DETERMINANTS OF VULNERABILITY TO RISK TAKING BEHAVIOUR AMONG GIRLS IN PUBLIC DAY SECONDARY SCHOOLS IN KIAMBAA, KIAMBU COUNTY, KENYA.

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DEDICATION

This work is dedicated to my dear parents, Samuel Mwangi and Risper Nduta, my loving husband, Wallace Muira and my children Alvin, Allen and Arthur. Their prayers and support inspired me a lot.

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OPERATIONAL DEFINITION OF TERMS

Gender-Specific Challenges: These are obstacles, difficulties, or issues that girls face due to societal norms, expectations, and structural inequalities. They include pregnancy, dropping out of school, and early marriages.

Gender-Specific Strategies: These are the measures put in place to address the practical and strategic needs of girls and enable them to shun RTBs and remain in school. They include scholarships and mentoring programs.

Internal and External Factors: These are factors in the environment of a girl that could influence her propensity to result in RTBs. They include instability at home, peer pressure, societal values, and measures aimed at combatting such behaviours.

Public Day Secondary School: These are government-operated secondary schools that provide education to students during regular daytime hours, usually from morning to afternoon.

Risk-Taking Behaviours:	These are behaviours that place adolescent girls at the risk of dropping out of school and impacting negatively on their wellbeing. In this study, they include drug and substance abuse, risky sexual promiscuity behaviours, abortion, gang, and other forms of violent behaviours among others.
High-Risk Behaviours:	Refer to actions or conduct among girls in Public Day Secondary Schools that have the potential to result in negative consequences for their physical, mental, social, or academic well-being. These behaviours may include unprotected sex, drug use, participation in criminal activities, and engagement in violent or dangerous activities.
Widespread Drug Misuse:	Widespread drug misuse is characterized by the prevalent and frequent use of substances, such as illicit drugs or prescription medications, in a manner that is harmful or poses a risk to individuals' health and well-being. In this study, it pertains to the common occurrence of drug misuse,

particularly among adolescent girls in the research context.

Deviant Behaviours:

Deviant behaviours refer to actions or conduct that deviate from established social norms, rules, or standards of behaviour. In the context of this study, deviant behaviours may encompass actions such as theft, violence, substance abuse, or engaging in activities that are considered socially unacceptable within the school or community.

Alcohol Abuse:

Alcohol abuse involve the excessive and harmful consumption of alcoholic beverages, leading to negative consequences on an individual's physical and mental health, relationships, and overall functioning. It often includes behaviours such as binge drinking, impaired judgment, and alcohol-related problems.

Vulnerability:

Vulnerability, in the context of this study, refers to the susceptibility of adolescent girls in Public Day Secondary Schools to engaging in high-

risk behaviours and facing associated challenges. It encompasses the factors, both internal and external, that increase the likelihood of girls participating in risky activities and experiencing negative outcomes as a result. These factors may include social, economic, family-related, and peer influences.

ABBREVIATIONS AND ACRONYMS

BOM : Board of Management

INGO : International Non-Governmental Organizations

KNBS : Kenya National Bureau of Statistics

NACOSTI : National Commission for Science, Technology and Innovation

NGO : Non-Governmental Organization

PSS : Public Secondary Schools

PDSS : Public Day Secondary Schools

PTA : Parents-Teachers Association

RTB : Risk-taking Behaviours

SPSS : Statistical Package for the Social Sciences version 24.

STI : Sexually Transmitted Infections

UN : United Nations

UNICEF : United Nations Child Education Fund

VIF : Variance Inflation Factor

ABSTRACT

The study investigated the determinants of vulnerability to Risk Taking Behaviours (RTB) among girls in Public Day Secondary Schools (PDSS) in Kiambaa Sub-County, Kiambu County, Kenya. This was due to the high levels of RTB among secondary school girls that had been reported. The specific objectives were to identify the types of RTB among girls in PDSS, examine internal and external factors influencing vulnerability to RTB, assess gender-related challenges faced by girls engaged in RTB, and propose gender-responsive strategies to mitigate vulnerability. The study integrated two theories, problem behaviour theory and empowerment theory .It employed a descriptive survey methodology. Using proportional stratified random sampling and purposive sampling procedures 68 teachers, 96 girls, 12 principals from 12 PDSSs, along with 6 sub-county education officers and 12 parents, totalling 194. Participated in the study. A pilot study involving 1 teacher and 10 students from Kiambu Sub-County was conducted to assess content and construct validity. Cronbach's alpha ($\alpha = 0.7$) ensured internal consistency and reliability of variables. Data was collected through questionnaires and interviews, analysed using SPSS version 24 for quantitative data and content analysis for qualitative data, and presented via tables and figures. The findings revealed various RTB among girls, including unprotected sex, prostitution, drug use, abortion, theft, and fighting. RTB determinants encompassed factors like parental divorce, absenteeism, peer pressure, financial hardship, and lack of role models, excessive idle time, societal influences, and declining values. Gender-specific challenges emerged, such as early pregnancies, abortions, forced marriages, academic failure, rejection, and health risks from unsafe abortions. Gender-responsive strategies suggested included enhanced counselling programs, life skills development, rehabilitation facilities, job opportunities, loans for mothers, bursary funding clear disciplinary policies, spiritual guidance, and second chances for young mothers to complete their education. In conclusion, this study highlights the existence of RTB among girls in PDSS and underscores the complexity of factors influencing these behaviours. To effectively address RTB, a comprehensive approach that considers both internal and external factors is essential. Recognizing the specific challenges faced by girls is crucial. Gender-sensitive interventions that involve collaboration between schools, parents, and the community are vital in creating a supportive environment that encourages healthier behaviours among girls in PDSS.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This part includes information on the study background followed by sections on the study problem as well as the purpose of the study and research objectives. It also includes the research questions, the significance of the research, scope of the study, and limitations.

1.2 Background of the Study

Girls in Public Day Secondary Schools (PDSS) worldwide are prone to engaging in Risk Taking Behaviours (RTB) that have the potential to be detrimental and harmful (Kauppi, 2015). Scholars have identified these as smoking cigarettes and cannabis, abuse of alcohol and drug, vehicular speeding, and risky sexual behaviour that makes them susceptible to serious physical and mental problems (Mason, Hitch, & Kosterman, 2010; Kyalo, 2010; Oteyo, Kariuki & Mwenje, 2013) .notes these behaviours contribute to social and educational problems among students.

It is thus important to study how RTB influences learners. According to Topolski et al. (2002), abuse of drugs and risky sexual behaviours contributes to social problems, morbidity, and mortality. Indeed, the challenge of risk taking behaviour among girls in Public Day Secondary Schools (PDSS) is a global problem. United Nations Child Education Fund (UNICEF, 2012) for example points out that girls in urban areas often fall prey to premarital risky sexual relationships with peers and even adults. Schoolgirls are also likely to get into prostitution. This expose them to numerous sex partners, the risk of teenage pregnancy, abortions, and venereal diseases; leading to

higher tendencies to drop out of school. However, in many areas of the globe, the variables that contribute to RTBs are either disregarded or ignored.

Studies show that there are many determinants of RTB among school girls. Since the family is a significant predictor of RTB among these teenagers in the United States, Wolfe, Jaffe, and Crooks (2006) assert that the family is a reliable predictor of RTB among PDSS. This is because "it is the first environment in which teenagers develop." If the family is unable to safeguard teenage females, their probability of engaging in unsafe behaviour increases (Gatura, 2018).

In France, Legleye, Janssen, and Beck (2011) in a study of 29,393 French teenagers aged 17 found that girls were more prone to indulge in numerous RTB, such as unsafe intercourse, drugs and substance misuse, antisocial behaviour, and other types of disobedience. This has a negative effect on their relationships with parents, peers, and teachers. It also affected their grades in examinations and other school-based assessments.

In Bangladesh, Hasan, Sobnom, and Uzzaman (2019) studied RTB among students in secondary schools. The study aimed to assess patterns of risk-taking based on gender and education level. They ascertained that though boys were more prone to RTB, the consequences were more pronounced in girls. This emanates from the fact that risky behaviours resulted in early pregnancy, dropping out of school, and social stigma which had lasting effects on their propensity to remain in school. A related study in Ethiopia by Tefferra, Arena, and Kabede (2015) found out that high risk-taking appetites among teenage girls also resulted in unwanted pregnancies among girls.

As shown by the preceding discourse, RTB is a real challenge among secondary school girls the world over. This takes place despite numerous psychosocial support interventions such as guidance and counselling in most schools. This begs the questions, what causes high risk-taking behaviour among girls? Are there gender-specific challenges facing girls that undertake risky behaviours compared to their male counterparts?

Studies, the world over, show that there are numerous predictors of RTB among girls. Peer groups contribute to risky sexual behaviours among girls (Allen, Chango, Szwedo, Schad, & Marston, 2012). The environment in which girls grow could also contribute to RTB. In this regard, girls in PDSS who grow up in slums or environments characterised with high levels of poverty have high propensities to engage in numerous RTB (Kruger (2010). Conversely, girls from rich backgrounds are also susceptible to RTB as their parents work for long periods of time; leading to inabilities to supervise their children (Luthar & Latendresse, 2005). However, the applicability of problems to students in Kenya cannot be ascertained without systematic studies such as this one.

In Nigeria, high rates of RTB are a result of the inability of a child's society to implement the prescribed punishments for particular behaviours (Ogidefa, 2008). Societies can also have positive roles in behaviour modelling by shunning behaviours that are not tolerated (Mkandawire, Luginaah, & Baxter, 2014). It is thus important to find out if the breakdown of these systems could lead to increases in risky sexual appetite among girls in PDSS.

There are several elements that might impact girls' risk-taking behaviour in Kenya. Abilities to take care of children could militate against the RTB among adolescent girls (Kaimenyi, 2013; UNICEF, 2011). Societal influences in Kenya are other important predictors of risky sexual behaviour (KNBS, 2015). Although government through the Ministry of Health comes up with various interventions against RTBs, the results are not always worth the effort (MOH, 2005). But the level to which these interventions mediate RTBs among girls in Kiambu County is hard to tell without systematic studies focused on the area.

In Kenya, there are special cases in which some girls, especially devout Christians, were found to have high resilience against risk-taking than others (Gyimah et al., 2014). Religion had a strong social control function against certain norms by religious girls. In informal settlements of Nairobi, Kenya where there are high levels of RTB, girls affiliated to Pentecostal/Evangelical faiths were found to have "more stringent views on premarital sexual activity than other Christian denominations."(Oteyo et al., 2013). This shows strong religious values made girls more resistant to RTBs.

Risk taking behaviours among secondary school girls are real challenges in Kenya. A report by the KNBS shows staggering levels of RTBs among girls. Among women aged 20 to 49 years, the reports show that by 15 years, 15% had their first sexual relationship. Half (50%) has sexual relationships by 18 years while 71% had such relationships by 20 years (KNBS, 2015). This predisposed most of them to sexually transmitted infections (STIs) and early pregnancies.

Kiambu County is faced with high levels of RTB among the girls. There is a substantial co-occurrence of drug usage among secondary school pupils in the counties of Kiambu and Nairobi (Oteyo et al., 2013). The study found out that 25% of

students had used psychoactive substances before the age of 10. By the time children join secondary schools, some of them, including girls would have moved to hard drugs and other forms of RTB. Data on teen pregnancy shows that in Kiambu County, 14% of girls aged 15-19 years had started having children (GOK, 2016). This shows early sexual debut among girls. According to NASCOP (2016), Kiambu County contributed 7.1% of new HIV reported cases out of which 7.1% were school going girls aged between 10-19 years.

Murigi (2015) carried a study in Karuri Kiambaa Sub-County on utilization of contraceptives among secondary school going girls .The study found that out of the 142 sampled learners 77% had started sex by age 15 .The study further established that 43% of the sampled girls had used a modern method of contraceptive. The research continued and concluded that enrolment in PDSS was associated with a greater likelihood of having engaged in sexual activity than enrolment in a girls-only school. This study however did not focus on what determines these type of risky behaviours which the current study seeks to establish.

Furthermore, antisocial behaviours including incidences of drug and rebellion have been on the increase especially among secondary school students in Kiambaa (Njendu 2014).

Although Kiambaa Sub-County is geographically close to Nairobi and possesses abundant human resources, including qualified teachers and well-developed infrastructure, alongside the presence of numerous non-governmental organizations implementing programs designed to protect girls, the sub-county still grapples with elevated levels of RTB, as highlighted by Ndirangu, Thinguri, and Chui (2016).

Consequently, it becomes imperative to investigate the underlying factors that contribute to the vulnerability of girls in PDSS to RTB.

1.2 Statement of the Problem

As noted in the background Public Day Secondary Schools (PDSS) in Kiambaa Kiambu County are well endowed in terms of human resources like teachers and good infrastructure. There are also so many other measures like Guidance and Counselling put in place by schools, government, and non-governmental organisations to protect the girl child. It is therefore expected that girls who join these schools would benefit from the said resources and initiatives to enable them to sail through secondary education smoothly. However, Girls in PDSS in Kiambaa Sub-County are reported to be engaging in a variety of   Risk Taking Behaviours (RTB).

According to the county director of Education Kiambaa (2021) there have been many cases reported of girls from PDSS engaging in risky behaviours especially during the weekends. Murigi (2015) found out that school girls in Kiambaa are initiated to sex early, out of a sample of 142 it was established that by age of 15, 77% of the girls were engaged in sexual activities while 43% had used a modern method of contraceptive It is also reported that Antisocial behaviour including incidences of drug and rebellion have been on the increase especially among secondary school students in Kiambaa (Njendu 2014)).

Although girls are aware that RTB have a negative effect on their education, a large percentage still engages in them. Most of the studies done in Kiambu County have focused on girls dropping out of schools due to pregnancies. However, there is a need to establish the various determinants of susceptibility to RTB among girls in PDSS. Why would girls in PDSS involve themselves in these behaviours yet they have

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supportive structures within the schools? And, what would inform gender responsive strategies aimed at checking these behaviours in Kiambaa Sub-County? The proposed research aims to identify the variables of susceptibility to risky behaviours among girls in PDSS in Kiambaa Sub-County.

1.3 Research Objectives

The primary objective of the research was to establish the determinants of vulnerability to RTB among girls in PDSS in Kiambaa, Kiambu County, Kenya. The specific objectives of the study were to:

i.   Determine by type the RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County;

ii.   Examine the internal and external factors that influence vulnerability to RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County;

iii.   Examine the gender-related challenges faced by girls involved in RTB in PDSS in Kiambaa Sub-County, Kiambu County;

iv.   Suggest the gender responsive strategies that can minimize vulnerability to RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County.

1.4 Research Questions

i.   What types of RTB do girls in Public Day Secondary Schools (PDSS) in Kiambaa Sub-County, Kiambu County, engage in?

ii.   How do internal and external factors influence the vulnerability of RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County?

iii.   What are the gender specific challenges faced by girls involved in RTB in PDSS in Kiambaa Sub-County, Kiambu County?

iv.   Which gender-responsive initiatives can be implemented to reduce RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County?

