentation. Being Male, watching pornography and High academic performance were the factors significantly associated with premarital sexual practice. The study revealed that more than half of the participants were sexually active. Watching pornography through social media was one of the predictors of premarital sexual practice.

In Kenya, social media has been identified to influence risky sexual behaviour (Wamathai et al., 2014). Wanjiku (2018) noted that the country has experienced an increase in proliferation of modern communication technology due to the affordability, easy availability and accessibility of gadgets such as computers and internet enabled

mobile phones that have brought negative impact of proliferation of non-consensual pornography on the social media platforms. The study identified the influence of modern technology on pornography. These studies indicate the importance of psycho educating undergraduate students on the proper use of social media in order to curb risky sexual behaviours. This study therefore, sought to assess the influence of social media on risky sexual behaviours among undergraduate students in main campuses in Nakuru County.

## **2.7 Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students**

Substance abuse involves the chronic use of alcohol and drugs including marijuana, cocaine and heroin, which can result in risky sexual behaviours among undergraduate students (Buddy, 2019). Globally, substance abuse has been noted to influence risky sexual behaviours among undergraduate students (Owczarzak, Phillips, & Cho, 2018). In USA, Rice et al. (2016) evaluated the direct relation between group sex and prevalent sexually transmitted infections (STI) in a cross-sectional study of men who have sex with men (MSM) presenting at an urban STI clinic in the Midwestern US among 231 men who enrolled and reported that they had sex with men and found that recent drug use and participation in group sex was associated with prevalent gonorrhoea infection. Alcohol and drug abuse has been found to influence risky sexual behaviours among undergraduate students (Moret et al., 2016; Wagenaar et al., 2018; Jackson, Seth, DiClemente & Lin, 2015; Rios-Zertuche et al. 2017; Wang, Lui, Vega, Waldrop, & Garris, 2018; Banks, 2016; Neilson, Gilmore, & Pinsky, 2015; Sutarso et al., 2016; Shorey et al., 2015; Schmiege & Brayan, 2016; Wirtz et al., 2016). The studies evaluated the influence of alcohol and drugs abuse on risky sexual behaviours among young people while this study focused on the influence of substance abuse on risky sexual behaviours among undergraduate students in main campuses in Nakuru County.

In Canada, Thompson et al. (2016) found that substance use predicted unprotected sex and four or more collaborators but did not mediate the effects of maltreatment. Ritchwood et al. (2015) found that substance use is more strongly related to risky sex among females than males. Ethnicity moderated the relationship between substance use and risky sex. Kuperberg and Padgett (2017) analysed a sample of 12,065 hook-up encounters among college students at 22 colleges and universities in the Online College Social Life Survey to explore how partner-meeting locales may influence college students' risky behaviour when hook-up partners are met in those contexts. For other-sex encounters, meeting in bars or at parties, through common interest groups or history, and at dormitories was associated with binge drinking during encounters, while meeting online and in public was associated with reduced binge drinking during encounters.

In Africa, Osman et al. (2016) noted that youth populations are vulnerable to substance use particularly in developing countries where circumstances may be favourable for it. The overall prevalence of substance use was 31%. The prevalence of tobacco, cannabis, alcohol, amphetamines, tranquilisers, inhalants, opiates, cocaine, and heroin use was 13.7%, 4.9%, 2.7%, 2.4%, 3.2%, 1%, 1.2%, 0.7%, and 0.5%, respectively. Curiosity (33.1%) was the main reason for initiation of substance use. The main adverse effects reported were health problems including risky sexual behaviours (19.7%) and theft (19.7%). Peers (40.9%) were the prime source of substance use. On multivariate analysis, male sex was the principle predictor for substance use. Strategies to control substance use were recommended to encompass the role of the university and parents in observing and providing education to improve awareness of substances and their consequences. According to researchers, binge drinking and marijuana use during or just prior to encounters was associated with an increased risk of unprotected sex and other substance use. Marijuana use and unprotected sex during encounters was more common

when students knew their hook-up partner better or had hooked up with the partner before, while binge drinking was associated with hooking up with less familiar partners (Kuperberg, & Padgett, 2017, Metrik et al., 2016).

In Nigeria, Dumbili (2019) asserted that alcohol-related problems are increasing among Nigerian University students. However, very few studies have explored the ways in which hazardous drinking practices facilitate these problems in Nigerian University students, aside from quantitative studies focusing on students in South-Western Nigeria. The findings showed that 24 out of 31 participants engaged in heavy drinking by consuming between 3 and 9 bottles of beer or flavoured spirits regularly. The heavy drinkers have suffered financial, academic, and health problems including risky sexual behaviour of having unprotected sex with strangers.

Teferra et al. (2015) noted that several studies in Sub-Saharan Africa have documented high and increasing premarital sexual activities among young people and found that alcohol use, boarding, sex, educational level and discussion about sexuality were significantly associated with premarital sexual intercourses and recommended the need to step up reproductive health club at the university to bring behaviour change among the students in order to detain the usual consequences of premarital sexual practices and risky sexual behaviour. Poliah and Paruk (2017) attributed alcohol and substance use and family background to risky sexual behaviour and asserted that sex work was a high-risk occupation for mental health problems as sex workers were vulnerable to high rates of violence, sexual coercion, stigma and HIV. In Ethiopia, alcohol and drug abuse was identified to influence risky sexual behaviour (Abate et al., 2018).

In Kenya, Mangeni, and Mbuthia (2018) noted that substance abuse among university students was a major public health concern and drugs such as tobacco and alcohol were

widely and easily available in the universities. Colleges therefore form the main locus of substance abuse, with more than 40% of students already affected. According to the study, the main substance commonly used and abused among students in the college of Health Sciences was alcohol. Other substances included; cigarettes, miraa and cannabis. More males (56.8%) than females (43.2%) drink alcohol. There was a strong association between alcohol use and engagement in risky sexual behaviour. Othieno et al. (2015) noted that younger age, being female; tobacco use and previous diagnosis of STI were significantly associated with inconsistent condom use.

In Nakuru, Boit (2016) noted that, the main objective of higher institutions of learning in Kenya was to provide education and growth experiences for its students but alcohol abuse had continued to be a problem in the university campuses that was slowing down their progress and the Kenya vision 2030 that envisages a healthy population free from the impact of alcohol abuse through the reduction of the prevalence and the impact of alcohol abuse disorders in order to attain the highest possible level of physical, social and mental health. The study determined the prevalence of alcohol abuse among the Egerton University students. This was a cross sectional study which investigated the prevalence of alcohol abuse among 355 students. The study found out that the prevalence of alcohol abuse among students was 21.1 %. The study found significant association between the prevalence of alcohol abuse and the year of study, marital status, family's economic status and the living arrangements. The study above investigated the prevalence of alcohol abuse among undergraduate students and a cross sectional approach was applied. This study explored the perceived influence of substance abuse on risky sexual behaviours among undergraduate students in main campuses in Nakuru County.

## **2.8 The Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students**

According to the American Counseling Association (2019), counseling is defined as, “a professional relationship that empowers diverse individuals, families, and groups to accomplish mental health, wellness, education, and career goals.” Therefore, in the context of this study, counseling services refers to a variety of programs offered by student counsellors to the undergraduate students including psycho-education programs, counselling awareness programs, counselling outreach, therapeutic intervention programs, and referral services in order to curb risky sexual behaviours. All persons, both adults and students in developed and developing countries (Wango, 2015), experience the complexities and challenges of everyday living. In addition, there are increasing social, economic, personal and even educational challenges including risky sexual behaviour in the modern society among young people of both sexes (Wango, 2015). Sexual behaviour among female university students has gradually changed during the last 25 years and behaviour appears riskier today, as this may have consequences on future reproductive health, it is vital to inform women about consistent and correct condom use and about the limitations of the fertile window (Stenhammar et al., 2015). University life is associated with experience of significant stressors for students that include stress experienced by new life of transiting into a university life (Agunbiade, & Aransiola, 2016). Triggers to these stress factors can be linked to increased academic demands, constrained finances, lack of employment and personal relationships (Agunbiade, & Aransiola, 2016).

In mitigation of risky sexual behaviour, most universities including those in Kenya offer social support to students in form of counselling, financial assistance, health and academic. The provision of counselling services is thought to increase the likelihood of

students continuing with their courses when they manage their sexual behaviour. Thus, counselling is a significant service for university students (Commission for University Education, 2015; Cuhadaroglu, 2017; Mwangi, Ngure, Thiga, & Ngure, 2014). In light of importance attached to counselling in the Kenyan Universities the Commission for University Education (2015) included counselling as an essential service that must be provided to students in higher education as a condition for accreditation of an institution. Therefore, there is need to step up reproductive health club and counselling services in universities to bring sexual behaviour change among the students in order to detain the usual consequences of premarital sexual practices and risky sexual behaviours (Teferra et al., 2015).

On the contrary, some findings found that sex education and counselling services might not cause any sexual behaviour changes (Bastien, Kajula, & Muhwezi, 2011). To deal with risky sexual behaviour, effective utilisation of counselling services needs to be based on a complete understanding and acceptance of students' experiences. The undergraduate students search, quite ardently for values that would give meaning to life after training. According to Mutie and Ndambuki (2004), counselling services are not only crucial for those students who deviate from the norms but also for all undergraduate students including those who experience sexual behaviour challenges. The students may seek counselling services individually or in groups in order to adjust to different situations and make appropriate decisions in life. The problems often encountered by the undergraduate students including sexual behaviour issues, academics, interpersonal relationships, family problems, financial challenges, self-identity issues, feelings of loneliness, low self-esteem and anxiety or depression (Sikolia,& Lutomia, 2002). The above studies focused on the need of counselling services to deal with psychosocial challenges in general, while this study sought to identify the mediating role of



counselling services in mitigating risky sexual behaviours among undergraduate students in the main campuses in Nakuru County.

In Europe, Denno, Hoopes, and Chandra-Mouli (2015) noted that access to youth friendly health services is vital for ensuring sexual reproductive health (SRH), well-being of young people, and packages of interventions that train health workers, improve facility adolescent friendliness, and endeavour to generate demand through multiple channels ready for large-scale implementation. Svanemyr, Amin, Robles, and Greene (2015) provided a conceptual framework and pointed out the key elements for creating enabling environments for sexual and reproductive health (ASRH). An ecological framework was applied to organise the key elements of enabling environments for ASRH. At the individual level, strategies that were being implemented and seemed promising were those that empower girls, build their individual assets, and create safe spaces. At the relationship level, strategies that were being implemented and seemed promising included efforts to build parental support and communication as well as peer support networks. At the community level, strategies to engage men and boys and the wider community to transform gender and other social norms were being tested and may hold promise. Finally, at the broadest societal level, efforts to promote laws and policies that protect and promote human rights and address societal awareness about ASRH issues, including through mass media approaches, needed to be considered (Svanemyr et al., 2015; Haberland, & Rogow, 2015; Cordova-Pozo et al., 2015; O'Connor et al., 2014).

Kilwein, Kern, and Looby (2017) observed that alcohol-related risky sexual behaviours are common among college students. Findings suggested that interventions utilising reminder cues or motivational interviewing-based techniques were largely found to be effective in increasing condom use behaviours among intoxicated individuals, while

support for personalised normative feedback for the same outcome was mixed. However, PNF interventions were generally effective in reducing alcohol use in conjunction with sex. Lewis et al. (2014) evaluated the efficacy of personalised normative feedback on college student alcohol-related risky sexual behaviour. The findings demonstrated that the combined alcohol and alcohol-related RSB intervention was the only intervention successful at reducing both drinking and alcohol-related RSB outcomes relative to control. The study highlighted the potential utility of a brief intervention that can be delivered via the Internet to reduce high-risk drinking and alcohol-related RSB among college students.

In Asia, Li et al. (2017) noted that a growing prevalence of unexpected pregnancies and younger age of sexual debut is observed among Chinese young people, while they lack formal sexuality education from schools and parents. Among the sexually experienced students ( $n = 3639$ , 20.2%), both males and females with higher SRH knowledge were less likely to report having experience of (partner's) pregnancy or abortion. Choi et al. (2016) in a study found a robust association between using dating apps and sexual risk behaviours, suggesting that app users had greater sexual risks and recommended interventions that can target app users so that they can stay safe when seeking sexual partners through dating apps.

In Africa, the role of counselling services among undergraduate students to mitigate risky sexual behaviours has been emphasized. Muchabaiwa and Mbonigaba (2019) noted that poor reproductive health among youth and adolescents threatens their future health and economic wellbeing in Zimbabwe amidst a high HIV/AIDS prevalence. The study found that the ASRH strategy increased HIV testing amongst youth by 36.6%, whilst treatment of STIs also increased by 30.4%, and found that the HIV prevalence trajectory was reduced by 0.7%. The findings also suggested that although HIV testing increased

for all socio-economic groups that were investigated, the effect was not the same. The study recommended improvement of the strategy's coordination and monitoring, as well as aligning and enforcing government policies that promote sexual and reproductive health rights.

In Ethiopia, Tesfaye et al. (2019) noted that Risky Sexual Behaviours (RSB) and depression symptoms expose young people to various reproductive health problems including sexually transmitted infections and HIV/AIDS. To help students overcome the challenges, recommendation was given for concerted action from the university, governmental and NGO, and the surrounding community to establish support services and various reproductive and mental health awareness programs within the campus (Tefaye et al., 2019, Adere et al., 2017). Woldeyohannes et al. (2017) assessed risky HIV sexual behaviours and utilisation of voluntary counselling and testing services among undergraduate students at Addis Ababa Science and Technology University, Ethiopia. Among the study participants, 161 (26.8%) had sexual contact and the mean age of first sexual encounter was 17.4 (SD =2.3) years. About 443 (76%) of students knew that condoms can prevent Sexually Transmitted Infections (STIs). Among sexually active students, 74 (46%) had not used condom during first time sex. Among those responded, 488 (83.4%) had heard information about VCT; however, 52% had not ever used VCT service.

In Nigeria, Adeyeye, Bello and Gbadamosi (2016) noted that sex workers are heightened risk of HIV/AIDS because of their risky sexual behaviour. Findings showed a high prevalence of risky behaviour with about two-third (65.3%) consumed alcohol and 42% sometimes engaged in unprotected sex. Majority (86%) had gone for HIV testing prior to the survey but only seven in every ten went for HCT within six months prior to the study. Ikechukwu-Ilomuanya, Onyechi, and Iwuagwu (2018) examined youth advertising

as a promoter of counselling against prostitution among undergraduates of tertiary institutions in Nigeria. The study found that youth advertising counselling intervention was a promising venture in the war against prostitution among female undergraduates of tertiary institution in Nigeria. In Ghana, Asante et al. (2016) recommended that behavioural change campaigns targeting university students should encourage condom use self-efficacy, as this would strengthen condom use, which is economically cheap and practically effective means of preventing STIs including HIV. The study concentrated on the undergraduate's condom use self-efficacy.

In Kenya, Mbugua, and Karonjo (2018) noted that reproductive health knowledge is vital in the growth and development of young people and this impact greatly on their educational and personal outcome as they proceed to adulthood and there was an increasing occurrence of sexually transmitted infections in institutions of higher learning. The study sought out the strategies used by university students to prevent unplanned pregnancy and determined their knowledge of contraception methods and sexually transmitted infections in Mount Kenya University, main campus. Stratified sampling was employed. Condom use was established as the most prevalent strategy in prevention of unplanned pregnancy at 48.5 and 46.4% in prevention of STI and HIV/AIDS. Almost two thirds (58%) of respondents reported that they were conversant with only one method of contraception, 60% had knowledge of more than two types of STIs, and 62.4% indicated that they were conversant with only hospitals as facilities providing reproductive health services (Mbugua, & Karonjo, 2018). The above study concentrated on the undergraduate's knowledge of contraception methods and sexually transmitted diseases.

Young people in college require educational initiatives to sensitise them on STI, methods of contraception and positive social behaviours and there is need to improve the

accessibility of reproductive health services through strengthening of services provided at campus health clinics (Mbugua, & Karonjo, 2018). Njeri (2016) noted that high risk sexual behaviour and its consequences among university students continues to be a serious concern for learning institutions, parents, researchers and policy makers. This concern has been marked by the increased number of reproductive health interventions worldwide aimed at ensuring young adults have access to reproductive health information and services.

A number of Universities have developed policies and set up programs to curb student high-risk sexual behaviour. However, this has not resulted in a decrease in high-risk sexual behaviour among students. In addition, there was scarcity of literature on studies assessing students' uptake of reproductive health interventions in Kenyan universities (Njeri, 2016). Research findings showed that 44.4% of the students' had utilised the available reproductive health services in Kenyatta University and Chi square results revealed significant relationships between uptake of reproductive health services and students attitude to abstinence till marriage, attitude in condom use, maintenance of confidentiality, friendly service providers, students engagement in inconsistent condom use, multiple sexual partners, sex under influence of alcohol and sex for favour (Njeri, 2016).

Njeri (2016) concluded that students' engagement in high risk sexual behaviour and their attitudes towards service provision influenced uptake of reproductive health services whereas students' social demographic characteristics and their awareness of high-risk sexual behaviour practices did not influence uptake of reproductive health services. The study recommended reengineering of the way students are sensitised of about reproductive health services. Such strategies would include use of social networks, increasing number of student peer counsellors and provision of information on available

reproductive health services during students' admission. It was envisaged that these strategies would increase students' awareness and uptake of reproductive health services (Njeri, 2016). Kabiru and Orpinas (2008) suggested that youth might benefit from sex education programs addressing multiple factors that may predispose youth to sexual activity, and that take into account gender differences. In Kilifi, a study on young people's risky sexual behaviour showed that transactional sex, early sexual entrance, coerced sex, and multiple sexual partnerships were prevalent, and an urgent need existed to develop measures to counter sexual risk behaviours. The results contributed to understanding the range of risks and protective factors in differing contexts, tackling underlying issues at individual, family, local institutional, wider socio-economic, and political levels (Ssewanyana et al., 2018).

Nydegger et al. (2017) noted that it was essential for researchers and public health practitioners to create programs for female adolescents to reduce or avoid risky situations, such as inability to negotiate condom use with older sex partners and that programs must be developed for both female and male gang members to help them understand and identify unequal gender norms, and interpersonal and sexual coercion.

In Nakuru, Ayugi, Cheruiyot, Opondo, and Oloshore (2017) noted that voluntary HIV counselling and testing (VCT) is one of the key tools in the HIV/AIDS prevention and control programs in Kenya. Nevertheless, utilisation of VCT services among out of school youth is low. The study investigated health service-related factors associated with VCT utilisation among out of school youth in a rural setting since though they are a risk group in Kenya, they are less likely than other groups to be offered this service. A cross sectional study design was done among 369 out of school youth aged 18-35 drawn from three rural divisions of Nakuru County, Kenya, using proportionate and purposive sampling technique. The study sample consisted of 56.1% males and 43.9% females and

the mean age for those who had utilised VCT was 24 for men and 23 for females. The majority of the out-of- school youth (62.6%) had not utilised VCT. Poor utilisation of VCT services was found to be associated with perception of quality of VCT services. It was shown that VCT utilisation was significantly associated with competence of VCT counsellors and youth friendliness of the services.

Pauline, Migosi, and Mwanja, (2013) noted that risky sexual practices are rampant among young people in Kenya. The study sought to assess the levels of awareness and perceptions of condom use among secondary school students in the prevention of STDs in Bahati division of Nakuru North District, Kenya. One of the findings was that the students expected the Guidance and Counselling departments in their schools to play an assertive role in creating awareness on sexuality issues affecting them. Following the finding, the study recommended that the Guidance and Counselling programme be strengthened in the schools to enhance the awareness of sexual behaviour and its related consequences. These studies show that counselling services should be enhanced in universities in order to mitigate risky sexual behaviours among undergraduate students.

## **2.9 Theoretical Framework**

This study was guided by three theories that support and complement each other. The theories were as follows: Social Learning theory advocated by Albert Bandura, Social Exchange Theory by George Homans, and Person-Centred Theory by Carl Rogers, which have been discussed extensively in this section.

### **2.9.1 Social Learning Theory by Albert Bandura**

The study was guided by social learning theory advocated by Albert Bandura (1973-1983) with its principle of modelling. This theory assisted the researcher to understand and explain about the influence of perceived psychosocial factors on risky sexual behaviours among undergraduate students with special reference to Egerton and Kabarak

main campuses in Nakuru County. Bandura is credited with the great contribution to the study of observational learning. Social learning theory is a theory of learning and social behaviour, which proposes that new behaviours can be acquired by observing and imitating others (Bandura, 1973). It states that learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instruction, even in the absence of motor reproduction or direct reinforcement. In addition to the observation of behaviour, learning also occurs through the observation of rewards and punishments, a process known as vicarious reinforcement. When a particular behaviour is rewarded regularly, it will most likely persist; conversely, if a particular behaviour is constantly punished, it will most likely desist. The theory expands on traditional behavioural theories in which behaviour is governed solely by reinforcements, by placing emphasis on the important roles of various internal processes in the learning individual (Bandura, 1973).

Social learning theory incorporates the idea of behaviour reinforcement and cognitive processes such as attention, motivation and memory. Social learning is essentially an explanation of how people learn when they are in social contexts. Bandura's intention was to explain how children learn in social environments by observing and then imitating the behaviour of others. Through a series of experiments, Bandura watched children as they observed adults attacking Bobo Dolls. When hit, the dolls fell over and they bounced back up again, the children were then let loose, and imitated the aggressive behaviour of the adults. However, when they observed adults acting aggressively and then being punished, Bandura noted that the children were less willing to imitate the aggressive behaviour themselves (Bandura, 1973). Therefore, the same thing applies to sexual behaviour among the young people; they learn and imitate others in sexual behaviour.



Bandura (1973) formulated four principles of social learning: first, attention. People cannot learn if not focused on the task. If people see something as being new or different in some way, people are more likely to make it the focus of their attention. Social contexts help to reinforce these perceptions, secondly, Retention-people learn by internalising information in their memories. People recall that information later when they are required to respond to a situation that is similar the attention within which they first learned the information, thirdly, reproduction, people reproduce previously learned information (behaviour, skills, knowledge) when required, including learned sexual behaviours. However, practice through mental and physical rehearsal often improves their responses, and fourthly, motivation; people need to be motivated to do anything. Often that motivation originates from observation of someone else being rewarded or punished for something done or said. This often motivates people later to do, or avoid doing, the same thing (Bandura, 1973).

Social modelling is a very powerful method of learning. If the undergraduate students see positive consequences from a particular type of behaviour, they are more likely to repeat that behaviour themselves. Conversely, if negative consequences are the result, the young people are less likely to perform that behaviour. New and unique contexts often capture the youth's attention and can stand out in the memory. The undergraduate students are more motivated to pay attention if they see others around them also paying attention. This theory also encourages the young people to develop individual self-efficacy through confidence building and constructive feedback, a concept that is well rooted in social learning theory (Bandura, 1973).

It is against this background, therefore, that the researcher recognises that Bandura's theory of social learning is critical for the comprehension of the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students.

In this study, the selected psychosocial factors are self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse. The present study filled this knowledge gap created by specifically investigating the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. The social learning theory supports this study and therefore was used for the study.

Social learning theory has got a good number of strengths and few weaknesses. The strengths are as follows: it easily handles inconsistencies in behaviour, optimistic, it gives an accurate picture explaining how behaviour is learned including risky sexual behaviours, it offers away to integrate social and cognitive theories, it allows and accounts for cognitive processes, it explains a large number of behaviours, and finally, it is accurate and easy to understand. The few weaknesses of social learning theory is that it is too heavy of an emphasis on what happens instead of what the observer does with what happens and it does not take into account the physical and mental changes, and it does not take in account that what one person views as punishment, another person may view as a reward. Therefore, to reinforce social learning theory, the researcher used social exchange theory that deals with the present and helps the clients achieve their highest potential as discussed below.

### **2.9.2 Social Exchange Theory by George Homans**

Social exchange theory proposes that social behavior is the result of an exchange process. The purpose of this exchange is to maximize benefits and minimize costs. According to this theory, developed by sociologist George Homans, people weigh the potential benefits and risks of social relationships. When the risks outweigh the rewards, people will terminate or abandon that relationship (Cherry, 2020). Most relationships are made up of a certain amount of give-and-take, but this does not mean that they are always equal. Social exchange suggests that it is the valuing of the benefits and costs of

each relationship that determine whether or not one chooses to continue a social association (Cherry, 2020). Social exchange theory has got four aspects: costs vs. benefits, expectations and comparison levels, evaluation of possible alternatives, and honeymoon aspect.

In the first aspect, social exchange theory emphasizes costs vs. benefits. Costs involve things that one see as negatives such as having to put money, time, and effort into a relationship. The benefits are things that one gets out of the relationship such as fun, friendship, companionship, and social support including sexual relationships, which may contribute to risky sexual behaviors among undergraduate students. Social exchange theory suggests that undergraduate students essentially take the benefits and subtract the costs in order to determine how much a relationship is worth. Positive relationships are those in which the benefits outweigh the costs while negative relationships occur when the costs are greater than the benefits (Cherry, 2020).

In the second aspect, social exchange theory stresses expectations and comparison levels. Cost-benefit analysis plays a major role in the social exchange process, but so do expectations. As people weigh benefits against the costs, they do so by establishing a comparison level that is often influenced by past experiences (Cherry, 2020). For example, if the undergraduate students' previous romantic partners showered them with displays of affection, their comparison level for their next relationship is going to be quite high when it comes to affection. If their next romantic partner tends to be more reserved and less emotional, that person might not measure up to their expectations.

In the third aspect, social exchange process involves looking at the possible alternatives, in that after analyzing the costs and benefits and contrasting these against ones comparison levels, one might start to look at possible alternatives (Cherry, 2020). The

relationship might not measure up to undergraduate's comparison levels, but as they survey the potential alternatives, they might determine that the relationship is still better than anything else that is available. As a result, they might go back and reassess the relationship in terms of what may now be a somewhat lower comparison level.

Final aspect is the honeymoon phase that the length of friendship or romance plays a role in the social exchange process. During the early weeks or months of a relationship, often referred to as the "honeymoon phase," people are more likely to ignore the social exchange balance. Things that would normally be viewed as high cost are dismissed, ignored, or minimized, while potential benefits are often exaggerated (Cherry, 2020). When this honeymoon period finally ends, there will often be a gradual evaluation of the exchange balance. Downsides will become more apparent and benefits will start to be seen more realistically. This recalibration of the exchange balance might also lead to the termination of the relationship if the balance is tipped too far toward the negative side (Cherry, 2020). This theory helped to understand the reasons undergraduate students engage in risky sexual behaviors.

The strengths of social exchange theory are as follows: First, the theory is simple, allowing most people to understand its general assumptions and relate to them. Secondly, although seen as a weakness by many critics of the theory, the economical approach to relationships can help get to the bottom line very quickly. If the costs are outweighing the benefits or if a comparable alternative is available, then it's time to terminate. Thirdly, this theory helps to explain many relationship issues, such as a failed relationship. Based on the assumptions of the theory, one of the main reasons a relationship fails is because the costs for at least one person are outweighing the benefits. Lastly, when a person becomes knowledgeable of this theory, he or she can work

towards having more balanced relationships. This knowledge can also provide awareness of what one's own costs are to other people (Miller, 2005).

The weaknesses of social exchange theory are as follows: Firstly, some people might view the theory's mathematical model as a heartless, generalized method for interpreting human interaction. Secondly, the theory assumes that the ultimate goal of a relationship is intimacy when this might not always be the case. Lastly, this theory places relationships in a linear structure, when some relationships might skip steps or go backwards in terms of intimacy (Miller, 2005). Therefore, to compliment social exchange theory, the researcher used person centred theory that deals with the present and help the clients achieve their highest potential.

### **2.9.3 Person Centred Theory by Carl Rogers**

Person centred theory is one of the humanistic theories. Humanistic therapists care most about the present and helping their clients achieve their highest potential. Instead of energy spent on the past or on negative behaviours, humanists believe in the goodness of all people and emphasise a person's self-growth and self-actualisation (LoPiccolo, & Miller, 1975). Humanistic theories include client-centred, gestalt, and existential therapies. Carl Rogers developed person centred theory, which focuses on the belief that clients control their own destinies. He believed that all therapists need to do is show their genuine care and interest. The basic assumptions of person-centred theory are that people are essentially trustworthy, that they have a vast potential for understanding themselves and resolving their own problems without direct intervention on the therapists' part, and they are capable of self-directed growth if they are involved in a specific kind of therapeutic relationship.

The 'self' is a central construct in this theory and it develops through interactions with others and involves awareness of being and functioning (Rogers, 1959). For the undergraduate students facing risky sexual behaviours, the significant others in their lives include parents, peers, counsellors, lecturers and administrators. If undergraduate students facing risky sexual behaviours are given proper attention and counselling services, would value and be motivated to direct their lives. This in turn would lead to developing a high self-esteem, a positive concept of personal growth and self-acceptance.

According to Rogers (1986), when people are provided with a growth-producing climate, they are helped to develop their capacities, and stimulate constructive change in others. Individuals are empowered, and they are able to use this power for personal and social transformation. Rogers (1986) firmly maintained that people are trustworthy, resourceful, capable of self-understanding and self-direction, able to make constructive changes, and able to live effective and productive lives. Through offering of counselling services, counsellors can assist in developing best environment for undergraduate students facing risky sexual behaviours, and this will go a long way in improving their personal lives, and their interpersonal relationships.

Rogers (1959) maintained that three therapist attributes create a growth promoting climate in which individuals can move forward and become what they are capable of becoming. These include congruence, unconditional positive regard and an accurate empathic understanding. Corey (2009) noted that through the therapist's attitude of genuine caring, respect, acceptance, support and understanding, clients are able to loosen their defences and rigid perceptions and move to a higher level of personal functioning. The student counsellors ought to play the role of a facilitator. Through this, the

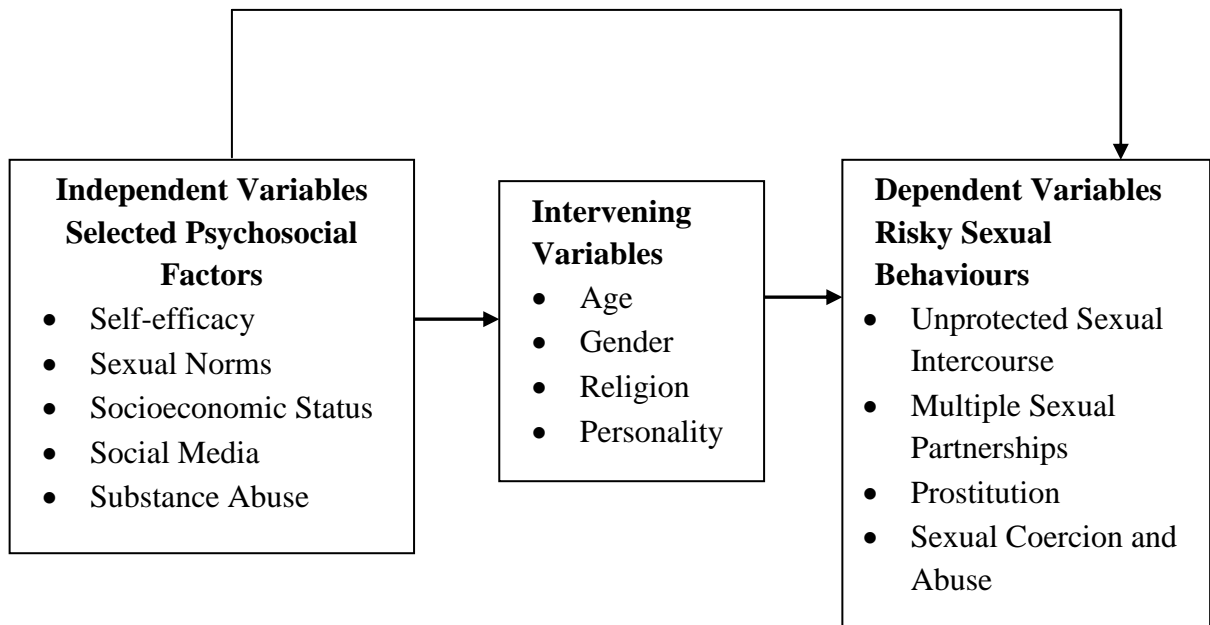
undergraduate students facing risky sexual behaviours will start to change and stop feeling guilty for their sexual behaviour.

A significant strength of person-centred theory is the goal of attainment of healthy and positive sexual relationships. This is consistent with the general approach behind humanistic psychology that humans are fundamentally good and healthy, rather than driven by impulses. It is also considered to be humane. There is no use of drugs or electro-convulsive therapy.