1.5 Justification of the Study

Kiambu County is faced with high levels of RTB among the girls. There is a substantial co-occurrence of drug usage among secondary school pupils. According to Oteyo et al. (2013) 25% of students had used psychoactive substances before the age of 10. By the time children hit adolescent, some of them, including girls would have moved to hard drugs and other forms of RTBs. Data on teen pregnancy shows that 14% of girls aged 15-19 years had started having children (GOK, 2016). This shows early sexual debut among girls. NASCOP (2016) states that Kiambu County contributed 7.1% of new reported HIV cases out of which 7.1% were school going girls aged between 10-19 years. Mugo (2011) found that more female students, 89% as compared to male students, 11% were dropping out of PSSs in the county, and that most of them took to various RTBs. According to Kato (2015) teenaged pregnancy accounted for more than 40% of girls' dropout cases in day secondary schools. Murigi (2015) found out that by age 15 secondary school going girls in Kiambaa had already been initiated to sex while 43 % of the sampled girls had used a modern contraceptive with majority being from PDSS.

In light of this context, it was crucial to study the causes of RTB among girls attending PDSS in Kiambaa Sub-County Kiambu County.

1.6 Significance of the study

The information would aid stakeholders in education in addressing problems impacting girls. Additionally, the Kenyan government would implement plans to stop RTB among girls through the necessary ministries. The study may serve as a model

for future study on gender and development. The results may provide significant material that can be utilized to deal with RTB.

1.7 Scope of the study

The study was undertaken in the Kiambaa Sub-County of Kiambu County. Kiambaa Sub-County was selected because it has 12 PDSS, which is among the highest in the county. Kiambaa Sub-County was under the Kiambu education offices until the year 2013 when Kiambaa was allowed to operate on its own. The separation of Kiambaa from Kiambu led to Kiambaa ending up with a total of fifteen public schools out of which twelve are day schools. The period of study was, therefore, limited from 2013 to 2021. The starting point was 2013 since that is when Kiambaa Sub-County offices became operational while 2021 is the year the study was carried out. Although the findings of this study could be applied to other areas, this should be done with caution because every area has its unique characteristics.

The study area was purposefully chosen since it was predicted that many different existing condition would be causing RTB in girls in PDSS. This made it difficult to generalize the study's findings.

1.8 Limitations of the Study

Reaching the research population was difficult because of restrictions imposed by the post-COVID-19 education laws on hectic schedules. By recruiting research assistants within the institutions to assist with the study's conduct well in advance, the researcher was able to lessen these restrictions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter outlines summary of the relevant literature. This was done against the research objectives with the emanating gaps being drawn. The chapter further presents a summary of the literature. In addition, it includes theoretical frameworks and the conceptual framework.

2.2 The Types of RTB among Girls

Marseille, Mirzazadeh, Biggs, and Miller (2018) studied "The Efficacy of School-Based Interventions to Prevent Teen Pregnancy in United States." A systematic evaluation and meta-analysis were used to conduct the research. The study studied carried out between January 1985 and September 2016. The findings show that there were high levels of RTB in the country among teenagers. This study shows that RTB was also a major problem facing schools in developed countries. However, there exists a gap in the exploration of specific gender-related challenges and strategies related to reducing RTB susceptibility among female students. The reliability of these finding in the Kenyan context was examined by this current study.

Romer et al. (2010) in Europe found out that during adolescence, girls are subject to problems related to "lack of self-control, inability to delay gratification, and poor risk analysis capabilities." This shows that girls are likely to engage in numerous and dangerous behaviours that may have to negate ramifications on their health and schooling. However, the study by Romer et al. (2010) did not explore potential gender-responsive strategies that could effectively address these challenges and

minimize the likelihood of risky behaviours among female students in the mentioned educational setting. The current study addressed the issues.

Kauppi (2015) examined behaviour change and communication in Sub-Saharan Africa (Botswana, Cameroon, Ethiopia, Malawi, Kenya, Zambia, Nigeria, Tanzania, and Zimbabwe) using a comparative literature review. During adolescence, girls are susceptible to several harmful behaviours, including smoking, casual sex, gang behaviours, drug misuse, shoplifting, and unnecessary physical fights," according to the research. This study underscores the breadth of risky behaviours that adolescent girls in Sub-Saharan Africa might be exposed to. However, there is still a gap in understanding how these findings relate specifically to the susceptibility of girls to risky behaviours within, and the exploration of potential gender-responsive strategies to address these challenges effectively in schools.

Ogidefa (2008) determined that Nigerian adolescents, especially girls, engage in high - risk behaviours such as "prevalent drug misuse, deviant behaviours, and alcohol abuse." The study found a connection between the inability of "the culture in which a kid grows up to apply the prescribed disciplinary measures for specific behaviours" and RTBs. This research sheds light on the prevalence of risky behaviours among Nigerian adolescents, yet there remains a gap in understanding how these cultural dynamics and disciplinary measures impact the vulnerability of girls to participate in risky behaviours within the specific context of educational setting.

Ali and Ahuja (2015) performed a comparative cross-sectional research in Ethiopia, selecting secondary schools using a multistage random selection approach. A total of 1,037 learners (519 from public schools and 518 from private schools) were selected for the research using a simple random selection procedure. Various statistical

approaches were used in the research, including descriptive statistics like mean, percentage, and standard deviation, as well as inferential statistics like the chi-square test and binomial logistic regression. The survey discovered that a quarter of all students (264 students, or 25.5%) had began sexual relations at an average age of 16.39 years (with a standard deviation of 17 years) across all students (including public and private school goers). A significant proportion (188 students, or 71.2%) of those who had begun sexual engagement reported participating in unsafe sexual practises. Surprisingly, the prevalence of hazardous sexual behaviour in public schools was roughly 73.28%, whereas it was approximately 69.17% in private schools. The research also found that the difference in the incidence of hazardous sexual behavior between these two types of schools was not statistically significant ($p > 0.05$). The study identified the prevalence of risky sexual behavior but did not deeply explore the underlying causes or contextual factors contributing to these behaviors among students in public day secondary schools. Consequently, there is a gap in understanding how these findings could relate to the context of PDSS and how gender-responsive strategies might be employed to minimize the vulnerability of female students to risky behaviors in Kiambaa Sub-County, Kiambu County.

UNICEF (2015) carried out a survey in developing countries using extant literature to determine RTBs among the youth. The findings obtained show that in Kenya, in urban informal settlements, there are high tendencies by girls to engage in risky behaviours. There is also early sexual debut, often leading to unwanted pregnancies and abortion in some instances among others. However, this study is broad and thus, there is a gap in understanding how these findings relate to the specific school context and the potential implementation of gender-responsive strategies to address these issues.

A report by the KNBS (2015) shows that societal values determine the behaviours condoned by people in society. According to the study, 15% of women aged 20 to 49 had their first sexual experience at the age of 15, 50% at the age of 18, and 71% at the age of 20. In this regard, societal values put girls at the risk of early pregnancies or STIs. In light of this context, the current study aimed to investigate how societal influences contribute to risky behaviours among girls in PDSS in Kiambaa Kiambu County. The current study sought to uncover the specific mechanisms through which societal values may impact the engagement of girls in PDSS in Kiambaa Sub-County, Kiambu County, in risky behaviours.

Ochieng (2013) investigated "the sexual behaviour of girls attending public day schools in Nairobi, Kenya." The study used a descriptive cross-sectional design. From 499 learners, survey responses were taken. The findings obtained show that teenagers tend to engage in various behaviours that have the potential to cause harm to them. These include deviant behaviour, risky sexual behaviours and drug abuse among others. However, it did not extensively delve into the contextual factors or motivations driving these behaviours. Understanding the underlying reasons behind these behaviours was the objective of this current study.

Kayla (2010) examined drug and substance misuse in Murang'a County through the experiences of schoolchildren in Secondary boarding schools. The research used a descriptive survey design. The results indicate that social tolerance led to drug and substance addiction among teenagers in high school. This emanates from the fact that drugs and substances were often outsourced from the surrounding areas. The former study did not attempt to find out all the various determinants of RTB among girls. However, the fact that it was undertaken in an area neighbouring Kiambu County means that the findings could remotely relate to this current study. However, this

should be done with caution since both counties have divergent demographic characteristics.

Mugo (2011) explored the variables affecting female secondary school dropouts in both day and mixed schools. The study focused on Kiambu County in the former Central Province of Kenya and used an ex post facto research approach. Using questionnaire and chosen secondary data sources, information was gathered from 46 informants. The study found out more female students, 89% as compared to male students, 11% were dropping out of PSSs in the county, and that most of them took to various RTBs. This research sought to determine the degree to which these girls engaged in a variety of risky behaviours. However, the study did not thoroughly explore the underlying factors contributing to the girls' susceptibility to these risky behaviours and how gender-responsive strategies could effectively address these challenges within the PDSS context. Therefore, this current study aimed to bridge this gap by investigating the degree to which girls in PDSSs engage in various risky behaviours and by exploring the factors that influence their susceptibility, with the intention of suggesting gender-sensitive strategies to mitigate these behaviours.

Kato (2015) conducted a research to investigate the influence of adolescent pregnancy on finishing rates of female students attending Kenyan public day secondary schools. This study used a descriptive survey research approach and stratified random sampling to recruit 106 individuals. The study's findings revealed that a number of factors, including individual student sexual behaviour, insufficient parental supervision, financial difficulties at home, poor academic performance at school, and instances of sexual assault by both male peers and teachers, all contributed to the problem of teen pregnancy among girls. Notably, the research found that adolescent

pregnancy accounted for more than 40% of females' dropout cases in day secondary schools during a four-year period. However, it's important to note that Kato's study primarily identified these factors associated with teenage pregnancy without delving into the underlying causal relationships. In contrast, the present study aims to explore the intricate interactions between these factors. This deeper analysis will enable the development of more precise and targeted interventions to address this complex issue.

2.3 Internal and External Factors Influencing Vulnerability to RTB among Girls

A study by Garney et al. (2018) studied ecological approaches to teen pregnancy prevention in USA. Data was collected from time series data over a period of 20 years. The findings show that teenage pregnancy had declined and had declined over time. Most of the causes of teenage pregnancy were in the environment. Negative peer and societal influences contributed to the rise in the number of teenage pregnancy among some youth populations. The goal of this study was to determine the validity of these results in Kenya.

Willoughby and Hamza (2011) investigated the bidirectional relationships between perceived parental behaviours, teenage disclosure, and problem behaviours throughout high school in Canada. The longitudinal study surveyed 2,941 adolescents, with 50.3% of them being females, each year from grades 9 through 12. The findings indicate that parents are the primary determinants of the risks that adolescents are prone to take and the frequency with which they do so. When families were socio-economically stable, there was a tendency to guide their children towards accepted behaviour and vice versa. The study does not thoroughly address the intersection of internal and other external factors that may contribute to the susceptibility of female students in PDSS to engage in risky behaviours. Additionally, the study does not

explore gender-responsive strategies that could be employed to effectively address and mitigate the influences of perceived parental behaviours on the risky behaviours displayed by female students within the PDSS context. Therefore, the current study aimed to bridge this gap by examining how perceived parental behaviors interplay with the school environment and by proposing gender-sensitive strategies to address the impact of these behaviours among female students in PDSS.

Olivari (2015) sought to establish how parenting affect adolescent behaviour styles in Sweden. The findings show that more often than not parenting styles have been subject to socioeconomic factors. This goes on to affect sexual initiation. In this regard, the socio-economic empowerment of families tended to protect children from falling prey to various forms of RTBs as envisaged by this current study.

Legleye, Janssen, and Beck (2011) studied the reasons for drug abuse among students in France. The study was a 2005 French cross-sectional national survey using official statistics." Herein, 29, 393 students aged 17 were studied. The findings show that RTB were correlated with high socioeconomic statuses of girls since girls from "families with higher socioeconomic statuses were more likely to know the dangers of RTB" and vice versa. The research highlights the role of socioeconomic status but did not consider potential variations among students. Factors like age, gender, and type of school, urban-rural divide, and cultural background may influence how students perceive and engage in RTBs. The current study looked at these factors so as to inform interventions.

Brooks, Magnusson, Spencer, and Morgan (2012) studied the determinants of adolescent multiple risk behaviour in Hong Kong. The research was based on a review of the existing literature. Findings indicate a correlation between family

breakup and teenage RTB. In this regard, lack of stability at home predisposes teenagers to RTBs such as risky sexual behaviour, crime, and gang activities, and drug abuse among others, which may curtail their ability to succeed in life owing to the resultant consequences. While the study highlights the negative consequences of family breakup, it does not investigate potential protective factors or resilience factors that could mitigate the impact of family breakup on girls in PDSS'. The current study identified the factors which are essential for designing effective intervention strategies.

Anake and Ada (2015) conducted a study that examined how social patterning affects risky teenage behaviours (RTBs) among Nigerian students. They selected a sample of 627 participants using a combination of stratified and simple random sampling techniques. Data collection primarily relied on questionnaires. Their analysis yielded a significant finding: parenting styles have a noteworthy impact on girls' behaviour. As a result, they offered recommendations based on their findings, emphasizing the importance of maintaining a positive and interactive relationship between parents and their daughters to prevent behavioural misconduct. While the study established a clear link between parenting styles and adolescent behaviour the study did not delve into the underlying causation or the specific mechanisms through which parenting styles influence RTBs.

Nyaga (2015) studied selected microsystems and their influence on antisocial behaviours among adolescents. The study was adopted the descriptive survey design. Data was collected from 320 students and 8 teachers in PSSs in Manyatta Sub-County of Embu County in Kenya. From the findings, it is evident that students whose parents were unemployed had fewer tendencies to abuse drugs in comparison with whose

students' parents were employed owing to limited resources and finances. Though this study was conducted in Kenya it did not focus on PDSS which is the focus of the current study.

2.4 Gender-Related Challenges faced by Girls in RTB

Hasan, Sobnom, and Uzzaman (2019) studied the effect of RTB based on gender and educational level in India. The sample for the study was 400 girls and 400 boys in secondary schools in Bangladesh. The findings show that boys had higher scores of RTB compared to girls. However, the effects on girls such as early pregnancy, dropping out of school and social stigma were higher. Though not focused on Kenya, these findings show that there were gender-related challenges facing girls undertaking RTB in secondary schools.

KNBS (2015) in the Demographic and health survey 2014 showed that girls were highly affected by risky taking behaviours compared to boys. Female participants in the research reported having their first sexual experience between the ages of 15 and 49, with the median being 18 and the range from 50 to 71 (KNBS 2015). This exposed girls to challenges such as early pregnancies and STIs (Diseases like HIV/AIDS and others force people to give up on their education). This had lasting influences on the future economic statuses of girls and could generate high levels of gender inequalities. While the research highlighted the challenges faced by girls, it did not propose or evaluate specific intervention strategies aimed at addressing these issues. The current research explored effective interventions to support girls in avoiding early pregnancies and STIs.

A report UNICEF (2012) showed that girls in areas surrounding Nairobi were faced with numerous challenges. Due to the influx of people from other counties into Nairobi, societal values are hard to define. Girls often fall prey to premarital risky sexual relationships with peers and even adults. Prostitution among school-going girls is also common. This exposes girls to numerous sex partners, the risk of teenage pregnancy, abortions, and venereal diseases. This leads to drop out of school as well as early parenting; leading to vicious cycles of poverty. However, UNICEF study appears to rely on quantitative data. Qualitative research methods, such as interviews were used in the current study to provide a deeper understanding of the motivations, experiences, and perceptions of girls involved in risky behaviours.

Odwe, Obare, and Birungi (2016) studied "adolescent sexual and reproductive health in Kenya." The study shows that in Kajiado County, urban areas were characterised with high levels of a breakdown of societal values. Consequently, 60% of girls in the county had an unwanted sexual orientation at a young age. This had adverse effects on girls which did not face boys. Dropout rates from school were higher among girls. Those who remained in schools were often faced with poor performance and lower transition rates to higher education; which could have lasting influences on their future. The study highlighted the high levels of societal value breakdown in urban areas and its association with unwanted sexual orientation among girls. Yet, it did not delve into the causative factors or explore the underlying reasons for this breakdown of values. The current research was carried out to understand the root causes of this issue.

Research by Ngware et al. (2013) in Nairobi, Kenya's urban slums indicated that young women living in unstable households were adversely affected by the city's

violence and poverty. This emanates from the fact that stable families offer better protection from violence against girls by peers, family members, and, teachers. It also checks the risk-taking appetites of girls who are prone to adopt illicit behaviours such as prostitution among other vices; which challenge their likelihood to remain in school compared to their male counterparts. While the study established a link between unstable households and adverse outcomes for young women, it did not investigate the causal factors or the specific mechanisms through which household stability influences girls' vulnerability to violence, risk-taking behaviours, and educational outcomes. The current study sought to understand the underlying processes in Kiambaa Sub-County in Kiambu County.

2.5 Possible Gender-Specific Strategies to Minimize RTB among Girls

A study by Saunders (2016) sought to study ways in which communities could be mobilized in Support of Teen Pregnancy Prevention in USA. The study assessed Community wide Initiatives between 2010 and 2015. The study established that risky sexual behaviours were assuaged through evidence-based sexuality education programs. The purpose of the research was to assess the effectiveness of these strategies in preventing RTB among girls in PDSS in Kiambu County, Kenya.

Kruger (2010) studied RTB among South African and British teenage girls. The study used "a non-experimental, cross-sectional, correlational, as well as criterion group designs." The findings were based on questionnaires filled out by "a stratified sample of 678 (381 Northern Cape 297 English) Students aged 14 to 16 from schools in Surrey, England, and the Northern Cape Province, South Africa." The findings obtained living in extreme poverty increased the likelihood of teenagers engaging in various RTBs such as crime, unprotected sex and, substance abuse, etc. If "the

government could give financial aid to these teenagers and hire instructors who understand the difficulties they encounter, this situation could be improved." This could play pivotal roles in shaping the behaviours of these teenagers. While the study identified a correlation between extreme poverty and RTB, it did not delve into the causality or the specific mechanisms through which poverty influences these behaviors and the gender specific strategies that can be adopted

Amoaten and Long (2016) studied ways in which adolescents and youth in Malawi could be protected from RTB. Data was obtained using desk review of existing literature. The study established that "the government can control early pregnancies among children by checking school dropout rates and enhancing the socio-economic standing of families." This was particularly so since girls from poor families had higher tendencies to engage in risky sexual behaviour and drop out of school due to unwanted pregnancies. However, the study did not extensively explore the strategies that can be put in place to address RTB.

Wambua (2013) investigated gender problems impacting Kenyan girls. Participants in this cross-sectional survey included 267 students and 15 school heads. The findings obtained show that governments can put in place measures aimed at enhancing the socio-economic statuses of families and this can lower the likelihood of adolescents engaging in risky sexual behaviours that can result in early pregnancies and sexual diseases in Kenya. Though the research was conducted in a neighbouring it did not solely focus on girls in PDSS girls.

Theuri (2017) studied the influence of ecological factors on RTB. Respondents of the study were "Kajiado North Sub-County, Kajiado County, Kenya secondary school students." The methodology used in this research was a descriptive survey. Here in

290 students and 15 principals were sampled. The findings obtained show that parental responsibility was strengthened in families with higher social-economic statuses. Poverty reduction, which is a predictor of RTB in teenage girls was also pivotal in preventing girls from undertaking risky sexual behaviours. However, the study focused on Kajiado North Sub-County. The current study focuses on Kiambaa Sub-County.

2.6 Summary and Research Gap

Various studies were reviewed. Most of them identified the various forms of RTB among school going girls. Most of these forms of RTBs identified include early sexual debut, alcohol and substance use among others.

The literature review explored various studies related to Risk Taking Behaviours (RTB) among girls, highlighting the prevalence, gender-related challenges, internal and external factors influencing vulnerability, and possible gender-specific strategies to minimize RTB. Several studies have examined RTB, but gaps in understanding the causative factors, contextual variations, and gender-responsive strategies persist. However, none of these studies was specifically focused on girls in PDSS in Kiambaa Sub-County, Kiambu County.

It may thus be untenable to understand the gender-specific challenges facing girls in the study area from the extant literature only since most of the reviewed literature was not expressly focused on these challenges in the study area. Also, making recommendation on ways of dealing with the gender-specific challenges facing girls in PDSS in the study area cannot be explained by the reviewed literature alone. Furthermore, some of the studies focused on other parts of the world, Africa or even Kenya without any specific focus on Kiambaa Kiambu County. This creates a

literature gap. It is only through this and related studies that the knowledge lacuna can be bridged.

2.7 Theoretical Framework

This study was guided by two theories: the problem behaviour theory and empowerment theory.

2.7.1 Problem Behaviour Theory

This research was based on Jessor's Problem Behaviour Theory (PBT) from 1977. The idea explains "adolescent adaptations to unusual behaviour, such as RTB in our study." This theory is often used to cast light on the reasons as to why students, the world over, take to RTB such as risky sexual behaviours, drug and substance use, violent and gang behaviours among others (Ma & Shive, 2000).

The theory's primary assumption is that "behaviour is driven by the interaction of three systems: legal norms in society, the individual's value system, and the relationships that one maintains in his or her environment" Within the scope of this study, various gender-based strategies that can be used to protect teenage girls from negative environmental influences determine the RTB of such girls. In the right environment at home, families can have strong defences against RTB among their girls. At societal levels, interventions by religious and advocacy organisations can also reduce the risk-taking appetites of girls. The legal regime of a country can also alleviate the RTB among girls through legislation that discourages behaviours that put girls at risk.

Problem Behaviour Theory, which explores the interaction between individual values, societal norms, and environmental factors, can shed light on why girls may engage in

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risky behaviours. It allows the researcher to understand the likely reasons of adolescent girls' vulnerability to RTB behaviour.

Jessor's Problem Behaviour Theory adds value to the study by providing a robust theoretical framework that helps to comprehensively analyse the factors influencing risky behaviours among girls in PDSS. In Kiambaa, the theory allowed the researcher to explore both individual and environmental factors, consider practical interventions, and highlight the gender-specific aspects of the research. This theoretical foundation enhances the depth and relevance of the study's findings and recommendations.

2.7.2 Empowerment Theory

The empowerment theory was postulated by Rappaport in 1981. Empowerment is defined in this theory as "a framework that relates people talents and skills, natural supporting structures, and proactive behaviours to social change and social policy." (Rappaport, 1981, 1984). As a result, the empowerment concept connects the person (in this example, families) with his or her country's national political context.

In this regard, the government is pushed to institute measures aimed at availing socio-economic well-being for the individual (Swift & Levin, 1987; Rappaport, 1984). Political establishments (government as in the case of this study) put in place strategies for ensuring that families access economic opportunities. This, as envisaged by this study, could enable these families take care of girls attending PDSS.

Empowerment Theory emphasizes the importance of providing individuals and communities with the resources, knowledge, and support needed to make informed decisions and effect positive change. Empowerment programs, rooted in the

Empowerment Theory, can equip girls with the confidence and skills to make independent and informed choices.

One of the assumptions that the theory makes is that the government (political institution) always come up with programmes aimed at empowering the individuals under their jurisdiction at grassroots levels. In this study, it is conceptualized that empowerment programmes from government and civil society organizations can lead to gender-specific strategies that can strengthen the capacity of families to minimize RTB among girls in PDSS. This can be achieved through an expanded policy environment in which parents can protect their girls through legislation and empowerment programmes. The fact that empowerment can create an opportunity for parents to air their voices also means that government and non-governmental agencies can exploit this environment to put in place programs to enhance girls 'ability to overcome RTB. The empowerment theory is specifically important in this study since it shows the link between government empowerment program and possibilities to avoid and take care of girls that take to RTBs. The theory provides a holistic perspective on potential strategies to protect girls in PDSS from engaging in RTB.

2.8 Conceptual Framework

This study hypothesized that there is a link between internal and environmental variables that influence RTB, the gender-specific challenges facing girls in RTB and, the gender-based strategies used to minimise RTB and (independent variables) and RTB among girls in PDD in Kiambaa Kiambu County (dependent variable). The strength of the link between the variables of the research (independent as well as dependent) is influenced by the moderating variable. The conceptual framework is presented in Figure 2.1.

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Independent Variables	Moderating Variable	Dependent Variable

Internal and External Factors Influencing Vulnerability to Risk-Taking Behaviour
- Peer Pressure
- Girls' economic status
- Societal influences
- Family background

Gender Specific Challenges facing Girls in Risk-Taking Behaviour
- Pregnancy
- Dropping out of school
- Early marriages

Gender Specific Strategies for Minimising Risk-Taking Behaviour
- Empowerment programmes
- Guidance & Counselling
- Advocacy Campaigns

Risk-Taking Behaviour among secondary school girls
- Unprotected Sex
- Gang behaviour
- Stealing
- Drug & Substance Abuse
- Fighting and Violent Behaviour

- Parental Involvement
- Peer Influence
- Socioeconomic Status
- Cultural Norms and

Figure 2:1 Conceptual Framework

(Source: Researcher, 2020)

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter outlines research methodology. It covers the research design, analytical categories, the location of the study, the population targeted, sample size and methods of sampling, research tools, pilot study, data reliability and validity, data collection strategy, data analysis as well as presentation, and ethical considerations.

3.1 Research Design

The descriptive survey design was utilized in the study. Data, in this design, is collected by interviews and questionnaires. The design studies relationships between study variables. In this context, the design facilitates the creation and generalization of universally applicable concepts or theories. This study design also examines the variables in their natural states, without including researcher- imposed treatments (Kamau, Githii, & Njau, 2014). Since this study looked at a relationship, "determinants" versus "RTB among PDSS girls," it was deemed as an appropriate design.

3.2 Variables/of Analysis

In this study, the independent variables were types of RTB internal and external factors influencing vulnerability to RTB, the gender-specific challenges facing girls in RTB and, the gender-based strategies used to minimise RTB. The dependent factor was RTB among girls in PDSS.

3.3 Site of the study

Kiambaa Sub-County in Kiambu County was the location of this study. It is approximately 20 km to the South of Nairobi City and borders Kikuyu to the West, Limuru to the North and Kiambu Sub-County to the East. It covers 53.9 square kilometres. Kiambaa has got a population of 145, 053 (GOK Census, 2019.) The sub-county is divided into five wards namely: Cianda, Karuri, Muchatha, Ndenderu, and Kihara. The headquarters of Kiambaa Sub-County is Karuri. The area is characterized by high population density due to its proximity to Nairobi.

Kiambaa Sub-County was selected as the study location due to the high number of girls being reported to be engaging in RTB especially during the weekends and during school holidays and the fact that it has very high number of PDSS. Its proximity to the capital city can result to unique challenges and dynamics that influence the behaviour of girls in public day secondary schools. The urban-rural interface often presents specific challenges related to access to resources, exposure to different lifestyles, and socio-economic disparities, which can impact risky behaviors among adolescents. (A map of Kiambaa, Kiambu County is presented in Appendix VI).

3.4 Target Population

A target population is "a group of individuals objects or items from which samples of measurements are taken" (Mugenda & Mugenda 2012) The study targeted all girls in all public day secondary schools, teachers, and principals. There were 2230 girls, 208 teachers, and 12 principals in these schools (Kiambaa Sub-County Secondary Staffing Data in February 2020). Other study participants were 6 Kiambaa Sub-County education officials and 12 parents. It was believed that these would comprehend and

contribute significantly to the issue under research. Table 3.1 shows the target population.

Table 3.1: Target population

Kiambaa Sub County public day secondary school list and personnel data

	Name of School	No. of Principals	No. of Teachers	No. of Girls
1	Kihara secondary	1	21	200
2	Karuri High school	1	35	402
3	Gachie Secondary	1	18	163
4	Cianda Secondary	1	12	118
5	Gacharage mixed	1	14	140
6	St Joseph's Gathanga	1	15	138
7	Muongoiya Secondary	1	23	235
8	Kiambaa mixed	1	22	290
9	ACK Karura secondary	1	14	205
10	Mucatha Secondary	1	10	112
11	Thimbigua Secondary	1	11	104
12	St Andrew Ndenderu Secondary	1	13	123
	Total	**12**	**208**	**2230**

Source: Author, 2020

3.5 Sample Size and Sampling Design

Sampling is a method used by researchers to systematically choose a smaller number of representation on things or people (a subset) from a larger population (Sharma 2017). The study participants were selected from all 12 Public Day Secondary Schools (PDSS) using a proportional stratified sampling method. In this approach, each PDSS was treated as a distinct stratum, and data was collected proportionately from each stratum. The sample in each school was proportionate to the number of

girls and teachers per school. The selection of participants followed the formula developed by Yamane in 1967 to ensure a representative sample. The formula is:

$n=N/(1+N*(e)^2)$

Where:

n= sample size

N= population size

e= acceptable sampling error (assumed at 0.1)

The sampling formula was only applied per stratum. The research participants were then chosen from each stratum using simple random selection. The researcher then used stratified random sampling in each school, stratified by class, from form 1 to form 4, to get study representative from each form. To get the particular participants in the study from the forms, a basic random sampling using the lottery technique was utilised; the researcher scribbled pieces of paper and placed them in a bowl, and those who chose the required number took part in the study. The research sampled 96 girls and 68 instructors using Yamane formulas. The study then went on to purposively sample 12 principals, 12 parents to represent every PDSS in the sub-county and the 6 sub-county education officials, making a total sample of 194. The sample size is presented in Table 3.2.

Table 3.2: Sample Size

	Name of School	Girls	
		Total Population (N)	N
1	Students	2230	96
2	Teachers	208	68
3	Principals	12	12
4	Parents	12	12
5	Sub-County Education officers	6	6
	Total	**2468**	**194**

Source: Author, 2020

3.6 Research Instruments

This study collected primary data in addition to secondary data. In this regard, secondary data was collected from print and online journals, conference papers, and government publications. Records at the Ministry of Education (MOE) offices were also collected. Structured questionnaires as well as interview guides were utilized in data collection. The choice of research instruments in the study was driven by the need to gather both quantitative and qualitative data efficiently, explore participants' perspectives, and validate findings using existing sources of information. These instruments were selected to address the specific research objectives and the complexity of the research questions.

3.6.1 Questionnaire

A questionnaire is a valuable tool for collecting information and evaluating specific perspectives. It offers the advantage of gathering a large amount of data from a large number of respondents within a short period of time (Patten 2017). The researcher developed two types of questionnaires which were administrated to 68 teachers and 96 girls.

They were preferred because they are easy to administer and collect huge amounts of data within a short time. They also provided a systematic way of collecting data since they gave data that was easy to tabulate leading to easy analysis. Questionnaires are also convenient for gathering sensitive information. They were divided into five parts, the first of which collected demographic information from respondents. The remaining parts concentrated on the four research objectives. Closed and Likert scale questions were used to obtain data. Open ended questions were also incorporated in the questionnaire to enable the girls to answer freely to provide possible information that is not captured by the questionnaire.