Individuals must be agreeable to participating in the therapy. They cannot be forced to take part. According to Pescitelli (1996) person-centred theory can be applied to everyday life since it focuses on the whole individual being able to overcome damages afflicted and become whole. Undergraduate students can be offered counselling help to overcome challenges related to risky sexual behaviours because of psychosocial factors. However, Pescitelli (1996) pointed out that some of the major weaknesses of person-centred theory are that it does not sufficiently address the stages of development, also only deals with the conscious, and ignores the unconscious, which also contribute to personality development. This calls for the student counsellors to integrate other counselling theories such as psychoanalysis that would help in getting to the underlying issues that might not be manifested in the behaviour of their clients. Therefore, person-centred theory is useful because of its more strengths than weaknesses in dealing with risky sexual behaviours among undergraduate students.

## 2.10 Conceptual Framework

Figure 1 indicates the conceptual framework of the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students.



**Figure 1: Relationship between the perceived influence of selected psychosocial factors and risky sexual behaviours**

Conceptual framework is a research tool, which assists the researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. The tool increasingly strengthens and keeps the research on track (Emil, 2004). The conceptual framework shows the independent variables that are the following selected psychosocial factors: self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse, whereas the dependent variables are the following risky sexual behaviours: unprotected sexual intercourse, multiple sexual partnership, prostitution, sexual coercion and abuse among undergraduate students. The Intervening variables affect both the undergraduate students' perception of the influence of selected psychosocial factors and risky sexual behaviours. The intervening variables include age, gender, religious affiliation, and personality. Students' age determines how they make



decisions in dealing with risky sexual behaviours, if they are introduced to sex at an early age; they are likely to experience the consequences of risky sexual behaviours. Different ages among the students could have diverse perspectives of experiences in campus that affect their sexual behaviour. Gender of undergraduate students, whether male or female, affects their decision on risky sexual behaviours. For instance, studies have shown that men tend to have more permissive attitudes about casual sex and engage in more high risk sexual behaviours than their female counterparts. Females tend to have different causes and major consequences for engaging in high risk sexual behaviours than do men. Religious affiliation of the students also influences how they deal with risky sexual behaviours. Varying religious affiliations among the students could have diverse perspectives of experiences in campus that may affect their sexual behaviour. Religion greatly influences sexual reproductive health as it may influence the knowledge, attitude and practices related to sexual behaviours among undergraduate students. Furthermore, personality of students determines how they deal with the risky sexual behaviours i.e. whether they are introverts or extraverts or ambivalent.

## **CHAPTER THREE**

### **RESEARCH DESIGN AND METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses the procedure that was used to attain the objectives of the study. The methodology used to investigate the perceived influence of selected psychosocial factors on risky sexual behaviours among the undergraduate students in Egerton and Kabarak main campuses in Nakuru County, Kenya was discussed. This chapter also covers the research design, research philosophy, location of the study, target population, sample and sampling procedures. The other areas, which are discussed, are research instruments, data collection procedure, data analysis procedure and ethical considerations. The description of research methods and procedures used to achieve the purpose of the study has been divided into seven sections as follows:

#### **3.2 Research Design**

The researcher applied correlational research design. Correlational research is a type of non-experimental research in which the researcher measures two variables and assesses the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables (Kalla, 2011). The reason why the researcher chose correlational research design is the statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible, impractical, or unethical (Kalla, 2011). The design was relevant to the study because the researcher investigated the opinions of the respondents on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County. In addition, as explained by Gall, Borg and Gall (1996), in this approach the researcher does not manipulate the variables under study but instead examines the variables in their existing

condition. Therefore, the researcher conducted the study within the existing undergraduate students' perceived influence of psychosocial factors on risky sexual behaviours. This was the arrangement of conditions for collection and analysis of data in a way that combined their relationship with the purpose of the research to the economy of procedures. The researcher used a conceptual framework to represent the problem of the study (Ogula, 1998).

In summary, this study used a correlational research design to obtain both quantitative and qualitative data at one point in time from participating undergraduate students, peer counsellors, and student counsellors in the main campuses in Nakuru County, Kenya.

### **3.3 Research Philosophy**

A research philosophy is a belief about the way in which data about a phenomenon should be gathered, analysed and used (Saunders, Lewis, & Thornhill, 2009). There are four main trends of research philosophy: the positivist research philosophy, interpretivist research philosophy, pragmatist research philosophy, and realistic research philosophy (Žukauskas, 2018). The researcher adopted positivist research philosophy. Positivism is a philosophical theory stating that certain (“positive”) knowledge is based on natural phenomena and their properties and relations. Positivism holds that valid knowledge (certitude or truth) is found only in this a posteriori knowledge. Positivist researcher might use existing theory to develop hypotheses. These hypotheses would be tested and confirmed, in whole or part, or refuted, leading to the further development of theory, which then may be tested by further research. However, this does not mean that, as a positivist, one may necessarily have to start with existing theory (Saunders et al., 2009). Positivist would also try to remain neutral and detached from research and data in order to avoid influencing findings. This means that one would undertake research, as far as possible, in a value-free way. For positivists, this is acceptable position, because of the

measurable, quantifiable data that they collect. They claim to be external to the process of data collection as there is little that can be done to alter the substance of the data collected (Saunders et al., 2009).

Therefore, the researcher in this current study undertook research as far as possible in a value-free way because of the measurable, quantifiable data that was collected and was external to the process of data collection as there was little that could be done to alter the substance of the data collected. Furthermore, the researcher tried as much as possible to remain neutral and detached from research and data in order to avoid influencing the findings.

### **3.4 Location of the Study**

The location of the study was Nakuru County where undergraduate students in two main campuses within the county were targeted. The two main campuses were selected due to prevalence of risky sexual behaviors among undergraduate students, which may have been contributed by the perceived influence of psychosocial factors. Nakuru County is one of the 47 counties of the Republic of Kenya as per the Constitution of Kenya 2010. The county lies within the Great Rift Valley and borders eight other counties namely; Kericho and Bomet to the west, Baringo and Laikipia to the north, Nyandarua to the east, Narok to the south-west and Kajiado and Kiambu to the south. The county covers an area of 7,495.1 Km<sup>2</sup> and is located between Longitude 35 ° 28` and 35° 36` East and Latitude 0 ° 13 and 1° 10` south.

The county headquarter is Nakuru Town. The institutions of higher learning include 1 Public University, 1 Private University, several Public and Private University campuses (Nakuru County Annual Development Plan (ADP) 2018-2019). The study was carried out in the two main campuses in Nakuru County. The main campuses represented both

the public and private institutions of higher learning and admit students from different communities in the Country.

### **3.5 Target Population of the Study**

The target population of this study was the undergraduate students of the main campuses in Nakuru County. The researcher focused on 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students thus constituted the accessible population because they have been in campus for a longer period and was more aware of the various operations including perceived influence of the selected psychosocial factors on risky sexual behaviours. Some of the undergraduate students had sought assistance when faced with academic, social and personal problems including sexual behaviour issues. In addition, ten peer counsellors participated in the focus group discussions and two student counsellors were interviewed each representing the main campus. The peer counsellors and student counsellors were sampled because of their experience in offering counselling services to students who may have experienced sexual related issues. Thus, the involvement of undergraduate students, peer counsellors and student counsellors was fundamental to this study. The population of the respondents from the two main campuses of study is shown in Table 1.

**Table 1: The Main Campuses and Population of the Undergraduate Students in Nakuru County**

<b>Main Campus</b>	<b>Students</b>
Campus A	11,874
Campus B	6,696
<b>Total</b>	<b>18,570</b>

Source: Registrars' Academic Affairs Records (2019)

**Table 2: Main Campuses and Population of 3<sup>rd</sup> and 4<sup>th</sup> year Undergraduate Students**

<b>Main Campus</b>	<b>Students</b>
Campus A	5,634
Campus B	2,822
<b>Total</b>	<b>8,456</b>

Source: Registrars' Academic Affairs Records (2019)

### **3.6 Sample Procedure and Sample Size**

This section dealt with sample procedure and sample size.

#### **3.6.1 Sampling Procedure**

A sample method is a way of selecting a portion of the population such that the selected portion of the population represents the population adequately (Emil, 2004). According to Cohen and Manion (2007) sampling is a process of selecting a subset of cases in order to draw conclusions about the entire set while a sample is a small part of the entire population, which is a representative of large population. Therefore, there is need to obtain small groups of the entire population while doing a study in consideration of time, expense and accessibility that may hinder acquirement of information from the entire population. For the purpose of this study, the two main campuses in Nakuru County (one public and one private) were selected using purposive sampling technique for the actual study.

#### **3.6.2 Sample Size**

According to Mugenda and Mugenda (1999), the sample size depends on the purpose of the study and the nature of the population under scrutiny. The sample size for accessible population of 8456 undergraduate students was 367. The other respondents in the study included ten peer counsellors (5 peer counsellors for each main campus) two student counsellors (one from each main campus) who were purposively selected. Thus, the total

number of respondents was three hundred and seventy-nine (379). The sample size for undergraduate students in the study was determined using the formula developed by Krejcie and Morgan. To simplify the process of determining the sample size for a finite population, Krejcie and Morgan (1970), came up with a table using sample size formula for finite population (Appendix A).

The researcher used proportionate sampling to identify the number of respondents required per main campus. Table 3 presents a breakdown of the respondents who were involved in the study.

**Table 3: Sample Distribution**

<b>Main Campus</b>	<b>Undergraduate Students</b>	<b>Peer counselors</b>	<b>Student Counsellors</b>	<b>Total</b>
Campus A	245	5	1	251
Campus B	122	5	1	128
<b>Total</b>	<b>367</b>	<b>10</b>	<b>2</b>	<b>379</b>

Source: Registrars' Academics Records (2019)

### **3.6.3 Sampling Techniques**

The following are the sampling techniques applied in this study. The selection of the undergraduate students who participated in the study was done using stratified random sampling technique based on the records of those students who were in session at the Registrar of Academics office of the two main campuses. Stratified random sampling is a method of sampling that involves dividing a population into smaller groups—called strata. The groups or strata are organized based on the shared characteristics or attributes of the members in the group. The process of classifying the population into groups is called stratification. Stratified random sampling is a sampling method that involves taking samples of a population subdivided into smaller groups called strata. Stratified random sampling involves taking random samples from stratified groups, in proportion to the

population. Stratified random sampling is a more precise metric since it's a better representation of the overall population (Nickolas, 2019).

### **3.7 Research Instrumentation**

According to Kothari (2004), while deciding about the method of data collection to be used for the study, the researcher should keep in mind the type of data to be collected. This study used three research instruments to collect data: Questionnaire for undergraduate students, focus group discussions guide for peer counsellors and interview schedule for student counsellors to solicit data from the respondents who included 3<sup>rd</sup> and 4<sup>th</sup> year undergraduate students, peer counsellors and student counsellors respectively. The instruments were developed by examining research objectives and related literature. The description of each instrument is given.

#### **3.7.1 Questionnaire for Undergraduate Students**

Questionnaires make it possible to measure a person's likes and dislikes, attitudes and beliefs (Tuckman, 1994). The advantages of the use of questionnaire is that it gives room for respondents to give more information than it is anticipated and also it is economical in terms of both time and money (Gray, 2004). The questionnaire was used to collect data from undergraduate students who were in 3<sup>rd</sup> and 4<sup>th</sup> year of study. The questionnaire was developed based on the objectives of the study and literature reviewed. The questionnaire had close-ended questions. The close-ended questions were analysed quantitatively using SPSS version 25. The undergraduate students' questionnaire had a short introduction letter (Appendix A) that was attached to it that explained the purpose of the research. The questionnaire for undergraduate students (Appendix B) comprised of section A and section B. Section A consisted of Socio-Demographic Characteristics including: Gender, age bracket, year of study, family background, religious affiliation of undergraduate students, and the frequency of the following risky sexual behaviours:



unprotected sexual intercourse, multiple sexual partners, prostitution on campus, and sexual coercion and abuse.

Section B consisted of statements seeking responses on undergraduate students' perceptions on the influence of selected psychosocial factors on risky sexual behaviours. This section used Likert scale: Strongly Disagree (SD) Disagree (D) Not Sure (N) Agree (A) Strongly Agree (SA) to measure perception of undergraduate students' perception on the influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. First, statements on the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students were 8 items (a-h). Secondly, statements on the perceived influence of sexual norms on risky sexual behaviours among undergraduate students were 12 items (a-l). Thirdly, statements on the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students were 6 items (a-f). Fourthly, statements on the perceived influence of social media on risky sexual behaviours among undergraduate students were 6 items (a-f). Fifthly, statements on the perceived influence of substance abuse on risky sexual behaviours among undergraduate students were 5 items (a-e). Finally, statements that indicated the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students were 10 items (a-k). The instrument is attached as Appendix B.

### **3.7.2 Focus Group Discussions Guide for Peer Counsellors**

Focus group discussions guide (Appendix C) was used to collect qualitative data from peer counsellors in form of opinions, perceptions and experiences of peer counsellors on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students: A case of the main campuses in Nakuru County. The guide included questions on the following areas: What the peer counsellors considered

as risky sexual behaviours among peers, prevalence of risky sexual behaviours among peers, the effects of risky sexual behaviours among peers, peers' perception of risky sexual behaviours, and their responses to questions on the perceived influence of selected psychosocial factors on risky sexual behaviours among peers including: first, perceived influence of self-efficacy on risky sexual behaviours, secondly, perceived influence of sexual norms on risky sexual behaviours, thirdly, perceived influence of socioeconomic status on risky sexual behaviours, fourthly, perceived influence of social media on risky sexual behaviours, fifthly, perceived influence of substance abuse on risky sexual behaviours, and finally, the mediating role of counselling services in mitigating risky sexual behaviours among their peers. The instrument is attached as Appendix C. The focused group discussion guides for peer counsellors were helpful in obtaining detailed information that would not have been possible to get through questionnaires. This was due to the flexibility of face-to-face discussions, which accommodated probing questions to better comprehend the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. The estimate of time utilised during the focus group discussions with peer counsellors was between one hour to one and half hours.

### **3.7.3 Interview Schedule for Student Counsellors**

In-depth interviews were used to collect qualitative data in form of opinions, perceptions and experiences of student counsellors. Qualitative data is necessary in a study to supplement the quantitative data (Cohen, & Swerdlik, 2005). Therefore, the interviews were conducted to provide the necessary qualitative data from the two student counsellors from the main campuses respectively on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students in Nakuru County. Section A gathered demographic information including: Name of

campus, date of interview, gender, age bracket, work experience, and marital status of the student counsellors. Section B collected data on student counsellors' perceptions on the Influence of selected psychosocial factors on risky sexual behaviours among undergraduate students including what they considered as risky sexual behaviours in campus, prevalence of risky sexual behaviours in campus, the effects of risky sexual behaviours, and students' perceptions of risky sexual behaviours.

Student counsellors were interviewed on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students including: first, perceived influence of self-efficacy on risky sexual behaviours, secondly, perceived influence of sexual norms on risky sexual behaviours, thirdly, perceived influence of socioeconomic status on risky sexual behaviours, fourthly, perceived influence of social media on risky sexual behaviours, and fifthly, perceived influence of substance abuse on risky sexual behaviours, and finally, the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students. The instrument is attached as Appendix D. The interview schedule for student counsellors was helpful in obtaining detailed qualitative information that would not have been possible to get through questionnaires. This was due to the flexibility of face-to-face interview with the student counsellors, which accommodated probing questions to better comprehend the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. The interview of each campus student counsellor took an estimate of one hour.

#### **3.7.4 Validity, Pilot Testing, and Reliability of Research Instruments**

The research tools were validated and pilot tested. Their reliability was also determined. The subsequent sections explain how validity, pilot testing and reliability were done for both quantitative and qualitative research.

### **3.7.4.1 Validity of the Research Instruments**

Validity is the degree to which a test actually measures the variable it claims to measure (Gay, Airasian, & Mills, 1996). It is the degree to which results obtained from the analysis of the data represents the phenomenon under study. Instruments are said to be valid if they provide adequate coverage of the topic under study. Mugenda (2008) noted that researchers have defined validity as the accuracy, truthfulness and meaningfulness of inferences that are based on the data obtained from the use of a tool or a scale for each construct or variable in the study. Mugenda identified and described three main types of validity or techniques of validating a study, namely: Criterion-related validity, content validity and construct validity. Criterion-related validity refers to the relationship between an instrument and some other criterion. Two types of criterion-related validity are recognized, predictive and concurrent. Whereas predictive validity is the extent to which obtained data predict future behaviour of subjects, concurrent validity is the extent to which data can predict the subjects' behaviour not in future but at the present time.

Content validity is the extent to which data gathered using a particular instrument represents a specific domain of content or indicators of a particular concept. Content validity was of great importance to this study. This was used to assess the validity of the questionnaires, in order to ensure the content of each section of the questionnaire generates the valid data that when analysed, met the research objectives and tested the hypotheses. The validity of the questionnaire, focus group discussions guide and interview schedule was assessed to ensure they capture meaningful information as intended by the researcher. Mugenda (2008) maintained that a judgmental procedure of determining whether an instrument is likely to yield content valid data, is to request professionals or experts in the particular field to review it and provide recommendations. Therefore, experts in the field of counselling psychology and from other fields were

consulted to assess the content, construction and face validity of the questionnaire, focus group discussions guide and interview schedule. The experts assessed each item in the instrument and either adjusted or included more information where necessary.

#### **3.7.4.2 Pilot Testing of the Research Instruments**

To ensure validity and reliability of the research instruments, a pilot study was done in one of the university Campuses within Nakuru County, which was not included in the final study population. The instruments were pilot tested on a small sample of 15 undergraduate students as recommended by Johnson and Christensen (2012) who pointed out that one should conduct a pilot test with a minimum of 5 to 10 people. The purpose of the pilot study was to allow the researcher to ascertain the validity and reliability of the research instruments and to be acquainted with their administration (Ogula, 2001). The pilot study enabled research instruments to be tested and the necessary amendments made. Therefore, it was important to do piloting before determining the reliability of the research instruments since the piloting results were used to determine the reliability of the research instruments.

#### **3.7.4.3 Reliability of the Research Instruments**

Reliability is the measure to which research instruments give constant results after repeated trial (Kothari, 2005). Reliability focuses on the degree of consistency of empirical indicators across two or more attempts to measure concept. It ensures that research instruments replicate similar data or results when used by any independent researcher (Mugenda, & Mugenda, 1999). Cronbach's coefficient alpha method was used to determine internal consistency of the items. Cronbach's alpha was used based on the threshold of 0.7 to test the reliability of the instruments. The analysis was done using SPSS version 25. The score of undergraduate students' questionnaire yielded a reliability coefficient of 0.79, which was very good. The instrument was considered reliable as its

coefficient was above the recommended 0.7 threshold (Cohen, & Manion, 2007). The piloting test results are displayed in Table 4.

**Table 4: Measures of Internal Consistency**

<b>Variables</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>
Self Efficacy	0.739	8
Sexual Norms	0.703	12
Socio-economic Status	0.730	6
Social Media	0.795	6
Substance Abuse	0.871	5
Counselling Services	0.903	10
Overall Reliability Coefficient	0.790	47

Concerning the validity and reliability of the qualitative data collected through focused group discussions and interview schedule, the researcher reviewed the raw data, the summary and the findings to find if there was any inconsistency, referring to audio records checking throughout the writing process to determine reliability.

### **3.8 Data Collection Procedure**

Data collection is gathering empirical evidence in order to gain new insights about the situation and answer the question that prompted the undertaking of the research. It involves the operational dynamism of the research design into instruments of data collection in order to meet the research objectives (Emil, 2004). After the researcher was cleared by the Kabarak University Institute of Post Graduate studies for collection of data, he applied for research permit from the National Commission of Science, Technology and Innovation (NACOSTI) to collect data for the study, which was subsequently received. Permission was further sought from the County Commissioner and the Director of Education in Nakuru County. Permission was also applied for and subsequently received from the management of the main campuses of Egerton University

and Kabarak University in Nakuru County where data was collected. After getting permission, the researcher engaged assistant researchers to administer questionnaires to the undergraduate students of respective main campuses. The assistant researchers were trained on how to administer the instruments. The respondents were given between two to four days to fill the questionnaires at their convenience after which they were collected. Face to face, focus groups with peer counsellors and interviews with the student counsellors were done by the researcher himself after securing appointments with the peer counsellors and the student counsellors respectively participating in the study. During the focused group discussions with the peer counsellors and interviews with the student counsellors, the researcher listened, observed and formed an empathic alliance with the group and interviewees respectively; remained watchful of themes presented; and resisted any temptation to analyse the meanings of an observation prematurely. Data collection was completed within two months from November to December 2019.

### **3.9 Data Analysis Procedure**

The researcher organized the data into quantitative and qualitative data. Quantitative data were solicited through close-ended items in the questionnaire received from the undergraduate students' responses. Focused group discussion guides generated qualitative data for the peer counsellors and interview schedules for the student counsellors from the two main campuses in Nakuru County. Both quantitative and qualitative data were analysed. Descriptive statistics, which included frequencies and percentages, were used to analyse the quantitative data. Statistical Package for Social Sciences (SPSS) version 25 was used in data analysis. Qualitative data was analysed by obtaining detailed information about phenomenon being studied and establishing patterns and trends from the information to be gathered (Frankfort-Nachmias, 2006). This also involved giving meaning the mass information collected by organising the data and

creating categories and themes. The researcher-analysed data in different categories beginning with personal information of the respondents as stated in the questionnaire, focus group discussions guide and in-depth interview schedule. The researcher used codes, which provided a link between the raw data and conceptual framework. Data was then evaluated and analysed to determine the adequacy of information and the credibility, usefulness, consistency and validation of hypothesis. The information was evaluated on its usefulness in answering the research objectives/hypotheses. Chi-square statistical test was used to test hypotheses. All hypotheses testing was done at, 0.05 level of significance. The analysed data was presented in tables, graphs and narratives in a systematic way in order to come to some useful conclusions and recommendations.

**Table 5: Summary of Data Analysis**

<b>Research Hypothesis</b>	<b>Independent Variable</b>	<b>Dependent Variable</b>	<b>Statistical Methods</b>
<b>H<sub>01</sub>:</b> Self efficacy has no statistically significant influence on risky sexual behaviours among undergraduate students	Self efficacy	RSB	Frequencies Percentages Chi-square
<b>H<sub>02</sub>:</b> Sexual norms have no statistically significant influence on risky sexual behaviours among undergraduate students	Sexual Norms	RSB	Frequencies Percentages Chi-square
<b>H<sub>03</sub>:</b> Socio-economic status has no statistically significant influence on risky sexual behaviors among undergraduate students	Socio-economic status	RSB	Frequencies Percentages Chi-square
<b>H<sub>04</sub>:</b> Social media has no statistically significant influence on risky sexual behaviors among undergraduate students	Social Media	RSB	Frequencies Percentages Chi-square
<b>H<sub>05</sub>:</b> Substance abuse has no statistically significant influence on risky sexual behaviors among undergraduate students	Substance Abuse	RSB	Frequencies Percentages Chi-square
<b>H<sub>06</sub>:</b> Counseling services have no statistically significant mediating role in mitigating risky sexual behaviors among undergraduate students	Counselling Services	RSB	Frequencies Percentages Chi-square



### **3.10 Ethical Considerations**

Ethics deals with one's conduct and serves as a guide to one's behaviour. In this study the researcher was required to keep confidentiality and privacy in order to protect the respondents. Upon approval of the research proposal, the researcher obtained a letter of introduction from the Director of Postgraduate studies (Appendix E) from Kabarak University to embark on research, the researcher sought permit from NACOSTI (Appendix F), which was subsequently received. Research authorization letters were also obtained from the County Commissioner of Nakuru County (Appendix G), Director of Education in Nakuru County (Appendix H), and permissions to collect data from the two main campuses i.e. Campus A (Appendix I) and Campus B (Appendix J). Having received these legal documents, the researcher initiated access to the study participants.

The researcher sought informed consent from the undergraduate students, peer counsellors and student counsellors to respect their personal rights as far as the study was concerned. The researcher informed all the respondents the purpose of the study as recommended by Best and Kahn (2005). In the process of the research, the respondents were allowed to either participate or withdraw as suggested by Descombe (2005). At the beginning of the interview, the researcher and the research assistants assured the respondents of confidentiality. To reveal some information the researcher must seek the informed consent of the respondents (Mugenda, & Mugenda, 2003). Lack of confidentiality and mishandling the information provided may cause the respondents physical, psychological harm and stigma.

In this study, the researcher particularly was careful to avoid causing psychological harm to the respondents by asking embarrassing questions, expressing shock or disgust while collecting data. Related to confidentiality is privacy that was taken into consideration in dealing with personal data and dissemination of information was not matched with

specific respondent. In this regard, numbers or code names were assigned to the selected campuses, respondents and the respondent responses instead of names in order to maintain confidentiality. Hence, the participating campuses were code named Campus A and Campus B, the peer counsellors were code named PC 1-5 per each campus, while the student counsellors were code named SC under each campus.

The researcher made proper referencing and gave due credit to the authors whose work was quoted in the study to avoid plagiarism. The raw data collected was handled with care and with high confidentiality to avoid any leakage of information and after analysis of the data the raw data was stored in a secure place and shall be disposed off after duration of time when the raw data will no longer be required. Concerning research output dissemination, the researcher will present research findings in academic conferences and publish papers in refereed journals for the dissemination of the information to the society on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County.

## **CHAPTER FOUR**

### **DATA ANALYSIS, PRESENTATION AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents the findings of the research. The findings were achieved through the data collected from the undergraduate students, peer counsellors and student counsellors of the sampled main campuses in Nakuru County. The chapter starts with presentation of data on questionnaire rates of return and demographic characteristics of the respondents. The quantitative data was analysed and presented using descriptive and inferential statistics with the following Likert scale: 1=Strongly Disagree (SD), 2=Disagree (D), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA). To supplement the responses of quantitative data, qualitative responses were summarised and presented through narratives thematically. The following were the objectives of the study:

- i. To determine the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in Nakuru County
- ii. To examine the perceived influence of sexual norms on risky sexual behaviours among undergraduate students in Nakuru County
- iii. To establish the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students in Nakuru County
- iv. To assess the perceived influence of social media on risky sexual behaviours among undergraduate students in Nakuru County
- v. To explore the perceived influence of substance abuse on risky sexual behaviours among undergraduate students in Nakuru County
- vi. To identify the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students in Nakuru County

#### 4.2 Response Rates of the Respondents

The number of questionnaires administered was three hundred and sixty-seven (367) while the number returned was three hundred and forty-six (346). Within the returned questionnaires, the researcher checked through each one of the items and they were satisfactorily answered. The results indicating the response rate of the undergraduate students are displayed in Table 6.

**Table 6: Distribution and Rate of Return of Questionnaires for Undergraduate Students**

Respondents	No. of Distributed Questionnaires	Returned Questionnaires	Percent Rate of Usable Questionnaires (%)
Undergraduate Students	367	346	94.28

From Table 6, the results indicate that the researcher obtained high questionnaire rates of return. Data analysis was based on the three hundred and forty-six (346) respondents representing a response rate of 94.28% in which 54% were male respondents while the rest, 46% were female respondents. This was a reasonable representation of the sample and the entire population. According to Mugenda and Mugenda (2003), a response rate of 50% is adequate while 60% is good and above 70% is regarded as very good. This implied that the response rate of 94.28% was excellent. In addition, the researcher booked an appointment with peer counsellors and student counsellors for focus group discussions and interviews respectively. Consequently, all the 10 peer counsellors were engaged in focus group discussions per campus and the two student counsellors availed themselves for the interview. This represented 100% response rate.

#### 4.3 Demographic Characteristics of the Respondents

In this section, respondents were required to indicate their gender, age, year of study, family background, and religious affiliation. The information was needed in order to

obtain the characteristics of the respondents. To present sample characteristics, frequency distributions were used to indicate variations of respondents based on gender, age, year of study, family background, and religious affiliation. A thorough description of participants allows readers and researchers to determine to whom research findings generalize and allows comparisons to be made across replications of studies. It also provides information needed for research synthesis and secondary data analyses (Bein, 2009). Frequencies and percentages aided the study in illustrating the characteristic of the respondents and nature of the data in line with the study objectives.

#### 4.3.1 Gender of the Respondents

The researcher sought to know the major demographic characteristics of the respondents who participated in the study by indicating their gender. The findings are presented in Table 7.

**Table 7: Representation of Respondents by Gender**

Gender	Undergraduate Students		Peer Counselors		Student Counsellors	
	f	%	f	%	f	%
Male	187	54.09	5	50	-	-
Female	159	45.91	5	50	2	100
<b>Total</b>	<b>346</b>	<b>100.00</b>	<b>10</b>	<b>100</b>	<b>2</b>	<b>100</b>

Table 7 indicates that the proportion of male undergraduate students was 187(54.09%) of the total respondents. The analysis also indicates that the proportion of the female undergraduate students was 159(45.91%) of the total population in the study. The male respondents were slightly more than the female respondents were. The proportion of both male and female peer counsellors was 5(50%) and 5(50%) respectively, while the two interviewed student counsellors were 100% female, this was brought by few numbers of

male student counsellors in universities who were not available at the time of research because they were on leave.

Gender seem to influence uptake of counselling services in that male and female have different needs and expectations regarding their sexuality (Schimdt, 2015). For instance, studies have shown that men tend to have more permissive attitudes about casual sex and engage in more high-risk sexual behaviours than their female counterparts. Females tend to have different causes and major consequences for engaging in high risk sexual behaviours than do men (Njeri, 2016). The permissive attitudes practiced by male students may influence their engagement in risky sexual behaviours as well as determine their uptake of counselling services in that fewer males may not deem it essential to seek services regarding their sexuality.

#### 4.3.2 Age Bracket of the Respondents

Different ages among the respondents could have diverse perspectives of experiences in campus that affect their sexual behaviour. Therefore, it was important to establish whether different age groups had different levels of sexual behaviour. The respondents were asked to indicate their age bracket. The findings are presented in Table 8.

**Table 8: Representation of Respondents by Age**

Age Bracket	Undergraduate Students		Peer Counselors		Student Counselors	
	f	%	f	%	f	%
16-18 Years	9	2.61	-	-	-	-
19-20 Years	59	17.10	3	30	-	-
21-22 Years	185	53.33	5	50	-	-
23-24 Years	93	26.96	2	20	-	-
25-29 Years	-	-	-	-	-	-
30-34 Years	-	-	-	-	-	-
35-39 Years	-	-	-	-	-	-
40-44 Years	-	-	-	-	1	50
45-49 Years	-	-	-	-	1	50
50 and above	-	-	-	-	-	-
<b>Total</b>	<b>346</b>	<b>100</b>	<b>10</b>	<b>100</b>	<b>2</b>	<b>100</b>

Table 8 indicates that majority of undergraduate students were within the age bracket of 21-22 years while the least was within age bracket of 16-18 years. From the analysis the proportion of respondents who were within the bracket of 23-24 years was 26.96% of the total proportion. The results also indicate that the proportion of the respondents who were within the age bracket of 21-22 years was 185(53.33%) of the total respondents. The results also indicate that the proportion of the respondents who had an age bracket of 19-20 years was 17.10% of the total respondents. The majority of the respondents were in the age bracket of 21-22 years. The age bracket of majority of peer counsellors who were aged 21-22 was 50% followed by those aged 19-20 at 30% and 23-24 at 20% respectively. The age bracket of the two counsellors was (40-44) and (45-49) respectively. This shows that the two student counsellors were middle aged people.

Based on other research data, 47% of men and 32% of women aged 15–24 years in Sub Sahara Africa reported to have had used condoms with multiple partners during sex the previous 12 months. Since 2000, condom use has increased by 10% among young women in 11 of 22 countries and among young men in 11 of 17 countries based on trend data (UNICEF (2010)). A study in Ireland University by Burke et al., (2015) revealed that 36.7% of all new STI notifications were among individuals aged between 20 and 24, while those aged under 20 years represented 10.8% of all reported STIs. These results are reflective of the age group for most undergraduate students in Kenya and globally.

#### **4.3.3 Year of Study of the Respondents**

Different years of study among the respondents could have diverse perspectives of experiences in campus that affect their sexual behaviour. Therefore, it was important to establish whether different years of study had different levels of sexual behaviour. The undergraduate students were asked to indicate their year of study. The findings are presented in Table 9.