3.6.2 Interview schedules

Interviews focused on principals, education officials and parents using interview guides. Questions related to the study's dependent variables and independent were included in these guidelines. . Interview schedules were used since they provide an in-depth picture of the area under study. The researcher was able to survey the feelings and observe the nonverbal communication of the interviewees hence getting a clearer picture of the topic under study.

3.7 Pilot study

A pilot study was conducted to assess the accuracy, clarity, suitability and accuracy of the research instruments. The researcher picked 1 teacher and 10 girls from Kiambu Sub-County for the pilot study which represented 10% of the sample size. . This was based on Kothari's (2004) proposal that 10-30% of the research sample be used for a pilot study. The goal was to increase the reliability and validity of the instruments. The researcher examined the questions to see whether they elicited a reaction and if they were biased.

3.7.1 Validity

Validity refers to the degree to which a research tool accurately measures the specific concept it intends to assess. A valid instrument is one that effectively and faithfully captures the underlying theory or constructs being studied. It represents the closest approximation to the true validity or accuracy of a particular deduction (Patton, 2002).

To assess the validity of the data collection tools, a pilot study was conducted. The primary objective of the pilot study was to subject the data collection instruments to rigorous testing. This pilot study involved the participation of 1 teacher and 10 girls from Kiambu Sub-County, which shares similar characteristics with Kiambaa Sub-County.

Kothari (2004) suggested that a sample size of 10% to 30% of the target sample is appropriate for questionnaire piloting. The outcomes of the pilot study were utilized to evaluate both content and construct validity.

Content validity was established by thoroughly analysing the research questions. Additionally, the research tools were reviewed by supervisors who provided valuable input for improving the questionnaire items. Their expertise and feedback played a pivotal role in ensuring that the instruments accurately and comprehensively captured the relevant constructs and variables of interest. During the pilot testing phase, the researcher also assessed whether respondents comprehended the survey questions and responded to them easily. Any questions that were found to be confusing were refined to enhance clarity.

Construct validity was ensured by effectively aligning the terms used in the research with the theoretical assumptions underpinning the study's conceptual framework

(Cooper & Schindler, 2003). This involved contextualizing the research variables in a manner that accurately represented the theoretical foundations upon which the study was built.

3.7.2 Reliability

Reliability, as defined by Saunders, Lewis, and Thornhill (2009), refers to the degree of consistency in the results produced by a research instrument across repeated trials. Ensuring reliability in this study involved employing various strategies to enhance the consistency and dependability of the research instruments.

To establish reliability, a standard definition of social science practices was used and provided to the target group before the questionnaire items. This ensured that the respondents had a clear understanding of the concepts being measured and promoted consistency in their responses.

Internal consistency and reliability of the variables were assessed using Cronbach's alpha, which is a commonly used measure of reliability. By calculating Cronbach's alpha, the study examined the extent to which the items within each variable were interrelated and produced consistent results. The acceptable threshold for assessing reliability in this study was set at 0.7 and above. A Cronbach's alpha value of 0.7 or higher indicates a satisfactory level of reliability, suggesting that the variable consistently measures the intended construct (Malhotra, 2004).

Furthermore, the questionnaire design and the inclusion of relevant literature related to the study also contributed to data reliability. By incorporating established theories and concepts from the literature, the questionnaire items were grounded in existing knowledge and research, increasing the likelihood of obtaining reliable and consistent

data. By employing these strategies and setting the acceptable threshold for reliability at 0.7 and above, the study aimed to ensure that the research instruments consistently measured the intended constructs and produced reliable results. This increased the confidence in the study's findings and the reliability of the conclusions drawn from the collected data.

3.8 Data Collection Procedure

The researcher recruited and taught three research assistants to help with data collection. Before administering the research tools, appointments were scheduled with the multiple study participants. The researcher and research assistants went to the study location to administer the research tools. Interviews were taped. The surveys were distributed using a 'drop and pick' method. This took two weeks to complete.

3.9 Data Analysis and Presentation

The Problem Behaviour Theory (PBT) and Empowerment Theory, as well as the conceptual framework, contributed to the understanding of data analysis in the study. PBT served as a foundational framework for understanding the factors that drive risky behaviours among adolescent girls in Kiambaa Sub County. During data analysis, this theory allowed the researcher to scrutinize the interaction between societal norms, individual values, and environmental influences that contribute to these behaviours. For instance, the study explored how societal values and family dynamics correlate with reported risky behaviours. PBT' focused on the interplay of these factors in guiding the data analysis process, helping the researcher unearth insights into the determinants of these behaviours On the other hand, Empowerment Theory was instrumental in shaping the approach to data analysis, particularly concerning interventions and community dynamics.

The conceptual framework acted as a roadmap for data analysis. It defined the scope of the study, outlined the key variables, and established the relationships between them. During data analysis, the researcher referenced the conceptual framework to ensure that data analysis aligns with the predefined research questions and objectives.

To analyse questionnaire data, the Statistical Package for the Social Sciences (SPSS) version 24 was utilized. Several descriptive statistics are utilized in data analysis. (Frequency, percentages, and means) were employed to offer overall characteristics of the research variables. The results were presented using tables and figures. This was done to facilitate both presentation and interpretation.

Qualitative data was subjected to content analysis. Data from interviews was categorized into emergent themes and categories after transcription. These were then explained in prose in line with the study objectives (Miles & Huberman, 1994).

3.10 Ethical Considerations

Before commencing, the research was subjected to an ethical review. A study authorization letter from the School of Graduate was received prior to the commencement of data collecting. Study permission was granted in advance of data collection by "the National Commission for Science, Technology, and Innovation (NACOSTI). This process was done online. Permission was also sought from the sub-county MOE and consent to administrate the research instruments was obtained.

Additionally, the study made an effort to uphold moral principles. In this way, informed permission ensured that participation was voluntary. This requires making sure that before the study's starts, each participant is aware of how it will be carried

out. Furthermore, efforts were made to protect the respondents' anonymity. They would be encouraged to volunteer for the study.

CHAPTER FOUR

RESEARCH FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter contains the research findings, as well as their interpretation and discourse. The goal of this research was to look at the variables that influence risk-taking behaviours in Kiambaa Sub-County, Kiambu County, among public day secondary school girls. This chapter offers the study outcomes in accordance with the following goals: to determine the type of RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County; to investigate the internal and external variables that determine girls' vulnerability to RTB in PDSS in Kiambaa Sub-County, Kiambu County; to examine the gender-related challenges faced by girls involved in RTB in PDSS in Kiambaa Sub-County, Kiambu County and; to suggest the gender responsive strategies that can minimize vulnerability to RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County.

4.1.1 Questionnaire Return Rate

Data was collected from research participants, who included girls in PDSS, teachers, principals, parents and sub-county education officials using questionnaires and interview schedules. The findings are presented in table 4.1 below.

Table 4.1 Response Rate

	Category	Sampled	Responded	Response Rate
1	Students	96	96	100%
2	Teachers	68	65	95.6%
3	Principals	12	10	83.3%
4	Parents	12	11	91.7%
5	Sub-County Education officers	6	4	66.7%
	Total	**194**	**190**	**87.5%**

Source: Author, 2021

The sample of the study was 96 girls, 68 teachers, and 12 principals from the 12 PDSSs in the sub-county, 6 sub-county education officials and 12 parents. This made a total sample of 194. From these, all the 96 (100%) girls and 65 (95.6%) teachers participated in the study. At the same time, 10 (83.3%) of the principals took part in the study. 11 parents (91.7% and 4 sub-county education officials (66.7%) participated in the study. In this regard, and as shown in Table 4.1, the response rate was considered sufficient for analysis which is in line with Fincham (2008) who points out that the goal of the research should be to achieve a response rate of at least 60%.

4.2 Demographic Information of the Respondents Involved in the Study

This section includes demographic information on the instructors and students who took part in the research.

4.2.1 Age of Girls

The girls were asked to indicate their age. The findings are presented in Table 4.2.

Table 4.2 Age of Girls

Class	15 years		16 years		17-years		18 years		18 years and Above		Total	
	F	%	F	%	F	%	F	%	F	%	F	%
Form 1	11	11.4	4	4.2	0	0.0	0	0.0	0	0.0	15	15.6
Form 2	7	7.2	21	21.9	5	5.2	0	0.0	0	0.0	33	34.4
Form 3	0	0.0	4	4.2.	18	18.8	5	5.2	0	0.0	27	28.1
Form 4	0	0.0	0	0.0	7	7.3	11	11.6	3	3.1	21	21.9
Total	18	18'6	29	30.3	30	31.2	16	16.8	3	3.1	96	100.0

Source: Author, 2021

The findings as shown in Table 4.2 show more than more than half of the girls (62.5%) were in Forms 2 and 3 Out of these, 30.3% were aged 16 years while 31.2% were aged 17 years. These were followed by 16.8 who were 18 years and 3.1 who were above 18 years with 15.6% being 15 years old. This demonstrates that girls are more likely to engage in risk-taking behaviours (RTB) between the ages of 16 and 17 as predicted by Pharo et al. (2011) that showed girls were likely to engage in risk-taking behaviours at a young age because their prefrontal cortex, which is associated with judgment, was not yet fully developed. This implies that the older the student is, the lower the frequency of engaging in RTB. This observation may be attributed to the fact that older students are aware of the effects of RTB and therefore are more likely to avoid RTB.

4.2.2 Residence of Family

The students were asked to indicate where their families lived. The findings were presented in Figure 4.1.
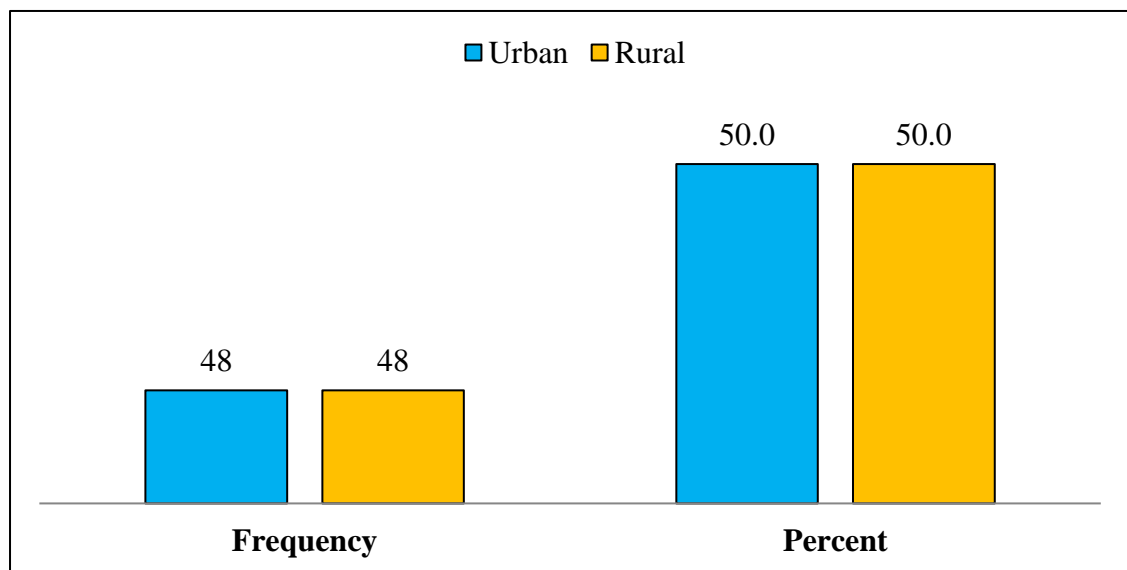
Figure 4.1 Residence of Family

When asked where they lived, the girls split 50-50, with half residing in rural locations and the other half living in metropolitan areas. This means that the girls came from both rural and urban areas. This is a reflection of the county which has many urban centres but also rural areas due to proximity to Nairobi. Girls living in areas close to Nairobi may have increased exposure to urban lifestyles, trends, and influences. Urban areas often have a faster pace of life, greater access to technology, and more diverse social interactions. This exposure can lead to different experiences and pressures compared to those living in rural areas. Furthermore, urban environments typically have larger populations and more diverse peer groups. The peer influence can be both positive and negative. While urban peers may introduce new perspectives and support systems, they can also expose girls to risky behaviours if they are not surrounded by positive role models. These findings are in line with the study by Ndirangu et al. (2016) that affirms that Kiambu County is characterised by high levels of urbanization. This could predispose girls to RTB since a study by Obare et al. (2016) focused on Kajiado North Sub-County, which borders Kiambu County, shows that 60% of girls started engaging in risky sexual behaviours at an early age due to its proximity to Nairobi County.

4.2.3 Marital Statuses of Parents

The respondents were asked to indicate their parents' marital statuses. Figure 4.2 depicted the findings.
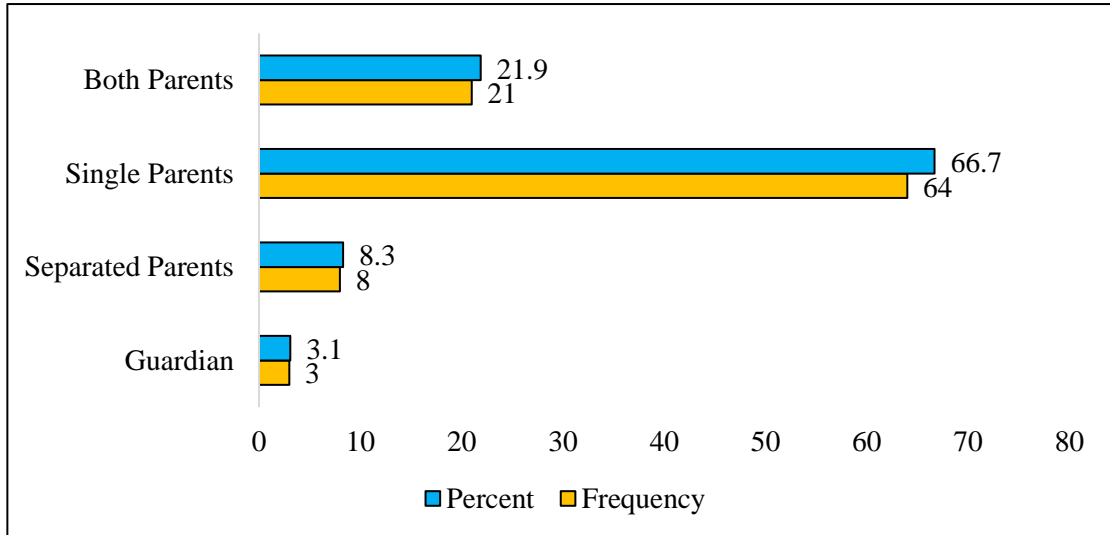
Figure 4.2 Marital Statuses of Parents

More than two thirds of the girls 64(66.7%) pointed out that they their parents were single. These were followed by more than a fifth 21 (21.9%) who had both parents. Whereas 8 (8.3%) came from separated parents, 3 (3.1%) had guardians. This shows that most of the girls came from diverse families and could cast light on the challenges facing girls based on the family they came from. In line with this, a study by Wolfe et al. (2006) posits that most of the causes of teenage pregnancy were in the environment. Furthermore, Garney et al. (2018) discovered that the family is a substantial predictor of RTB among these teenagers. These findings are further supported by a research by Daryanani et al. (2016), who contend that single mothers face lots of new obstacles and stressors that undermine their parenting, leaving their daughters vulnerable to a variety of RTB.

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4.2.4 Persons who Girls Live With

The girls were asked to point out the persons they lived with as shown in Figure 4.3.
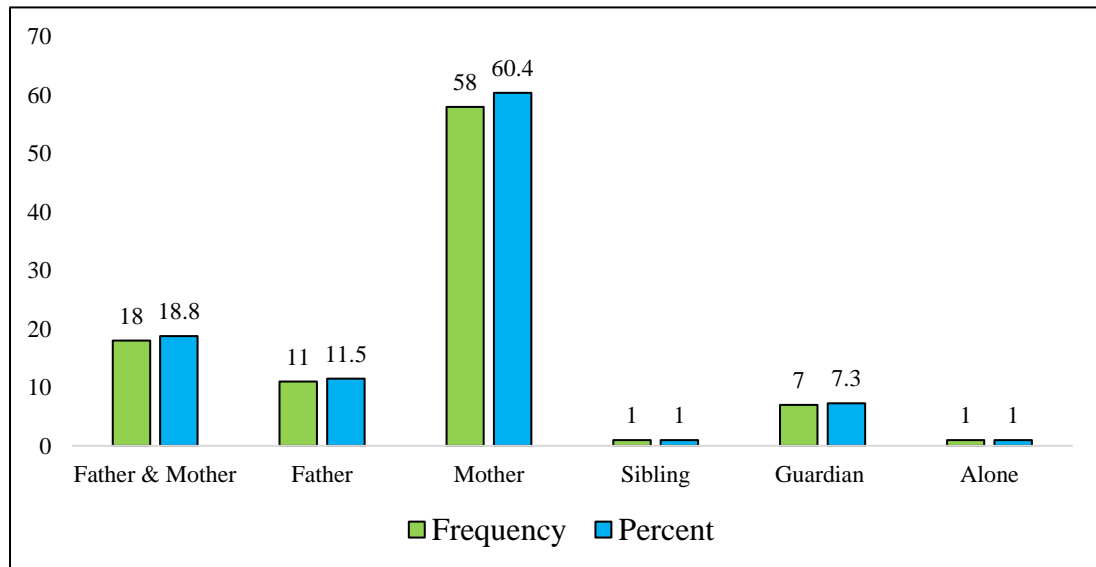
Figure 4.3 Persons Girls Live With

As shown in Figure 4.4, most of the girls lived with their mothers, 58 (60.4%). These were followed by 18 (18.8%) who lived with both parents and 11 (11.5%) who lived with their fathers. Another 7 (7.3%) lived with their guardians while those who lived with their siblings or alone where 1(1%) each. According to these data, respondents lived in a wide range of family settings, with the majority living with their mothers. This shows that most girls lived with single mothers which could contribute their chances to engage in RTBs as posited by Daryanani et al. (2016). The findings continue to rely on those of Gatura (2018), who found that children raised by people other than their biological parents were more likely to have poor academic performance, childhood diseases, accidents, adolescent pregnancies, drug addiction, and chronic absenteeism.

4.2.5 Gender of Teachers

The study sought to establish the gender of the teachers. The results are presented in Figure 4.4.
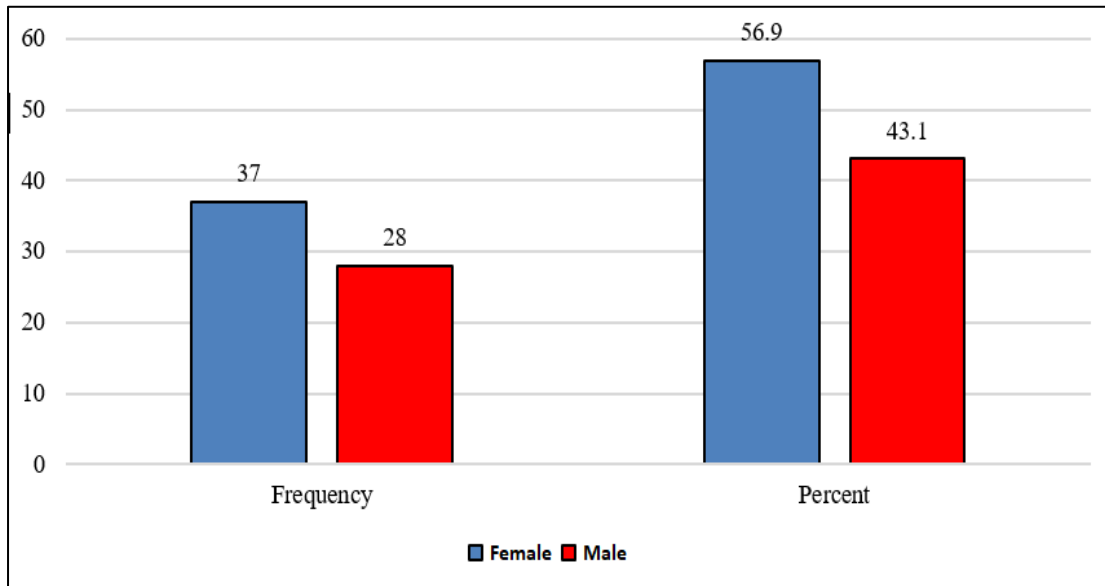
Figure 4.4 Gender of Teachers

As shown in Figure 4.4, most of the teachers, 37 (56.9%) were female while about a third, 28 (43.1%) were male. While having young female teachers who have likely undergone gender and development training is valuable, preventing RTB among PDSS girls is a complex challenge that involves a multitude of factors beyond the classroom. It requires a holistic approach that includes parents, peers, community, and broader societal factors. Teachers are an important part of this effort, but they cannot be solely responsible for preventing RTBs among students. Evidently, both genders were well signified in the PDSS in the study which is in line with the study by Karigu (2016) which calls for equitable distribution of teachers in public schools in Kenya. This could avert gender bias regarding risk taking behaviours among girls in the study population.

4.2.6 Age of Teachers

The teachers were asked to indicate their ages. The findings were presented in Table 4.3.

Table 4.3 Age of Teachers

Sex	25-30 years		31-35 years		36-40 years		41-45 years		46-50 years		Over 50 years		Total	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%
Male	10	15.4	1	1.5	4	6.2	4	6.2	4	6.2	5	7.7	28	43.1
Female	21	32.3	2	3.1	4	6.2	4	6.2	4	6.2	2	3.1	37	56.9
Total	31	47.7	3	4.6	8	12.3	8	12.3	8	12.3	7	10.8	65	100.0

Most of the teachers, 31 (47.7%) were aged between 25 and 30 years. These were followed by those aged between 36 and 50 years, 41 and 45 years and 46 and 50 years each at 8 (12.3%). Those aged over 50 years followed at 7(10.8%) while the rest were aged between 31 and 35 years at 3 (4.6%). These findings show that the teachers were from various age groups and could provide balanced opinions on the subject under investigation. The majority are however, young women and men aged between 25-30 years with women being more 21(32.3%). These could be more connected and empathetic to the students and could have a firmer understanding of the issues facing girls as argued by Shah and Udgaonkar (2018). However the findings of this study portray otherwise that is dealing with RTB is such a complex issue and that the girls are more inclined to their peers advice as compared to their teachers

4.2.7 Teachers' Levels of Education

The teachers were asked to indicate their levels of education. The findings are shown in Figure 4.5.
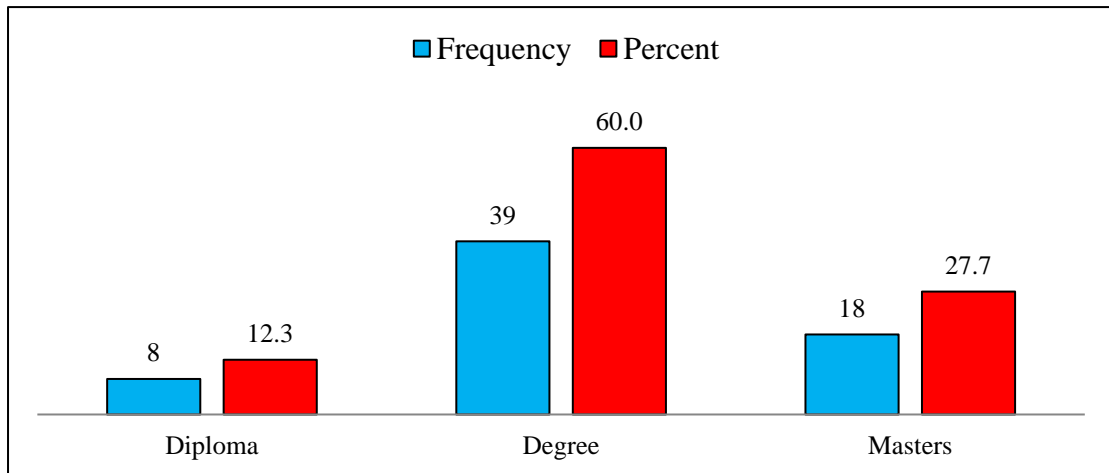
Figure 4.5 Teachers' Levels of Education

More than half of the teachers, 39 (60%) pointed out that they had degrees. Those who had masters were more than a quarter, 18 (27.7%). The rest, 8 (12.3%) had attained diplomas. This demonstrates that the teachers had acceptable educational levels and could contribute significantly to the issue under consideration. This is in line with a study by Makovec (2018) On the contrary the study findings reveal that having the qualifications alone is not enough for a teacher to deal with the complex issues of RTB being in touch with the emerging issues is key

4.2.8 Training in Guidance and Counselling

The teachers were asked if they had training in guidance and counseling. The findings are shown in Figure 4.6.
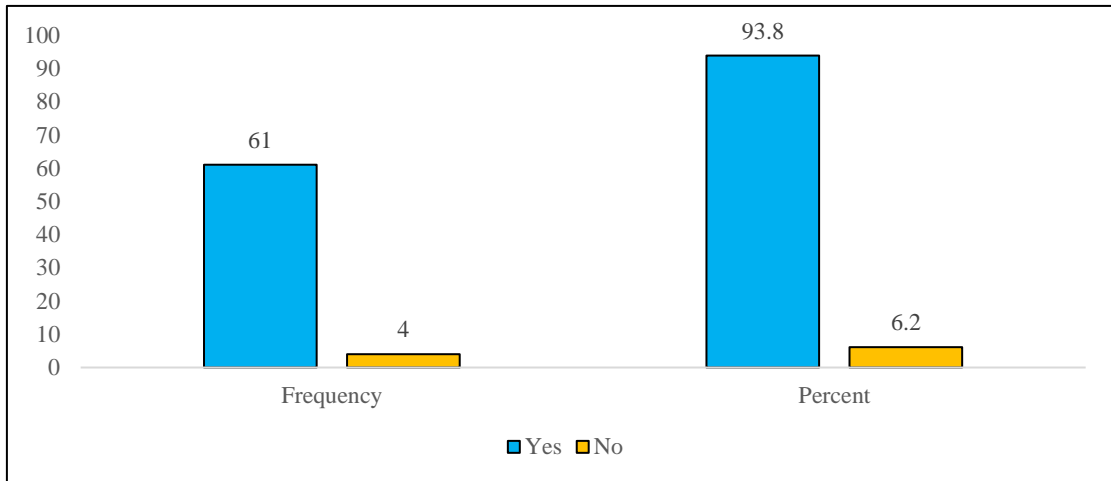
Figure 4.6 Training in Guidance and Counselling

Most of the teachers, 61 (93.8) pointed out that they had undergone training in guidance and counseling. As a result, they could make informed contributions on the subject under investigation. This is in line with a study by Namwenya, M. (2016) that underlines the importance of training in understanding the issues affecting students. However, instructors of guidance and counseling should be equipped and prepared to deal with increasing concerns impacting youth. The majority of counselors lacked enough time and the necessary resources to provide effective guiding and counseling services in schools. despite the ' training in Guidance and Counselling thus girls still engaged in RTB this therefore shows that there is need to relook at the kind of training that the teachers are receiving.

4.3 Types of Risk Taking Behaviours among Girls

This section includes data from the study's first objective, which was to establish the types of RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County. The section presents findings from teachers and students questionnaires as well as interviews.

On a scale of 5 to 1, the girls were asked to score their degree of agreement or disagreement with the statements below (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all). The point of convergence along the scale was shown using means (M). In this regard, the levels of agreement for each statement are explained in line with the Means. Table 4.4 shows the findings obtained.

Table 4.4 Levels of RTB among Girls by Type According to the Girls

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
Sometimes I smoke cigarettes and other hard drugs	96	1.00	5.00	1	0.64
Sometimes I use some hard drugs	96	1.00	5.00	1	0.62
Sometimes I am involved in stealing in school	96	1.00	5.00	1	0.83
Sometimes I am involved in unwarranted physical fights in school	96	1.00	5.00	2	1.14
Sometimes we have cases of organized gangs that steal from people in our school	96	1.00	5.00	2	1.17
Sometimes we have cases of unwanted pregnancies and abortions in the school	96	1.00	5.00	3	1.51
Sometimes I have casual and unprotected sex with my boyfriend/friends	96	1.00	5.00	2	1.33

Most girls said that did not smoke cigarettes and other hard drugs (M=1, not at all). Also, most of the girls said that they did not get involved in stealing in the schools (M=1, not at all). By agreeing to a little extent (M=2), the girls pointed out that they were in gangs that sometimes got involved in stealing in the school and that they were involved in unwarranted physical fights in the school (M=2). They also agreed to a little extent (M=2) that they sometimes had casual and unprotected sex with their boyfriend/friends in agreement with a study. These findings agree with a study by Allen et al. (2012) that shows that risky sexual behaviours were common among girls. Lastly, the girls agreed to a moderate extent that they sometimes had cases of unwanted pregnancies and abortions in the school (M=3). This corroborates a report by KNBS

(2015) that shows that most girls in Kenya engage in risk-taking behaviours which predisposed most of them to sexually transmitted infections (STIs) and early pregnancies.

It is thus evident that there RTB, albeit not to great extents, of risk taking behaviours according to the girls. The most common RTB were unprotected and casual sex, gang behaviour, unwarranted physical fights and cases of unwanted pregnancies and abortion. Cigarettes and hard drugs such as bang, cocaine and hard prescription drugs were not highly used. These findings are in line with the study by Kauppi (2015) that found out that during adolescence, girls are likely to fall victim to numerous risky-behaviours such as "casual sex, gang behaviour, theft, and unnecessary physical fights, among other things."

The teachers were asked to rate their level of agreements or disagreement with statements on the levels of RTB among Girls by type according. The findings are presented in Table 4.5.