**Table 9: Representation of Respondents by Year of Study**

Year of Study	Undergraduate Students		Peer Counselors	
	f	%	f	%
3 <sup>rd</sup> Year	245	70.81	6	60
4 <sup>th</sup> Year	101	29.19	4	40
<b>Total</b>	<b>346</b>	<b>100.00</b>	<b>10</b>	<b>100</b>

Table 9 indicates the analysis of the year of study of the undergraduate students that shows that the proportion of the respondents who were in third year of study was 245(70.81%) of the total respondents. The results also indicate that the proportion of the respondents who were in the fourth year of study was 101(29.19%) of the total respondents. The majority of the respondents were in third year compared to those who were in fourth year of study. 6(60%) of the peer counsellors were in third year of study while 4(40%) were in 4<sup>th</sup> year of study.

The year of study of the respondents was an important variable for the study since it gave an indication of the length of time students have been at the university. This could form a key indicator on the exposure to risky sexual behaviors and uptake of counseling services within campus. Since it is assumed the longer one spends on a given place/location they are more familiar with the environment (Njeri, 2016). First years and second years are deemed to be relatively new in the university hence may not be having much understanding of risky sexual behaviors and may not be aware of the available counseling services compared to their counterparts in other academic years.

#### **4.3.4 Family Background of the Respondents**

Varying family backgrounds among the respondents could have diverse perspectives of experiences in campus that affect their sexual behaviour. Therefore, it was important to establish whether different family background had different levels of sexual behaviour.



The respondents were asked to indicate their family background whether they were from single parenting, both parenting or orphaned. The findings are presented in Table 10.

**Table 10: Representation of Respondents by Family Background**

Family Background	Undergraduate Students		Peer Counselors	
	f	%	f	%
Single Parenting	89	25.80	3	30
Both Parenting	243	70.14	7	70
Orphaned	14	4.06	-	-
<b>Total</b>	<b>346</b>	<b>100.00</b>	<b>10</b>	<b>100</b>

Table 10 displays the results on the family background of undergraduate students indicating that the proportion of the respondents who came from single parent family was 89(25.80%) of the total respondents; the study also indicates that the proportion of the respondents who came from both parent families was 243(70.14%) of the total respondents. The study further shows that the proportion of the respondents who were orphaned was 4.06% of the total respondents. The majority of respondents had both parents but also a sizable number of students were from single parenting background. These diverse family backgrounds may influence risky sexual behaviours among undergraduate students. Majority of the peer counsellors 7(70%) were from both parenting family background while those from single parenting family background were 3(30%) of the respondents. The family background of the peer counsellors may affect their sexual behaviour and their work as peer counsellors in relation to dealing with risky sexual behaviours among their peers.

Mmari, Kalamar, Brambhatt and Venables (2016) researched on the role of the family on the sexual experiences of youth from urban, disadvantaged settings in Baltimore and Johannesburg. Results from the qualitative data revealed that while parents were viewed as important sources of information for sexual and reproductive health, they were often

not present in the adolescents' lives. This lack of parental presence was perceived to result in youth's feeling an overall lack of adult support and guidance. The study demonstrates the powerful influence of both context and gender for understanding the influences of the family on youth's sexual behaviors. Programs aiming to reduce undergraduate students' sexual risk behaviours, the need to understand the complex influences on risk behaviors in different settings and in particular, the role of mothers and fathers. Prevention strategies need to also understand and incorporate gender-specific messages and interventions in order to address the high risk of sexual behaviors among undergraduate students (Mmari, Kalamar, Brambhatt & Venables, 2016).

The current wave of unhealthy behaviors among students in institutions of higher learning is quite wanting. These behaviors include the following: alcohol and drug abuse, pre-marital sex, pornography, masturbation, dropouts because of lack of fees, theft, and rebellion to authorities. These behaviors may be caused by the dysfunctional family structure and family change. Family is a very important unit of any society. The family being the basic social unit moulds children's character and personality. When there is a break down in family structure due to separation or divorce, or single parenting due to loss of one of the parents or due to children born outside wedlock and one parent is forced to raise children alone impacts on children physically, psychologically, emotionally and even economically.

A study in Ethiopia by Abebe, Tsion and Netsanet (2013) indicates that risky sexual behavior is any behavior that increases the probability of negative consequences associated with sexual contact which may be contributed by family environment, peer influence, community factors and school attachment. 42.1% of students had sexual risk behavior, 30.8% had two or more sexual partners in their lifetime. Therefore, Behavior change communication should consider family environment and other factors which

predict risk sexual behaviors (Abebe, Tsion & Netsanet, 2013). Family background contributes a great deal to the success or failure of children including engagement in risky sexual behaviors among undergraduate students.

#### 4.3.5 Religious Affiliation of the Respondents

Varying religious affiliations among the respondents could have diverse perspectives of experiences in campus that may affect their sexual behaviour. Therefore, it was important to establish whether different religious affiliations had different levels of sexual behaviours. The respondents were asked to indicate their religious affiliations. The findings are presented in Table 11.

**Table 11: Representation of Respondents by Religious Affiliation**

Religion	Undergraduate Students		Peer Counselors		Student Counsellors	
	f	%	f	%	f	%
Christianity	330	95.36	7	70	2	100
Islam	15	4.35	2	20	-	-
Other	1	0.29	1	10	-	-
<b>Total</b>	<b>346</b>	<b>100.00</b>	<b>10</b>	<b>100</b>	<b>2</b>	<b>100</b>

Table 11 displays the results of religious affiliations of the respondents; it was observed that the proportion of undergraduate students who were Christians was 330(95.36%) of the total respondents while proportion of the undergraduate students who came from Islam and other religions was 4.64% of the total respondents. The majority of the undergraduate respondents were affiliated to Christianity. Majority of the peer counsellors 7(70%) were affiliated to Christianity, while 2(20%) and 1(10%) of the peer counsellors were affiliated to Islam and other religions respectively.

Religion greatly impacts on sexual reproductive health as it may influence the knowledge, attitude and practices related to sexual behaviors among undergraduate students (Obidoa, et al., 2012). According to Smith (2015) most religions shy away from

discussing or educating their members on sexual topics, some religions do not advocate on use of condoms and contraceptives. Hence, one's affiliation to a religion greatly impacts on their knowledge attitude and practices of reproductive health. In a study by Oladepo and Fayemi (2011) in a Nigerian University, majority of the students consented to the fact that their religion (Christianity and Islam) supported the adoption of abstinence but was difficult to achieve. University culture has also shown to impact on students' sexual beliefs and practices; for example, a less religious or more liberal environment may have more permissive norms regarding sexual behaviors for students (Schimdt, 2015). The high number of Christian respondents could be explained by the fact that Christians make the majority of the Kenyan population at an estimate of 90% (KDHS, 2008/2009).

#### **4.4 Overview of Frequency of Risky Sexual Behaviours among Undergraduate Students**

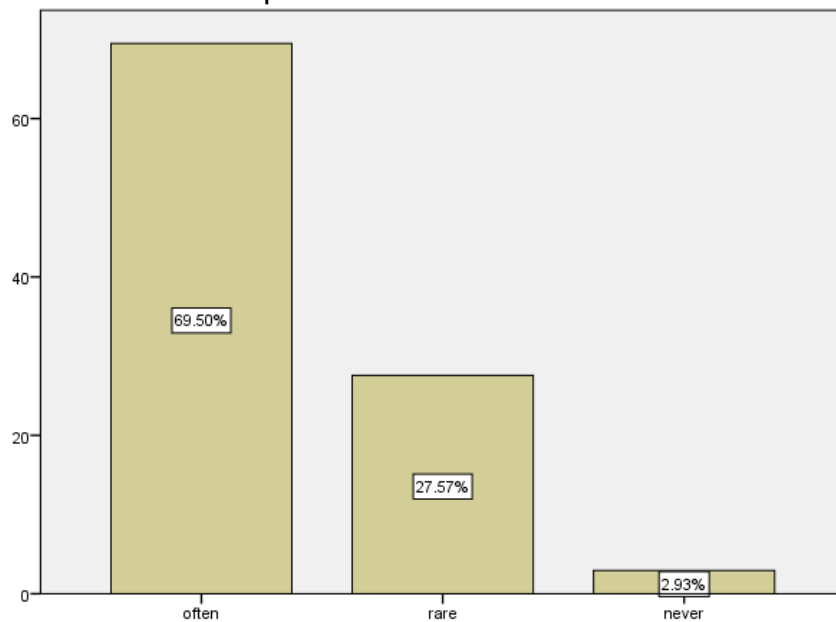
This section covers an overview of frequency of risky sexual behaviours among undergraduate students due to influence of psychosocial factors. It covers undergraduate students' responses on the frequency of risky sexual behaviours e.g. frequency of sexual intercourse among undergraduate students, the frequency of multiple sexual partnerships among undergraduate students, the frequency of prostitution on campus among undergraduate students, and the frequency of sexual coercion and abuse among undergraduate students. In addition, qualitative data from peer counsellors and student counsellors on the frequency of risky sexual behaviours among undergraduate student was also included.

#### 4.4.1 Undergraduate Students' Responses on the Frequency of Risky Sexual Behaviours

The respondents were asked to give their views on the frequency of risky sexual behaviours among undergraduate students. The following risky sexual behaviours were focused on: unprotected sexual intercourse, multiple sexual partnerships, prostitution on campus, and sexual coercion and abuse.

##### 4.4.1.1 Frequency of Unprotected Sexual Intercourse among Undergraduate Students

The respondents were asked to indicate the frequency of unprotected sexual intercourse among undergraduate students. Figure 2 indicates the responses of the undergraduates.



**Figure 2: A Display of Frequency of Unprotected Sexual Intercourse among Undergraduate Students**

Source: Researcher, 2021

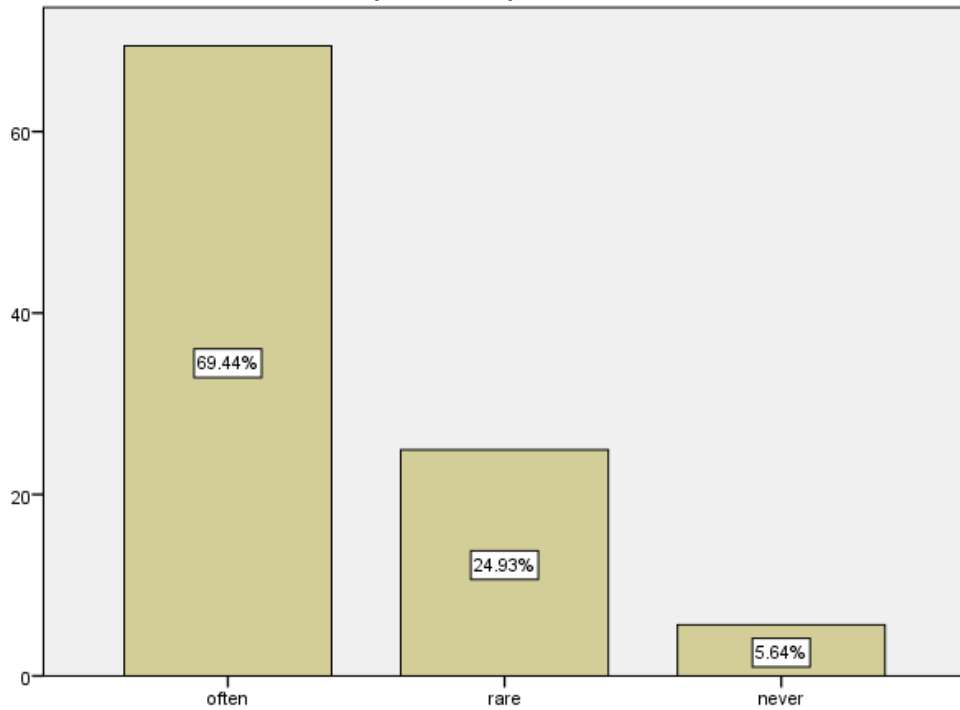
The Figure 2 indicates the frequency of unprotected sexual intercourse among undergraduate students. The findings indicate that 69.50% of the respondents perceived that undergraduate students often engaged in unprotected sexual intercourse, 27.57% of the respondents perceived that undergraduate students rarely engaged in unprotected

sexual intercourse, while 2.93% of the respondents perceived that undergraduate students never engaged in unprotected sexual intercourse. The majority of the respondents perceived that undergraduate students often engaged in unprotected sexual intercourse.

The findings are similar to research studies in Asia which found that while university students are potential human resources, this population group is particularly involved in frequent health risk behaviours and preventing risky sexual behaviours among them would contribute to prevention of HIV, sexually transmitted infections (STIs), and unwanted pregnancies, which have posed a great burden on population health (Yi, Te, Pengpid, & Peltzer, 2018; Zou et al., 2013; Yu, Guo, & Sun, 2013; Yang et al., 2019). Also Kebede et al. (2017) found in an assessment of risky sexual behaviour using institution based cross-sectional study design on 287 randomly selected subjects among Aksum University students that almost 60% students reported to have ever had frequent sexual activity, of which 186 (83.5%) and 112 (64.4%) reported having inconsistent condom use and multiple sexual partners respectively. These results implies that majority of undergraduate students frequently engage in unprotected sexual intercourse, hence the need to empower them to practice abstinence or use condoms if they cannot abstain from risky sexual behaviours.

#### **4.4.1.2 Frequency of Multiple Sexual Partnerships among Undergraduate Students**

The respondents were asked to indicate the frequency of multiple sexual partnerships among undergraduate students. The figure 3 indicates the responses of the undergraduate students.



**Figure 3: A Depiction of Frequency of Multiple Sexual Partnerships among Undergraduate Students**

Source: Researcher, 2021

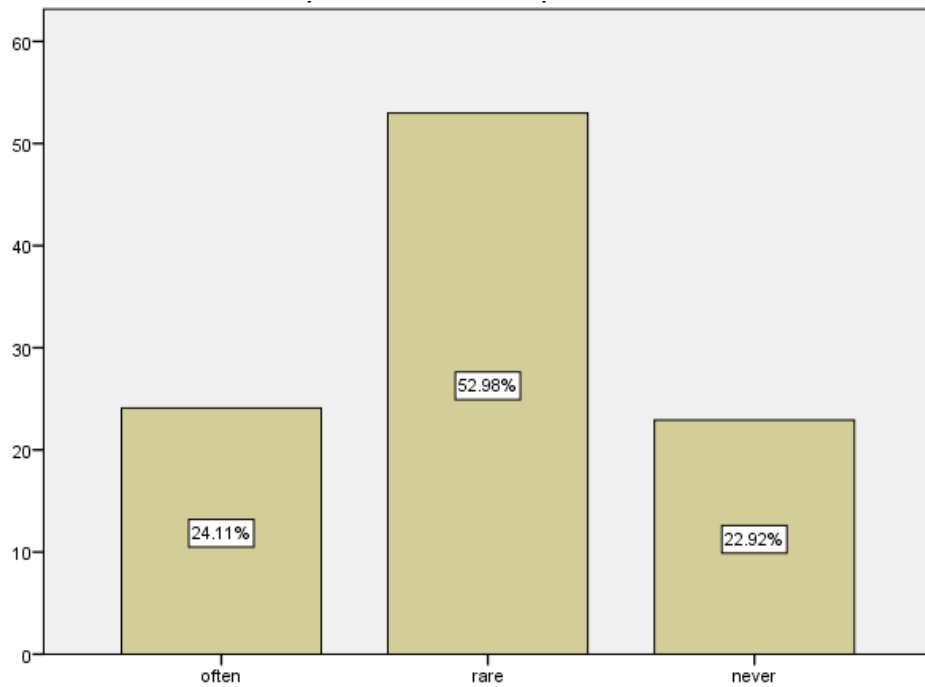
The Figure 3 indicates the frequency of multiple sexual partners among undergraduate students. The findings indicate that 69.44% of the respondents perceived that undergraduate students often engaged in multiple sexual partnerships, 24.93% of the respondents perceived that undergraduate students rarely engaged in multiple sexual partnerships, while 5.64% of the respondents perceived that undergraduate students never engaged in multiple sexual partnerships. The majority of the respondents perceived that undergraduate students often engaged in multiple sexual partnerships. Similar studies which were done in Zambia and South Africa concurred that a large number of students were engaging in risky sexual behaviours, such as having multiple sexual partners, inconsistent contraceptives use, and intergenerational sex (Menon, Sidney, Thankian & Lwatula, 2016; Hoque, Ntsipe, & Mokhatle, 2012; Onoya et al., 2015). In Kenya, Othieno, Okoth, Peltzer, Pengoid and Malla (2015) determined associations between HIV risky sexual behaviour and depression among undergraduate students at the

University of Nairobi and found that the percentage of those who had ever been diagnosed with sexually transmitted infections (STIs) was 9.71% (males 8.65%; females 11.01%); and for HIV 3.04% (males 2.02%; females 4.05%), and nearly 30% reported having had multiple partners in the previous 12 months, 27.4% of the students did not use condoms with sexual partners and 21% had engaged in sex after drinking within the previous 3 months (Othieno et al., 2015; Adam, & Mutungi, 2007; Waswa, 2006). The findings are also in agreement with a study by Kabiru and Orpinas (2008) who found that approximately 50% of the males and 11% of females were reported having had sexual intercourse at least once in their lifetime with a significant proportion reporting multiple sexual partnerships. These results imply that majority of undergraduate students engage in multiple sexual partnerships and therefore parents, counsellors, religious institutions and university management should be able to enhance counselling department to help mitigate risky sexual behaviours among undergraduate students.

#### **4.4.1.3 Frequency of Prostitution on Campus among Undergraduate Students**

The respondents were asked to indicate the frequency of prostitution among undergraduate students. The figure 4 indicates the responses of the undergraduate students.





**Figure 4: A Depiction of Frequency of Prostitution on Campus among Undergraduate Students**

Source: Researcher, 2021

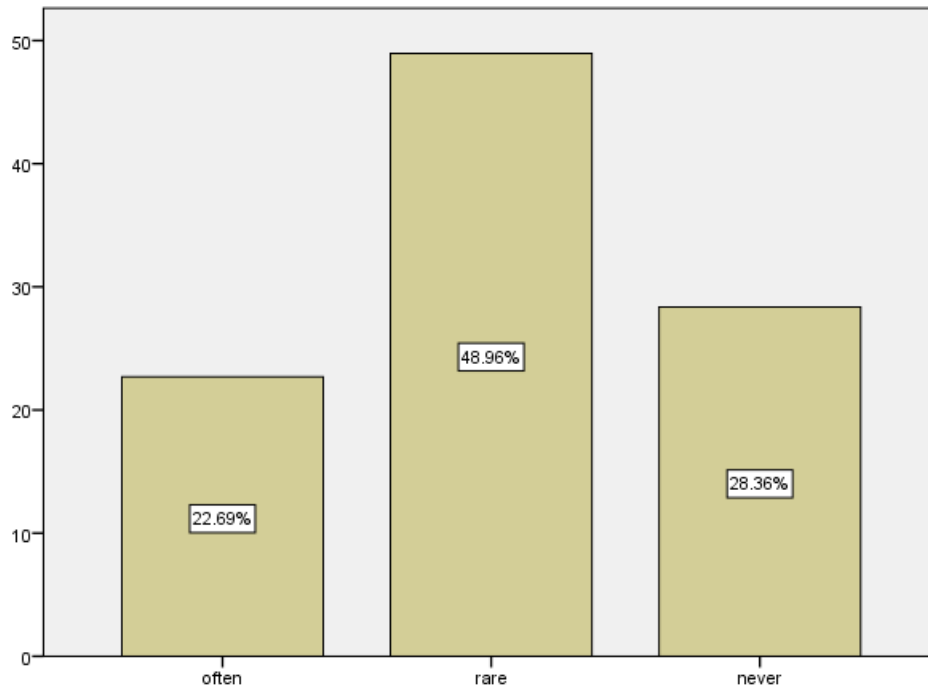
The Figure 4 indicates the frequency of prostitution on campus among undergraduate students. The findings indicate that 24.11% of the respondents perceived that undergraduate students often engaged in prostitution, 52.98% of the respondents perceived that undergraduate students rarely engaged in prostitution, while 22.82% of the respondents perceived that undergraduate students never engaged in prostitution. The majority of the respondents perceived that undergraduate students rarely engaged in prostitution on campus. While a sizeable number 24.11% of the respondents perceived that undergraduate students often engaged in prostitution. This study results agree with Sanders and Hardy (2015) who observed that robust academic research on the topic of students involved in the sex industry was in its infancy, yet the relationship appeared consistent and permanent.

These findings are also similar to a study done in Ghana by Amo-Adjei, Kiumi-Kyereme, and Tuoyire (2014) who discussed the research findings about female

undergraduate students' engagement in prostitution in campus. The motivation was primarily economic, to fulfil "wants" not survival "needs" – the relationships enabled them to purchase the trappings of affluent society such as clothes, hairstyles, fast food and gadgets. A similar study was done in Kenya by Aseka (2017), who reported that sex commercialization has hit universities hard more than ever before, sexual immorality, substance abuse and criminal acts have become the new nightmare among students in the local universities. In fact, academic excellence has become secondary to the vices. Whatever it takes, students will go to any length to ensure that they enjoy a luxurious lifestyle and every good thing life brings their way. 'Sexually transmitted degrees, while a good percentage of students work hard on their academic work, others opt to take the shortcut and collude with lecturers who award them good grades in exchange for sexual favors. These results imply that though majority of respondents perceived that prostitution on campus was rarely practised, the 24.11% who perceive that prostitution is often practised makes it necessary for the parents, counsellors, university management should take action to curb the risky sexual behaviour of prostitution on campus.

#### **4.4.1.4 Frequency of Sexual Coercion and Abuse among Undergraduate Students**

The respondents were asked to indicate the frequency of sexual coercion and abuse among undergraduate students. Sexual coercion is a range of experiences that compel undergraduate students to have sex against their will, including violence, threats, verbal insistence, deception, cultural expectations and economic circumstances that may result in risky sexual behaviours. The figure 5 indicates the responses of the undergraduate students.



**Figure 5: A Display of Frequency of Sexual Coercion and Abuse among Undergraduate Students**

Source: Researcher, 2021

The Figure 5 indicates the frequency of sexual coercion and abuse among undergraduate students. The findings indicate that 22.69% of the respondents perceived that undergraduate students often engaged in sexual coercion and abuse, 48.96% of the respondents perceived that undergraduate students rarely engaged in sexual coercion and abuse, while 28.36% of the respondents perceived that undergraduate students never engaged in sexual coercion and abuse. The majority of the respondents perceived that undergraduate students rarely engaged in sexual coercion and abuse. However, the 22.69% of the respondents who perceived that undergraduate students often engage in sexual coercion and abuse makes it necessary for stakeholders to take measures in order to mitigate the risky sexual behaviour among undergraduate students.

A similar study done by Ssewanyana et al. (2018) noted that a lack of research existed around the most common forms of sexual risk behaviours among young people,

including their underlying factors and found that transactional sex, early sexual introduction, coerced sex, and multiple sexual partnerships were prevalent. This study is also in agreement with other studies that noted that growing worldwide evidence shows that the experience of sexual coercion was fairly prevalent among young people and was associated with risky sexual behaviour thereafter (Agardh et al., 2011; Bayissa et al., 2016). Though majority of the respondents perceived that sexual coercion and abuse is rarely practised in campus, the 22.69% of them perceived that it is frequently practiced. The study findings are also similar to a study by Thompson et al. (2016) noted that risky sexual behaviour is a serious public health problem as they found in research that trauma symptoms predicted unprotected sex and mediated effects of emotional maltreatment on unprotected sex and on assertiveness in sexual refusal and the effects of sexual abuse on unprotected sex. This implies that sexual coercion and abuse should be given attention by parents, counsellors, university management and all the other stakeholders in order to curb the risky sexual behaviours among undergraduate students.

#### **4.4.2 Qualitative Data on the Frequency of Risky Sexual Behaviours among Undergraduate Students**

The peer counsellors (PC) and student counsellors (SC) were requested to give information of undergraduate students' perceptions on the frequency of risky sexual behaviours in campus. The information that was provided by the peer counsellors and student counsellors from the two main campuses was that, majority of peer counsellors were in agreement that risky sexual behaviours were prevalent but quite a challenge to quantify it because of the secret nature of the sexual acts, Peer counsellors from both main campuses acknowledged that risky sexual behaviours like sexual orgies/group sex and stripping sexual behaviours were common among students who lived outside campus and for those students who lived inside the campus hostel, they engaged in such acts in

hostels in the case of public universities, but for the private universities i.e. one of the campuses have strict rules and regulations and could not allow the visit of the opposite sex in hostels that made some students to engage in such sexual practices outside the campus over the weekends.

Concerning the prevalence of risky sexual behaviours, the SC from Campus 'A' noted that there could have been high prevalence of risky sexual behaviours in campus but it was hard to quantify it because majority of clients who came for counselling brought cases of broken relationships and a few who opened up to share on the risky sexual behaviours they engaged in but they came seeking help after they experienced the consequences, whereas the SC from Campus 'B' acknowledged that there was moderate prevalence of risky sexual behaviours among undergraduate students in campus which were contributed by birthday parties involving alcohol and drug abuse which lead to group sex at any time anyhow outside the campus. Majority of cases the student counsellors handled were mainly relationship related issues including risky sexual behaviours. The SC further noted that there were campus exchange parties, exchange of sex for money among students who lived outside the campus.

***Excerpt One***

***Peer Counsellors' and Student Counsellors' Verbatim Report on frequency of Risky Sexual Behaviours***

***Some Peer Counsellors' Responses during Focus Group Discussions (FGD)***

*Campus A*

***Researcher:*** How prevalent are risky sexual behaviours among your peers?

***PC 1:*** Not able to measure but according to statistics of WHO on HIV & AIDS shows that many students engage in risky sexual behaviours

***PC 2:*** According to me they are not very many but a number of young people engage in risky sexual behaviours here in campus

*Campus B*

***Researcher:*** How prevalent are risky sexual behaviours among your peers?

***PC 1:*** Risky sexual behaviours in campus are very prevalent some join university when already sexually active. Campus freedom enhances risky sexual behaviours.

*PC 2: A lot of uses of PEPS, every weekend student engages in risky sexual behaviours*

### ***Student Counsellors' Responses during the Interviews***

#### *Campus A*

***Researcher:*** *How prevalent are risky sexual behaviours in your campus?*

***SC:*** *There might be high prevalence of risky sexual behaviours in campus though it is hard to quantify it because majority of clients who come for counselling bring cases of broken relationships and a few who open up to share on its consequences.*

#### *Campus B*

***Researcher:*** *How prevalent are risky sexual behaviours in your campus?*

***SC:*** *There is a high prevalence of risky sexual behaviours among undergraduate students in campus which are contributed by birthday parties involving alcohol and drug abuse which may lead to group sex at any time anyhow outside the campus. Majority of cases I handle are mainly relationship issues which are sex related including risky sexual behaviours. There are campus exchange parties, exchange of sex for money among students across universities.*

## **4.5 Findings According to the Research Objectives and Hypotheses**

The findings of this study were related to the six objectives and hypotheses and the responses attained from undergraduate students through questionnaires, focused group discussions (FGD) with peer counsellors and interviews with student counsellors. The study findings on the research objectives and hypotheses covered aspects of the selected psychosocial factors in the following areas: Self-efficacy, sexual norms, socioeconomic status, social media, substance abuse, and the mediating role of counselling services, which are related to undergraduate students' risky sexual behaviours.

## **4.6 Perceived Influence of Self-Efficacy on Risky Sexual Behaviours among Undergraduate Students**

The first objective of this study was to determine the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. Self-efficacy refers to undergraduates' belief in the ability to succeed in refusing to engage in risky sexual behaviours. The researcher used Likert scale. According to Frankfort-Nachmias and Nachmias (2003), Likert scaling is a method designed to measure attitudes. The researcher prepared a Likert scale and

computed a total score for each respondent. These together with other items were each rated on a 5-point Likert scale as follows: 1=Strongly Disagree (SD), 2=Disagree (D), 3=Neutral (N), 4=Agree (A), 5=Strongly Agree (SA) and the results summarised and presented.

The undergraduate students were asked to respond to the statements on the perceived influence of self-efficacy on risky sexual behaviours. In addition, a summary of qualitative data collected from the peer counsellors and student counsellors was used to supplement the quantitative data. To determine whether undergraduate students were influenced by self-efficacy on risky sexual behaviours, the respondents were asked to rate various aspects on self-efficacy and results displayed in Table 12 and subsequently discussed.

**Table 12: Likert Scale Score of Undergraduate Students' Perception of the Influence of Self-efficacy on Risky Sexual Behaviours**

Likert Items	SD	D	N	A	SA
Refuse sex with someone at a party	49(14.2%)	39.9(11.3%)	37(10.8%)	67(19.5%)	152(44.2%)
Refuse sex, even if a boyfriend or girlfriend	75(21.8%)	86(25.0%)	50(14.5%)	67(19.5%)	66(19.2%)
Refuse alcohol/drugs, could make the right decision	31(9.0%)	22(6.4%)	27(7.8%)	74(21.5%)	190(55.2%)
Refuse alcohol/drugs, could communicate decision	17(5.0%)	34(10.0%)	28(8.3%)	101(29.8%)	159(46.9%)
Refuse sex, until partner agrees to use a condom	45(13.3%)	38(11.2%)	65(19.2%)	79(23.4%)	111(32.8%)
Could tell boy or girl-friend to start using condoms	35(10.4%)	30(8.9%)	47(12.8%)	107(31.8%)	118(35.0%)
Could tell first-time partner to use condoms	31(9.2%)	26(7.7%)	26(7.7%)	95(28.2%)	142(42.1%)
Could convince boy or girlfriend to use condoms, if using birth control pills	57(16.6%)	45(13.1%)	45(13.1%)	85(16.3%)	100(29.2%)

*Key: SD: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree*

The scores in Table 12 show the responses of undergraduate students to the examined aspects of self-efficacy in relation to risky sexual behaviours. The undergraduate students rated their perceptions on the influence of self-efficacy on risky sexual behaviours through the following statement: Refuse sex with someone at a party. The majority of undergraduate students, 67(19.5%) and 152(44.2%) indicated agree and strongly agree respectively, while those who did not support the statement by indicating strongly disagree and disagree were 39(11.3%) and 37(10.8%) respectively. Those respondents who indicated neutral were 49(14.2%). This implied that majority of the students in the universities refuse sex with someone at a party.

A strong self-efficacy among undergraduate students helps them to resist being lured to sex in parties. In reference to social learning theory, it is good when parents, counsellors and other stakeholders inculcate assertive skills in order to build a strong self-efficacy hence curb risky sexual behaviours among undergraduate students. Majority of peer counsellors from Campus 'A' and Campus 'B' were also of the view that lack of a strong self-efficacy contributed to risky sexual behaviours among their fellow peers i.e. students who follow peers for house parties and sexual expedition during weekends because of lack of assertiveness to say no to such invitations. According to the student counsellors, self-efficacy is about ones-self, loving one-self and has to do with self-assertiveness. If a student has high self-efficacy then he/she may not yield to risky sexual behaviours, and if the self-efficacy is low then he/she is likely to engage in risky sexual behaviours. The counsellors shared an experience of a number of clients whose self-efficacy was high and they were able to resist invitation for house parties that may lead to risky sexual behaviours but those with low self-efficacy found themselves engaging in risky sexual behaviours. The findings agree with a study done in USA by Zamboni et al. (2017) who



found that including self-efficacy as a mediating variable improved the model and overall prediction of safer sex intentions.

The undergraduate students further rated the perceived influence of self-efficacy on risky sexual behaviours through responses to the following statement: Refuse sex, even if a boyfriend or girlfriend. Majority of the respondents, 75(21.8%) and 86(25.0%) strongly disagreed and disagreed respectively. Those who indicated neutral were 50(14.5%), while those who agreed and strongly agreed were 67(19.5%) and 66(19.2%) correspondingly. This indicates that there is sufficient evidence to conclude that mainstream of the students in campus could not refuse sexual activities with their boyfriends or girlfriends.

The researcher further evaluated the perception of the respondents on refusal of alcohol or drugs in order to make the right decision. From the results, it was observed that majority of the respondents, 74(21.5%) and 190(55.2%) agreed and strongly agreed respectively that their decision to refuse alcohol and drugs assist them in making the correct decision. Those who indicated neutral were 31(9.0%), while 22(6.4%) and 27(7.8%) strongly disagreed and disagreed correspondingly. This means that there is sufficient evidence to conclude that the undergraduate students refuse alcohol or drugs so that they can make the right decisions of refusing to engage in risky sexual behaviours. From the study it was also observed that majority of the respondents 101(29.8%) and 159(46.9%) agreed and strongly agreed in that order that their decision to refuse alcohol and drugs assist them to communicate the decision on sexual behaviours. Those who indicated neutral were 17(5.0%), while 34(10.0%) and 28(8.3%) strongly disagreed and disagreed correspondingly. This finding strongly indicates that undergraduate students are aware that the alcohol or drugs impair decision-making and communication. These

findings are similar to a study by Thompson et al. (2016) who found that substance use predicted unprotected sex and engagement of four or more sexual partnerships.