Table 4.5 Types of RTB among Girls According to Teachers

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev.
Students often smoke cigarettes and other hard drugs	65	1.00	5.00	4	0.94
Students in the schools use some hard drugs	65	1.00	5.00	3	1.08
Students are involved in stealing in the school	65	1.00	5.00	3	1.19
Some students get involved in unwarranted physical fights in school	65	1.00	5.00	3	1.06
There are cases of organized gangs that steal from people in the school	65	1.00	4.00	2	1.03
Sometimes we have cases of unwanted pregnancies and abortions in the school	65	1.00	5.00	3	1.22
Sometimes students engage in casual and unprotected sex with their boyfriend/friends	65	1.00	5.00	4	1.04

The teachers agreed to great extent (M=4) that some students often smoke cigarettes and other hard drugs. They also agreed to a moderate extent (M=3) that students in the schools use some hard drugs, that some were involved in stealing in the school and that some students got involved in unwarranted physical fights in school They also agreed to a moderate extent (M=3) that sometimes they had cases of unwanted pregnancies (KNBS, 2015) and abortions in the school. The teachers also agreed to a little extent (M=2) that there were cases of organized gangs that steal from people in the school. Lastly, the respondents agreed to a great extent (M=4) that sometimes students engage in casual and unprotected sex with their boyfriend/friends. These findings are a departure from the findings from students since they show higher levels RTB. The disparities between students' and teachers' responses regarding RTB can be attributed to a range of factors, including differing perspectives, levels of awareness, and communication dynamics. These findings agree with a related study Legleye et al. (2011) that shows that students often possess firsthand knowledge of their peers' behaviors and may be more aware of certain incidents or activities that teachers may not witness. Social desirability bias may also play a role, with students potentially reluctant to admit to RTB when responding to teachers, while teachers may offer a more objective viewpoint. Fear of consequences, privacy concerns, and peer influence can further impact how students respond to questions about sensitive behaviors. Additionally, differences in observation, biases, and response format can all contribute to the disparities seen in the data. The variations underscore the importance of considering multiple sources of information and perspectives when assessing and addressing RT among students.

The question was posed to the principals and parents "are there cases of risk behaviour taking among girls in schools? Which types of such risky behaviour do

students in your school engage in?" All the respondents answered in the affirmative.

They also enumerated several types of RTBs. In support of this, one of the principal

said:

> There are rampant cases of risk-taking behaviours among girls. Some of them
> engage in premarital sex which often leads to early pregnancy and cases of
> abortion. In some instances, some girls experiment with cigarettes and drugs
> .like bhang

The findings above were also affirmed by another principal who said that:

> It is not uncommon for school girls going to clubs and partying in unsafe
> environments which expose them to all sorts of risks such as unprotected sex,
> drug use and physical fights among others. Also girls can be easily recruited
> into prostitution .For example two years ago during a police operation in a
> brothel in Ruaka among the culprits were secondary school going girls one
> being our very own.

These sentiments were echoed by the sub-county Director of Education Kiambaa.

The sub-county director of Education reported that RTBs in Kiambaa were very

rampant.

> Out of the five sub counties that I have been a Director this is the place I have
> witnessed the highest levels of RTB among girls. The most common ones
> being use of alcohol and clubbing especially during the weekends and school
> holidays.

The findings show that girls are likely to take to risk taking behaviours such as

premarital sex (Tefferra, et al., 2015), drug abuse as well as experimenting with drugs

(Ochieng, 2013), early marriages which made them drop out of school going to clubs,

partying in unsafe environments, fighting, abortions, stealing the property of other

students, prostitution and unprotected sex among others. These further findings

corroborate with a report by UNICEF (2012) that shows that girls engage in

transactional sexual relations with partners, thus the risk of teenage pregnancy,

abortions, and venereal diseases; leading to higher tendencies to drop out of school.

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Based on the foregoing findings, it is evident that there were numerous risk taking behaviours among girls in the study areas. These behaviours included but were not limited to fights, substance use, risky sexual behaviours, stealing and abortions among others. This finding are very critical since the education stakeholders especially teachers can use them to tailor make programmes that can be used to address the issues affecting the girls This is in line with Problem Behaviour Theory (PBT) as postulated by Jessor in 1977 that shows that there are various environmental factors that could contribute to susceptibility to RTB behaviour among teenage girls. Based on these findings, the research moved on to investigate the internal and external variables that led to the rise in RTBs among girls in Kiambaa Kiambu County.

4.4 Internal and External Factors that Influence RTB among Girls

The second objective of the study was to examine the internal and external factors that influence vulnerability to RTB among girls in PDSS in Kiambaa Sub-County, Kiambu County. First and foremost, the girls were asked to rate selected statements on the internal and external factors that influenced RTB among girls. The findings were presented in Table 4.6.

Table 4.6 Internal and External Factors that Influence RTB among Girls According to Girls

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
"My family provides for all my needs and this influences the risky behavioural choices I may make"	96	1.00	5.00	2	1.53
"My parents/guardian guide me on how to avoid risky behaviours"	96	1.00	5.00	4	1.17
"My parents/guardians do not consume excessive amounts of alcoholic drinks."	96	1.00	5.00	2	1.21
"My parents/guardians advise and guide me on acceptable behaviors. "	96	1.00	5.00	4	1.24
"My parents/guardians advise me about the dangers of destructive behavior."	96	1.00	5.00	4	1.29
"I am confident in my ability to thrive in life since my family sets a good example for me."	96	1.00	5.00	4	1.25
"My parents/guardians are always there to advise me if I have a question about a specific decision that I want to make."	96	1.00	5.00	4	1.57
"I have friends who often persuade me to participate in risky behaviors."	96	1.00	5.00	2	1.54
"My mother scrutinizes the people I choose, and this affects my behavior."	96	1.00	5.00	4	1.63
Some of my classmates use alcohol and other drugs and push me to do so as well.	96	1.00	5.00	2	1.53
"I believe that some of the things I do are influenced by the people I maintain."	96	1.00	5.00	3	1.72
"It is desirable to be recognized by colleagues, thus it is frequently difficult to avoid peers regardless of their behavior."	96	1.00	5.00	3	1.69
"It is deemed acceptable to do unsafe activities with friends, such as smoking, therefore one does them regardless."	96	1.00	5.00	2	1.70
"The majority of my peers are involved in sexual relationships."	96	1.00	5.00	3	1.79
"The society doesn't care how one lives, thus I may do anything I want."	96	1.00	5.00	3	1.77
"Nothing is ever done to colleagues who engage in bad behavior in society."	96	1.00	5.00	3	1.63
"There is widespread alcohol and drug misuse in the town, and no one is discouraged from partaking."	96	1.00	5.00	4	1.54
"In the society, there are cases of sexual interactions between adults and schoolgirls."	96	1.00	5.00	4	1.45

The girls agreed to a little extent (M=2) that their families provided for all their needs and this influenced the risky behavioural choices they made. They also agreed to a little extent that their parents/guardians did not indulge in excessive alcoholic drinks

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(M=2). These findings are supported by a study by Theuri (2017) that shows that parental support was pivotal in preventing girls from undertaking in RTBs. To this end, the family environment could play important roles in checking the risk behaviours that girls undertook.

The girls also agreed to a little extent (M=2) that they had friends who regularly influenced them to participate in unsafe behaviours and that it was regarded cool to perform risky activities like smoking among peers, thus they did it despite (M=2).This demonstrates that unfavourable peer effects contributed to hazardous behaviour among girls (Garney et al., 2018). To a moderate extent (M=3), the girls stated that some of the things they did were because of the friends they retained and that it was necessary to be recognized by colleagues, therefore it was frequently difficult to stay away from peers regardless of their behaviour.

They also agreed, to varying degrees, that the majority of their acquaintances were in sexual relationships and that society did not care how one lived, so they could do whatever they wanted (M=3). Furthermore, they agreed that nothing was ever done to their friends who did wrong in society (M=3). These findings agree with the study by UNICEF (2012) that showed that girls often fall prey to premarital risky sexual relationships with peers and even adults and that prostitution among school-going girls was also common.

The respondents then agreed to a great extent (M=4) that their parents/guardians educated them on how to avoid dangerous behaviours and offered them advice and direction on appropriate behaviours. They also agreed to great extent that their parents and guardians informed them about the dangers connected with RTB and that they were confident in their ability to achieve in life since their family set a good example

for them (M=4). The findings are a departure of the findings of Willoughby and Hamza (2011), which discovered that parents were the primary directing influences in terms of the risks that teenage children were prone to participate in, as well as the rate with which they engaged. Bulwarks at the family level against risk taking behaviours among parents were thus commendable. These findings therefore show peer influence supersedes parental guidance when it comes to involvement to RTB this is clearly explained by Problem Behaviour Theory

The girls also agreed that if they had any questions about a particular decision they wanted to make, their parents/guardians were always ready to help them (M=4).They also agreed to a great extent that their mothers checked the kind of friends they made and this influenced they behaviour (M=4). This implies that to a large extent, parents play a key role in ensuring the girls get the advice they need and that they keep friends who are considered good. This is line with a study by Nyaga (2015) that points out that parent play important roles in checking risk-taking behaviours among teenagers. However this contradicts with the findings of this study since it is clear that the girls do not follow parental guidance and thus continue to engage in RTB. The findings can be attributed to the breakdown of African culture and adoption of modern and western culture. This breakdown has thus deterred the girls from accessing information on RTB from parents but from other sources such as from media, peer to peer and not from significant others. This research results are supported by Dunne, McIntosh and Mallory (2014) who argued that the social media and internet had enormous impact on RTB Furthermore, they agreed to a great extent that there was a lot of alcohol and substance misuse in the society and that using it was not discouraged (M=4). This might be explained by the fact that, according to Mukui (2018), there was a high level of alcohol usage in Kiambu County due to its

great availability. These findings corroborate a research by Obare et al. (2016), which found that high levels of social value disintegration led girls to engage in risk-taking behaviours.

Finally, the respondents generally believe that there have been instances of sexual connections between adults and school-age girls in the community (M=4). This needs to be explained even before you begin referring to other studies. This buttresses the study by UNICEF (2012) that shows that there were premarital risky sexual relationships with peers and even adults. These findings show that the families and friends of girls had some influence on the risk behaviours they undertook. Societal values also contributed to RTB among girls due to tolerance of poor behaviour. The teachers were asked to rate selected factor regarding the internal and external factors that influence RTD among Girls. The findings are presented in Table 4.7.

Table 4.7 Internal and External Factors that Influence Risk-Taking Behaviour Among Girls According to Teachers

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Dev.
"Families often influence the risky behavioral choices that girls may make"	65	2.00	5.00	4	1.02
"Most parents guide girls on how to avoid risky behaviors"	65	1.00	4.00	3	0.84
"Most parents/guardians in the sub-county do not indulge in excessive alcoholic drinks"	65	1.00	5.00	4	0.98
"Some parents/guardian give advice to girls and guidance about the accepted behaviors"	65	1.00	5.00	3	0.81
"The community has negative influences on girls"	65	1.00	5.00	3	1.00
"Some community members have sexual relationships with school girls"	65	1.00	5.00	4	1.04
"The community/society tolerates risky social behaviors"	65	2.00	5.00	4	1.00

The respondents agreed to a modest level (M=3) that most parents educated girls on how to avoid dangerous activities and that some parents/guardians advise and coach girls on acceptable actions. They also agreed (M=3) to a modest level that the community had negative effects on females, which is consistent with the findings of Obare et al. (2016). They went on to concur (M=4) that families often affected the dangerous behavioural choices that girls may make and that most guardians and parents in the sub-county did not consume excessive amounts of alcohol (M=4). This supports the results of Nyaga (2015), who came to the same conclusion. The teachers agreed to a large extent that some people in the community had sexual relationships with schoolgirls and that the community/society tolerated risky social behaviours (M=4); this is consistent with UNICEF's (2012) report, which stated that there were instances of sexual relationships between community members and schoolchildren. These data indicate that the community had a major impact on RTBs among females in Kiambaa Sub-County, Kiambu County.

The principals, sub-county officers and parents were asked to indicate the internal and external factors (at school and home environment) that influenced risk-taking behaviour among girls in schools. Several factors were highlighted. These included the divorce and separation of parents/broken homes, single parenthood and parental absenteeism. In this regard, one of the parents said:

> Divorce or parental separation can have devastating effects on girls. Some of them are left without the care and the protection they enjoyed before. As a result, they become prone to all sorts of negative influence. Some boys take advantage of this to lure some of them premarital sex leading to venereal diseases, pregnancy and other negative effects. .

This was emphasised by a principal who reported that she had a number of students including girls whose parents have gone out of the country in search of greener

pastures especially to the UAE countries leaving their children under the care of relatives and others left on their own .This has exposed the girls to numerous RTB.

These challenges were also attested by Ngware et al. (2013) who found out that girls are more vulnerable to the adverse effects of family instability. Other factors mentioned by principals and parents included social media and mass media influenced behaviours such as phonography. To this end, another principals said:

> There were immense challenges emanating from social media and mass media. Girls often got access to online content that lured them to risk taking behaviours. As a result some got into premarital sex and promiscuous behaviour due to these influences. Sometimes, the girls were lured by peers to start following programs that had bad influence on them.

These findings are line with the study by Boyd et al. (2013) that highlights the role played by social media and peer pressure in enhancing RTB among girls. The findings go on to show that financial constraints and poverty levels, lack of role models, too much idle time, societal influences and, breakdown of societal values as posited by UNICEF (2012) also contributed to a surge in RTBs. This was affirmed by one of the sub-county education officer who said:

> Family instability broke the protection girls enjoy in stable homes. They start facing financial constraints. Others become prey to negative influence of social media and mass media such as pornography in the absence of parental monitoring as single parents struggle to etch a living. Others become vulnerable to negative influence from peers. This pushes them to risk-taking behaviours. .

These sentiments were echoed by one principal:

> Family instability has really contributed to RTB in Kiambaa .It is very common to find parents coming to report one another in the office for failing to meet parental obligation like paying fees. The worst is when a student report that one of the parent received fees from the other but the money does not get to pay the intended fees.

The findings show that girls were likely to result to RTB due to various internal and external factors. Some of the factors were related to the families they came from. To this end, poverty and financial constraints pushed girls to risky sexual behaviours such as prostitution. External influences come from mass media as well as peers in addition to societal tolerance of some behaviours. It can thus be concluded that the environment of girls, in line with the Problem Behaviour Theory, contributed to RTB as posited by Ma and Shive (2000). It was thus pertinent to come up with interventions such as use of role models as recommended by UNICEF (2012) as well as financial support (Amoaten & Long, 2015) to empower these girls.

4.5 Gender-Related Challenges Faced By Girls Involved In Risk-Taking Behaviours

The third objective of the study was to examine the gender-related challenges faced by girls involved in RTB in PDSS in Kiambaa Sub-County, Kiambu County. To begin with, the girls were presented with likert-scale type statements on the gender-related challenges faced by girls involved in RTBs. The findings were presented in Table 4.8.

Table 4.8 Gender-Related Challenges Faced By Girls Involved In Risk-Taking Behaviours According to Girls

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
"Cases of early pregnancy and abortions affect the health of some girls in our school"	96	1.00	5.00	4	1.30
"Girls who engage with risk-taking behaviors are likely to drop from school than boys of the same age"	96	1.00	5.00	4	1.21
'Girls with unwanted pregnancies are often faced with social stigma and this affects their learning"	96	1.00	5.00	4	1.09
"We have had cases of venereal diseases among girls with numerous sex partners leading to dropping out school"	96	1.00	5.00	3	1.58
"There is poor performance among girls who engage in risky behaviors among girls"	96	1.00	5.00	4	1.31
"Girls who engage in risky behaviors have lower transition rates to higher education"	96	1.00	5.00	4	1.43

The girls agreed to a moderate extent (M=3) that they have had cases of venereal diseases among girls with numerous sex partners leading to dropping out of school. They went on to agree to a great extent (M=4) that cases of early pregnancy and abortions affected the health of some girls in our school and that girls who engaged in RTB were likely to drop from school than boys of the same age. These findings corroborate the report by UNICEF (2012) that shows that RTB exposes girls to numerous sex partners, the risk of teenage pregnancy, abortions, and venereal diseases.