Another statement used to test the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students was: Refuse sex, until partner agrees to use a condom. From the results, it was observed that majority of the respondents, 79(23.4%) and 111(32.8%) agreed and strongly agreed respectively, refuse sex until their partner agrees to use a condom. Those who indicated neutral were 45(13.3%), while 38(11.2%) and 65(19.2%) strongly disagreed and disagreed in that order. This indicates that there was significant evidence that a bulk of the students refuse sex until their partner agrees to use the condom. Furthermore, the result of the study indicate that majority of the students could tell the boyfriend or girlfriend to start using the condoms as indicated by 107(31.8%) and 118(35.0%) of the respondents who agreed and strongly agreed respectively. Those who indicated neutral were 35(10.4%) while 30(8.9%) and 47(13.9%) strongly disagreed and disagreed correspondingly. This indicate that mainstream of the students in the university could tell their boyfriend or girlfriends to start using the condoms.

The result of the study also indicate that majority of the students 95(28.2%) and 142(42.1%) agreed and strongly agreed respectively could tell first time partners to start using condoms. Those who indicated neutral were 31(9.2%) while 26(7.7%) and 43(12.8%) strongly disagreed and disagreed in that order. This indicates that a big population of students in the university could tell their first-time partners to start using the condoms. Finally, concerning condom use self-efficacy, the result of the study indicates that majority of the respondents, 85(24.8%) and 100(29.2%) agreed and strongly agreed respectively, could convince boyfriend or girlfriend to use the condoms if using birth control pills. Those who indicated neutral were 57(16.6%), while

45(13.1%) and 56(16.3%) strongly disagreed and disagreed correspondingly. This indicates that mainstream of the students in the university could convince their boyfriends or girlfriends to use condoms if they were using birth control pills. The findings are similar to a study by Asante et al. (2016) who did a cross-sectional study involving 518 university students in Accra, Ghana to determine how the Condom use self-Efficacy Scale-Ghana could predict both actual condom use and future condom use and found that of all the participants, 84 % were sexually active but less than half of the sample (48 %) reported to have used condom during their last sexual intercourse, and a hierarchical regression analysis showed that components of the Condom Use Self-Efficacy Scale such as appropriation, assertiveness, pleasure and intoxication, and STDs predicted condom use and condom use intentions.

This study further sought to establish the significance of the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students. A null hypothesis: *H<sub>o1</sub>: Self-efficacy has no statistically significant influence on risky sexual behaviours among undergraduate students* was generated. Undergraduate students' perceived influence of self-efficacy was conceptualised by means of various variables derived from non-missing responses on 8 items measuring the various domains of students' self-efficacy in relation to risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 13 and subsequently discussed.

**Table 33: Chi-square Statistical Test of the Perceived Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students**

Likert items	Chi squ	Df	Asymp	Sig. Exact	Sig. point Probab
Refuse sex with someone at a party	133.965 <sup>a</sup>	4.00	.000	.000	.000
Refuse sex, even if a boyfriend or girlfriend	10.157 <sup>a</sup>	4.00	.038	.038	.001
Refuse alcohol/drugs, could make the right decision	291.901 <sup>a</sup>	4.00	.000	.000	.000
Refuse alcohol/drugs, could communicate decision	217.209 <sup>b</sup>	4.00	.000	.000	.000
Refuse sex, until partner agrees to use a condom	50.402 <sup>c</sup>	4.00	.000	.000	.000
Could tell boy or girl-friend to start using condoms	103.757 <sup>d</sup>	4.00	.000	.000	.000
Could tell first-time partner to use condoms	147.792 <sup>d</sup>	4.00	.000	.000	.000
Could convince boy or girlfriend to use condoms, if using birth control pills	30.688 <sup>e</sup>	4.00	.000	.000	.000

The chi-square results in Table 13 display the analysis of the perceived influence of self-efficacy on risky sexual behaviors among undergraduate students. From the results, it was observed that the chi square for sex refusal by the students was 133.965 with a p-value of 0.000 which is less than 0.05, significance level. This indicates that there is sufficient evidence to conclude that the undergraduate students refuse sex with someone at a party. The result also indicate that the chi square of the undergraduate students' refusal of sex activities with the boyfriend or even girlfriend was 10.157 with a p-value of 0.038 which is less than 0.05 significance level. This indicates that there is sufficient evidence to conclude that majority of the students in the main campuses in Nakuru County refuse sexual activities even with their boyfriends or girlfriends. These findings concur with a study by Scull et al. (2019) who found that higher intentions to engage in

risky sexual behaviours were associated with having lower intentions to communicate with a sexual partner about pregnancy and STIs, and having higher gender norm endorsement due to lack of self-efficacy. The findings differ with a study that was done in South Africa by Aboussalam et al. (2016) who investigated the moderator effect of future time perspective in the relationship between self-efficacy and risky sexual behaviour and found that both self-efficacy and future time perspective were negatively related to risky sexual behaviours. The universities' efforts to enhancing self-efficacy among undergraduate students through psycho educating them on assertive skills should be designed in order to mitigate risky sexual behaviours.

The results of the study evaluated the perceptions of the students on refusal of alcohol or drugs which help them to make the right decision. From the results, it was observed that majority of the students agreed that their decision to refuse alcohol and drugs assist them in making the correct decision. The results indicate that the chi square value was 291.901 with a p-value of 0.000 which was significantly less than 0.05, significance level. This means that there is sufficient evidence to conclude that the undergraduate students refuse alcohol or drugs so that they can make the right decisions. From the study it was observed that majority of the students agreed that their decision to refuse alcohol and drugs assist them to communicate the decision on sexual behaviors. The results indicate that the chi square value was 217.209 with a p-value of 0.000 which was significantly less than 0.05, significance level. This strongly indicates that the students are aware that the alcohol or drugs impairs their decision making and communication. These findings are similar to a study by Thompson et al. (2016) who found that substance use predicted unprotected sex and four or more partners. Similarly, Ritchwood et al. (2015) found that substance use is more strongly related to risky sex among females than males. This implies that self-efficacy is useful in resisting substance abuse, which contributes to risky

sexual behaviours. Therefore, parents, counsellors, religious leaders and university management should put more effort to empower undergraduate students on self-efficacy in order to deal with substance abuse, which may contribute, to risky sexual behaviours.

From the results, it was observed that majority of the students refuse sex until their partners agrees to use condom. The study shows that the chi square value was 50.402 with a p- value of 0.000 which was less than 0.05, significance level. This indicates that there was significant evidence that majority of the students refuse sex until their partner agrees to use condom. The result of the study further indicate that majority of the students could tell their boyfriend or girlfriend to start using condoms. The results for the students telling boyfriend or girlfriend to start using condoms had a chi square of 103.757 with a p-value of 0.000 which was significantly less than 0.05, significance level. This indicate that majority of the students in the university could tell their boyfriends or girlfriends to start using condoms.

The result of the study indicate that majority of the students could tell first time partners to use condoms. The results for the students telling first time partners to use condoms had a chi square of 147.792 with a p-value of 0.000 which was significantly less than 0.05, significance level. This indicate that majority of the students in the university could tell their first time partners to use condoms. Finally, the result of the study indicate that majority of the students could convince boyfriend or girlfriend to use the condoms if using birth control pills. The results for the students convincing boyfriend or girlfriend to use condoms if using birth control pills had a chi square of 30.688 with a p-value of 0.000 which was significantly less than 0.05, significance level. This indicates that majority of the students in the university could convince their boyfriend or girlfriends to use the condoms if they are using birth control pills.

The result of the study indicate that majority of the students could tell the boyfriend or girlfriend to start using condoms. The results for the students telling boyfriend or girlfriend to start using condoms had a chi square of 103.757 with a p-value of 0.000 which was significantly less than 0.05, significance level. This show that majority of the students in the university could tell their boyfriend or girlfriends to start using condoms. This finding agree with a study that was done in China by Li et al. (2017) who found that HIV/sexual health community engagement, condom use peer norms, condom use self-efficacy, and frequency of condom use were mutually correlated. HIV/sexual health community engagement was associated with frequency of condom use, which was directly mediated by condom use peer norms and indirectly through self-efficacy. The study suggested that condom use peer norms and self-efficacy may be mediators in the pathway between community engagement and condom use. The study also concurs with a study by Javier et al. (2016) who found that condom use efficacy at posttest fully mediated the relationship between intervention effect and assertive sexual communication at 3-month follow-up and in addition, condom use efficacy at posttest fully mediated the relationship between intervention effect and condom negotiation at 3-month follow-up. This study also corroborates with a study In Ghana by Teye-Kwadjo et al. (2017) who found that attitudes towards condom use and perceived behavioral control (self-efficacy) over condom use were significantly positively associated with the intention to use condoms, and noted the importance of using behavioral beliefs, perceived control beliefs and behavioral intention as key variables in condom promotion programmes among youth.

The chi-square results indicated that the p-value of the areas of the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students were as follows: refuse sex with someone at a party (.000), refuse sex, even if a boyfriend or girlfriend

(.001), refuse alcohol/drugs could make the right decision (.000), refuse alcohol/drugs could communicate decision (.000), refuse sex until partner agrees to use a condom (.000), could tell boy or girl-friend to start using condoms (.000), could tell first-time partner to use condoms (.000), and finally, could convince boy or girlfriend to use condoms, if using birth control pills (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that self-efficacy has statistically significant influence on risky sexual behaviours among undergraduate students. This finding implies that self-efficacy does influence risky sexual behaviours among undergraduate students and therefore should be given attention by parents, religious leaders, counsellors, university administrators and all other stakeholders in order to empower undergraduate students on self-efficacy to curb risky sexual behaviours.

The findings agree with a study by Scoloven (2016) who found that HIV/AIDS knowledge was associated with self-efficacy for limiting sexual risk behavior. Similarly, Thompson et al. (2016) noted that risky sexual behavior is a serious public health problem as they found in research that trauma symptoms predicted unprotected sex and mediated effects of emotional maltreatment on unprotected sex and on assertiveness in sexual refusal and the effects of sexual abuse on unprotected sex. Traeen et al. (2014) found that the association between the use of sexually explicit material and sexual risk behavior was mediated by condom use self-efficacy in an indirect path. The findings are also in agreement with a study that was done in Kenya by Tenkorang and Maticka-Tyndale (2014) who found that youth with higher abstinence self-efficacy had a reduced risk of sexual debut, and by Mbugua and Karonjo (2018) who found that reproductive health knowledge was vital in the growth and development of young people's self-efficacy and could impact greatly on their educational and personal outcome as they



proceed to adulthood. The results therefore imply that undergraduate students perceive that self-efficacy influence risky sexual behaviors.

In summary, it is clear from the research findings and related literature that there is significant correlation between self-efficacy and risky sexual behaviours among undergraduate students. The findings indicate that majority of the respondents in the main campuses manifested a strong sense of self efficacy by perceiving that they could refuse to engage in sex with boyfriends or girlfriends, refuse alcohol, and could abstain from premarital sex or encourage use of condoms in order to curb risky sexual behaviours. However, there are those who manifested low self-efficacy. This information can be useful in devising effective interventions and measures to enhance self-efficacy in order to mitigate risky sexual behaviours. Therefore, parents, counsellors, religious leaders, policy makers and university management should enhance self-efficacy among undergraduate students in order to mitigate risky sexual behaviours.

This study further sought to establish the risk of the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in the private and public main campuses in Nakuru County. The findings of risk factor analysis are indicated in Table 14 below.

**Table 14 : Risk Factor Analysis of the Perceived Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students**

Perceived Influence of self –efficacy on Risky Sexual Behaviours among Undergraduate Students	95% Confidence Interval		
	Value	Lower	Upper
Odds Ratio for university (Campus B/ Campus A)	.841	.453	1.562
For cohort efficacy = strongly disagree.	.864	.512	1.460
For cohort efficacy = strongly agree	1.028	.934	1.131
N of Valid Cases	346		

The Table 14 indicates the results of the odds ratio of the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in private and public universities in Nakuru County. From the analysis, it was observed that the odds ratio of private to public Universities was 0.841, which indicated that there was strong influence of self-efficacy in private university than the public university on risky sexual behaviours among the students due to strict rules and regulations in the private campuses. Some may be based on religious values hence uphold high moral values including psycho-educating them on assertive skills and confronting undergraduate students from engaging in risky sexual behaviours in campus in comparison to public campuses who may be lenient as a study done in Ethiopia by Gebresllasie et al (2017). This indicated that risky sexual practice among students from public universities is common. Some studies in Ethiopia indicated the presence of high risk sexual behaviour among students in public universities, though also research indicate that risky sexual behaviour exists among private university students (Sendekie & Worku, 2019). The finding of the study showed sexual risk behaviours is high among private colleges such as multiple sexual partners and substance use. Therefore, colleges should emphasis on promoting healthy sexual and reproductive health programs (Gebresllasie et al, 2017). Meyer, McCormick and Kiger (2017) found that students on private college campuses would engage in safer sexual behaviours than their counterparts in public college campuses.

***Excerpt Two***

***Peer Counsellors' and Student Counsellors' Verbatim Report on the influence of Self-efficacy on Risky Sexual Behaviours***

***Some Peer Counsellors' Responses during Focus Group Discussions (FGD)***

***Campus A***

***Researcher:*** How does self-efficacy influence risky sexual behaviours among your fellow peers?

***PC 1:*** Lack of assertive skill- Students who follow peers for sexual expedition during weekends because of lack of assertiveness.

*PC 2: Being not principled and lack of assertiveness may yield to risky sexual behaviour*

*Campus B*

*PC 1: Self-efficacy has to do with the ability to say no or yes to risky sexual behaviours*

*PC 2: It is true that self-efficacy influences risky sexual behaviours as I have witnessed as a peer counsellor. Those peers who are principled are able to resist risky sexual behaviours*

#### ***Student Counsellors' Responses during the Interviews***

*Campus A*

***Researcher:*** *How does self-efficacy influence risky sexual behaviours among undergraduate students?*

***SC:*** *Self-efficacy is about ones-self, loving one-self and has to do with self-assertiveness. If a student has high self-efficacy then he/she may not yield to risky sexual behaviours, and if the self-efficacy is low then he/she is likely to engage in risky sexual behaviours. I have seen a number of my clients whose self-efficacy is high and they are able to resist risky sexual behaviours but those with low self-efficacy find themselves engaging in risky sexual behaviours.*

*Campus B*

***Researcher:*** *How does self-efficacy influence risky sexual behaviours among undergraduate students?*

***SC:*** *Self-efficacy is about ones-self, loving one-self and has to do with self-assertiveness. Majority of my clients who go through personality test get 18-20% level of assertiveness which is below the average. They don't know when to say yes or when to say no to sex. Sexual abuse can lead to low self-efficacy.*

#### **4.7 Perceived Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students**

The second objective of this study was to examine the perceived influence of sexual norms on risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. Sexual norms being referred to here are social norms regarding sexuality as inculcated to undergraduate students by parents, peers and religious affiliations. To determine whether undergraduate students were influenced by sexual norms on risky sexual behaviours, the respondents were asked to rate various aspects on sexual norms and results displayed in Table 15 and subsequently discussed.

**Table 15: Likert Scale Score of Undergraduate Students' Perception of the Influence of Sexual Norms on Risky Sexual Behaviours**

Likert Items	SD	D	N	A	SA
Wait until older for sex (friends' belief)	84(24.9%)	64(18.9%)	47(13.9%)	84(24.9%)	59(17.5%)
Sex okay with a steady boyfriend or girlfriend (friends' belief)	57(16.7%)	43(12.6%)	41(12.0%)	125(36.7%)	75(22.0%)
Sex okay with a couple of different people / month (friends' belief)	160(46.9%)	89(26.1%)	38 (11.1%)	35(10.3%)	19(5.6%)
Numbers of students have had sex (personal belief)	29(8.6%)	32(9.4%)	49(14.5%)	126(37.2%)	103(30.4%)
Wait until older for sex (personal belief)	48(14.2%)	75(22.3%)	45(13.4%)	85(25.2%)	84(24.9%)
Sex okay with a steady boyfriend or girlfriend (personal belief)	62(18.2%)	85(25.2%)	42 (12.5%)	27(8.0%)	16(4.7%)
Sex okay with a couple of different people/ month (personal belief)	167(49.6%)	85(25.2%)	42 (12.5%)	27(8.0%)	16(4.7%)
Talked about abstinence with parents or other (adult relatives)	39(11.5%)	65(19.1%)	45(13.2%)	100(29.4%)	91(26.8%)
Talked about condoms with parents or other (adult relatives)	77(22.5%)	90(26.3%)	42(12.3%)	78(22.8%)	55(16.1%)
Talked about protection against HIV or STD with parents/adult relatives	39(11.4%)	65(19.1%)	45(13.2%)	100(29.4%)	91(26.8%)
Talked about preventing pregnancy with parents or other adult relatives	42(12.2%)	64(18.7%)	44(12.8%)	104(30.3%)	89(25.9%)
Comfortable talking about sex with parents	118(34.5%)	65(19.0%)	40(11.7%)	60(17.5%)	59(17.3%)

The scores in Table 15 display the perceptions of the undergraduate students to the examined influence of sexual norms on risky sexual behaviours and are expounded in the following discussions. The practice of whether sexual norms influence undergraduate students' risky sexual behaviours was put to the test by examining the responses to the following statement: Wait until older for sex (friends' belief). Those who indicated strongly disagree and disagree got scores of 84(24.9%) and 64(18.9%) respectively. Those who indicated neutral were 47(13.9%) while those who indicated agree and strongly agree had 84(24.9%) and 59(17.5%) respectively. The majority of the respondents perceived that undergraduate students were not ready to wait until they are older for sex. It was therefore concluded that undergraduate students could not wait until older for sex. The results of the study further indicate that majority of the students say sex is okay with their steady boyfriends or girlfriends. Those who indicated strongly disagree and disagree scored 57(16.7%) and 43(12.6%) in that order. Those who indicated neutral were 41(12.0%) while those who indicated agree and strongly agree were the majority with 125(36.7%) and 75(22.0%) respectively. This means that there is sufficient evidence to conclude that a bulk of undergraduate students have an opinion that sex is okay with a steady boyfriend or girlfriend under peer pressure. Concerning the statement: Sex okay with a couple of different people/month (friends' belief), those who indicated strongly disagree and disagree were 160(46.9%) and 89(26.1%) in that order. Those who indicated neutral were 38 (11.1%) while those who indicated agree and strongly agree were 35(10.3%) and 19(5.6%) respectively. The study findings indicate that undergraduate students perceived that sex was not okay with a couple of different people/month (friends' belief).

The study also sought to find out the perceived influence of peer sexual norms on risky sexual behaviours through undergraduate students' response to the following statement:

Numbers of students have had sex (personal belief). The scores indicate that those who chose strongly disagree and agree were 29(8.6%) and 32(9.4%) respectively, those who indicated neutral were 49(14.5%) while those who indicated agree and strongly agree had 126(37.2%) and 103(30.4%) respectively. This means that there was sufficient evidence that the proportion of students who believe that a number of students have had sex was large. The results also showed that majority of students had personal belief that they wait until older for sex. The undergraduate students who indicated strongly disagree and disagree scored 48(14.2%) and 75(22.3%) respectively, those who indicated neutral were 45(13.4%) while those who indicated agree and strongly agree were 85(25.2%) and 84(24.9%) correspondingly. The proportion of respondents with personal belief of waiting until older for sex was 169(50.1%). This means that there was sufficient evidence to conclude that a large proportion of undergraduate students believe that they should wait until older for sex. The findings agree with a study by Wright et al. (2016) who found that pornography consumption is associated with lower estimations of peers' condom use, and lower estimations of peers' condom use are associated with personally engaging in condomless sex.

The results of the study further indicate that respondents widely held that students have a personal belief that they could say okay to sex with their steady boyfriends or girlfriends. The undergraduate students who chose strongly disagree and disagree had 62(18.2%) and 58(17.0%) in that order. Those who indicated neutral were 46(13.5%) while those who chose agree and strongly agree were 102(29.9%) and 73(21.4%) respectively. The majority of the respondents for the personal belief of saying okay to sex with steady boyfriend or girlfriend were 175(51.3%). This means that there is sufficient evidence to conclude that the majority of students in campus have a personal belief that sex is okay with a steady boyfriend or girlfriend. In a response to the statement: Sex okay with a

couple of different people/month (personal belief), the undergraduate students who chose strongly disagree and disagree were 167(49.6%) and 85(25.2%) respectively. Those who indicated neutral were 42(12.5%) while those who chose agree and strongly disagree were 27(8.0%) and 16(4.7%) correspondingly. The results of the study indicate that a large number of students have a personal belief that they can say no to sex with their steady couple of different people/months.

The peer counsellors noted that peer pressure might influence risky sexual behaviours in that if students were not principled, they were likely to yield to peer pressure. They observed that there was positive peer pressure and negative peer pressure, so they recommended that their fellow peers should be able to distinguish one from the other in order to avoid being coerced into risky sexual behaviours. On the influence of peer sexual norms, the Campus 'A' SC acknowledged that indeed undergraduate students were constantly under peer pressure either positively or negatively especially on sexual behaviours. She noted that peer pressure can be either bad or good. If one has a stand, they cannot be under peer pressure to yield to risky sexual behaviours. The Campus 'B' PC 1 noted that peers who called themselves comrades tended to mislead each other, they said, "if one doesn't practice sex, *shimo yake itakuwa imefungana*" that was interpreted to mean if a lady did not engage in premarital sex the private part may close up. The student counsellor noted that peers teach false information about sexual behaviours. On peer pressure, the Campus 'B' majority of peer counsellors noted that their fellow peers exposed a number of students to issues of sexuality. A number of clients handled claimed that they joined campus very ignorant of the existence of multiple sexual partners and prostitution. The sexual norms imparted to them by the society mattered in the engagement in risky sexual behaviours or not. The peer counsellors actually acknowledged that they were the by-product of the environment.

The study also sought to find out influence of parental sexual norms on risky sexual behaviours through undergraduate students' response to the following statement: Talked about abstinence with parents or other (adult relatives). The undergraduate students who indicated strongly disagree and disagree were 39(11.5%) and 65(19.1%) respectively, those who indicated neutral were 45(13.2%) while those who indicated agree and strongly agree were 100(29.4%) and 91(26.8%) in that order. This finding indicated that majority of the students talked about abstinence with parents or other adults. The results of the study further indicate that majority of the students did not talk about condoms with parents and other adults. The undergraduate students who chose strongly disagree and disagree were 77(22.5%) and 90(26.3%) respectively, those who indicated neutral were 42(12.3%) while those who indicated agree and strongly agree were 78(22.8%) and 55(16.1%) correspondingly. This means that there was sufficient evidence to conclude that a larger proportion of the students did not talk about condoms with parents or other adults. The results also indicate that majority of the students talked about protection against HIV or STD with parents or other adults. The undergraduate students who indicated strongly disagree and disagree were 39(11.4%) and 50(14.6%) in that order, those who indicated neutral were 39(11.4%) while those who chose agree and strongly agree were 109(31.9%) and 105(30.7%) correspondingly. This means that there was sufficient evidence to conclude that a bulk of undergraduate students talked about protection against HIV or STD with parents or other adult relatives.

The results of the study further indicated that majority of the students talked about preventing pregnancy with parents and other adults. The undergraduate students who chose strongly disagree and disagree were 42(12.2%) and 64(18.7%) respectively, those who indicated neutral were 44(12.8%) while those who indicated agree and strongly agree were 104(30.3%) and 89(25.9%) correspondingly. This means that there was



sufficient evidence to conclude that a large proportion of the students talk about preventing pregnancy with parents or other adults. The results also indicated that majority of the students perceived that they were not comfortable talking about sex with parents. Those who chose strongly disagree and disagree were 118(34.5%) and 65(19.0%) respectively, those who indicated neutral were 40(11.7%) while those who indicated agree and strongly agree were 60(17.5%) and 59(17.3%) in that order. This means that there was sufficient evidence to conclude that a large proportion of undergraduate students were not comfortable talking about sex with parents.

The peer counsellors and student counsellors were requested to give information on the influence of sexual norms on risky sexual behaviours among undergraduate students. Majority of Campus 'A' peer counsellors were of the view that sexual norms influenced risky sexual behaviours either positively or negatively. According to the majority of peer counsellors, parents mattered in life of children's sexuality. They noted that if children were not psycho-educated enough on issues of sexuality, they might find themselves engaging in risky sexual behaviours in campus. According to Campus 'B' peer counsellors; sexual norms influenced risky sexual behaviours among undergraduate students. The majority of peer counsellors acknowledged that parental sexual norms played a critical role in shaping the sexual behaviours of young people. A number of peer counsellors had witnessed cases of risky sexual behaviours among their fellow peers because they were never psycho-educated on sexuality matters by their parents.

On parental sexual norms, the SC from Campus 'A' noted that a number of clients admitted that their parents rarely educated them on sexuality matters leave alone to address on risky sexual behaviours. Those students who were psycho-educated by their parents on sexual issues rarely engaged in risky sexual behaviours, whereas those students whose parents rarely empowered them found themselves engaging in risky

sexual behaviours. The Campus 'B' SC's response on the influence of sexual norms on risky sexual behaviours was that sexual norms influenced risky sexual behaviours among undergraduate students. The common sexual norms were parental sexual norms, peer sexual norms, and religious sexual norms. About parental sexual norms, the SC noted that parents did not address issues of sex. Parents were quiet about it. The SC gave a case of a first-year student who was tested pregnant at the campus medical centre and was referred for counselling only to discover that she had no clue of how she became pregnant because of lack of parental sexual norms. According to the student counsellor peer, sexual norms influence risky sexual behaviours.

Religion plays a key role in proper impartation of sexual norms to undergraduate students. The majority of Campus 'A' peer counsellors shared that religion played a key role in the sexual norms of young people. They noted that religious organisation should be able to psycho-educate young people and not expect them to be perfect and should not excommunicate them when they make mistakes including engaging in risky sexual behaviours. About religious sexual norms, the student counsellor acknowledged that religious teachings on sexuality were very important in moulding young people, but unfortunately, reports from a number of her clients indicated that religious organisations and institutions rarely address issues on sexuality, in fact to some religions it was an abomination to talk about sex. According to the counsellor, this was contributed to an increase in risky sexual behaviours among undergraduate students; however, those religious organisations that address issues of risky sexual behaviours helped their youth to curb the behaviour. The majority of Campus 'B' peer counsellors were in agreement that rarely did the church or any other religion addressed real issues of sexuality; in fact, majority of religious organisations emphasised about the heavenly things and failed to

address the issues young people were facing here on earth including risky sexual behaviours.

On religious sexual norms, the Campus 'B' SC noted that there was a gap in the religious institutions in that they rarely addressed the issue of sexuality. The student counsellor recommended that religious organisations should be able to psycho-educate the youth on sexuality matters and there should be no excommunication of those who experienced unplanned pregnancies, instead they should be psycho-educated on sexuality and be counselled to keep the pregnancy to full term instead of abortion. Single mothers should not be isolated by any religion. The findings coincides with a study carried out in Nigeria by Somefun (2019) who found that parents' religion plays an important role in youth behaviours. The results showed that 68% of the youth had never had sex and further noted that religiosity was a protective factor for youth sexual behaviour and this positive association was still evident even after controlling for other covariates. Youth who were highly religious had significantly higher odds of abstaining compared to their counterparts who were not religious.

The parents, counsellors, religious leaders and universities' efforts to incorporate religious teachings and values is very important to curb risky sexual behaviors among undergraduate students need to be designed. The findings also concur with a study by Wright and Vangeel (2019) who noted in support of social learning that pornography consumption was associated with higher permissiveness within sex; associations between pornography use and permissive sexual attitudes were generally stronger for men than women; and attitudinal sex differences among non-consumers became smaller over time. In addition, Martyniuk and Stulhofer (2018) found in research that relatively there were low levels of permissiveness, but substantial pornography use, particularly among

adolescent men. The results therefore imply that undergraduate students perceive that sexual norms influence risky sexual behaviors.

This study further sought to establish the significance of the perceived influence of sexual norms on risky sexual behaviours among undergraduate students. A null hypothesis: *H<sub>02</sub>: Sexual norms have no statistically significant influence on risky sexual behaviours among undergraduate students* was generated. Undergraduate students' sexual norms were conceptualised by means of a variety of variables derived from non-missing responses on 12 items measuring the various domains of students' sexual norms in relation to risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 16 and subsequently discussed.

**Table 16: Chi-square Test Statistics on the Perceived Influence of Sexual Norms on Risky Sexual Behaviours among the Undergraduate Students**

Likert Items	Chi Squ	Df	Asymp. Sig.	Exact Sig.	Point Probab
Wait until older for sex (friends' belief)	15.521 <sup>a</sup>	4.00	.000	.000	.000
Sex okay with a steady boyfriend or Girlfriend (friends' belief)	69.982 <sup>b</sup>	4.00	.000	.000	.000
Sex okay with a couple of different people/month (friends' belief)	194.934 <sup>b</sup>	4.00	.000	.000	.000
Numbers of students have had sex (personal belief)	114.555 <sup>c</sup>	4.00	.000	.000	.000
Wait until older for sex (personal belief)	22.570 <sup>d</sup>	4.00	.000	.000	.000
Sex okay with a steady boyfriend or Girlfriend (personal belief)	97.880 <sup>c</sup>	4.00	.000	.000	.000
Sex okay with a couple of different people/month (personal belief)	224.766 <sup>d</sup>	4.00	.000	.000	.000
Talked about abstinence with parents or other (adult relatives)	43.118 <sup>f</sup>	4.00	.000	.000	.000
Talked about condoms with parents or other (adult relatives)	22.064 <sup>g</sup>	4.00	.000	.000	.000
Talked about protection against HIV or STD with parents or other adult relatives	73.906 <sup>g</sup>	4.00	.000	.000	.000
Talked about preventing pregnancy with parents or other adult relatives	43.778 <sup>h</sup>	4.00	.000	.000	.000
Comfortable talking about sex with parents	50.251 <sup>g</sup>	4.00	.000	.000	.000

The chi-square results in Table 16 indicate the perceptions of the students on the influence of sexual norms on risky sexual behaviors among the undergraduate students. From the results, it was observed that majority of the students could wait until older for sex. The results indicate that the chi square value for proportion of students who could wait until older for sex was 15.521 with a p- value of 0.004 which was less than 0.05, significance level. This indicates that there is sufficient evidence to conclude that majority of students were ready to wait until they are older for sex. The results of the study indicate that majority of the students could say okay to sex with their steady boyfriends or girlfriends. The chi square test statistic value was 69.982 with a p-value of

0.000 which is less than 0.05, significance level. This means that there is sufficient evidence to conclude that the majority of the students in main campuses in Nakuru have an opinion that sex was okay with a steady boyfriend or girlfriend.

From the results, it was further observed that majority of students perceived that a number of students have had sex. The results show that the chi square values for perception of a number of students have had sex was 114.555 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence that the proportion of students who belief that a number of students have had sex was large. The results also show that there was majority of students who had personal belief that they could wait until older for sex. The chi square value for personal belief of waiting until older for sex was 22.570 with a p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the large proportion of students, belief that they could wait until older for sex.

The results of the study indicate that majority of the students have a personal belief that they can okay sex with their steady boyfriends or girlfriends. The chi square test statistic value for the personal belief of student saying okay to sex with steady boyfriend or girlfriend was 97.880 with a p-value of 0.000 which is less than 0.05 significance level. This means that there is sufficient evidence to conclude that the majority of the students in main campuses in Nakuru have a personal belief that sex is okay with a steady boyfriend or girlfriend. The results of the study indicate that majority of the students have a personal belief that they can say okay with their steady couple of different people/months. The chi square test statistic value for the personal belief of students saying okay to sex with steady couple of different people/months was 224.766 with a p-value of 0.000 which is less than 0.05 significance level. This means that there is sufficient evidence to conclude that the majority of the students in main campuses in

Nakuru have a personal belief that sex is okay with a steady couple of different people/months. The findings concur with a study by Bongardt et al. (2017) who examined the relations between observed normativity and deviance during adolescents' and young adults'. Conversations about sex with their friends and their individual perceptions of sexual peer norms and found that more deviance was related to perceiving friends to be more sexually active, more approving of having sex, and engaging in more risky sex, whereas more normativity was related to perceptions in the opposite direction. The universities efforts to reduce the effects of negative peer pressure among undergraduate students need to be designed.