They also agreed to a great extent (M=4) that girls with unwanted pregnancies were often faced with social stigma and this affected their learning and that there was poor performance among girls who engaged in risky behaviours among girls (M=4). Further, the girls agreed to a great extent (M=4) that girls who engaged in risky

behaviours had lower transition rates to higher education. These findings buttress those of Obare et al. (2016) who posit that dropout rates from school were higher among girls who were victims of early sexual debut and that those who remained in schools were often faced with poor performance and lower transition rates to higher education; which could have lasting influences on their future. These findings show that involvement in risk-taking behaviour had gender-specific challenges on girls and affected their learning, academic performance and retention in school.

The teachers were asked to rate their level of agreements or disagreement with the selected statements on gender-related challenges faced by girls involved in RTB. The findings were presented in Table 4.9.

Table 4.9 Gender-Related Challenges Faced By Girls Involved in RTB According to Teachers

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
"Cases of early pregnancy and abortions affect the health of some girls in our school"	65	1.00	5.00	4	1.08
"Girls who engage with risk-taking behaviors are likely to drop from school than boys of the same age	65	2.00	5.00	4	0.88
"Girls with unwanted pregnancies are often faced with social stigma and this affects their learning"	65	1.00	5.00	4	0.95
"We have had cases of venereal diseases among girls with numerous sex partners leading to dropping out school"	65	1.00	5.00	3	1.34
"There is poor performance among girls who engage in risky behaviors among girls"	65	1.00	5.00	4	1.41
"Girls who engage in risky behaviors have lower transition rates to higher education"	65	1.00	5.00	4	1.09

The teachers agreed to a moderate extent that they have had cases of venereal diseases among girls with numerous sex partners leading to dropping out of school (M=3). The

teachers went on to agree to great extent (M=4) that cases of early pregnancy and abortions affected the health of some girls in our school. They also agreed to a great extent that girls who engaged in risk-taking behaviours were likely to drop from school than boys of the same age (M=4). This further supports the study by Obare et al. (2016) which reported similar results.

The teachers also agreed to a great extent (M=4) that girls with unwanted pregnancies were often faced with social stigma and this affected their learning and that there was poor performance among girls who engaged in risky behaviours among girls. Lastly, the teachers agreed to a great extent that girls who engaged in risky behaviours had lower transition rates to higher education (Hasan, Sobnom, & Uzzaman, 2019). However, the effects on girls such as early pregnancy, dropping out of school and social stigma were higher. These findings agree with the findings from girls who also agreed to similar extents to the same statements. It is thus clear that RTB affected learning, academic performance and the propensity of girls to remain in school.

The principals and parents were presented with the question, "Which gender-related challenges do girls involved in risk-taking behaviour in the school faces? I.e. challenges specific to girls alone as compared to boys." According to them, girls with RTB suffer a variety of challenges, including early pregnancies (UNICEF, 2012), child labour, abortion, forced marriages, school dropout, low test scores (Obare et al., 2016), rejection, and attempts to abort that result in fatal illness or death, among others. In this regard, one of the principal said:

> Girls confront particular difficulties that boys who exhibit comparable risk-taking behaviours do not. Girls may become pregnant and stop attending school, for instance. Boys, however, are exempt from this. Thus, girls' learning may be significantly impacted.

Another principal reported that there were cases of abortion being reported among girls .He also stated some of the girls were reported through the Guidance and Counselling office that they were on contraceptives.

In support of the findings by the respondents above, one of the parents also affirmed the same findings by saying that:

> Girls learning can be affected if they become pregnant. Their tendency to remain in school is greatly reduced. Some of them may decide to drop out of school or get married. Absenteeism to take care of the new born baby means that their academic performance is also compromised.

Regarding the risk of abortions, one of the sub-county education officer said the following:

> In some cases, girls may commit abortion. This may lead to infections and serious sicknesses that may affect their learning. Trauma and social stigma if they are discovered may also affect their concentration in school. Death is also likely in some cases. These challenges only affect girls and affect their learning and academic performance in the long run.

The sub-county Director Kiambaa stated:

> Every year there have been cases of girls sitting for their KCSE while heavily pregnant with a few cases having to sit for their exams from maternity wards.

Based on the foregoing findings, it is evident that there were real gender specific challenges affecting girls in the study areas. These included unwanted pregnancies, and clubbing. This is consistent with the study and the theory put forth by Obare et al (2016). According to the Ochieng some of the females were also likely to have children and maybe get married off young (2013). In this context, it was necessary to develop gender-specific solutions, such as empowering girls in accordance with the empowerment theory by Rappaport to reduce the negative effects of RTB on girls.

4.6 Gender-Specific Strategies That Can Minimize RTBs among Girls

The fourth objective of the study was to propose gender responsive measures to reduce RTB susceptibility among girls in PDSS in Kiambaa Sub-County, Kiambu County. First, the girls were asked to score their agreement or disagreement with several claims about gender-specific measures for reducing RTB in girls. The findings are presented in Table 4.10.

Table 4.10 Gender-Specific Strategies That Can Minimize RTBs among Girls According to Girls

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
'The government promotes programs for girls to learn how to prevent drug usage. "	96	1.00	5.00	3	1.55
"Teachers with counseling skills are hired by governments to advise girls in the proper route."	96	1.00	5.00	4	1.31
"Mothers are empowered through financing by the government and NGOs this checks negative risk-taking behavior among girls in schools"	96	1.00	6.00	3	1.61
"Students from low-income families get financial assistance from the government."	96	1.00	5.00	3	1.55
"The government supports education programmes aimed at enhancing the capacity of mothers to guide their daughters"	96	1.00	5.00	3	1.58
"The church enhances the capacity of mothers to deal with risk-taking behaviors among girls"	96	1.00	5.00	4	1.45

The girls agreed to a considerable degree (M=3) that the government supports female child drug prevention programs" and that "mothers are empowered through financing by the government and NGOs this checks negative risk-taking behaviour among girls in schools." They also agreed that "the government provides financial assistance to students from low-income families" (M=3) and that "the government supports education programs targeted at increasing mothers' abilities to advise their daughters." (M=3). These findings agree with the study by Amoaten and Long (2015) that posits

that "the government can control early pregnancies among children by checking school dropout rates and enhancing the socio-economic standing of families."

The girls also agreed (M=4) that governments should hire teachers with counselling experience to steer girls in the correct way, and that the church should help mothers deal with risk-taking behaviours in their daughters. This is indicative of the fact that government empowerment programs for mothers as well as direct support of the education of girls influenced RTB among girls. These findings are in line with the empowerment theory that posits that the government is pushed to institute measures aimed at availing socio-economic well-being for the individual (Swift & Levin, 1987; Rappaport, 1984).

The teachers were asked to indicate their level of agreement with statements on gender-specific strategies that can minimize RTBs among girls. The findings are presented in Table 4.11.

Table 4.11 Gender-Specific Strategies That Can Minimize RTB among Girls According to Teachers

Descriptive Statistics

	N	Min	Max	Mean	Std. Dev.
"The government promotes programs for girls to learn how to prevent drug usage."	65	1.00	5.00	3	1.03
"Teachers with counseling skills are hired by governments to advise girls in the proper route."	65	1.00	5.00	3	1.42
"Mothers are empowered through financing by the government and NGOs this checks negative risk-taking behavior among girls in schools"	65	1.00	5.00	3	1.37
"Students from low-income families get financial assistance from the government."	65	1.00	5.00	3	1.22
"The government supports education programmes aimed at enhancing the capacity of mothers to guide their daughters"	65	1.00	5.00	2	1.37
"The church enhances the capacity of mothers to deal with risk-taking behaviors among girls"	65	1.00	5.00	3	1.26

The teachers agreed to a little extent (M=2) that "the government supported education programmes aimed at enhancing the capacity of mothers to guide their daughters." This shows that such programs were not visible in the community. The teachers then agreed (M=4) that "the government promotes female child programs on how to prevent drug misuse" and that "the governments employs teachers with counselling expertise to help girls in the appropriate path." These findings agree with the study by Saunders (2016) which underlines the importance of programmes aimed at keeping girls in school. They also agreed to a great extent that "mothers were empowered through financing by the government and NGOs this checks negative risk-taking behaviour among girls in schools" (M=4) adding that "the government provides financial assistance to kids from low-income families." (M=4). According to the empowerment idea, this might lessen girls' inclination for taking risks (Swift & Levin, 1987; Rappaport, 1984). Finally, the educators generally concurred that "the church

strengthened the capacity of moms to deal with risk-taking behaviours among girls"
(M=4). These results demonstrate the critical role that financing for moms and
disadvantaged girls plays in reducing RTB in girls.

The principal, sub-county education officials and parents were asked to indicate "the
gender-specific strategies [targeted at mothers and girls] can be undertaken to mitigate
the risky behavioural choices of girls in school in the sub-county?" The findings show
that selected interventions could be put in place. These included strengthening
guidance and counselling programmes, giving life skills through counselling,
establishing rehabilitation facilities, offering job opportunities and soft loans to
mothers to start businesses. To support this, one of the education officers said:

> Risk taking behaviour among adolescent girls can be prevented through
> methods such as guidance and counselling. Schools should put in place
> strategies to strengthen guidance and counselling. G&C teachers should be
> empowered with facilities and time allocation to adequately counsel and guide
> the girls. When girls who exhibit risk taking behaviours are identified, they
> should be promptly guided.

Regarding rehabilitation facilities and offering job opportunities and soft loans to
parents, one of the principal said:

> There should be programmes undertaken by the government and NGOs to
> offer rehabilitation services to girls who suffer the consequences of risk-taking
> behaviours. Mothers should also be provided with jobs to empower them. To
> avoid leaving the county which exposes their daughters to RTBs. This is
> particularly so since empowered mothers are able to guide their daughters well
> and protect them from negative behaviours. Soft-loans could enable them start
> businesses that can help them get income to provide for their girls to shun
> them falling victim of risk-taking behaviours.

Another principal stated:

> There is need for the Government to ensure that school funding is sufficient
> and prompt. Allocation of bursaries should also be fairly done this would
> ensure most of the girls remain in school. Parents should also take up their
> roles seriously by ensuring they meet the needs of their girls so that they are
> not taken advantage of.

These findings agree with the study by Carlson (2011) that found out that the socio-economic empowerment of families tended to protect children from falling prey to various forms of RTB as envisaged by this current study.

Other strategies included putting in place clear guidelines on how to deal with indiscipline and risky behaviour, spiritual counselling by the church and, giving second chances to young mums to complete school. In this regard, schools should also collaborate with parents to ensure education continuity. Parents should also be sensitized on the importance of being present for girls and developing rapport with them. There was also need for early intervention as well as targeted-counselling for girls. These findings were affirmed by one of the parent who said:

> There should be effort by churches to spiritually guide girls. In addition, girls should be given second chances even if they become pregnant to return to school. Parents should also be encouraged to have good relationships with their children so as to protect them from risk-taking behaviours.

The findings make it apparent that there were several plausible interventions to check the native effects among girls due to RTB. The most important of these including empowerment of families to protect girls from falling prey to risky sexual behaviours such as prostitutions among others as envisaged by the empowerment theory (Swift & Levin, 1987; Rappaport, 1984). There was also need for parents to protect their daughter from negative peer pressure. Schools and religious organizations should also ensure that they carry out target interventions to strengthen the resilience of girls to risky behaviours in their environment. This is in line with PBT (Ma & Shive, 2000) which shows the importance of interventions in the context of the girls.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study's findings. It also presents the conclusions, and recommendations.

5.2 Summary of Findings

The study's findings provide a comprehensive overview of various aspects related to Risk Taking Behaviors (RTB) among girls in Public Secondary Schools (PDSS) in Kiambaa Sub-County, Kiambu County.

According to the research, girls acknowledged the presence of RTB but reported their involvement to be relatively minimal. They identified common RTB, including unprotected and casual sex, gang behaviour, unwarranted physical fights, cases of unwanted pregnancies and abortions. In contrast, teachers held differing opinions, noting that girls also engaged in smoking cigarettes and using hard drugs like bhang. They reported incidents of stealing, unwarranted physical fights, unwanted pregnancies, and unprotected sex among students. Principals sub-county education officers and parents highlighted a broader spectrum of RTB, including premarital sex, drug abuse, and early marriages leading to school dropout, involvement in clubs, abortions ,use of contraceptives theft, prostitution, unprotected sex, partying in unsafe environments, and fighting. This findings are very critical since the education stakeholders especially teachers can use them to tailor make programmes that can be used to address the issues affecting the girls. This is in line with Problem Behaviour Theory (PBT) as postulated by Jessor in 1977.

Both girls and teachers recognized that internal and external factors influenced RTB among girls. These factors included family, friends, societal values, and community influences. Families and friends were perceived as having some influence on the risk behaviours undertaken by girls, and societal values contributed to RTB due to the tolerance of poor behaviour. Teachers emphasized that parents and the community had significant influences on RTB among girls, further emphasizing the role of external factors in shaping behaviour. Several internal and external factors were identified by head-teachers and parents, such as family breakdown, single parenthood, parental absenteeism, social media influence, peer pressure, financial constraints, and societal values. The research however identified that despite the girls receiving the necessary advice from their parents peer influence and social media took charge when it came to involvement to RTB.

Girls involved in RTB faced gender-specific challenges that affected their learning, academic performance, and retention in school. These challenges included early pregnancies, child labour, school dropout, forced marriages, poor test performance, rejection, and health risks related to abortion. Teachers also acknowledged these challenges, aligning with the opinions of girls. It was evident that RTB had a detrimental impact on academic achievement and overall well-being among girls.

The study explored gender-responsive strategies to minimize vulnerability to RTB among girls. Government support for girl child programs aimed at avoiding drug abuse, empowerment of mothers through financing, financial assistance for students from low-income families, and the employment of teachers with counselling experience were considered important .However, the research findings indicate that having teachers in Guidance and Counselling is not enough to deal with the complex

issue of RTB in reducing RTB among girls. Retooling of teachers to deal with emerging issues is required collaboration between schools and parents, parental sensitization, early intervention, targeted counselling, and other interventions were identified as potential strategies to address RTB effectively.

5.3 Conclusions of the Study

The study conducted in Kiambaa Sub-County, Kiambu County, aimed to investigate Risk Taking Behaviors (RTB) among girls in Public Secondary Schools (PDSS) and the factors influencing these behaviors. The findings revealed the existence of RTB among these girls, including unprotected sex, drug use, physical fights, and unwanted pregnancies. Notably, perceptions of RTB varied among different stakeholders, with girls often underreporting their involvement. Teachers and parents provided a more comprehensive perspective on RTB. Internal and external factors, such as family, friends, societal values, and community norms, played pivotal roles in shaping girls' behaviors, either as protective or risk factors. Girls engaged in RTB faced gender-specific challenges like early pregnancies and school dropout, highlighting the need for gender-sensitive interventions. The study also identified potential gender-responsive strategies, such as government support, financial assistance, and community involvement, to mitigate the vulnerability to RTBs among girls.

5.4 Recommendations of the Study

The following recommendations are provided. These are based on the findings and conclusions of the research.

1. Girls should be sensitized on the effects of risk-taking behaviour through school based interventions such as guidance and counselling

2. Measures at the community levels such as spiritual guidance and emphasis on protection of girls from risk-taking behaviours should be undertaken.

3. The government through the ministry of education should strengthen guidance and counselling programs in schools through the relevant polices as well as retraining of teachers.

4. Parents should be encouraged to guide their daughters rightly. Empowerment programs for mothers should also be strengthened so as to keep girls in school.