The results also indicated that majority of the students could talk about abstinence with parents or other adults. From the results, it was observed that the chi square value was equal to 43.118 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of the students talk about abstinence with parents or other adult relatives. The results of the study also indicate that majority of undergraduate students talk about condoms with parents and other adults. From the results, it was observed that the chi square value was 22.064 with a p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the larger proportion of the students talk about condoms with parents or other adult relatives. The results also indicate that majority of the students talk about protection against HIV or STD with parents or other adults. From the results, it was observed that the chi square value was equal to 73.906 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of the students talk about protection against HIV or STD with parents or other adult relatives. The results of the study indicate that majority of the students talk about preventing pregnancy with parents and other adults.

From the results, it was observed that the chi square value was 43.778 with a p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the larger proportion of the students talk about preventing pregnancy with parents or other adult relatives.

The results concurs with Trinh et al., (2013) who found that exposure to peer messages that were accepting of casual sex was associated with more sexual partners, casual sex encounters, and sexual experience. The study also coincides a study by Bongardt et al. (2017) who examined the relations between observed normativity and deviance during adolescents' and young adults' conversations about sex with their friends and their individual perceptions of sexual peer norms and found that more deviance was related to perceiving friends to be more sexually active, more approving of having sex, and engaging in more risky sex, whereas more normativity was related to perceptions in the opposite direction. The findings also concurs with a study by Wright and Vangeel (2019) who noted in support of social learning that pornography consumption was associated with higher permissiveness within sex; associations between pornography use and permissive sexual attitudes were generally stronger for men than women; and attitudinal sex differences among non-consumers became smaller over time. Similarly, Martyniuk and Stulhofer (2018) found in research that relatively there were low levels of permissiveness, but substantial pornography use, particularly among adolescent men.

The results also indicated that majority of the students talk about abstinence with parents or other adult relatives. From the results, it was observed that the chi square value was equal to 43.118 with a p-value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence to conclude that majority of the students talk about abstinence with parents or other adult relatives. The results also indicated that majority of the students perceived that they are comfortable talking about sex with



parents. From the results, it was observed that the chi square value was equal to 50.251<sup>g</sup> with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the larger proportion of the students were comfortable talking about sex with parents or other adult relatives. The findings agree with the study by Mustanski et al. (2014) who found that lesbian, gay, bisexual, and transgender (LGBT) youth experienced multiple sexual health inequities driven, in part, by deficits in parental and peer support, school-based sex education programs, and community services. The findings also coincides with a study carried out in Nigeria by Somefun (2019) who found that parents' religion plays an important role in youth behaviours. The results showed that 68% of the youth had never had sex and further noted that religiosity was a protective factor for youth sexual behaviour and this positive association was still evident even after controlling for other covariates. Youth who were highly religious had significantly higher odds of abstaining compared to their counterparts who were not religious. Arbor (2018) also noted that the first year of college presents a unique opportunity for new students to experiment with various risk behaviours and parental messages about these behaviours can have varying impacts on how students choose to partake in risk behaviours, especially when looking at how culture affects how that communication takes place. The parents' efforts to impart healthy parental sexual norms in order to mitigate risky sexual behaviours among undergraduate students need to be designed.

The chi-square results indicated that the p-value of the areas of the perceived influence of sexual norms on risky sexual behaviours among undergraduate students were as follows: wait until older for sex (friends belief) (.000), sex okay with a steady boyfriend or girlfriend(friends belief) (.000), sex okay with a couple of different people/month(friends belief) (.000), number of students have had sex (personal belief) (.000), wait until older

for sex (personal belief) (.000), sex okay with a steady boyfriend or girlfriend(personal belief) (.000), sex okay with a couple of different people/month(personal belief) (.000), talked about abstinence with parents or other(adult relatives) (.000), talked about condoms with parents or other (adult relatives) (.000), talked about protection against HIV or STD with parents or other adult relatives (.000), talked about preventing pregnancy with parents or other adult relatives (.000), and comfortable talking about sex with parents (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that sexual norms have statistically significant influence on risky sexual behaviours among undergraduate students. The finding implies that sexual norms does influence risky sexual behaviours among undergraduate students and therefore should be given attention by parents, religious leaders, counsellors, university administrators and all other stake holders in order to empower undergraduate students on healthy sexual norms to curb risky sexual behaviours.

These findings are similar to a study by Trinh, Ward, Day, and Levin (2013) who observed that receiving more parent sexual communication is generally linked to a later age of first sexual intercourse and less sexual risk taking. The results of the study also corroborates with a study by Hardy, Hurst, Price, and Denton (2019) who examined the socialization of conservative attitudes about sex and pornography use in later adolescence and tested socialization model whereby there is anticipation that parent conservative sex attitudes would more strongly predict teen conservative sex attitudes when more frequent and higher quality parent-teen communication is present. The findings therefore, indicate that sexual norms correlates significantly with risky sexual behaviours among undergraduate students, and therefore parents, religious leaders, counsellors and university management have a responsibility of psycho educating

undergraduate students on healthy sexual norms in order to mitigate risky sexual behaviours.

This study further sought to establish the risk of the perceived influence of sexual norms on risky sexual behaviours among undergraduate students in private and public main campuses. The findings of risk factor analysis are indicated in Table 17 and subsequently discussed.

**Table 17: Risk Factor Analysis of the Perceived Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students**

Perceived Influence Sexual Norms on Risky Sexual Behaviours among Undergraduate Students	95% Confidence Interval		
	Value	Lower	Upper
Odds Ratio for university (Campus B/ Campus A)	.944	.562	1.586
For cohort eff11 = strongly disagree	.957	.647	1.416
For cohort eff11 = strongly agree	1.014	.893	1.152
N of Valid Cases	346		

The Table 17 displays the results that access the odds ratio between private and public universities on the perceived influence of sexual norms on risky sexual behaviours among undergraduate students. From the analysis, it was observed that the odds ratio was 0.944 which indicate that the private universities have influences of sexual norms on risky sexual behaviours among students more than the public universities due to strict rules and regulations with high moral values based on religious values inculcated in the academic and campus life of all students whereas the public universities may be lenient hence more at risk of engaging in risky sexual behaviours. University culture has also shown to impact on students' sexual beliefs and practices; for example, a less religious or more liberal environment may have more permissive norms regarding sexual behaviours for students (Schimdt, 2015). This finding agrees with a study by Sendekie and Worku

(2019) who found that the identified factors predisposing to risky sexual behaviour were individual factors, social factors, living and cultural conditions. In addition, Hitner, Owens and Swickert (2016) found that social settings have influence on risky sexual behaviors among undergraduate students.

### ***Excerpt Three***

#### ***Peer Counsellors' and Student Counsellors' Verbatim Report on the Influence of Sexual Norms on Risky Sexual Behaviours***

##### ***Some Peer Counsellors' Responses during Focus Group Discussions (FGD)***

###### ***Campus A***

***Researcher:*** How do sexual norms influence risky sexual behaviours among your fellow peers?

***PC 1:*** Parents matters in life of children's sexuality. If children were not psycho-educated enough on issues of sexuality, they may find themselves engaging in risky sexual behaviours in campus.

***PC 2:*** Religion plays a key role in the sexual norms of young people. The religious organisation should be able to psycho-educate young people but instead they expect us to be perfect and excommunicate us when we make mistakes including engaging in risky sexual behaviours

###### ***Campus B***

***Researcher:*** How do sexual norms influence risky sexual behaviours among your fellow peers?

***PC 1:*** Parental sexual norms play a critical role in shaping the sexual behaviours of young people. I have witnessed cases of risky sexual behaviour among our fellow peers because they were never informed by their parents.

***PC 2:*** I personally grew up having no glue what sex was all about and later I discovered my sexuality through my peers.

##### ***Student Counsellors' Responses during the Interviews***

###### ***Campus A***

***Researcher:*** How do sexual norms influence risky sexual behaviours among undergraduate students?

***SC:*** Sexual norms influence risky sexual behaviours among undergraduate students. The common sexual norms are parental sexual norms, peer sexual norms, and religious sexual norms. On parental sexual norms, a number of my clients admit that their parents rarely educated them on sexuality matters leave alone to address on risky sexual behaviours. Those students who were psycho-educated by their parents on sexual issues rarely engaged in risky sexual behaviours, whereas those students whose parents rarely empowered them found themselves engaging in risky sexual behaviours. Indeed, undergraduate students are constantly under peer pressure either positively or negatively especially on sexual behaviours. Peer pressure is either bad or good. If one has a stand, they cannot be under peer pressure to yield to risky sexual

*behaviours. Yes, religious teachings on sexuality are very important in moulding young people, but unfortunately, reports from a number of my clients indicate that religious organisations and institutions rarely address issues of sexuality, in fact to some religions it is an abomination to talk about sex. This has contributed to increase in risky sexual behaviours among undergraduate students; however, those religious organisations that address issues of risky sexual behaviours help their youth to curb the behaviour.*

*Campus B*

**Researcher:** *How do sexual norms influence risky sexual behaviours among undergraduate students?*

**SC:** *Sexual norms influence risky sexual behaviours among undergraduate students. The common sexual norms are parental sexual norms, peer sexual norms, and religious sexual norms. Parents do not address issues of sex. Parents are quiet about it. There is a case of a first-year student who was tested pregnant at the medical centre and was referred for counselling only to discover that she had no clue of how she became pregnant because of lack of parental sexual norms. Peers who call themselves comrades tend to mislead each other, they say, "if one doesn't practice sex or else shimo itakuwa imefungana" that is interpreted to mean if a lady doesn't engage in premarital sex the vagina may close up. Peers teach false information about sexual behaviour. There is a gap in the religious institutions in that they rarely address the issue of sexuality. Religious organisations should be able to psycho-educate the youth on sexuality matters. There should be no excommunication of those who experience unplanned pregnancies, instead they should be psycho-educated on sexuality and be counselled to keep the pregnancy to full term instead of abortion. Single mothers should not be isolated by any religion.*

#### **4.8 Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students**

The third objective of this study was to establish the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. The socioeconomic status here means social standing or class of the family background of undergraduate students often measured as a combination of education, income and occupation of the parents/guardian. Examinations of family background of undergraduate students' socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control which may contribute to risky sexual behaviours among undergraduate students. To determine whether undergraduate students were influenced by socioeconomic status

on risky sexual behaviours, they were asked to rate various aspects on socioeconomic status and results displayed in Table 18 and subsequently discussed.

**Table 18: Likert Scale Score of Undergraduate Students' Perception of the Influence of Socioeconomic Status on Risky Sexual Behaviours**

Likert Items	SD	D	N	A	SA
Poverty can lead to prostitution	25(7.4%)	12(3.6%)	22(6.5%)	130(38.5%)	149(44.1%)
It's okay to engage in sex for financial or material gain	205(60.7%)	78(23.1%)	29(8.6%)	15(4.4%)	11(3.3%)
It's okay to engage in sponsor mentality/cross-generational sex	207(61.4%)	84(24.9%)	26(7.7%)	15(4.5%)	5(1.5%)
It's okay to engage in sex orgies/group sex for economic gain	223(66.0%)	78(23.1%)	22(6.5%)	10(3.0%)	5(1.5%)
It's okay to engage in hook-up culture for financial gain	183(54.8%)	99(29.6%)	33(9.9%)	14(4.2%)	5(1.5%)
I don't fear pregnancy/STDs/HIV as long as I get financial/material gain	268(79.3%)	38(11.2%)	268(79.3%)	11(3.3%)	6(1.8%)

*Key: SD: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree*

The results displayed in Table 18 guide the following discussions on the perceived influence of socioeconomic status on risky sexual behaviours. The study examined the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students through responses to the following statement: Poverty can lead to prostitution. The undergraduate students who indicated strongly disagree and disagree were 25(7.4%) and 12(3.6%) in that order, those who indicated neutral were 22(6.5%) while those who indicated agree and strongly agree were 130(38.5%) and 149(44.1%) correspondingly. It was observed that the proportion of the students who perceived that poverty can lead to prostitution was large. The results also indicate that a bulk of

students perceived that it was not ok to engage in sex for financial or material gain. The undergraduate students who indicated strongly disagree and disagree were 205(60.7%) and 78(23.1%) respectively, those who indicated neutral were 29(8.6%) while those who indicated agree and strongly agree were 15(4.4%) and 11(3.3%) in that order. This means that there was sufficient evidence to conclude that majority of students perceive that it's not okay to engage in sex for financial or material gain. Majority of peer counsellors from Campus 'A' were in agreement that indeed socioeconomic status influence risky sexual behaviours among their peers. The peer counsellors acknowledged handling a number of clients who engage in risky sexual behaviours for financial gain. Also majority of Campus 'B' peer counsellors acknowledged that socioeconomic status influence risky sexual behaviours among their fellow peers in campus. The peer counsellors noted that booming business in campus currently was sex for money especially for those who come from a humble background.

The study also examined the perceived influence of socioeconomic status on risky sexual behaviours through responses to the following statement: It's okay to engage in sponsor mentality/ cross-generational sex. The undergraduate students who indicated strongly disagree and disagree were 207(61.4%) and 84(24.9%) in that order, those who indicated neutral were 26(7.7%) while those who indicated agree and strongly agree were 15(4.5%) and 5(1.5%) respectively. This means that there is sufficient evidence to conclude that majority of undergraduate students perceived that it was not okay to engage in sponsor mentality or cross-generational sex. The peer counsellors and student counsellors were requested to give information on the influence of socioeconomic status on risky sexual behaviours among undergraduate students. Majority of peer counsellors from Campus 'A' observed that due to humble background of some students they tend to yield to risky sexual behaviours with sugar mummies and daddies (sponsors) for

financial and material gain. The Campus 'A' SC reported that socioeconomic status indeed influences risky sexual behaviours among undergraduate students in campus. The SC observed that students whose economic status was stable may not engage in risky sexual behaviours in exchange of financial or material benefit, but those who were from low socioeconomic status may yield to sponsor mentality. The SC reported that a good number of clients found themselves in a compromising situation because of their poor background. The findings are in congruent with Ssewanvana et al. (2017) who found in Sub-Saharan Africa that transactional sex, early sexual entrance, coerced sex, and multiple sexual partnerships are prevalent and mostly driven by socioeconomic status.

The majority of Campus 'B' peer counsellors confessed that they had come across a number of cases of clients who had no option but to yield to sexual pressure in order to get food, while others were driven by lifestyle motivated by a number of their fellow peers to yield to sex for an expensive Smartphone or payment of rent in exchange of sex. The peer counsellors noted that sponsor mentality was a reality in campus- those needy students who could not afford fees were tempted to yield to sponsors- some of the sponsors were the ages of their fathers or even older. In agreement the Campus 'B' SC acknowledged the influence of socioeconomic status on risky sexual behaviours among undergraduate students. The student counsellor gave a report of cases of students who cohabited or engaged in prostitution for financial and material gain in campus. The counsellor further noted that sex for money was a reality and sponsor mentality was practiced equally by both genders and had handled a good number of clients who had experienced risky sexual behaviours in exchange for financial and material gain especially those from humble background.

The results further indicate that majority of students perceived that it was not okay to engage in sex orgies or group sex for economic gain. The undergraduate students who



indicated strongly disagree and disagree were 223(66.0%) and 78(23.1%) in that order. Those who indicated neutral were 22(6.5%) while those who indicated agree and strongly agree were 10(3.0%) and 5(1.5%) respectively. From the results, it was observed that 301(89.1%) of the respondents perceived that it was not okay to engage in sex orgies or group sex for economic gain. This means that there was sufficient evidence to conclude that a large number of students perceived that that it is not okay to engage in sex orgies or group sex for economic gain. The study also indicate that majority of the students perceived that it was not okay to engage in hook-up culture for financial gain. The undergraduate students who indicated strongly disagree and disagree were 183(54.8%) and 99(29.6%). Those who indicated neutral were 33(9.9%) while those who indicated agree and strongly agree were 14(4.2%) and 5(1.5%) correspondingly. The results indicate that the majority of the students who perceived that it was not okay to engage in hook-up culture for financial gain were 282(84.4%). This means that there is sufficient evidence to conclude that majority of students perceived that it was not okay to engage in hook-up culture for financial gain.

Finally, the study examined the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students through responses to the following statement: I do not fear pregnancy/STDs/HIV as long as I get financial/material gain. The undergraduate students who indicated strongly disagree and disagree were 268(79.3%) and 38(11.2%) in that order, those who indicated neutral were 15(4.4%) while those who indicated agree and strongly agree were 11(3.3%) and 6(1.8%) respectively. The finding indicate that a bulk of respondents 306(90.5%) strongly fear unplanned pregnancy or contracting STDs or HIV in the process of engaging in unprotected sex for financial or material gain.

This study further sought to establish the significance of the influence of socioeconomic status on risky sexual behaviours among undergraduate students, a null hypothesis:  $H_03$ : *Socioeconomic status has no statistically significant influence on risky sexual behaviours among undergraduate students* was generated. Undergraduate students' socioeconomic status was conceptualised by means of various variables derived from non-missing responses on 6 items measuring the various domains of students' socioeconomic status in relation to risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 19 and subsequently discussed.

**Table 19: Chi-square Test Statistics on the Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students**

Likert Items	Chi Squ.	Df. Asymp.	Sig.	Exact Sig.	Point Prob.
Poverty can lead to prostitution	258.953 <sup>a</sup>	4.00	.000	.000	.000
It's okay to engage in sex for financial or material gain	391.231 <sup>a</sup>	4.00	.000	.000	.000
It's okay to engage in sponsor mentality/cross-generational sex	391.231 <sup>a</sup>	4.00	.000	.000	.000
It's okay to engage in sex orgies/group sex for economic gain	417.169 <sup>b</sup>	4.00	.000	.000	.000
It's okay to engage in hook-up culture for financial gain	333.665 <sup>c</sup>	4.00	.000	.000	.000
I don't fear unplanned pregnancy /STDs or HIV so long as I get financial/material gain	751.497 <sup>a</sup>	4.00	.000	.000	.000

The chi-square results in Table 19 display the analysis of the perceived influence of socioeconomic status on risky sexual behaviors among undergraduate students. From the results, it was observed that the proportion of the students who perceived that poverty can lead to prostitution was large. The chi square value was equal to 258.953 with a p-value equal to 0.000 which is less than 0.05, significance level. This means that there is

sufficient evidence to conclude that majority of students perceived that poverty can lead to prostitution. The results indicate that majority of students perceive that it's not okay to engage in sex for financial or material gain. From the results, it was observed that the chi square value was equal to 391.231 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceive that it was not okay to engage in sex for financial or material gain. This finding concurs with a study by Bay-Cheng and Goodkind (2016) who observed that young women's orientation toward romantic relationships and being single was shaped not only by hetero-normative gender expectations but also by their socioeconomic status (SES). The universities' efforts to reduce the effects of prostitution among undergraduate students need to be designed in order to mitigate risky sexual behaviours among undergraduate students.

The study also indicates that majority of the students perceived that it's not okay to engage in sponsor mentality or cross generation sex. The results indicate that the chi square value was 417.169 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceive that it was not okay to engage in sponsor mentality or cross generational sex. The findings agree with a study by Thobejane et al. (2017) who noted that most undergraduate students were getting involved with "blessers" mainly for resources or material gain. The majority of the young females indicated that they would not be in a relationship with a person who does not support them financially; some indicated that if they would be in a relationship with a person who does not provide for them, they would find an alternative man (blesser) who will support them financially. The universities' efforts to reduce the effects of sponsor mentality among undergraduate students need to be designed in order to mitigate risky sexual behaviours among undergraduate students.

The results indicate that majority of students perceived that it was not okay to engage in sex orgies or group sex for economic gain. From the results, it was observed that the chi square value was equal to 391.231 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceive that it was not okay to engage in sex orgies or group sex for economic gain. The study also indicate that majority of the students perceived that it was not okay to engage in hookup culture for financial gain. The results indicate that the chi square value was 33.665 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceive that it was not okay to engage in hookup culture for financial gain. The study also indicate that majority of the students strongly fear unplanned pregnancy or contracting STDs or HIV in comparison to financial or material gain.

From the results, it was observed that the proportion of the students who perceive that poverty can lead to prostitution was large. The chi square value was equal to 258.953 with a p- value equal to 0.000 which is less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceived that poverty can lead to prostitution. The findings agrees with a study by Thobejane et al. (2017) who found that most undergraduate students were getting involved with “blessers” mainly for resources or material gain. The majority of the young females indicated that they wouldn’t be in a relationship with a person who doesn’t support them financially; some indicated that if they would be in a relationship with a person who does not provide for them, they would find an alternative man (blesser) who will support them financially. The research findings also concur with a study by Sanders and Hardy (2015) who observed that robust academic research on the topic of students involved in the sex industry was in its infancy, yet the relationship appeared consistent and permanent.

Prostitution has become a lucrative business field, for those with money and sex orientation (Irawan, et al., 2018).

The chi-square results indicated that the p-value of the areas of the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students were as follows: Poverty can lead to prostitution (.000), it's okay to engage in sex for financial or material gain (.000), it's okay to engage in sponsor mentality/cross-generational sex (.000), it's okay to engage in sex orgies/group sex for economic gain (.000), it's okay to engage in hook-up culture for financial gain (.000), I don't fear unplanned pregnancy/STDs or HIV so long as I get financial/material gain (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that there is statistically significant influence of socioeconomic status on risky sexual behaviours among undergraduate students. This finding implies that socioeconomic status does influence risky sexual behaviours among undergraduate students and therefore should be given attention by parents, counsellors, university administrators and all other stakeholders in order to empower undergraduate students on socioeconomic status in order to curb risky sexual behaviours. The findings coincides with a study by Longfield et al. (2019) who asserted that young women actively seek partners who are willing to spend money on them whereas men look for partners who are well mannered, need money and have certain physical attributes. Women's primary incentive for engaging in cross-generational sex was financial and material gain while men sought younger partners for sexual gratification.

Bay-Cheng and Goodkind (2016) also observed that young women's orientation toward romantic relationships and being single was shaped not only by hetero-normative gender expectations but also by their socioeconomic status (SES). The findings agrees with a study by Ssewanvana et al. (2017) who found that in Sub-Saharan Africa the most

common forms of sexual risk behaviors among young people were transactional sex, early sexual debut, coerced sex, and multiple sexual partnerships which were prevalent and mostly driven by socioeconomic status. The study findings also concurs with a study by Wamuswa, (2018) who noted that risky sexual behaviors in the form of prostitution among undergraduate students in Nakuru County seems to be very lucrative because the town gets many visitors both local and foreign, coming for tourism, meetings, seminars, workshops, retreats and many other functions. The results therefore imply that undergraduate students perceive that socioeconomic status influence risky sexual behaviors.

This study further sought to establish the risk of the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students in both private and public main campuses. The findings of risk factor analysis are indicated in Table 20 and subsequently discussed.

**Table 20: The Risk Factor Analysis of the Perceived Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students**

Influence of Socio-economic Status on Risky Sexual Behaviours interval among Undergraduate Students	95% Confidence Interval		
	Value	Lower	Upper
Odds Ratio for university (Campus B/ Campus A)	.212	.78	.574
For cohort eff11 = strongly disagree	.912	.852	.976
For cohort eff11 = strongly agree	4.296	1.676	11.011
N of Valid Cases	346		

Table 20 indicates the results that give the odd ratio of the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students. From the analysis, it was observed that the odds ratio was 0.212, which indicate that the students in both private and public universities were equally under a strong influence of socioeconomic status on risky sexual behaviours. This means that students from both

private and public universities are equally affected by their socioeconomic status, which may contribute to risky sexual behaviours. The findings are in congruent with Ssewanvana et al. (2017) who found in Sub-Saharan Africa that transactional sex, early sexual entrance, coerced sex, and multiple sexual partnerships are prevalent and mostly driven by socioeconomic status among undergraduate students.

#### **Excerpt Four**

##### ***Peer Counsellors' and Student Counsellors' Verbatim Report on the Influence of Socioeconomic Status on Risky Sexual Behaviours***

##### ***Some Peer Counsellors' Responses during Focus Group Discussions (FGD)***

###### *Campus A*

**Researcher:** *How does socioeconomic status influence risky sexual behaviours among your fellow peers?*

**PC 1:** *I have handled a case of a lady client who engaged in risky sexual behaviours for financial gain*

**PC 2:** *Due to humble background of some students they tend to yield to risky sexual behaviours with sugar mummies and daddies (sponsors) for financial and material gain.*

###### *Campus B*

**Researcher:** *How does socioeconomic status influence risky sexual behaviours among your fellow peers?*

**PC 1:** *The booming business in campus currently is sex for money especially for those who come from a humble background.*

**PC 2:** *I have come across cases of clients who have no option but to yield to sexual pressure in order to get food.*

##### ***Student Counsellors' Responses during the Interviews***

###### *Campus A*

**Researcher:** *How does socioeconomic status influence risky sexual behaviours among undergraduate students?*

**SC:** *Definitely socioeconomic status influence risky sexual behaviours among undergraduate students. If students know that their economic status is stable then they cannot engage in risky sexual behaviours in exchange of financial or material benefit, but those who are from low socioeconomic status may yield to sponsor mentality. A good number of our students have found themselves in a compromising situation because of their poor background and they are supposed to gather for their basic needs as students.*

###### *Campus B*

**Researcher:** *How does socioeconomic status influence risky sexual behaviours among undergraduate students?*

*SC: There are cases of students who cohabit or engage in prostitution for financial and material gain in campus. Sex for money is a reality. Sponsor mentality is practiced equally by both genders. I have handled a good number of clients who experienced risky sexual behaviours in exchange of financial and material gain especially those from humble background.*

#### **4.9 Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students**

The fourth objective of this study was to assess the perceived influence of social media on risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. The social media here means the use of websites and applications that enable undergraduate students to create and share content or to participate in social networking which may involve exchange of pornography and cybersex hence risky sexual behaviours. To determine whether social media on risky sexual behaviours influenced undergraduate students, they were asked to rate various aspects on social media and results displayed in Table 21 and subsequently discussed.

**Table 21: Likert Scale Score of Undergraduate Students' Perception of the Influence of Social Media on Risky Sexual Behaviours**

Likert Items	SD	D	N	A	SA
It's okay to watch pornography in social media.	185(54.6%)	82(24.2%)	29(8.6%)	36(10.6%)	7(2.1%)
It's okay to send sex messages (sexting) to friends in social media	137(40.4%)	94(27.7%)	55(16.2%)	39(11.5%)	14(4.1%)
It's okay to receive sex messages (sexting) from friends in social media	151(44.4%)	87(25.6%)	45(13.2%)	46(13.5%)	11(3.2%)
My hobby is to enjoy cybersex	220(64.7%)	75(22.1%)	22(6.5%)	16(4.7%)	7(2.1%)
Online dating is the best way of getting a sexual partner.	189(55.8%)	72(21.2%)	58(17.1%)	14(4.1%)	6(1.8%)
Cybersex is a well-paying business.	185(54.6%)	57(16.8%)	59(17.4%)	18(5.3%)	20(5.9%)

*Key: SD: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree*



The scores in Table 21 show the perceptions of undergraduate students to the examined influence of social media on risky sexual behaviors and are expounded in the following statement: It is okay to watch pornography in social media. Those who indicated strongly disagree and disagree were 185(54.6%) and 82(24.2%) respectively, those who indicated neutral were 29(8.6%) while those who indicated agree and strongly agree were 36(10.6%) and 7(2.1%) in that order. The results indicate that majority of students perceived that it was not okay to watch pornography in social media.

The peer counsellors and student counsellors were also requested to provide information on the perceived influence of social media on risky sexual behaviours among undergraduate students. The majority of Campus 'A' peer counsellors reported that social media can enhance psycho-education on risky sexual behaviours but on the other hand it can propagate pornography. Technology through computers and smart phones can discourage or encourage risky sexual behaviours. Majority of Campus 'B' peer counsellors acknowledged that social media propagated pornography through WhatsApp, Facebook, tweeter, sexting and Skype sex. The peer counsellors noted that love messages were being send and received that were subscribed digitally among undergraduate students. The peer counsellors further acknowledged that a number of their fellow peers who sought for counselling help had suffered the effects of pornography propagated through social media. These findings concur with a study by Lau et al. (2017) who noted that internet use has global influence on all aspects of life and has become a growing concern contributing to risky sexual behaviors.

The study also sought to find out the perceived influence of social media on risky sexual behaviours among undergraduate students through students' response to the following statement: its okay to send sex messages (sexting) to friends in social media. Undergraduate students who chose strongly disagree and disagree were 137(40.4%) and

94(27.7%) respectively, those who indicated neutral were 55(16.2%) while those who indicated agree and strongly agree were 39(11.5%) and 14(4.1%) in that order. The results indicate that 231(68.1%) of the respondents perceived that it was not okay to send sex messages to friends in social media. This means that there is sufficient evidence to conclude that majority of students perceived that it was not okay to send sex messages to friends in social media. Furthermore, the study also sought to find out the influence of social media on risky sexual behaviours among undergraduate students through students' responses to the following statement: It's okay to receive sex messages (sexting) from friends in social media. The undergraduate students who indicated strongly disagree and disagree were 151(44.4%) and 87(25.6%) correspondingly, those who indicated neutral were 45(13.2%) while those who indicated agree and strongly agree were 46(13.5%) and 11(3.2%) respectively. From the results, it was observed that 238(70%) of the respondents perceived that it was not okay to receive sex messages from friends in social media. This means that there was sufficient evidence to conclude that majority of students perceived that it was not okay to receive sex messages from friends in social media.

Majority of Campus 'A' peer counsellors noted that social media contributed positively or negatively to risky sexual behaviours as they witnessed among their fellow peers sending and receiving sex messages (sexting) via social media and watching of pornography. The Campus 'A' SC noted that the availability of computers and smart phones enhanced social media which in turn influenced risky sexual behaviours among young people including undergraduate students especially pornography activities. The SC noted that social media could be used positively or negatively on matters sexuality. Campus 'B' SC also acknowledged that undergraduate students involve in sexting i.e. sending sex-rich messages through SMS. The findings are similar to a study by Currin et

al. (2017) who found that risky sexual behaviours and negative psychological correlates were associated with sexting and younger populations. The findings contradict a study by Ouytsel et al. (2017) who found that sexting mostly occurs through Smartphone applications, such as Snap-chat, which are perceived to be a more intimate form of communication than other digital applications, such as social networking sites. Majority of students perceived that it was not okay to send sex messages to friends in social media; however, 15.6% of the respondents perceived that it was okay to send sex messages to friends through social media. Findings in this study elicit great concern in that some respondents perceived that indulging in sexting behavior was okay eliciting the need of counseling services to curb the behavior. These results are of significance in ensuring access of counseling services is key to all. Formulation of new methods to enhance awareness of available counseling services in the university.

The study also sought to find out the perceived influence of social media on risky sexual behaviours among undergraduate students through students' response to the following statement: My hobby is to enjoy cybersex. The undergraduate students who indicated strongly disagree and disagree were 220(64.7%) and 75(22.1%) respectively, those who indicated neutral were 22(6.5%) while those who indicated agree and strongly agree were 16(4.7%) and 7(2.1%) in that order. The results indicate that 295(86.8%) of the respondents perceived that it was not their hobby to enjoy cybersex. This means that there is sufficient evidence to conclude that majority of undergraduate students perceive that it's not their hobby to enjoy cybersex. The Campus 'B' student counsellor acknowledged the influence of social media on risky sexual behaviours among undergraduate students. According to the counsellor, technology including computers and smart phones could be used positively or negatively. The counsellor further noted that young people including undergraduate students engaged in Skype sex where young

people instructed each other on sexual matters regardless of distance, in fact they believed that they could engage in sex anywhere and there was a trending message they spread that sex was a game that God initiated and should be played anywhere, all other games are man-made.

The study also sought to find out the perceived influence of social media on risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Online dating is the best way of getting a sexual partner. The undergraduate students who indicated strongly disagree and disagree were 189(55.8%) and 72(21.2%) respectively, those who indicated neutral were 58(17.1%) while those who indicated agree and strongly agree were 14(4.1%) and 6(1.8%) correspondingly. The study shows that 261(77%) of the respondents did not perceive that online dating was the best way to getting sexual partner. This means that there is sufficient evidence to conclude that majority of students do not perceive that online dating is the best way to getting sexual partner. The study also sought to find out the influence of social media on risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Cybersex is a well-paying business. The undergraduate students who indicated strongly disagree and disagree were 185(54.6%) and 57(16.8%) respectively, those who indicated neutral were 59(17.4%) while those who indicated agree and strongly agree were 18(5.3%) and 20(5.9%) in that order. The results indicate that a bulk 242(71.4%) of students did not perceive that cybersex is a well-paying business. This means there is sufficient evidence to conclude that majority of undergraduate students do not perceive that cybersex is a well paying business. Similarly, Maas et al. (2019) found that undergraduate students' online sexual experiences for example pornography use, sexual chatting, sexualized social media use,

and nude image exchange provide a new context for sexual socialization. Therefore, social media influence risky sexual behavior among undergraduate students.