5.5 Suggestions for Further Research

The following topics for additional research are suggested based on the study findings.

1. First and foremost, studies focused on other counties neighbouring Kiambu County should be undertaken for correlation purposes.

2. Further studies needed to understand how the school environment, whether it's a boarding school or a day school, may influence students' behaviours, especially in the context of risky behaviours.

3. A comparative study focused on boys should be undertaken..

4. Longitudinal studies that focus on RTB among girls in subsequent years are also recommended to assess the impact of changes in the context of girls on such behaviours.

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APPENDIX I: STUDENTS' QUESTIONNAIRE

This questionnaire seeks to investigate the determinants vulnerability of risk-taking behaviour among public day secondary school girls in Kiambu County. Please participate in this study by ticking your preferred in the box [√] provided. Do not put any identifying information in the questionnaire.

A: Demographic Information

1. What is your Sex? Male [   ]   Female [   ]

2. How old are you?

3. Where does your family live? Rural Area [   ]   urban Area [   ]

4. What is your parent(s) marital status? Both Parents [ ] Single Parent [ ] Separated Parents [ ] Divorced [   ] Guardian [ ]

5. Who do you live with?

   Father& Mother [   ] Father [   ] Mother [   ] Sibling [   ] Guardian [   ] Alone [   ]

B: Levels of RTB Risky Taking Behaviour among Girls by Type

6. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

Attribute	Rating				
	5	4	3	2	1
(i) Sometimes I smoke cigarettes and other hard drugs					
(ii) Sometimes I use some hard drugs					
(iii) Sometimes I am involved in stealing in school					

(iv)	Sometimes I am involved in unwarranted physical fights in school					
(v)	Sometimes we have cases of organized gangs that steal from people in our school					
(vi)	Sometimes we have cases of unwanted pregnancies and abortions in the school					
(vii)	Sometimes I have casual and unprotected sex with my boyfriend/friends					

C: Internal and External Factors that Influence Risk-Taking Behaviour among Girls

7. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

		Rating				
Attribute		**5**	**4**	**3**	**2**	**1**
(i)	"I regard my family provides for all my needs and this influences the risky behavioural choices I may make"					
(ii)	"My parents/guardian guide me on how to avoid risky behaviours"					
(iii)	"My parents/guardians do not indulge in excessive alcoholic drinks"					
(iv)	"My parents/guardians give me advice and guidance about the accepted behaviours"					

(v)	"My parents/guardians guide me on the risks associated with risky behaviours"					
(vi)	"I am confident I can easily succeed in life because my family gives me a clear example of how to lead my life"					
(vii)	"If I have a question on a particular choice that I would like to take, my parents/guardians are always available to guide me"					
(viii)	"I have friends that often influence me to engage in risky behaviours"					
(ix)	"My mother checks the kind of friends I make and this influences my behaviour"					
(x)	Some of my peers take alcohol and other substances and encourage me to do the same					
(xi)	"I think that some of the things I do are a result of the friends I keep"					
(xii)	"It is important to be recognized by colleagues so it is often hard to stay away from peers irrespective of their behaviour"					
(xiii)	"It is considered cool to do some risky things like smoking among friends so one ends up doing them anyway"					
(xiv)	"Most of my friends are in sexual relationships"					
(xv)	"The society does not care how one lives and so I can do as I wish"					

		5	4	3	2	1
(xvi)	"Nothing is ever done to colleagues who do bad things in the society"					
(xvii)	"There is a lot of alcohol and substance abuse in the community and one is not discouraged from taking it"					
(xviii)	"There are instances of sexual relationships between adults and school-going girls in the society"					

D: Gender-Related Challenges Faced By Girls Involved In Risk-Taking Behaviours

8. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

		Rating				
Attribute		**5**	**4**	**3**	**2**	**1**
(i)	"Cases of early pregnancy and abortions affect the health of some girls in our school"					
(ii)	"Girls who engage with risk-taking behaviours are likely to drop from school than boys of the same age"					
(iii)	'Girls with unwanted pregnancies are often faced with social stigma and this affects their learning"					
(iv)	"We have had cases of venereal diseases among girls with numerous sex partners leading to dropping out school"					
(v)	"There is poor performance among girls who engage in risky behaviours among girls"					
(vi)	"Girls who engage in risky behaviours have lower transition rates to higher education"					

F: Gender-Specific Strategies That Can Minimize Risk-Taking Behaviour among Girls

9. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

Attribute	Rating				
	5	4	3	2	1
(i) 'The government supports girl child programmes on how to avoid drug abuse"					
(ii) "The governments employ teachers with counselling experience to guide girls in the right direction"					
(iii) "Mothers are empowered through financing by the government and NGOs this checks negative risk-taking behaviour among girls in schools"					
(iv) "The government gives financial help to students who are from poor backgrounds"					
(v) "The government supports education programmes aimed at enhancing the capacity of mothers to guide their daughters"					
(vi) "The church enhances the capacity of mothers to deal with risk-taking behaviours among girls"					

*** THANK YOU ***

APPENDIX II: TEACHERS' QUESTIONNAIRE

This questionnaire seeks to investigate the determinants of risk-taking behaviour among public day secondary school girls in Kiambu County. Please participate in this study by ticking your preferred in the box [√] provided. Do not put any identifying information in the questionnaire.

A: Demographic Information

10. What is your Sex? Male [   ]   Female [   ]

11. How old are you? < 25 [ ]   25-30 [ ] 31-35 [ ]   36-40 [ ] 41-45 [ ] 46-50 [ ] over 50 [ ]

12. What is your level of education? Diploma [   ] Degree [   ]   Masters [   ] PhD [   ] Others (please specify)……………

B: Levels of RTB Risky Taking Behaviour Among Girls by Type

13. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

	Rating				
Attribute	**5**	**4**	**3**	**2**	**1**
(i) Students often smoke cigarettes and other hard drugs					
(ii) Students in the schools use some hard drugs					
(iii) Students are involved in stealing in the school					
(iv) Some students get involved in unwarranted physical fights in school					
(v) There are cases of organized gangs that steal from people in the school					

(vi)	Sometimes we have cases of unwanted pregnancies and abortions in the school				
(vii)	Sometimes students engage in casual and unprotected sex with their boyfriend/friends				

C: Internal and External Factors that Influence Risk-Taking Behaviour among Girls

14. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

	Rating				
Attribute	**5**	**4**	**3**	**2**	**1**
(i) "Families often influence the risky behavioural choices that girls may make"					
(ii) "Most parents guide girls on how to avoid risky behaviours"					
(iii) "Most parents/guardians in the sub-county do not indulge in excessive alcoholic drinks"					
(iv) "Some parents/guardian give advice to girls and guidance about the accepted behaviours"					
(v) "The community has negative influences on girls"					
(vi) "Some community members have sexual relationships with school girls"					
(vii) "The community/society tolerates risky social behaviours"					

D: Gender-Related Challenges Faced By Girls Involved In Risk-Taking Behaviours

15. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

Attribute		Rating				
		5	4	3	2	1
(vii)	"Cases of early pregnancy and abortions affect the health of some girls in our school"					
(viii)	"Girls who engage with risk-taking behaviours are likely to drop from school than boys of the same age					
(ix)	"Girls with unwanted pregnancies are often faced with social stigma and this affects their learning"					
(x)	"We have had cases of venereal diseases among girls with numerous sex partners leading to dropping out school"					
(xi)	"There is poor performance among girls who engage in risky behaviours among girls"					
(xii)	"Girls who engage in risky behaviours have lower transition rates to higher education"					

F: Gender-Specific Strategies That Can Minimize Risk-Taking Behaviour among Girls

16. "Rate your level of agreements or disagreement with the following statements on a scale of 5 to 1 (5-to a very high extent; 4-to a great extent; 3- to a moderate extent; 2-to a little extent and; 1-Not at all)."

	Rating				
Attribute	**5**	**4**	**3**	**2**	**1**
(xiii) "The government supports girl child programmes on how to avoid drug abuse"					
(xiv) "The governments employ teachers with counselling experience to guide girls in the right direction"					
(xv) "Mothers are empowered through financing by the government and NGOs this checks negative risk-taking behaviour among girls in schools"					
(xvi) "The government gives financial help to students who are from poor backgrounds"					
xvii) "The government supports education programmes aimed at enhancing the capacity of mothers to guide their daughters"					
xviii) "The church enhances the capacity of mothers to deal with risk-taking behaviours among girls"					

*** THANK YOU ***

APPENDIX III: PRINCIPALS,' EDUCATION OFFICERS' AND PARENTS'

INTERVIEW GUIDE

(i)   Are there cases of risk behaviour taking among girls in schools? Which types of such risky behaviour do students in your school engage in?

(ii)   Which internal and external factors (at school and home environment) influence risk-taking behaviour among girls in schools? Please explain.

(iii)   Which gender-related challenges do girls involved in risk-taking behaviour in the school faces? I.e. challenges specific to girls alone as compared to boys. Please explain.

(iv)   What gender-specific strategies [targeted at mothers and girls] can be undertaken to mitigate the risky behavioural choices of girls in school in the sub-county? Please explain.

APPENDIX IV: MAP OF THE STUDY AREA
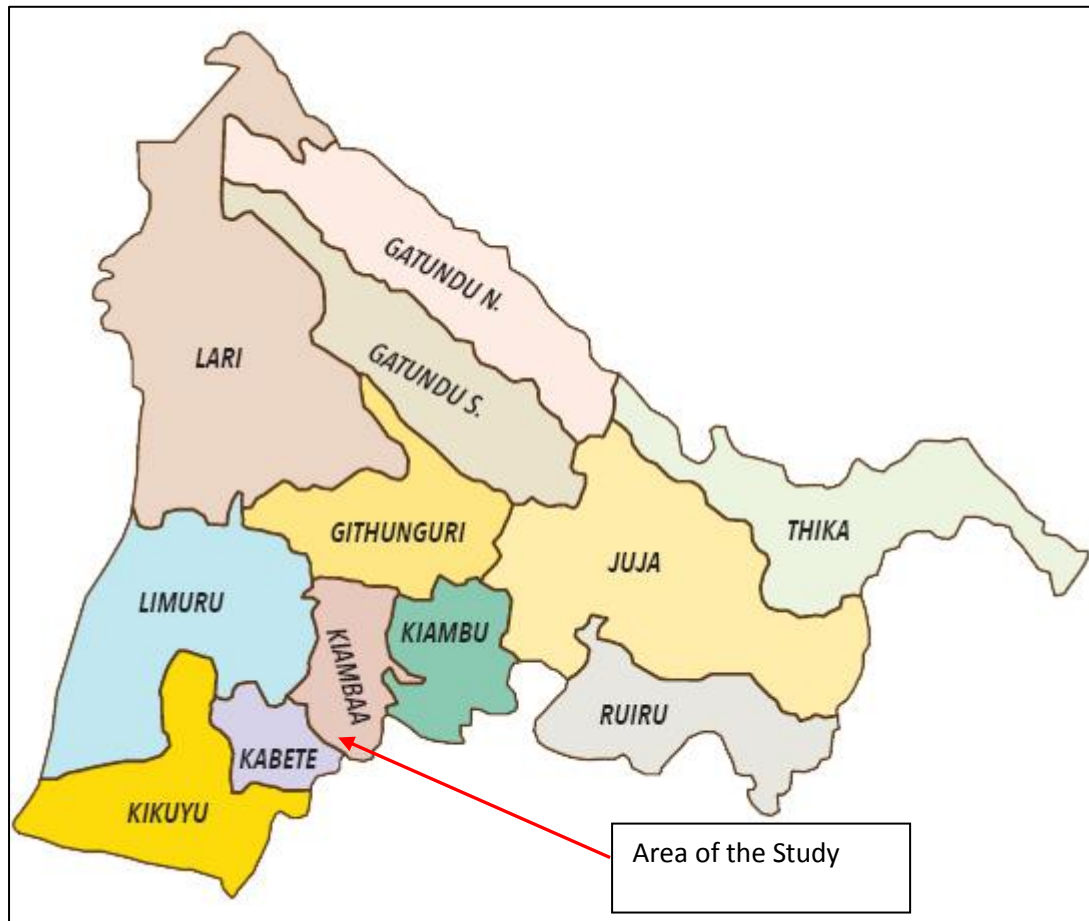
Source: Kiambu Government (2020).

APPENDIX V: RESEARCH AUTHORIZATION FROM GRADUATE SCHOOL

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020-8704150

Internal Memo

FROM: Dean, Graduate School

TO: Ms. Lucy Njeri Mwangi
C/o Department of Sociology, Gender &
Development Studies

DATE: 5th May, 2021

REF: C50/CE/25847/2011

SUBJECT: **APPROVAL OF RESEARCH PROPOSAL**
===
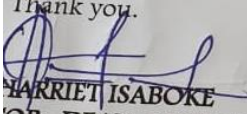
This is to inform you that Graduate School Board, at its meeting on 28th April, 2021, approved your Research Proposal for the M.A. Degree entitled, "Determinants of Vulnerability to Risk Taking Behaviour among Girls in Public Day Secondary Schools in Kiambu County, Kenya."

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology & Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking and Progress Report Forms per semester. The Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

HARRIET ISABOKE
FOR: DEAN, GRADUATE SCHOOL

C. Chairman, Sociology, Gender & Development Studies Department

Supervisors:

1. Dr. Pacificah Okemwa
   C/o Sociology, Gender & Development Studies Department
   Kenyatta University

2. Dr. Susan Waiyego Mwangi
   C/o History, Archaeology & Political Studies Department
   Kenyatta University

APPENDIX VI: RESEARCH PERMIT FROM NACOSTI

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 663135

Date of Issue: 29/July/2021

RESEARCH LICENSE

This is to Certify that Ms. Lucy Njeri Mwangi of Kenyatta University, has been licensed to conduct research in Kiambu on the topic: DETERMINANTS OF VULNERABILITY TO RISK TAKING BEHAVIOUR AMONG GIRLS IN PUBLIC DAY SECONDARY SCHOOLS IN KIAMBU COUNTY, KENYA for the period ending : 29/July/2022.

License No: NACOSTI/P/21/12087

663135
Applicant Identification Number

Director General
NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION

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E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke

APPENDIX VII: RESEARCH AUTHORIZATION FROM THE MINISTRY

OF EDUCATION

MINISTRY OF EDUCATION

State Department of Early Learning & Basic Education

EMAIL: deokiambaa@yahoo.com
TEL:
When replying please quote

KIAMBAA EDUCATION OFFICE
P.O. BOX 250-00219
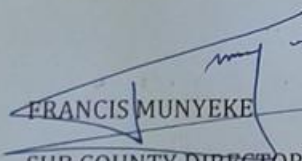KARURI

KBA/ED/RES/VOL.I/34/24

12th AUGUST, 2021

All Principals - Public Day Secondary School
Kiambaa Sub County

RE: RESEARCH AUTHORIZATION

The above subject refers,
Authority is hereby granted to Ms Lucy Njeri Mwangi Id no 22469971 of Kenyatta University to conduct research on "**Determinants of vulnerability to risk taking behavior among girls in public day secondary schools in Kiambaa Sub County.**"

Please accord her the necessary assistance. You are requested to share with us a copy of your research findings when you conclude your research.

FRANCIS MUNYEKE
SUB COUNTY DIRECTOR EDUCATION

KIAMBAA

SUB COUNTY DIRECTOR OF EDUCATION
KIAMBAA
P. O. Box 250 - 00219
KARURI