This study further sought to establish the significance of the perceived influence of social media on risky sexual behaviours among undergraduate students. A null hypothesis: *H<sub>04</sub>: Social media has no statistically significant influence on risky sexual behaviours among undergraduate students* was generated. Undergraduate students' social media engagement was conceptualised by means of various variables derived from non-missing responses on 6 items measuring the various domains of students' social media engagement in relation to risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 22 and subsequently discussed.

**Table 22: Chi-square Test Statistics on the Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students**

Likert Items	Chi Squ.	Df. Asymp.	Sig.	Exact Sig.	Point Prob.
It's okay to watch pornography in social media	297.209 <sup>a</sup>	4.00	.000	.000	.000
It's okay to send sex messages (sexting) to friends in social media.	138.094 <sup>a</sup>	4.00	.000	.000	.000
It's okay to receive sex messages (sexting) from friends in social media.	169.294 <sup>b</sup>	4.00	.000	.000	.000
My hobby is to enjoy cybersex.	466.088 <sup>b</sup>	4.00	.000	.000	.000
Online dating is the best way of getting a sexual partner	317.357 <sup>a</sup>	4.00	.000	.000	.000
Cybersex is a well-paying business.	275.735 <sup>a</sup>	4.00	.000	.000	.000

The chi-square results in Table 22 display the analysis of the perceived influence of social media on risky sexual behaviors among undergraduate students. From the results, it was observed that majority of the students perceived that it was not okay to watch

pornography in social media. From the results, it was observed that the chi square value was equal to 297.209 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceive that it is not okay to watch pornography in social media. Similarly Irawan et al. (2018) found that the actors who involve in the prostitution web were mostly college students. Therefore, these findings continue to reveal the need of counseling services and more so measures to put in place for students to be informed about the availability of counseling services so as to avert the negative health outcomes associated with engaging in pornography which is a risky sexual behavior.

The study also indicated that majority of the students perceived that it is not okay to send sex messages to friends in social media. The results indicate that the chi square value was 138.094 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceive that it is not okay to send sex messages to friends in social media. The results also indicated that majority of students perceive that it is not okay to receive sex messages from friends in social media. From the results, it was observed that the chi square value was equal to 159.294 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceive that it is not okay to receive sex messages from friends in social media.

The study also indicated that majority of the students perceived that it is not their hobby to enjoy cybersex. The results indicate that the chi square value was 466.088 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceive that it is not their hobby to enjoy cybersex. The results also indicate that majority of the students does not perceive that online dating is the best way of getting a sexual partner. The study show

that the chi square value was 317.357 with a p- values of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students do not perceive that online dating is the best way to get a sexual partner. The study finally indicate that majority of students does not perceive that cybersex is a well-paying business.

The results indicate that majority of students perceived that it is not okay to watch pornography in social media. From the results, it was observed that the chi square value was equal to 297.209 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceived that it was not okay to watch pornography in social media. This finding concur with a study by Lau et al. (2017) who found that internet use has global influence on all aspects of life and has become a growing concern contributing to risky sexual behaviors. Irawan et al. (2018) also found that the actors who involve in the prostitution web were mostly college students. The study also indicate that majority of the students perceived that it was not okay to send sex messages to friends in social media. The results indicate that the chi square value was 138.094 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceive that it is not okay to send sex messages to friends in social media. This study concurs with a study by Currin et al. (2017) who found that risky sexual behaviors and negative psychological correlates were associated with sexting and younger populations.

Concerning the receiving of sex messages through social media among undergraduate students, it was observed that the chi square value was equal to 159.294 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceived that it was not okay to receive

sex messages from friends in social media. The finding contradicts a study by Ouytsel et al. (2017) who found that sexting mostly occurs through smartphone applications, such as Snap-chat, which are perceived to be a more intimate form of communication than other digital applications, such as social networking sites. The results of the study also indicate that majority of the students perceived that it was not their hobby to enjoy cybersex. The results indicate that the chi square value was 466.088 with a p- value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of students perceived that it was not their hobby to enjoy cybersex. The findings are similar to a study by Maas et al. (2019) who observed that undergraduate students' online sexual experiences for example pornography use, sexual chatting, sexualised social media use, and nude image exchange provide a new context for sexual socialisation.

The chi-square results indicated that the p-value of the areas of the perceived influence of social media on risky sexual behaviours among undergraduate students were as follows: it's okay to watch pornography in social media (.000), it's okay to send sex messages (sexting) to friends in social media (.000), it's okay to receive sex messages (sexting) from friends in social media (.000), my hobby is to enjoy cybersex (.000), online dating is the best way of getting a sexual partner (.000), and cybersex is a well-paying business (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that there is statistically significant influence of social media on risky sexual behaviours among undergraduate students. This finding implies that social media does influence risky sexual behaviours among undergraduate students and therefore should be given attention by parents, counsellors, university administrators and all other stake holders in order to empower undergraduate students on healthy use of social media to curb risky sexual behaviours. The findings agree with a study in Nigeria



by Adebayo and Ojedokun (2018) who found that cyber pornography was fast gaining ground in the cyber environment with undergraduate students among its major consumers. Similarly, Akibu et al. (2017) found that watching pornography through social media was one of the predictors of premarital sexual practice. Finally, the study concurs with a study in Kenya by Wanjiku (2018) who found that the country has experienced an increase in proliferation of modern communication technology due to the affordability, easy availability and accessibility of gadgets such as computers and internet enabled mobile phones that have brought negative impact of proliferation of non-consensual pornography on the social media platforms. The results imply that there is significant relationship between social media and risky sexual behaviors among undergraduate students. Therefore, in order to counter negative use of social media like sexting, online sex and cybersex the parents, counsellors, religious leaders and university management should psycho educate undergraduate students on the proper use of social media in order to curb risky sexual behaviours.

This study further sought to establish the risk of the perceived influence of social media on risky sexual behaviours among undergraduate students in both private and public main campuses. The findings of the risk factor analysis are displayed in Table 23.

**Table 23: Risk Factor Analysis on the Perceived Influence of Social Media on Risky Sexual Behaviours among Undergraduate Students**

Influence of Socio-economic Status on Risky Sexual Behaviours interval among Undergraduate Students	95% Confidence Interval		
	Value	Lower	Upper
Odds Ratio for university (Campus B/ Campus A)	1.131	.638	2.005
For cohort eff11 = strongly disagree	1.024	.920	1.140
For cohort eff11 = strongly agree	.905	.568	1.442
N of Valid Cases	346		

Table 23 indicates the risk factor analysis on the perceived influence of social media on risky sexual behaviours among undergraduate students. The results show odd ratio on the influence of social media on risky sexual behaviours among undergraduate students. From the analysis, it was observed that the odds ratio was 1.131, which indicates that undergraduate students from both the private and the public main campuses are influenced by the social media on risky sexual behaviours. This means that social media influence risky sexual behaviours among undergraduate students from both private and public universities equally. These findings concur with a study by Lau et al. (2017) who noted that internet use has global influence on all aspects of life and has become a growing concern contributing to risky sexual behaviors. Therefore, both private and public universities should deal with the negative consequences of social media in relation to risky sexual behaviours.

*Excerpt Five*

*Peer Counsellors' and Student Counsellors' Verbatim Report on the Influence of Social Media on Risky Sexual Behaviours*

*Some Peer Counsellors' Responses during Focus Group Discussions (FGD)*

*Campus A*

*Researcher: How do social media influence risky sexual behaviours among your fellow peers?*

*PC 1: Social media can enhance psycho-education on risky sexual behaviours but on the other hand it can enhance pornography.*

*PC 2: Social media can contribute positively or negatively to risky sexual behaviours as I have witnessed among my fellow peers.*

*Campus B*

*Researcher: How do social media influence risky sexual behaviours among your fellow peers?*

*PC 1: Social media may propagate pornography through WhatsApp, Facebook, tweeter, sexting and Skype sex.*

*PC 2: Love and sexual messages send and received are subscribed digitally*

### ***Student Counsellors' Responses during the Interviews***

#### *Campus A*

**Researcher:** *How do social media influence risky sexual behaviours among undergraduate students?*

**SC:** *Yes, the availability of computers and Smartphone has enhanced social media, which in turn influence risky sexual behaviours among young people including our undergraduate students especially pornography activities. Social media can be used positively or negatively on matters sexuality.*

#### *Campus B*

**Researcher:** *How do social media influence risky sexual behaviours among undergraduate students?*

**SC:** *Technology including computers and smart phones can be used positively or negatively. Young people including undergraduate students engage in Skype sex where young people instruct each other on sexual matters regardless of distance. In fact, they believe that they can engage sex anywhere and there is a trending message they spread that sex is a game that God initiated and should be played anywhere, all other games are man-made. They also do sexting i.e. send sex rich messages through SMS.*

### **4.10 Perceived Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students**

The fifth objective of this study was to explore the perceived influence of substance abuse on risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. The substance abuse here means the chronic use of alcohol and drugs such as marijuana, cocaine and heroin, which can result in risky sexual behaviours among undergraduate students. To determine whether undergraduate students were influenced by substance abuse on risky sexual behaviours, they were asked to rate various aspects on substance abuse and results displayed in Table 24 and subsequently discussed.

**Table 24: Likert Scale Score of Undergraduate Students' Perception of the Influence of Substance Abuse on Risky Sexual Behaviours**

Likert Items	SD	D	N	A	SA
Alcohol use, at least one drink (past 30 days) could lead to risky sexual behaviours	63(18.5%)	81(23.8%)	44(12.9%)	93(27.4%)	59(17.4%)
Alcohol use, five or more drinks in 2 hours (past 30 days) could lead to risky sexual behaviours	41(12.1%)	53(15.6%)	38(11.2%)	126(37.1%)	82 (24.1%)
Marijuana use (past 30 days) could lead to risky sexual behaviours.	50(14.7%)	43(12.6%)	48(14.1%)	109(32.1%)	90(26.5%)
Cocaine use (past 30 days) could lead to risky sexual behaviours.	37(10.9%)	27(8.0%)	63(18.6%)	114(33.6%)	98(28.9%)
Injectable steroids (past 30 days) could lead to risky sexual behaviours	37(10.9%)	25(7.4%)	59(17.4%)	122(36.0%)	96(28.3%)

*Key: SD: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree*

The scores in Table 24 show the perceptions of undergraduate students to the examined influence of substance abuse on risky sexual behaviours are expounded in the following statement: Alcohol use, at least one drink (past 30 days) could lead to risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 63(18.5%) and 81(23.8%) respectively, those who indicated neutral were 44(12.9%) while those who indicated agree and strongly agree were 93(27.4%) and 59(17.4%) in that order. It was observed that the proportion of respondents who perceived that alcohol use, at least one drink in the past 30 days could lead to risky sexual behaviours was 152(44.8%). This means that there is sufficient evidence to conclude that majority of students perceived that alcohol use at least one drink in the past 30 days could lead to risky sexual behaviours.

The study further examined the perceived influence of substance abuse on risky sexual behaviours among undergraduate students by asking for responses on the following statement: Alcohol use, five or more drinks in 2 hours (past 30 days) could lead to risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 41(12.1%) and 53(15.6%) respectively, those who indicated neutral were 38(11.2%) while those who indicated agree and strongly agree were 126 (37.1%) and 82 (24.1%) in that order. From the results, it was observed that 208(61.2%) of the respondents perceived that alcohol use, five or more drinks in 2 hours, in the past 30 days could lead to risky sexual behaviours. This means that there was sufficient evidence to conclude that a large number of students perceive that alcohol use; five or more drinks in 2 hours, in the past 30 days could lead to risky sexual behaviours. The findings also concur with a study by Kuperberg and Padgett (2017) who analysed a sample of 12,065 hook-up encounters among college students at 22 colleges and universities in the Online College Social Life Survey to explore how partner meeting locales may influence college students' risky behaviour when hook-up partners are met in those contexts and found that for other-sex encounters, meeting in bars or at parties, through common interest groups or history, and at dormitories was associated with binge drinking during encounters, while meeting online and in public was associated with reduced binge drinking during encounters.

The peer counsellors and student counsellors were requested to provide information on the perceived influence of substance abuse on risky sexual behaviours among undergraduate students. Majority of Campus 'A' peer counsellors reported that when someone was drunk, he/she may unconsciously engage in risky sexual behaviours due to inability to reason well because of the intoxicating power of alcohol and drugs. The peer counsellors further noted that substance abuse enhanced prostitution in campus

especially unprotected sex, group sex and stripping behaviour. The Campus 'A' SC noted that indeed alcohol and drug abuse influenced risky sexual behaviours in that majority of the clients they handled engaged in risky sexual behaviours after use of alcohol and drugs, especially female students were noted in their notoriety of abuse of alcohol and drugs than male students. The Campus 'B' SC noted that many undergraduate students engaged in risky sexual behaviours under influence of alcohol and drug abuse since alcohol and drugs were catalysts to risky sexual behaviours. She stated that, "As a lady or a guy once you take a bottle of beer you is done."

The study also sought to find out the perceived influence of substance abuse on risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Marijuana use (past 30 days) could lead to risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 50(14.7%) and 43(12.6%) correspondingly, those who indicated neutral were 48(14.1%) while those who indicated agree and strongly agree were 109(32.1%) and 90(26.5%) respectively. The results indicate that the majority 199(58.6%) of the respondents perceived that marijuana use in the past 30 days could lead to risky sexual behaviours. This means that there is sufficient evidence to conclude that a large number of students perceive that marijuana use in the past 30 days could lead to risky sexual behaviours.

The study sought to find out the perceived influence of substance abuse on risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Cocaine use (past 30 days) could lead to risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 37(10.9%) and 27(8.0%) in that order, those who indicated neutral were 63(18.6%) while those who indicated agree and strongly agree were 114(33.6%) and 98(28.9%)

respectively. From the results, it was observed that majority 212(62.5%) of the respondents perceived that cocaine use in the past 30 days could lead to risky sexual behaviours. This means that there was sufficient evidence to conclude that a bulk of students perceive that cocaine use in the past 30 days could lead to risky sexual behaviours.

The study also sought to find out the perceived influence of substance abuse on risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Injectable steroids (past 30 days) could lead to risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 37(10.9%) and 25(7.4%) correspondingly, those who indicated neutral were 59(17.4%) while those who indicated agree and strongly agree were 122(36.0%) and 96(28.3%) respectively. The results indicate that the majority 218(64.3%) of the respondents perceived that injectable steroids could lead to risky sexual behaviours. This means that there is sufficient evidence to conclude that majority of students perceive that injectable steroids could lead to risky sexual behaviours. These findings are similar to a study by Thompson et al. (2016) who found that substance use predicted unprotected sex and four or more sexual partners.

Majority of Campus 'B' peer counsellors acknowledged that influence of substance abuse on risky sexual behaviours among undergraduate students was a menace in campus especially among their students who lived outside the campus. The peer counsellors noted that alcohol and drugs sedate and interfere with the brain hence influenced one's decision making in dealing with risky sexual behaviours. Peer counsellors confessed cases of clients they counselled that had yielded to sex unconsciously due to influence of alcohol and drugs which had resulted in rape and even

unplanned pregnancies. The student counsellor also acknowledged the influence of alcohol and drug abuse on risky sexual behaviours among undergraduate students.

This study further sought to establish the significance of the perceived influence of substance abuse on risky sexual behaviours among undergraduate students. A null hypothesis:  $H_05$ : *Substance abuse has no statistically significant influence on risky sexual behaviours among undergraduate students* was generated. Undergraduate students' substance abuse was conceptualised by means of various variables derived from non-missing responses on 5 items measuring the various domains of students' substance abuse in relation to risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 25 and subsequently discussed.

**Table 25: Chi-square Test Statistics on the Perceived Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students**

Likert Items	Chi Squ.	Df. Asymp.	Sig.	Exact Sig.	Point Prob.
Alcohol use, at least one drink (past 30 days) could lead to risky sexual behaviours.	21.706 <sup>a</sup>	4.00	.000	.000	.000
Alcohol use, five or more drinks in 2 hours (past 30 days) could lead to risky sexual behaviours	79.618 <sup>a</sup>	4.00	.000	.000	.000
Marijuana use (past 30 days) could lead to risky sexual behaviours.	51.676 <sup>a</sup>	4.00	.000	.000	.000
Cocaine use (past 30 days) could lead to risky sexual behaviours.	164.947 <sup>b</sup>	4.00	.000	.000	.000
Injectable steroids (past 30 days) could lead to risky sexual behaviours.	97.209 <sup>c</sup>	4.00	.000	.000	.000



The chi-square results in Table 25 display the analysis of the perceived influence of substance abuse on risky sexual behaviors among undergraduate students. From the results, it was observed that majority of the students perceived that alcohol use, at least one drink in the past 30 days could lead to risky sexual behaviors. The chi square value was equal to 21.706 with a p- value equal to 0.000 which is less than 0.05 significant level. This means that there is sufficient evidence to conclude that majority of students perceived that alcohol use, at least one drink in the past 30 days could lead to risky sexual behaviors. The results indicate that majority of students perceived that alcohol use, five or more drinks in 2 hours, in the past 30 days could lead to risky sexual behaviors. From the results, it was observed that the chi square value was equal to 79.618 with p- value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence to conclude that majority of students perceive that alcohol use, five or more drinks in 2 hours, in the past 30 days could lead to risky sexual behaviors. The findings concur with other research findings that found that substance abuse influence risky sexual behaviours among undergraduate students (Owczarzak et al., 2018). Similar findings in Nigeria were discovered by Dumbili (2019) who asserted that alcohol-related problems were increasing among university students and found that 24 out of 31 participants engaged in heavy drinking by consuming between 3 and 9 bottles of beer or flavoured spirits regularly. The heavy drinkers had suffered financial, academic, and health problems including risky sexual behaviour of having unprotected sex with strangers.

The findings also coincide with a study by Mangeni and Mbuthia (2018) who found that substance abuse among university students was a major public health concern and drugs such as tobacco and alcohol were widely and easily available in the universities. Colleges therefore form the main locus of substance abuse, with more than 40% of

students already affected. According to the study, the main substance commonly used and abused among students in the college of Health Sciences was alcohol. Other substances included; cigarettes, miraa and cannabis. More males (56.8%) than females (43.2%) drink alcohol. There was a strong association between alcohol use and engagement in risky sexual behaviour. Also, Boit (2016) noted that, the main objective of higher institutions of learning in Kenya was to provide education and growth experiences for its students, but alcohol abuse had continued to be a problem in the university campuses that was slowing down their progress and the Kenya vision 2030. This envisages a healthy population free from the impact of alcohol abuse through the reduction of the prevalence and the impact of alcohol abuse disorders in order to attain the highest possible level of physical, social and mental health free from risky sexual behaviours. These results are of significance in ensuring access of counselling services are key to all to curb abuse of alcohol. Formulation of new methods to enhance awareness of the effects of alcohol and the availability of counselling services in the universities is essential in order to psycho-educate undergraduate students on the effects of alcohol abuse which may contribute to risky sexual behaviors.

The study also indicates that majority of the students perceived that marijuana use, in the past 30 days could lead to risky sexual behaviors. The results indicate that the chi square value was 51.676 with a p- value of 0.000 which was less than 0.05 significant level. This means that there is sufficient evidence to conclude that majority of students perceived that marijuana use, in the past 30 days could lead to risky sexual behaviors. According to similar research findings, binge drinking and marijuana use during or just prior to encounters was associated with an increased risk of unprotected sex and other substance use. Marijuana use and unprotected sex during encounters was more common when students knew their hook-up partner better or had hooked up with the partner

before, while binge drinking was associated with hooking up with less familiar partners (Kuperberg, & Padgett, 2017; Metrik et al. 2016).

The results indicate that majority of students perceive that cocaine use, in the past 30 days could lead to risky sexual behaviors. From the results, it was observed that the chi square value was equal to 164.947 with p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceived that cocaine use, in the past 30 days could lead to risky sexual behaviors. The study also indicate that majority of the students perceived that injectable steroids could lead to risky sexual behaviors. The results indicate that chi-square value was 97.209 with a p value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of students perceived that injectable steroids, in the past 30 days could lead to risky sexual behaviors. The results therefore imply that undergraduate students perceive that substance abuse influence risky sexual behaviors. The findings are similar to a study by Rice et al. (2016) who evaluated the direct relation between group sex and prevalent sexually transmitted infections (STI) in a cross-sectional study of men who have sex with men presenting at an urban STI clinic in the Midwestern US among 231 men who enrolled and reported that they had sex with men and found that recent drug use and participation in group sex was associated with prevalent gonorrhoea infection.

The chi-square results indicated that, the p-value of the areas of the perceived influence of substance abuse on risky sexual behaviours among undergraduate students were as follows: alcohol use, at least one drink in the past 30 days could lead to risky sexual behaviours (.000), alcohol use, five or more drinks in 2 hours (past 30 days) could lead to risky sexual behaviours (.000), marijuana use (past 30 days) could lead to risky sexual behaviours (.000), cocaine use (past 30 days) could lead to risky sexual behaviours

(.000), and injectable steroids (past 30 days) could lead to risky sexual behaviours (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that there is statistically significant influence of alcohol and drug abuse on risky sexual behaviours among undergraduate students. This finding implies that substance abuse does influence risky sexual behaviours among undergraduate students and therefore should be given attention by parents, counsellors, university administrators and all other stakeholders in order to psycho-educate undergraduate students on the influence of substance abuse on risky sexual behaviours.

The findings are in agreement with Ritchwood et al. (2015) who found that substance use is more strongly related to risky sex among females than males. Similarly, Kuperberg and Padgett (2017) analysed a sample of 12,065 hook-up encounters among college students at 22 colleges and universities in the Online College Social Life Survey to explore how partner meeting locales may influence college students' risky behaviour when hook-up partners are met in those contexts. For other-sex encounters, meeting in bars or at parties, through common interest groups or history, and at dormitories was associated with binge drinking during encounters, while meeting online and in public was associated with reduced binge drinking during encounters. Osman et al. (2016) noted that youth populations are vulnerable to substance use particularly in developing countries where circumstances may be favourable for it. The overall prevalence of substance use was 31%. The prevalence of tobacco, cannabis, alcohol, amphetamines, tranquilisers, inhalants, opiates, cocaine, and heroin use was 13.7%, 4.9%, 2.7%, 2.4%, 3.2%, 1%, 1.2%, 0.7%, and 0.5%, respectively. Curiosity (33.1%) was the main reason for initiation of substance use. The main adverse effects reported were health problems including risky sexual behaviours (19.7%) and theft (19.7%). Peers (40.9%) were the prime source of substance use. Therefore, these findings indicate significant association

between substance abuse and risky sexual behaviours among undergraduate students. These findings revealed the need of counselling services to psycho educate students on the effects of substance abuse and more so measures to put in place for students to be informed about the availability of counselling services so as to avert the negative health outcomes associated with substance abuse that may contribute to risky sexual behaviors among undergraduate students.

This study further sought to establish the risk of the perceived influence of substance abuse on risky sexual behaviours among the undergraduate students in both private and public main campuses. The findings of risk factor analysis are indicated in Table 26 and subsequently discussed.

**Table 26: The Risk Factor Analysis of the Perceived Influence of Substance Abuse on Risky Sexual Behaviours among Undergraduate Students**

Perceived Influence Sexual Norms on Risky Sexual Behaviours among Undergraduate Students	95% Confidence Interval		
	Value	Lower	Upper
Odds Ratio for university (Campus B/ Campus A)	1.672	1.052	2.657
For cohort eff11 = strongly disagree	1.388	1.040	1.853
For cohort eff11 = strongly agree	.830	.695	.992
N of Valid Cases	346		

The results in Table 26 show analysis of the risk estimate on the perceived influence of substance abuse on risky sexual behaviours among undergraduate students. The odds ratio of the perceived influence of substance abuse was 1.672 which indicates that in both the private and public universities there is influence of substance abuse on risky sexual behaviours. This means that students from both private and public universities are equally affected by the use of substance abuse that influences risky sexual behaviours among undergraduate students. The findings coincide with a study by Mangeni and Mbuthia (2018) who found that substance abuse among university students was a major

public health concern and drugs such as tobacco and alcohol were widely and easily available in the universities. Therefore both private and public universities should put more effort to psycho-educate students on the influence of substance abuse on risky sexual behaviours.

### ***Excerpt Six***

#### ***Peer Counsellors' and Student Counsellors' Verbatim Report on the Influence of Alcohol and Drug Abuse on Risky Sexual Behaviours***

##### ***Some Peer Counsellors' Responses during Focus Group Discussions (FGD)***

###### ***Campus A***

***Researcher:*** How does alcohol and drug abuse influence risky sexual behaviours among your fellow peers?

***PC 1:*** When someone is drunk, he/she may unconsciously engage in risky sexual behaviours

***PC 2:*** When you are drunk the ability to reason well is impaired. "Yesterday I was drunk and the next day I don't know what happened, the next day I go for PEP"

###### ***Campus B***

***Researcher:*** How does alcohol and drug abuse influence risky sexual behaviours among your fellow peers?

***PC 1:*** Alcohol and drugs are a menace in our campus especially among our fellow students who live outside the campus which have contributed to unprotected sexual intercourse

***PC 2:*** Alcohol and drugs sedates and interferes with the brain hence influence one's decision in dealing with risky sexual behaviours.

##### ***Student Counsellors' Responses during the Interviews***

###### ***Campus A***

***Researcher:*** How does alcohol and drug abuse influence risky sexual behaviours among undergraduate students?

***SC:*** Indeed, alcohol and drug abuse influence risky sexual behaviours. Majority of our students who engage in risky sexual behaviours may have used alcohol and abused drugs; especially female students are now days notorious in the abuse of alcohol and drugs than male students.

###### ***Campus B***

***Researcher:*** How does substance abuse influence risky sexual behaviours among undergraduate students?

***SC:*** Many undergraduate students engage in risky sexual behaviours under influence of alcohol and drug abuse. Alcohol and drugs are catalysts to risky sexual behaviours. "As lady or a guy once you take a bottle of beer you are done."

#### **4.11 The Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students**

The sixth and final objective of this study was to identify the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students with special reference to main campuses in Nakuru County. The counselling services being referred to here are a variety of programs offered by student counsellors to the students such as psycho-education programs, counselling awareness programs, counselling outreach, therapeutic intervention programs and referral counselling services that help mitigate risky sexual behaviours among undergraduate students. To determine the mediating role of counselling services in mitigating risky sexual behaviours, the undergraduate students were asked to rate various aspects on counselling services available in campus and results displayed in Table 27 and subsequently discussed.

**Table 27: Likert Scale Score of Undergraduate Students' Perception of the Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate Students**

Likert Items	SD	D	N	A	SA
Orientation of first year students is available to counter risky sexual behaviours	31(9.0%)	34(9.9%)	17(5.0%)	127(37.0%)	134(39.1%)
Mentorship programs are available to counter risky sexual behaviours	21(6.1%)	48(14.0%)	40(11.7%)	139(40.5%)	95(27.7%)
Public lectures and discussions are available to counter risky sexual behaviours	44(12.9%)	59(17.3%)	45(13.2%)	130(38.1%)	63(18.5%)
Counselling outreach services are available to counter risky sexual behaviours.	27(7.9%)	39(11.4%)	39(11.4%)	137(40.1%)	100(29.2%)
One on one psychosocial support services are available to counter risky sexual behaviours.	34(10.0%)	40(11.8%)	52(15.3%)	136(40.1%)	77(22.7%)
Group psychosocial support services are available to counter risky sexual behaviours	40(11.8%)	50(14.7%)	62(18.3%)	111(32.7%)	76(22.4%)
Peer counselling psychosocial support services are available to counter risky sexual behaviours.	22(6.5%)	23(6.7%)	40(11.7%)	146(42.8%)	110(32.3%)
Referral for VCT services is available to counter risky sexual behaviours	20(5.9%)	40(11.8%)	39(11.5%)	125(36.8%)	116(34.1%)
Referral for psychiatric Services is available to counter the psychological effects of risky sexual behaviours.	38(11.1%)	47(13.7%)	89(26.0%)	106(31.0%)	62(18.1%)
Referral for medical Services is available to counter the physiological effects of risky sexual behaviours.	31(9.0%)	37(10.8%)	64(18.7%)	104(30.3%)	107(31.2%)

*Key: SD: Strongly Disagree; D: Disagree; N: Neutral; A: Agree; SA: Strongly Agree*



The scores in Table 27 show the perceptions of undergraduate students to the examined mediating role of counselling services in mitigating risky sexual behaviours and are expounded in the following statement: Orientation of first year students is available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 31(9.0%) and 34(9.9%) respectively, those who indicated neutral were 17(5.0%) while those who indicated agree and strongly agree were 127(37.0%) and 134(39.1%) correspondingly. The results indicate that the proportion of students who believe that orientation of first year students was available to counter risky sexual behaviours was 261(76.1%). This indicates that there is sufficient evidence to conclude that majority of undergraduate students believe that orientation of first year students is available to counter risky sexual behaviours.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Mentorship programs are available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 21(6.1%) and 48(14.0%) respectively, and those who indicated neutral were 40(11.7%) and those who indicated agree and strongly agree were 139(40.5%) and 95(27.7%) in that order. The findings indicate that 234(68.2%) of the respondents agree that mentorship programs were available to counter risky sexual behaviours. This means that there is sufficient evidence to conclude that a bulk of undergraduate students in campus perceive that mentorship programs are available to counter risky sexual behaviours.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Public lectures and discussions are available to

counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 44(12.9%) and 59(17.3%) respectively, those who indicated neutral were 45(13.2%) while those who indicated agree and strongly agree were 130(38.1%) and 63(18.5%) in that order. The findings indicate that public lectures and discussions were available to counter risky sexual behaviours as shown by the larger number 193(56.6%) of the respondents in agreement.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Counselling outreach services are available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 27(7.9%) and 39(11.4%) respectively, those who indicated neutral were 39(11.4%) while those who indicated agree and strongly agree were 137(40.1%) and 100(29.2%) in that order. The results show that the proportion of the respondents with perception that counselling outreach services were available to counter risky sexual behaviours was 237(69.3%). This means that there was sufficient evidence to conclude that the proportion of students who belief that counselling outreach services are available to counter risky sexual behaviours was large.

The peer counsellors and student counsellors were requested to provide information on the methods used to create awareness on risky sexual behaviours among undergraduate students. The peer counsellors and student counsellors from both main campuses reported on the methods they were using to create awareness on risky sexual behaviours among undergraduate students. The methods Campus 'A' peer counsellors used to create awareness on risky sexual behaviours among their peers were: posters, notices, health awareness programs, one on one talk, digital platforms including tweeter, WhatsApp, face book and website. The student counsellor shared also the methods they use to create

awareness on risky sexual behaviours among undergraduate students as follows: Social media platform like WhatsApp, tweeter, SMS, and Facebook, notices, class reps, and faculty. The methods that peer counsellors and student counsellors used at Main Campus 'B' to create awareness on risky sexual behaviours among their peers were as follows: Health talks, Online platforms like WhatsApp, Facebook, website, Posters and notices, Chapel notices, Counselling outreach services, and One on one counsellors' outreach.

The peer counsellors and student counsellors were requested to provide information on the role of counselling services in mitigating risky sexual behaviours among undergraduate students. In order to prevent fellow peers from engaging in risky sexual behaviours, Campus 'A' peer counsellors were able to apply the following preventive measures: health talks, open forums, counselling outreach, first year orientations, and public lectures. According to the Campus 'A' SC preventive counselling services offered included orientation of first year students on sexuality matters among other topics of interest. They engaged first year students comprehensively because they needed psycho-education. The student counsellor noted that first year orientation program took rigorous two weeks and student counsellors played a critical role. During the orientation program they invite external facilitators including I Choose Life, NACADA and other youth friendly organisations that help address the subject of sexuality comprehensively and other related topics. The student counsellor also noted that they offer group counselling services to help address emerging issues including risky sexual behaviours. Some of these topics were derived from individual counselling services as various individual clients expressed their issues. The student counsellor further shared that they also engage in counselling outreach services to address issues of self-esteem, loss and grief, financial matters, alcohol and drugs that could contribute to risky sexual behaviours among undergraduate students.

The following were the preventive counselling services the Campus 'B' peer counsellors render to their peers in campus: Health talks and campus forums were useful in dealing with risky sexual behaviours. The peer counsellors also participated during first years' orientation program to inform first year students about the risky sexual behaviours. The peer counsellors also liaise with the student counsellors to reach out with counselling services to their fellow peers especially on issues of relationships and risky sexual behaviours. The peer counsellors further did one on one informal discussion with fellow peers on issues of sexuality and help them to know how to deal with them. Some peer counsellors engage in online sending of information that promotes healthy sexual behaviours. The student counsellor acknowledged the following preventive counselling services to counter risky sexual behaviours among undergraduate students: Health talks, open forums on sexual behaviours and relationships, focus group discussions, "She" and "He" talks programs to address sexual related issues affecting undergraduate students.

Based the findings, there is need for universities to continually provide sexual reproductive health education programs that persuade young adults to adopt safe sexual practices, behavior change, abstinence and use of preventive strategies should be initiated, developed and sustained in all institutions of higher learning. This further justifies the need to assess student's uptake of preventive counseling services in order to mitigate risky sexual behaviors.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: One on one psychosocial support services are available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 34(10.0%) and 40(11.8%) respectively, those who indicated neutral were 52(15.3%) while those who indicated agree and strongly agree

were 136(40.1%) and 77(22.7%) respectively. The findings for personal belief that one on one psychosocial support services was available to counter risky sexual behaviours were 213(62.8%). This means that there was sufficient evidence to conclude that a large proportion of undergraduate students believe that one on one psychosocial support services are available to counter risky sexual behaviours.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Group psychosocial support services are available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 40(11.8%) and 50(14.7%) respectively, those who indicated neutral were 62(18.3%) while those who indicated agree and strongly agree were 111(32.7%) and 76(22.4%) in that order. The findings from the respondents' personal belief that group psychosocial support services were available to counter risky behaviours were 187(55.1%). This means that there is sufficient evidence to conclude that a large number of undergraduate students in campus have a personal belief that group psychosocial support services are available to counter risky behaviours. The findings are similar to a study by Mutie and Ndambuki (2004) who noted that counselling services are not only crucial for those students who deviate from the norms but also for all undergraduate students including those who experience sexual behaviour challenges. The students may seek counselling services individually or in groups in order to adjust to different situations and make appropriate decisions in life.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Peer counselling psychosocial support services are available to counter risky sexual behaviours. The undergraduate students who indicated

strongly disagree and disagree were 22(6.5%) and 23(6.7%) respectively, those who indicated neutral were 40(11.7%) while those who indicated agree and strongly agree were 146(42.8%) and 110(32.3%) in that order. The findings from the respondents' personal belief of peer counselling psychosocial support services availability to counter risky sexual behaviours were 256(75.1%). This means that there is sufficient evidence to conclude that the majority of the students in campus have a personal belief that peer counselling psychosocial support services are available to counter risky sexual behaviours.

Furthermore, the peer counsellors and student counsellors provided information of curative counselling services they provide in the main campuses in Nakuru in order to curb risky sexual behaviours among undergraduate students. Concerning curative counselling services, majority of Campus 'A' peer counsellors who participated in FGD were in agreement in giving psychosocial support services to their peers who were experiencing the consequences of risky sexual behaviours. The peer counsellors shared their counselling experiences about cases of clients who were in toxic relationships involving risky sexual behaviours. In some difficult cases the peer counsellors would refer some clients to student counsellors for further help. Majority of cases peer counsellors handled were alcohol and drug related cases that could lead to risky sexual behaviours. The peer counsellors tried to handle psychological and social effects of risky sexual behaviours. The campus 'A' SC interviewed acknowledged helping some students who had experienced the impact of risky sexual behaviours including those who had experienced unplanned pregnancies, attempted abortions, and those who had been infected with STIs. The student counsellor further noted HIV & AIDS cases were rarely brought to their offices because of stigma, but in her eight years of counselling career experience, she had handled only one case of a client who voluntary came out and shared

about her HIV status and she was able to help her. The counsellor also referred depression and psychiatric cases to the psychiatrists and HTC cases to HTC counsellors for those who had experienced the effects of risky sexual behaviours.

The majority of Campus 'B' peer counsellors on the other hand noted that curative counselling services were necessary in helping those who were experiencing the effects of risky sexual behaviours. Some of the clients they handled were addicted to sex since they began engaging in sex at an early age. The peer counsellors encouraged their peers to redirect their energy to activities like sports. The peer counsellors further encouraged their peers to get support system from friends in order to have a smooth transition from the previous broken relationships, which was leading to risky sexual behaviours. Peer counsellors referred some difficult cases to student counsellors for further intervention on issues of sexuality among other issues. The Campus 'B' SC responded that psychosocial support was provided to clients who had experienced the consequences of risky sexual behaviours in their campus. Those infected with HIV & AIDS were encouraged to be positive about life and to utilise HTC services as they continued using ARVs. Those who required special attention were referred i.e. those depressed were referred to a psychiatrist and those who required medical attention were referred to the medical centre. The theories the counsellor applied to help clients to counter risky sexual behaviours were as follows: CBT, humanistic therapies, and spiritual guidance where applicable.

In the light of the findings, majority of the respondents acknowledged the availability of one on one psychosocial support services, however, there is need for universities to continually provide one on one psychosocial support services that help undergraduate students to adopt safe sexual practices, behavior change, abstinence and use of preventive strategies should be initiated, developed and sustained in all campuses. This

further justifies the need to assess student's uptake of counseling services in order to curb risky sexual behaviors and if students' indulgence in risky sexual behaviors influences uptake of counseling services.

The study also sought to find out the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students through undergraduate students' response to the following statement: Referral for VCT services is available to counter risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 20(5.9%) and 40(11.8%) respectively, those who indicated neutral were 39(11.5%) while those who indicated agree and strongly agree were 125(36.8%) and 116(34.1%) in that order. From the results, it was observed that 241(70.9%) of the respondents agreed that referral for VCT services were available to counter risky sexual behaviours. This means that there was sufficient evidence to conclude that majority of the undergraduate students perceived that referral for VCT services are available to counter risky sexual behaviours. The results of the study also indicate that majority of the students agreed that referral for psychiatric services were available to counter the psychological effects of risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 38(11.1%) and 47(13.7%) respectively, those who indicated neutral were 89(26.0%) while those who indicated agree and strongly disagree were 106(31.0%) and 62(18.1%) correspondingly. From the results, it was observed that 168(49.1%) of the respondents agreed that referral for psychiatric services were available to counter the psychological effects of risky sexual behaviours. This means that there is sufficient evidence to conclude that the larger proportion of the students agree that referral for psychiatric services are available to counter the psychological effects of risky sexual behaviours.



The results also indicated that a large number of undergraduate students agreed that referral for medical services were available to counter the physiological effect of risky sexual behaviours. The undergraduate students who indicated strongly disagree and disagree were 31(9.0%) and 37(10.8%) respectively, those who indicated neutral were 64(18.7%) while those who indicated agree and strongly agree were 104(30.3%) and 107(31.2%) correspondingly. From the results, it was observed that 211(61.5%) of the respondents agreed that referral for medical services were available to counter the physiological effects of risky sexual behaviours. This means that there is sufficient evidence to conclude that majority of the undergraduate students agree that referral for medical services are available to counter the physiological effect of risky sexual behaviours.

Furthermore, the peer counsellors were requested to provide information on how they were liaising with student counsellors in order to counter risky sexual behaviours among undergraduate students. Majority of the Campus 'A' peer counsellors noted that they liaised with student counsellors to counter risky sexual behaviours among their fellow peers by referring difficult cases to student counsellors, holding case conference meetings with student counsellors, created awareness on risky sexual behaviours jointly with peer counsellors, got peer counsellors supervision services from student counsellors, and being provided with refresher courses as well as team buildings and retreats meetings. The Campus 'B' peer counsellors response was that they liaised with student counsellors in order to counter risky sexual behaviours among their fellow peers in the following ways: Case conferencing, referral of difficult cases to student counsellors, one on one consultation on psychosocial issues affecting their peers, peer counsellor supervision program, and participation in first year orientation programs to address risky sexual behaviours among other issues affecting the undergraduate students.

In summary, the role of counselling services in mitigating risky sexual behaviours is evident. Therefore, these findings continue to reveal the importance and the need of counseling services and more so measures to put in place for students to be informed about the availability of counseling services so as to avert the negative health outcomes associated with engaging in risky sexual behaviors. Deficits in strong self-efficacy, parental and peer support, school-based sex education programs, and community services contribute to risky sexual behaviors. Therefore, parents, counsellors, religious leaders and university management should embrace more counselling services in order to mitigate risky sexual behaviours among undergraduate students.

This study further sought to establish the significance of the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students. A null hypothesis: *H<sub>0</sub>6: Counselling services have no statistically significant mediating role in mitigating risky sexual behaviours among undergraduate students* was generated. Undergraduate students' uptake of counselling services was conceptualised by means of various variables derived from non-missing responses on 10 items measuring the various domains of students' uptake of counselling services in order to mitigate risky sexual behaviours. Chi-square test was used to test the significance of this relationship at 0.05, significance level. The findings are presented in Table 28 and subsequently discussed.

**Table 28: Chi-square Test Statistics on the Mediating Role of Counselling Services in Mitigating Risky Sexual Behaviours among Undergraduate students**

Likert items	Chi squ	Df	Asymp	Sig. Exact	Sig. point Probab
Orientation of first year students is available to counter risky Sexual behaviours.	188.939 <sup>a</sup>	4.00	.000	.000	.000
Mentorship programs are available to counter risky sexual behaviours.	133.545 <sup>a</sup>	4.00	.038	.038	.001
Public lectures and discussions are available to counter risky sexual behaviours.	4.117 <sup>b</sup>	4.00	.000	.000	.000
Counselling outreach services are available to counter risky sexual behaviours.	133.731 <sup>c</sup>	4.00	.000	.000	.000
One on one psychosocial support services are available to counter risky sexual behaviours.	101.782 <sup>d</sup>	4.00	.000	.000	.000
Group psychosocial support services are available to counter risky sexual behaviours.	45.086 <sup>d</sup>	4.00	.000	.000	.000
Peer counselling psychosocial support services are available to counter risky sexual behaviours.	187.284 <sup>b</sup>	4.00	.000	.000	.000
Referral for VCT services is available to counter risky sexual behaviours.	139.441 <sup>e</sup>	4.00	.000	.000	.000
Referral for psychiatric Services is available to counter the psychological effects of risky sexual behaviours.	47.678 <sup>c</sup>	4.00	.000	.000	.000
Referral for medical services is available to counter the physiological effects of risky sexual behaviours.	75.236 <sup>a</sup>	4.00	.000	.000	.000

The chi-square results in Table 28 displays the analysis of the mediating role of counseling services in mitigating risky sexual behaviors among undergraduate students. From the results, it was observed that majority of the students' belief that orientation of first year students is available to counter risky sexual behaviors. The results indicate that the chi square value for proportion of student who belief that orientation of first year

students is available to counter risky sexual behavior was 188.939 with a p- value of 0.000 which was less than 0.05, significance level. This indicates that there is sufficient evidence to conclude that majority of the students' belief that orientation of first year students is available to counter risky sexual behavior. The results of the study indicate that majority of the students agree that mentorship programs are available to counter risky sexual behaviors. The chi square test statistic value was 133.545 with a p-value of 0.000 which is less than 0.05 significant level. This means that there is sufficient evidence to conclude that the majority of the students in main campuses in Nakuru agree that mentorship programs are available to counter risky sexual behaviors.

From the results of the study, it was observed that majority of the students' belief that counseling outreach services are available to counter risky sexual behaviors. The results show that the chi square value for perception that counseling outreach services are available to counter risky sexual behaviors was 133.731 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the proportion of students who belief that counseling outreach services are available to counter risky sexual behaviors was large. The findings concur with a study by Commission of University Education (2015) and Wango (2015) who noted that in mitigation of risky sexual behaviour in most universities including those in Kenya offer social support to students in form of counselling, financial assistance, health and academic. The provision of counselling services is thought to increase the likelihood of students continuing with their courses when they manage their sexual behaviour. Thus, counselling is a significant service for university students. Also Njeri (2016) noted that high risk sexual behaviour and its consequences among university students continues to be a serious concern for learning institutions, parents, researchers and policy makers. This concern has been marked by the increased number of reproductive health

interventions worldwide aimed at ensuring young adults have access to reproductive health information and services.

The results also show that majority of students, perceive that one on one psychosocial support services is available to counter risky sexual behaviors. The chi square value for personal belief that one on one psychosocial support services are available to counter risky sexual behaviors was 101.782 with a p- value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence to conclude that the large proportion of students, belief that one on one psychosocial support services are available to counter risky sexual behaviors. The results of the study indicate that majority of the students have a personal belief that group psychosocial support services are available to counter risky behavior. The chi square test statistic value for the personal belief that group psychosocial support services are available to counter risky behavior was 45.086 with a p-value of 0.000 which is less than 0.05, significance level. This means that there is sufficient evidence to conclude that the majority of the students in main campuses in Nakuru have a personal belief that group psychosocial support services are available to counter risky behavior. The findings also agree with a study by Lewis et al. (2014) who evaluated the efficacy of personalised normative feedback on college student alcohol-related risky sexual behaviour and found that the combined alcohol and alcohol-related RSB intervention was the only intervention successful at reducing both drinking and alcohol-related RSB outcomes relative to control.

The results of the study indicate that majority of the students have a personal belief that peer counseling psychosocial support services are available to counter risky sexual behaviors. The chi square test statistic value for the personal belief of peer counseling psychosocial support services are available to counter risky sexual behaviors was 187.284 with a p-value of 0.000 which is less than 0.05, significance level. This means

that there is sufficient evidence to conclude that the majority of the students in main campuses in Nakuru have a personal belief that peer counseling psychosocial support services are available to counter risky sexual behaviors.

The results also indicated that majority of the students agree that referral for VCT services are available to counter risky sexual behaviors. From the results, it was observed that the chi square value was equal to 139.441 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of the students agree that referral for VCT services are available to counter risky sexual behaviors. The results of the study indicate that majority of the students agree that referral for psychiatric services are available to counter the psychological effects of risky sexual behaviors. From the results, it was observed that the chi square value was 47.678 with a p- value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence to conclude that the larger proportion of the students agree that referral for psychiatric services are available to counter the psychological effects of risky sexual behaviors. The results also indicated that majority of the students agreed that referral for medical services are available to counter the physiological effect of risky sexual behaviors. From the results, it was observed that the chi square value was equal to 75.236 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of the students agreed that referral for medical services are available to counter the physiological effect of risky sexual behaviors.

The results of the study indicate that majority of the students agree that mentorship programs are available to counter risky sexual behaviors. The chi square test statistic value was 133.545 with a p-value of 0.000 which is less than 0.05, significance level. This means that there is sufficient evidence to conclude that the majority of the students

in main campuses in Nakuru agree that mentorship programs are available to counter risky sexual behaviors. The findings concur with a study by Commission of University Education (2013) and Wango (2015) who noted that in mitigation of risky sexual behavior most universities including those in Kenya offer social support to students in form of counseling, financial assistance, health and academic. The provision of counseling services is thought to increase the likelihood of students continuing with their courses when they manage their sexual behavior. Thus, counseling is a significant service for university students. The results concurs with a study by Tefera (2015) who noted that there was need to step up Reproductive health club and counseling services in universities to bring sexual behavior change among the students in order to detain the usual consequences of premarital sexual practices and risky sexual behaviors. Also the findings are in agreement with a study by Mbugua and Karonjo (2018) that reproductive health knowledge is vital in the growth and development of young people and this impact greatly on their educational and personal outcome as they proceed to adulthood and there was an increasing occurrence of sexually transmitted infections in institutions of higher learning.

From the results on the study, it was observed that majority of the student's belief that counseling outreach services are available to counter risky sexual behaviors. The results show that the chi square values for perception of belief that counseling outreach services are available to counter risky sexual behaviors was 133.731 with a p-value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence that the proportion of students who belief that counseling outreach services are available to counter risky sexual behaviors.

The results also show that majority of students, belief that one on one psychosocial support services are available to counter risky sexual behaviors. The chi square value for

personal belief that one on one psychosocial support services are available to counter risky sexual behaviors was 101.782 with a p- value of 0.000 which was less than 0.05 significant level. This means that there was sufficient evidence to conclude that a large proportion of students' belief that one on one psychosocial support services are available to counter risky sexual behaviors. The findings are similar to a study by Mutie and Ndambuki (2004) who noted that counseling services are not only crucial for those students who deviate from the norms but for all undergraduate students including those who experience sexual behavior challenges. The students may seek counseling services individually or in groups in order to adjust to different situations and make appropriate decisions in life.

The findings also agrees with a study by Lewis et al. (2014) who evaluated the efficacy of personalized normative feedback on college student alcohol-related risky sexual behavior and found that the combined alcohol and alcohol-related RSB intervention was the only intervention successful at reducing both drinking and alcohol-related RSB outcomes relative to control. Also, Choi et al. (2016) in a study found a robust association between using dating apps and sexual risk behaviors, suggesting that app users had greater sexual risks and recommended interventions that can target app users so that they can stay safe when seeking sexual partners through dating apps should be developed. Similarly, Kilwein et al. (2017) observed that alcohol-related risky sexual behaviors are common among college students and suggested that interventions utilizing reminder cues or motivational interviewing-based techniques were largely found to be effective in increasing condom use behaviors among intoxicated individuals, while support for personalized normative feedback for the same outcome was mixed. However, PNF interventions were generally effective in reducing alcohol use in conjunction with sex.



The results also indicated that majority of the students agree that referral for VCT services are available to counter risky sexual behaviors. From the results, it was observed that the chi square value was equal to 139.441 with a p-value of 0.000 which was less than 0.05, significance level. This means that there is sufficient evidence to conclude that majority of the students agree that referral for VCT services are available to counter risky sexual behaviors. The results of the study indicate that majority of the students agree that referral for psychiatric services are available to counter the psychological effects of risky sexual behaviors. From the results, it was observed that the chi square value was 47.678 with a p- value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that the larger proportion of the students agree that referral for psychiatric services are available to counter the psychological effects of risky sexual behaviors.

The results also indicated that majority of the students agreed that referral for medical services are available to counter the physiological effect of risky sexual behaviors. From the results, it was observed that the chi square value was equal to 75.236 with a p-value of 0.000 which was less than 0.05, significance level. This means that there was sufficient evidence to conclude that majority of the students agree that referral for medical services are available to counter the physiological effects of risky sexual behaviors. The findings concur with a study by Woldeyohannes et al. (2017) who assessed risky HIV sexual behaviours and utilisation of voluntary counselling and testing services among undergraduate students at Addis Ababa Science and Technology University, Ethiopia. Among the study participants, 161 (26.8%) had sexual contact and the mean age of first sexual encounter was 17.4 (SD =2.3) years. About 443 (76%) of students knew that condoms can prevent Sexually Transmitted Infections (STIs). Among sexually active students, 74 (46%) did not use condom during first time sex. Among

those responded, 488 (83.4%) heard information about VCT; however, 52% had never used VCT service.

The chi-square results indicated that the p-value of the areas of the mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students were as follows: Orientation of first year students is available to counter risky sexual behaviours (.000), mentorship programs are available to counter risky sexual behaviours (.000), public lectures and discussions are available to counter risky sexual behaviours (.000), counselling outreach services are available to counter risky sexual behaviours (.000), one on one psychosocial support services are available to counter risky sexual behaviours (.000), group psychosocial support services are available to counter risky sexual behaviours (.000), peer counselling psychosocial support Services are available to counter risky sexual behaviours (.000), referral for VCT services is available to counter risky sexual behaviours (.000), referral for psychiatric Services is available to counter the psychological effects of risky sexual behaviours (.000), referral for medical services is available to counter the physiological effects of risky sexual behaviours (.000). Since all the p-values are less than 0.05, the study rejects the null hypothesis and accepts the alternative hypothesis that there is statistically significant role of counselling services in mitigating risky sexual behaviours among undergraduate students. This finding implies that counselling services play a key role in mitigating risky sexual behaviours among undergraduate students and therefore should be given attention by parents, counsellors, university administrators and all other stakeholders in order to empower undergraduate students to curb risky sexual behaviours.

Young people in college require educational initiatives to sensitize them on STI, methods of contraception and positive social behaviors and there is need to improve the accessibility of reproductive health services through strengthening of services provided

at campus health clinics (Mbugua & Karonjo, 2018). The findings are in agreement with Njeri (2016) who noted that high risk sexual behavior and its consequences among university students' continues to be a serious concern for learning institutions, parents, researchers and policy makers. This concern has been marked by the increased number of reproductive health interventions worldwide aimed at ensuring young adults have access to reproductive health information and services. The results therefore, imply that counseling services have got significant mediating role in mitigating risky sexual behaviors among undergraduate students. These findings continue to reveal the need of counselling services to psycho educate students on the influence of psychosocial factors on risky sexual behaviours and more so measures to put in place for students to be informed about the availability of counselling services to avert the negative health outcomes associated with risky sexual behaviours among undergraduate students.

#### *Excerpt Seven*

##### *Peer Counsellors' and Student Counsellors' Verbatim Report on Preventive Counselling Services*

##### *Some Peer Counsellors' Responses during Focus Group Discussions (FGD)*

###### *Campus A*

**Researcher:** *What preventive counselling services do you offer in your campus to curb risky sexual behaviours among your fellow peers?*

**PC 1:** *Health talks*

**PC 2:** *Open forums*

###### *Campus B*

**Researcher:** *What preventive counselling services do you offer in your campus to curb risky sexual behaviours among your fellow peers?*

**PC 1:** *Health talks, campus forums are very healthy in dealing with risky sexual behaviours.*

**PC 2:** *We as peer counsellors participate during first years' orientation program to inform first year students about the risky sexual behaviours*

##### *Student Counsellors' Responses during the Interviews*

###### *Campus A*

**Researcher:** *What Preventive counselling services do you offer in your campus to curb risky sexual behaviours among undergraduate students?*

*SC: The preventive counselling services we offer in our campus include orientation of first year students on sexuality matters among other topics of interest. We engage first year students comprehensively because they need psycho-education. In fact, our orientation program takes rigorous two weeks and we student counsellors under the able leadership of the Dean of students play a critical role. During the orientation program we also invite external facilitators including I Choose Life, NACADA and other youth friendly organisations that help address the subject of sexuality comprehensively and other related topics. We also offer group-counselling services to help address emerging issues including risky sexual behaviours. Some of these topics are derived from individual counselling services as various individual clients express their issues. We also engage in counselling outreach services to address issues of self-esteem, loss and grief, financial matters, alcohol and drugs that may contribute to risky sexual behaviours among our undergraduate students.*

*Campus B*

**Researcher:** *What Preventive counselling services are offered in your campus to curb risky sexual behaviours among undergraduate students?*

*SC: We offer health talks, open forums on sexual behaviours and relationships, focus group discussions, “She” and “He” talks programs to address sexual related issues affecting undergraduate students.*

### **Curative Counselling Services**

#### **Some Peer Counsellors’ Responses during Focus Group Discussions (FGD)**

*Main Campus A*

**Researcher:** *What curative counselling services do you offer in your campus to curb risky sexual behaviours among your fellow peers?*

**PC 1:** *I am giving psychosocial support services to a client who is in a toxic relationship involving risky sexual behaviours. In some difficult cases, I refer them to student counsellors for further help.*

**PC 2:** *I have a client currently who is struggling with alcohol and drugs, which have made him to engage in risky sexual behaviours. I have been able to psycho-educate him on the effects of alcohol and drug abuse and the response is good.*

*Campus B*

**Researcher:** *What curative counselling services do you offer in your campus to curb risky sexual behaviours among your fellow peers?*

**PC 1:** *Helping those who are addicted to sex. They began engaging in sex at an early age*

**PC 2:** *Psycho-education of clients who are addicted to engage in other constructive activities that are healthy other than engaging in risky sexual behaviours.*

#### **Student Counsellors’ Responses during the Interviews**

*Campus A*

**Researcher:** *What curative counselling services do you offer in your campus to curb risky sexual behaviours among undergraduate students?*

**SC:** *Yes, I have helped some students who have experienced the effects of risky sexual behaviours including those who have experienced unplanned pregnancies, attempted abortions, and some may have been infected with STIs. The HIV & AIDS cases are rarely brought to our offices because of stigma, but in my eight*

years of my counselling career I have handled only one case who voluntary came and shared about her HIV status and I have been able to help her. We also refer depression and psychiatric cases to the psychiatrists and HTC cases to HTC counsellors.

*Campus B*

**Researcher:** What curative counselling services do you offer in your campus to curb risky sexual behaviours among undergraduate students?

**SC:** We give psychosocial support to our clients who have experienced the consequences of risky sexual behaviours. Those infected with HIV & AIDS are encouraged to be positive about life and to utilise HTC services as they continue using ARVs. Those who require special attention are referred i.e. those depressed are referred to a psychiatrist and those who require medical attention are referred to the medical centre. The theories I apply to help our clients are as follows: CBT, humanistic therapies, and spiritual guidance where applicable.

**Methods used to Create Awareness on Risky Sexual Behaviours  
Some Peer Counsellors' Responses during Focus Group Discussions (FGD)**

*Campus A*

**Researcher:** What methods are you using to create awareness on risky sexual behaviours among your peers?

**PC 1:** Posters

**PC 2:** Notices

*Campus B*

**PC 1:** Health talks

**PC 2:** Online platforms like WhatsApp, Facebook, website and hotline

**Student Counsellors' Responses during the Interviews**

*Campus A*

**Researcher:** What methods are you using to create awareness on risky sexual behaviours among undergraduate students?

**SC:** We use mainly social media platform like WhatsApp, tweeter, SMS, and Facebook, notices, class reps, and faculty.

*Campus B*

**Researcher:** What methods are you using to create awareness on risky sexual behaviours among undergraduate students?

**SC:** The methods we use to create awareness on risky sexual behaviours among our students include health awareness week that we hold every month of October, counselling outreach, notices, tweeter, WhatsApp, face book and website.

**Peer Counsellors' Mode of Liaising with Student Counsellors in order to counter Risky Sexual Behaviours**

**Some Peer Counsellors' Responses during Focus Group Discussions (FGD)**

*Campus A*

**Researcher:** How do you liaise with student counsellors to counter risky sexual behaviours among your fellow peers?

*PC 1: We refer difficult cases to student counsellors though at times some clients are hesitant to be referred because they think that they may be betrayed especially those students who engage in alcohol and drugs that can lead to risky sexual behaviours.*

*PC 2: We hold case conferencing meetings with student counsellors*

*Campus B*

*Researcher: How do you liaise with student counsellors to counter risky sexual behaviours among your fellow peers?*

*PC 1: Through case conferencing*

*PC 2: Through referral of difficult cases to student counsellors*

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summary of major findings of the study, conclusions based on the study findings and recommendations. Lastly, suggested areas for further research are presented.

#### 5.2 Summary of Major Research Findings

Based on the results of this study, the following are the major findings:

- i. Concerning the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students in the main campuses in Nakuru County, the findings indicated that majority of the undergraduate students refuse to have sex with someone in parties, whereas a large number perceived that they may not refuse sexual activities with their boyfriends or girlfriends. It was also found that a large number of undergraduate students are aware that alcohol or drugs impair their decision-making, and refuse of alcohol/drugs could communicate the right decision. Furthermore, majority refuse sex until partner agrees to use condom, could tell boyfriend or girlfriend to start using condoms, could tell first time partner to use condom, and could convince partner to use condom if using birth control pills. Peer counsellors and student counsellors were also in agreement that indeed self-efficacy influence risky sexual behaviours among undergraduate students. A Chi-square test results indicated that self-efficacy has statistically significant influence on risky sexual behaviours among undergraduate students. From the risk factor analysis that was done, the results show that there was a strong influence of self-efficacy in private universities than the public universities on risky sexual behaviours among the students.

- ii. On the perceived influence of sexual norms on risky sexual behaviours among undergraduate students in main campuses in Nakuru County, the findings indicated that majority of the respondents perceived that undergraduate students are not ready to wait until they are older for sex, and they have an opinion that sex is okay with a steady boyfriend or girlfriend. While majority perceived that sex was not okay with a couple of different people. The proportion of respondents who have a personal belief that a number of students have had sex was large, wait until older for sex, sex okay with a steady boyfriend/girlfriend, while majority have a personal belief that sex was not okay with a couple of different people. The majority of undergraduate students talk with parents/adult relatives about abstinence, protection against HIV or STDs, and pregnancy prevention. While a popular number of the undergraduate, students perceive that they are not comfortable talking about condoms, nor talking about sex with parents/adults relatives. Peer counsellors and student counsellors agreed that sexual norms influence risky sexual behaviours. A Chi-square test results indicates that sexual norms have statistically significant influence on risky sexual behaviours among undergraduate students. From the risk factor analysis that was done to test the risk of the influence of sexual norms in private university and public university on risky sexual behaviours among the students, it was observed that the odds ratio was 0.944 which indicated that the private universities have influences of sexual norms on risky sexual behaviours among students more than the public universities.
- ii. The findings on the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students in main campuses in Nakuru County show that the majority of undergraduate students perceive that poverty can lead



to prostitution, and it is not okay to engage in sex for financial or material gain. A large number of students also perceived that it is not okay to engage in sponsor mentality/cross generational sex. A bulk of students perceived that it is not okay to engage in sex orgies/group sex for economic gain, and it is not okay to engage in hook-up culture for financial gain. The study also indicated that majority of the students strongly fear unplanned pregnancy or contracting STDs or HIV in comparison to financial or material gain. Peer counsellors and student counsellors agreed that indeed socio-economic status influence risky sexual behaviours among undergraduate students. A Chi-square test results indicates that socioeconomic status has statistically significant influence on risky sexual behaviours among undergraduate students. From the risk factor analysis, it was observed that the odds ratio was 0.212, which indicates that the students in both private and public universities were equally under a strong influence of socioeconomic status on risky sexual behaviours.

- iv. On the perceived influence of social media on risky sexual behaviours among undergraduate students in the main campus in Nakuru County, the findings indicated that majority of students perceive that it is not okay to watch pornography. A bulk of undergraduate students perceive that it is not okay to send sex messages (sexting), nor okay to receive sex messages to or from friends in social media. A mainstream of students also perceive that it is not their hobby to enjoy cybersex, nor cybersex is a well-paying business. A large number of students perceive that online dating may not be the best way to get a sexual partner. Peer counsellors and student counsellors agreed that social media may influence risky sexual behaviours among undergraduate students. A Chi-square test results indicates that social media has statistically significant influence on

risky sexual behaviours among undergraduate students. From the risk factor analysis, it was observed that the odds ratio was 1.131, which indicates that undergraduate students from both the private and the public campuses are influenced by the social media on risky sexual behaviours.

- v. On the perceived influence of substance abuse on risky sexual behaviours among undergraduate students in Nakuru County, the findings indicated that majority of undergraduate students perceive that the use of alcohol at least one drink (past 30 days), or alcohol use, five or more drinks in 2 hours (past 30 days), could lead to risky sexual behaviours. A big proportion of undergraduate students perceived that marijuana use (past 30 days), could lead to risky sexual behaviours. A large proportion of undergraduate students perceived that cocaine use (past 30 days), could lead to risky sexual behaviours. A bulk of undergraduate students perceived that injectable steroids use (past 30 days), could lead to risky sexual behaviours. Peer counsellors and student counsellors agreed that substance abuse might influence risky sexual behaviours among undergraduate students. A Chi-square test results indicated that substance abuse has statistically significant influence on risky sexual behaviours among undergraduate students. From the risk factor analysis, it was observed that the odds ratio was 1.672, which indicates that in both the private and public universities there was influence of substance abuse on risky sexual behaviours.
- vi. Concerning mediating role of counselling services in mitigating risky sexual behaviours among undergraduate students in the main campuses in Nakuru County, the findings indicated that majority of the students' belief that orientation of first year students, mentorship, public lectures and discussions, and counselling outreach, are available to counter risky sexual behaviours among

undergraduate students. A large proportion of the students believe that one on one psychosocial support services, group psychosocial support services, and peer counselling psychosocial support services, are available to counter risky sexual behaviours among undergraduate students. A bulk of undergraduate students perceive that referral for VCT services, referral for psychiatric services, and referral for medical services, are available to counter risky sexual behaviours among undergraduate students. Peer counsellors and student counsellors agreed that counselling services play a key role in mitigating risky sexual behaviours among undergraduate students. A Chi-square test results indicated that counselling services have a statistically significant mediating role in mitigating risky sexual behaviours among undergraduate students.

### **5.3 Conclusions**

The following conclusions were reached based on the analysis of the data in chapter four and the major findings:

- i. Self-efficacy has a statistically significant influence on risky sexual behaviours among undergraduate students.
- ii. Sexual norms have a statistically significant influence on risky sexual behaviours among undergraduate students.
- iii. Socioeconomic status has a statistically significant influence on risky sexual behaviours among undergraduate students.
- iv. Social media has a statistically significant influence on risky sexual behaviours among undergraduate students.
- v. Substance abuse has a statistically significant influence on risky sexual behaviours among undergraduate students.

- vi. Counselling services have statistically significant mediating role in mitigating risky sexual behaviours among undergraduate students.

## **5.4 Recommendations**

This section is subdivided into two subsections: first, general recommendations and secondly, policy recommendations.

### **5.4.1 General Recommendations**

Based on the findings of this study, the following recommendations were advanced:

- i. There should be a deliberate effort by the parents, religious leaders, counsellors, lecturers, and administrators in universities to empower undergraduate students on self-efficacy in order to counter risky sexual behaviours.
- ii. The parents, religious leaders, teachers, counsellors, lecturers, university administrators and management should inculcate healthy sexual norms at home, religious affiliations, institutions of higher learning and society, and should include sexual reproductive health lessons in curriculum from primary school to the university level to counter risky sexual behaviours among undergraduate students.
- iii. In order to address socio-economic status of the needy students who may be vulnerable to risky sexual behaviours, the university management and administrators should enhance alternative sources of finances like work study scholarship, the members of county assembly and parliament should avail more finances for bursaries, and the government should increase Higher Education Loan Board (HELB) loan allocation in order to help the needy students pay fees and get pocket money hence counter prostitution and sponsor mentality which are risky sexual behaviours among undergraduate students.

- iv. The university management and administrators should address comprehensively the menace of substance abuse in campuses that may influence risky sexual behaviours among undergraduate students.
- v. The university management and administrators, student counsellors and peer counsellors should enhance preventive counselling services in order to counter risky sexual behaviours among undergraduate students since prevention is better than cure.

#### **5.4.2 Policy Recommendations**

The following are the policy recommendations based on the study findings:

- i. The Ministry of Education and Commission of University Education (CUE) should inculcate in the curriculum the subject of self-efficacy to help build assertive skills among students in order to resist risky sexual behaviours.
- ii. The Ministry of Education and Commission of University Education should include a subject on human sexuality in the curriculum as an examinable subject in order to inform students on sexuality matters hence deal with risky sexual behaviours.
- iii. The Higher Education Loan Board (HELB) should increase HELB loan allocation to the needy students to enable the undergraduate students pay fees and have enough pocket money in order to avoid transactional sex.
- iv. The Government of Kenya should enhance censorship of the kind of information being sent or received through social media platforms especially pornographic and sexual related messages and videos in order to counter risky sexual behaviours among undergraduate students.

## **5.5 Suggestions for Further Research**

Based on the findings of the study, the following are suggestions for further research:

- i. The study was limited to main campuses in Nakuru County and this may limit generalisations of the study findings to other campuses in other counties. Similar studies may be replicated in other campuses in the other counties in Kenya.
- ii. The study focused on the perceived influence of selected psychosocial factors on risky sexual behaviours like the influence of self-efficacy, sexual norms, socioeconomic status, social media, and substance abuse. A similar study could be done in future to focus on other influencing factors like personality traits, trauma experience and campus environment that may influence risky sexual behaviours among undergraduate students.
- iii. A correlational study involving 1<sup>st</sup> year and 2<sup>nd</sup> year undergraduate students on the perceived influence of selected psychosocial factors on risky sexual behaviours should be conducted to find out if the same results will be obtained in order to strengthen these findings.
- iv. The study was limited to undergraduate students. A comparative study should be carried out between undergraduate students and tertiary college students on the perceived influence of selected psychosocial factors on risky sexual behaviours.

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## APPENDICES

### Appendix I: KREJCIE and Morgan Table for Determining Sample Size of a Known Population

Table 3.1									
<i>Table for Determining Sample Size of a Known Population</i>									
N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

*Note: N is Population Size; S is Sample Size*

*Source: Krejcie & Morgan, 1970*

Source: Krejcie & Morgan, 1970

## **Appendix II: Introduction Letter**

Kabarak University,  
P.O Box Private Bag-20157,  
Kabarak  
Date.....

Dear Sir/Madam,

### **Re: Letter of Introduction**

I am a postgraduate student at Kabarak University undertaking Doctor of Philosophy Degree in Counselling Psychology. As a requirement for the fulfilment of the PhD degree, I intend to carry out a research entitled “*Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours among Undergraduate Students: A Case of Egerton and Kabarak Main Campuses in Nakuru County, Kenya.*”

Kindly spare some of your time to complete the questionnaire attached herein. The information given will be handled with utmost confidentiality.

Yours Sincerely

Julius Kiprono Langat

### **Appendix III: Questionnaire for Undergraduate Students**

Please take a few minutes to complete this questionnaire. Your honest answers will be completely anonymous, but your views, in combination with those of others are extremely important in building knowledge on the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students.

Kindly answer all questions.

#### **Section A: Socio-Demographic Characteristics.**

By the means of tick (√) kindly indicate an option that best describes you where appropriate.

Also fill in the blanks where necessary.

1. Gender
  - a) Female [ ]
  - b) Male [ ]
2. Age Bracket
  - a) 16 - 18 years [ ]
  - b) 19 - 20 years [ ]
  - c) 21 - 22 years [ ]
  - d) 23 - 24 years [ ]
3. Year of Study
  - a) 3<sup>rd</sup> year [ ]
  - b) 4<sup>th</sup> year [ ]
4. Family Background
  - a) Single Parenting [ ]
  - b) Both Parenting [ ]
  - c) Orphaned [ ]
5. Religion
  - a) Christian [ ]
  - b) Muslim [ ]
  - c) Hindu [ ]
  - d) Other.....

- 6 Do you think it is right to engage in premarital sex?
- a) Yes [ ]
- b) No [ ]
- 7 If yes, at what age do you think it is okay to indulge in a sexual relationship?
- a) 17 or younger [ ]
- b) 18 or older [ ]
- c) Not sure [ ]
- 8 How frequent are the following risky sexual behaviours practiced in your campus?

	<b>Risky Sexual Behaviours</b>	<b>Often</b>	<b>Rare</b>	<b>Never</b>
a	Unprotected sexual intercourse			
b	Multiple sexual partners			
c	Prostitution on campus			
d	Sexual coercion and abuse			

**Section B: Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours**

Read the following statements carefully and decide whether or not it describes the perceived influence of selected psychosocial factors on risky sexual behaviours among undergraduate students. Please select by ticking (√) **ONLY ONE** of the five responses that show the extent to which you agree or disagree with the statement.

**Strongly Disagree (SD) Disagree (D) Not Sure (N) Agree (A) Strongly Agree (SA)**

- 9 The following Statements are on the perceived influence of self-efficacy on risky sexual behaviours among undergraduate students.

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	Refuse sex with someone at a party					
b	Refuse sex, even if a boyfriend or girl friend					
c	Refuse alcohol/drugs, could make the right decision					
d	Refuse alcohol/drugs, could communicate decision					
e	Refuse sex, until partner agrees to use a condom					
f	Could tell boyfriend or girl-friend to start using condoms					
g	Could tell first-time partner to use condoms					
h	Could convince boy-friend or girlfriend to use condoms, if using birth control pills					

10 The following Statements are on the perceived influence of sexual norms on risky sexual behaviours among undergraduate students.

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	Wait until older for sex (friends' belief)					
b	Sex okay with a steady boyfriend or girlfriend (friends' belief)					
c	Sex okay with a couple of different people/month (friends' belief)					
d	Number of students have had sex (personal belief)					
e	Wait until older for sex (personal belief)					
f	Sex okay with a steady boyfriend or girlfriend (personal belief)					
g	Sex okay with a couple of different people/month (personal belief)					
h	Talked about abstinence with parents or other (adult relatives)					
i	Talked about condoms with parents or other (adult relatives)					
j	Talked about protection against HIV or STD with parents or other adult relatives					
k	Talked about preventing pregnancy with parents or other adult relatives					
l	Comfortable talking about sex with parents					

11 The following Statements are on the perceived influence of socioeconomic status on risky sexual behaviours among undergraduate students.

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	Poverty can lead to prostitution					
b	It's okay to engage in sex for financial or material gain					
c	It's okay to engage in sponsor mentality/cross-generational sex					
d	It's okay to engage in sex orgies/group sex for economic gain					
e	It's okay to engage in hook-up culture for financial gain					
f	I don't fear unplanned pregnancy or contracting STDs or HIV so long as I get financial/material gain					

12 The following Statements are on the perceived influence of social media on risky sexual behaviours among undergraduate students.

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	It's okay to watch pornography in social media					
b	It's okay to send sex messages(sexting) to friends in social media					
c	It's okay to receive sex messages(sexting) from friends in social media					
d	My hobby is to enjoy cybersex					
e	Online dating is the best way of getting a sexual partner					
f	Cybersex is a well-paying business					

13 The following Statements are on the perceived influence of substance abuse on risky sexual behaviours among undergraduate students.

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	Alcohol use, at least one drink, number of days (past 30 days) could lead to risky sexual behaviours					
b	Alcohol use, five or more drinks in 2 hours, number of days (past 30 days) could lead to risky sexual behaviours					
c	Marijuana use, number of days (past 30 days) could lead to risky sexual behaviours					
d	Cocaine use, number of days (past 30 days) could lead to risky sexual behaviours					
e	Injectable steroids, number of days (past 30 days) could lead to risky sexual behaviours					

14 Do the following counselling services exist in your campus to mitigate risky sexual behaviours among undergraduate students?

	<b>Statement</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
a	Orientation of first year students is available to counter risky Sexual Behaviours					
c	Mentorship programs are available to counter risky sexual behaviours					
d	Public lectures and discussions are available to counter risky Sexual behaviours					
e	Counselling outreach services are available to counter risky sexual behaviours					
f	One on one psychosocial support services are available to counter risky sexual behaviours					
g	Group psychosocial support services are available to counter risky sexual behaviours					
h	Peer counselling Psychosocial support Services are available to counter risky sexual behaviours					
i	Referral for VCT Services are available to counter risky sexual behaviours					
j	Referral for psychiatric Services are available to counter the psychological effects of risky sexual behaviours					
k	Referral for medical Services are available to counter the physiological effects of risky sexual behaviours					

Thank you for your responses!

## Appendix IV: Focus Group Discussion Guide for Peer Counselors

This focus group discussion is intended to investigate the “*Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours among Undergraduate Students: A Case of Egerton and Kabarak Main Campuses in Nakuru County, Kenya.*” Kindly answer the questions as truly as you can. All information will be treated with utmost confidentiality.

### Section A: Socio-Demographic Characteristics.

- 1 Gender
  - a) Female [ ]
  - b) Male [ ]
- 2 Age Bracket
  - a) 16 - 18 years [ ]
  - b) 19 - 20 years [ ]
  - c) 21 - 22 years [ ]
  - d) 23 - 24 years [ ]
- 3 Year of Study
  - a) 3<sup>rd</sup> year [ ]
  - b) 4<sup>th</sup> year [ ]
- 4 Family Background
  - a) Single Parenting [ ]
  - b) Both Parenting [ ]
  - c) Orphaned [ ]
- 5 Religion
  - a) Christian [ ]
  - b) Muslim [ ]
  - c) Hindu [ ]
  - d) Other.....



**Section B: Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours**

- 6 What do you consider as risky sexual behaviours among your peers?
- 7 How prevalent are risky sexual behaviours among your peers?
- 8 What are some of the effects of risky sexual behaviours among your peers?
- 9 What are your peers' perceptions of risky sexual behaviours?
- 10 What psychosocial factors influence risky sexual behaviours among your peers?
- 11 How do the following selected psychosocial factors perceived to influence risky sexual behaviours among your peers?
  - a) Influence of self-efficacy on risky sexual behaviours
  - b) Influence of sexual norms on risky sexual behaviours
  - c) Influence of socioeconomic status on risky sexual behaviours
  - d) Influence of social media on risky sexual behaviours
  - e) Influence of substance abuse on risky sexual behaviours
- 12 As peer counsellors, what psychosocial support services have you taken to help your peers to mitigate risky sexual behaviours?
  - a) Preventive counselling services
  - b) Curative counselling services
- 13 What methods are you using to create awareness on risky sexual behaviours among your peers?
- 14 How do you liaise with student counsellors to mitigate risky sexual behaviours among your fellow peers?

*Thank you for your responses!*

## Appendix V: Interview Schedule for Student Counselors

This interview schedule is intended to investigate the “*Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours among Undergraduate Students: A Case of Egerton and Kabarak Main Campuses in Nakuru County, Kenya.*” Kindly answer the questions as truly as you can. All information will be treated with utmost confidentiality.

### Section A: Biodata

1. Name of your campus.....
2. Date of interview.....
3. Gender: Male  Female
4. What is your age bracket?
  - a) 20-24
  - b) 25-29
  - c) 30-34
  - d) 35 -39
  - e) 40-44
  - f) 45-49
  - g) 50 and above
5. How long have you been a counsellor.....?
6. Marital status:
  - a) Married
  - b) Single
  - c) Youth
  - d) Separated
  - e) Widow
  - f) Widower

### Section B: The Perceived Influence of Selected Psychosocial Factors on Risky Sexual Behaviours among Undergraduate Students

- 7 What do you consider as risky sexual behaviours in your campus?
- 8 How prevalent are risky sexual behaviours in your campus?
- 9 What are some of the effects of risky sexual behaviours?
- 10 What are the students’ perceptions of risky sexual behaviours?
- 11 What psychosocial factors influence risky sexual behaviours among undergraduate students?
- 12 How do the following selected psychosocial factors perceived to influence risky sexual behaviours among undergraduate students?
  - a) Influence of self-efficacy on risky sexual behaviours
  - b) Influence of sexual norms on risky sexual behaviours
  - c) Influence of socioeconomic status on risky sexual behaviours
  - d) Influence of social media on risky sexual behaviours
  - e) Influence of substance abuse on risky sexual behaviours

- 13 As counselling department, have you established any programs that can help students not to engage in risky sexual behaviours?
- a) Preventive counselling services
  - b) Curative counselling services
- 14 What methods are you using to create awareness on risky sexual behaviours among undergraduate students?

*Thank you for your responses!*

## Appendix VI: Introduction Letter from Kabarak University

**KABARAK**



**UNIVERSITY**

Private Bag - 20157  
KABARAK, KENYA  
<http://kabarak.ac.ke/institute/postgraduatestudies/>

Tel: 0773 265 999  
E-mail: [directorpostgraduate@kabarak.ac.ke](mailto:directorpostgraduate@kabarak.ac.ke)

### BOARD OF POSTGRADUATE STUDIES

13<sup>th</sup> November 2019

The Director General,  
National Commission for Science, Technology & Innovation (NACOSTI),  
P.O. Box 30623 - 00100,  
NAIROBI.

Dear Sir/Madam,

**RE: JULIUS KIPRONO LANGAT (GDC/M/2067/09/16)**

The above named is a PhD Student at Kabarak University in the School of Education. He is carrying out a research entitled *"Influence of Perceived Psychosocial Factors on Risky Sexual Behaviour among Undergraduate Students: A Case Study of Main Campus in Nakuru County, Kenya."* He has defended his proposal and has been authorized to proceed with field research.

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

Please provide him with a research permit to enable him to undertake his research.

Thank you.

Yours faithfully,

  
**Dr/Betty Jeruto Tikoko**  
**DIRECTOR, POSTGRADUATE STUDIES**



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#### Kabarak University Moral Code

*As members of Kabarak University family, we purpose at all times and in all place to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)*



Kabarak University is ISO 9001:2015 Certified

## Appendix VII: NACOSTI Research Permit

 <p>REPUBLIC OF KENYA</p>	 <p><b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b></p>
<b>RefNo: 188293</b>	<b>Date of Issue: 18/November/2019</b>
<b>RESEARCH LICENSE</b>	
	
<b>This is to Certify that Rev.. JULIUS LANGAT of Kabarak University, has been licensed to conduct research in Nakuru on the topic: Influence of Perceived Psycho-social Factors on Risky Sexual Behaviors among Undergraduate Students: A case Study of Main Campuses in Nakuru County, Kenya for the period ending : 18/November/2020.</b>	
<b>License No: NACOSTI/P/19/2836</b>	
<b>188293</b>	
<b>Applicant Identification Number</b>	<b>Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b>
	<b>Verification QR Code</b>
	
<b>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</b>	

**Appendix VIII: Research Authorization from Nakuru County Commissioner**



**THE PRESIDENCY  
MINISTRY OF INTERIOR AND  
CO-ORDINATION OF NATIONAL GOVERNMENT**

Telegram: "DISTRICTER" Nakuru  
Telephone: Nakuru 051-2212814  
When replying please quote.

COUNTY COMMISSIONER  
NAKURU COUNTY  
P.O. BOX 81  
NAKURU

**Ref No. CC. SR.EDU 12/1/2/VOL.V/71**

**19<sup>th</sup> November 2019**

Deputy County Commissioners


- Rongai Sub County
- Njoro Sub County

**RE: - RESEARCH AUTHORIZATION - REV. JULIUS KIPRONO LANGAT**

---

The above named from Kabarak University has been authorized to carry out research on ***influence of perceived psycho-social factors on risky sexual behaviors among undergraduate students***: A case study of main campuses in Rongai and Njoro Sub Counties in Nakuru county for a period ending 18<sup>th</sup> November, 2020

Please accord him all the necessary support to facilitate the success of his research.

  
**MARY W. MWANGI**  
**FOR: COUNTY COMMISSIONER**  
**NAKURU COUNTY**



**Appendix IX: Research Authorization from Nakuru County Director of Education**

**MINISTRY OF EDUCATION**  
**STATE DEPARTMENT OF EARLY LEARNING OF BASIC EDUCATION**

Telegrams: "EDUCATION",  
Telephone: 051-2216917  
When replying please quote  
Email: cdenakurucounty@gmail.com  
Ref. CDE/NKU/GEN/4/1/21 VOL.II/157



COUNTY DIRECTOR OF EDUCATION  
NAKURU COUNTY  
P. O. BOX 259,  
NAKURU.

19<sup>th</sup> November, 2019


TO WHOM IT MAY CONCERN

**RE: RESEARCH AUTHORIZATION - JULIUS LANGAT**  
**PERMIT NO. NACOSTI/P/19/2836**

Reference is made to letter NACOSTI/ P/19/2836 dated 18<sup>th</sup> November, 2019.

Authority is hereby granted to the above named to carry out research on "*Influence of perceived Psycho-social Factors on Risky Sexual Behaviour among Undergraduate Students*" in Nakuru County for a period ending **18<sup>th</sup> November, 2020.**

Kindly accord him the necessary assistance.

  
Florence Mwinzi  
FOR: COUNTY DIRECTOR OF EDUCATION  
NAKURU



Copy to:

Kabarak University

## Appendix X: Research Authorization from Egerton University

**EGERTON**

P.O. Box 536 -20115  
Egerton, Kenya



**UNIVERSITY**

Tel: +254-51-2217801/808  
+254-51-2217891/2  
Cell: 0708489256  
0775015388  
Fax: +254-51-2217942  
E-mail: [dvcre@egerton.ac.ke](mailto:dvcre@egerton.ac.ke)

### OFFICE OF THE DEPUTY VICE - CHANCELLOR RESEARCH AND EXTENSION

**EU/DVC/RE/089**

**20<sup>th</sup> November, 2019**

Julius K. Langat  
Kabarak University  
P. O. Private Bag - 20157  
**KABARAK**

[jklangat@kabarak.ac.ke](mailto:jklangat@kabarak.ac.ke)

#### **RE: PERMISSION TO COLLECT DATA AT EGERTON UNIVERSITY**

Reference is made to your letter dated 18<sup>th</sup> November, 2019, requesting for authority to collect data at Egerton University for your research study entitled: *'Influence of Perceived Psychosocial Factors on Risky Sexual Behaviors among Undergraduate Students: A case of Main Campuses in Nakuru County, Kenya'*.

Authority is hereby granted for you to collect data in Egerton University from the undergraduate students, peer counsellors and student counselors. It is expected that this research is purely for academic purposes and will not be used otherwise. Upon completion of the study please ensure that you provide a copy of the report for our retention.

**Prof. Alfred C. Kibor, Ph.D**  
**AG. DEPUTY VICE-CHANCELLOR (R&E)**

cc. Registrar (AA), Director (R&F), Dean of Students

*'Transforming lives through Quality Education'*



## Appendix XI: Research Authorization from Kabarak University



### Office of the Registrar (Administration & Human Resources)

Private Bag - 20157  
KABARAK, KENYA  
Email: [Registrar@kabarak.ac.ke](mailto:Registrar@kabarak.ac.ke)

Tel: 254-51-343509  
Fax: 254-51-343529  
[www.kabarak.ac.ke](http://www.kabarak.ac.ke)

25<sup>th</sup> November 2019

Rev. Julius Kiprono Langat  
Kabarak University  
P. O Private Bag 20157  
**KABARAK**

Dear Rev. Langat,

#### RE: DATA COLLECTION REQUEST

This is to acknowledge receipt of your letter on the above subject.

I am pleased to inform you that your request to collect data from our University on "*Influence of Perceived Psychological Factors on Risky Sexual Behaviours among Undergraduate Students: A Case Study of main Campuses in Nakuru County, Kenya.*" has been approved. We would also appreciate if you would share with us your research findings.

Thank you for choosing to undertake your research at Kabarak University.

Yours sincerely,

**Dr. Simon K. Kipchumba, Ph.D**  
**REGISTRAR (ADMIN & HR)**

C.C. Deputy Vice Chancellor (A & F)  
Deputy Vice Chuncellor (A & R)

SKK/rr

#### Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart to one's heart, Jesus as Lord. 1 Peter 3:15



**KABARAK UNIVERSITY IS ISO 9001:2015 CERTIFIED**

## Appendix XII: List of Publications



Editon Consortium Journal of Psychology,  
Guidance, and Counseling (ECJPGC)

ISSN: 2664-0112

Volume: 02 Issue: 01 | June 2020 |

Received: 26.05.2020; Accepted: 28.05.2020; Published: 30.06.2020 at [www.editonpublishing.org](http://www.editonpublishing.org)  
Langat, J. K., et al., Editon Cons. J. Psychol. Guid. Couns. *Double-Blind Peer Reviewed Journal*

### Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students from selected Universities in Nakuru County, Kenya

Julius Kiprono Langat<sup>1</sup>; Prof. Gladys Jerobon Kiptiony<sup>2</sup>; Dr James Kay<sup>3</sup>

<sup>1,2,3</sup> School of Education, Kabarak University, Kenya

Main author email: [jklangat@kabarak.ac.ke](mailto:jklangat@kabarak.ac.ke)

#### ABSTRACT:

This study's purpose was to examine the influence of sexual norms on risky sexual behaviours among undergraduate students of main campuses in Nakuru County. Social Learning Theory by Albert Bandura and Person-Centred Theory by Carl Rogers guided the study. The study was carried out among 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>-year undergraduate students from main campuses in Nakuru County. The study adopted a correlational research design. The target population was 18570 undergraduate students. The accessible population was 8456 constituted of 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>-year undergraduate students whose sample was 367. Respondents were selected by applying the simple random sampling technique. The study included a sample of 10 peer counsellors and 2 student counsellors from the Egerton University and Kabarak University main campuses who were selected through purposive sampling. Data were obtained using a questionnaire for undergraduate students, focus group discussions guide for peer counsellors and interview schedule for student counsellors. Validation of research instruments was done through peer and expert review and also through pilot testing, which was done in Mount Kenya University (MKU) - Nakuru Campus. Quantitative data was analysed by both inferential and descriptive statistics using SPSS Version 25, whereas the qualitative data was analysed thematically. The analysed data was presented in tables, graphs, and narratives. The findings indicated that the majority of the respondents were of the view that sexual norms influence risky sexual behaviours among undergraduate students.

**Key Terms:** Influence, Risky sexual behaviours, Undergraduate Students, sexual norms

#### How to cite this article in APA (6<sup>th</sup> Edition)

Langat, J. K., Kay, J. M., & Kiptiony, G. C. (2020). Influence of Sexual Norms on Risky Sexual Behaviours among Undergraduate Students from selected Universities in Nakuru County, Kenya. *Editon Cons. J. Psychol. Guid. Couns.* 2(1), 121-135.

121

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## **Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students from selected Universities in Nakuru County, Kenya**

Julius Kiprono Langat<sup>1</sup>; Dr James Kay<sup>2</sup>; Prof. Gladys Jerobon Kiptiony<sup>3</sup>

<sup>1,2,3</sup> School of Education, Kabarak University, Kenya

Main author email: [jklangat@kabarak.ac.ke](mailto:jklangat@kabarak.ac.ke)

### **Abstract**

This study's purpose was to establish the influence of socioeconomic status on risky sexual behaviours on risky sexual behaviours among undergraduate students of main campuses in Nakuru County. Social Learning Theory by Albert Bandura and Person-Centred Theory by Carl Rogers guided the study. The study was carried out among 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> year undergraduate students from main campuses in Nakuru County. The study adopted a correlational research design. The target population was 18570 undergraduate students. The accessible population was 8456 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>-year undergraduate students whose sample was 367. Respondents were selected by applying the simple random sampling technique. The study included a sample of 10 peer counsellors and 2 student counsellors from the Egerton University and Kabarak University main campuses who were selected through purposive sampling. Data were obtained using a questionnaire for undergraduate students, focus group discussions guide for peer counsellors and interview schedule for student counsellors. Validation of research instruments was done through peer and expert review and also through pilot testing, which was done in Mount Kenya University (MKU) - Nakuru Campus. Quantitative data was analysed by both inferential and descriptive statistics using SPSS Version 25, whereas the qualitative data was analysed thematically. The analysed data was presented in tables, graphs, and narratives. The findings indicated that the majority of the respondents were of the view that socioeconomic status influences risky sexual behaviours among undergraduate students.

**Key Terms:** Influence, socioeconomic status, Risky sexual behaviours, Undergraduate Students

### **How to cite this article in APA (6<sup>th</sup> Edition)**

Langat, J. K., Kay, J. M., Kiptiony, G. C. (2020). Influence of Socioeconomic Status on Risky Sexual Behaviours among Undergraduate Students from selected Universities in Nakuru County, Kenya. *Editon Cons. J. Econ. Dev. Stud.*, 2(1), 94-105



**INFLUENCE OF SUBSTANCE ABUSE ON RISKY SEXUAL BEHAVIOURS AMONG UNDERGRADUATE STUDENTS: A CASE OF EGERTON AND KABARAK MAIN CAMPUSES IN NAKURU COUNTY, KENYA**

**Julius Kiprono Langat**

School of Education, Kabarak University, Kenya

**ARTICLE INFO**

**Article History:**

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**Key words:**

Influence, Substance abuse, Risky sexual behaviours, Undergraduate students.

**ABSTRACT**

This study's purpose was to explore the influence of substance abuse on risky sexual behaviours among undergraduate students of main campuses in Nakuru County. Social Learning Theory by Albert Bandura and Person-Centered Theory by Carl Rogers guided the study. The study was carried out among 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> year undergraduate students from main campuses in Nakuru County. The study adopted a correlational research design. The target population was 18570 undergraduate students. The accessible population was 8456 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> year undergraduate students whose sample was 367. Simple random sampling technique was used to select the respondents. The study included a sample of 10 peer counsellors and 2 student counsellors from the Egerton University and Kabarak University main campuses who were selected through purposive sampling. Data were obtained using questionnaire for undergraduate students, focus group discussions guide for peer counsellors and interview schedule for student counsellors. Validation of research instruments was done through peer and expert review and also through pilot testing which was done in Moi Kenya University (MKU) - Nakuru Campus. Both descriptive and inferential statistics were used to analyse quantitative data using SPSS Version 25 whereas the qualitative data was analysed thematically. The analysed data was presented in tables, graphs, and narratives. The researcher considered ethics of confidentiality and informed consent. The findings indicated that majority of undergraduate students perceive that the use of alcohol, marijuana, cocaine, and injectable steroids could lead to risky sexual behaviours.

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**INTRODUCTION**

Risky sexual behaviours have become a predicament all over the world affecting youth and may lead to sexually transmitted diseases and unintended pregnancies (Amuranganic, Perera, & Abeyseena, 2018). According to World Health Organisation (WHO), youth are young people aged between 15-24 years old and studies reported that more than half of all new HIV infections occur among people between the ages of 15 and 24 years where most undergraduate students fall under (Kasahun, Yinayal, Giran & Mohammad, 2017). Risky sexual behaviours can have major effects on undergraduate students' experiences that may include negative academic performance, inability to progress through the university academic years, decision to remain at university and overall psychological well-being (Abelt & Blignaut, 2011). Young-Powell and Page (2014) attributed risky sexual behaviours to many people viewing university as the best stage of one's life because students are generally thought to have more free time, more parties and more sex.

A research that was done in the USA found that 92% of men and 77% of women undergraduate students had masturbated, and on their lifetime experiences and frequency of recent experiences that most participants reported experience with accessing sexual information (89.8 %) and sexual entertainment (76.5 %) online. Almost half (48.5 %) reported browsing for sexual products, and a substantial minority (30.8%) reported having engaged in cybersex (Döring & Pöschel, 2018). In Denmark 97.8% of males and 79.5% of females watched pornography among 1002 people aged from 18-30 years old (Hald, 2016).

In Asia, researchers have noted that while university students are potential human resources, this population group is particularly involved in health risk behaviours and preventing risky sexual behaviours among them would contribute to prevention of HIV, sexually transmitted infections (STIs), and unwanted pregnancies, which have posed a great burden on population health (Yi, Te, Pengpid, & Peltzer, 2018; Zou *et al.*, 2013; Yu, Guo, & Sun, 2013; Yang *et al.*, 2019).

African universities have been called to respond to the social issues of trauma, adversity, injustice and inequality including risky sexual behaviours that trouble their embedding

\*Corresponding author: Julius Kiprono Langat  
School of Education, Kabarak University, Kenya



### Appendix XIII: Certificate for Publication



**Appendix XIV: List of Certificates of Participation in an International Research Conference 1**



**KABARAK UNIVERSITY**

**Certificate of Participation**

**Awarded to**

*Julius Langat*

for Successfully participating in the 8<sup>th</sup> Annual Kabarak International Research Conference held from 22<sup>nd</sup> – 26<sup>th</sup> October 2018 and Presented a Paper entitled ' *Impact of Family Structure and Family Change in Child Outcome: A case Study of Undergraduate Students of Kabarak University.*

**Conference Theme**

Emerging Issues and Trends in Education

**Prof. Fredrick Ngala**  
Dean School of  
Education

**Prof. John N. Ochola**  
Deputy Vice Chancellor  
(Academic & Research)

Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord.

(1 Peter 3:15)



Kabarak University is ISO 9001:2015 Certified

**Certificate of Participation in an International Research Conference 2**



**KABARAK UNIVERSITY**

**Certificate of Participation**

**Awarded to**

*Julius Langat*

for successfully participating in the 10<sup>th</sup> Annual Kabarak University International Research Conference held from 12<sup>th</sup> – 13<sup>th</sup> October 2020 and presented a paper entitled *“Influence of Self-efficacy on Risky Sexual Behaviours among Undergraduate Students: A Case of Egerton and Kabarak Main Campuses in Nakuru County, Kenya.”*

**Conference Theme**

**21<sup>st</sup> Century Issues And Practices In  
Education**

**Prof. Fredick Ngala**  
Dean School of Education

**Dr. Moses Thiga**  
Director Research

**Kabarak University Moral Code**

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(1 Peter 3:15)



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**Certificate of Participation in an International Research Conference 3**



**KABARAK UNIVERSITY**

**Certificate of Participation**

**Awarded to**

*Julius Langat*

for successfully participating in the 10<sup>th</sup> Annual Kabarak University International Research Conference held from 12<sup>th</sup> – 13<sup>th</sup> October 2020 and presented a paper entitled *“Role Of Counselling Services In Mitigating Risky Sexual Behaviours Among Undergraduate Students; A Case Of Egerton And Kabarak University, Main Campuses In Nakuru County Kenya.”*

**Conference Theme**

**21<sup>st</sup> Century Issues And Practices In  
Education**

**Prof. Frederick Ngala**  
Dean School of Education

**Dr. Moses Thiga**  
Director Research

**Kabarak University Moral Code**

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(1 Peter 3:15)



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Appendix XV: Map of Kenya Indicating Nakuru County

