

RELATIONSHIP BETWEEN PERSONALITY TRAITS AND AGGRESSIVE  
BEHAVIOR AMONG FEMALE ADOLESCENTS IN CORRECTIONAL  
INSTITUTIONS IN KIAMBU COUNTY, KENYA

BY  
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## DECLARATION

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

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## DEDICATION

To my dear children Valentine, Tony and Christine who encouraged, supported and prayed for me.



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## ABSTRACT

The main purpose of the study was to establish the relationship between personality traits and aggressive behavior among adolescent girls in correctional institutions. The study location was Kirigiti Girls Rehabilitation Centre and Kamae Girls Borstal Institution Kiambu County, Kenya. Specific objectives were to find out the relationship between the caregiver's socio-economic status and respondent's aggressive behavior, to identify the common forms of aggressive behavior among the respondents and to determine the relationship between personality traits and aggressive behavior. The study was informed by the General Aggression Model. Spearman's correlation analysis was used to assess the level of association between personality traits and aggression. Chi-square was used to test if there was any significant difference in the characteristics of Kirigiti and Kamae Girls centers. Simple random sampling technique was used at Kirigiti to sample 61 adolescent girls while census study was done for the 25 girls at Kamae Girls. A structured questionnaire was used to undertake the survey. The study established that there was no significant variation in the composition of the girls in both centers. A very weak correlation existed between socio-economic variables and aggression indicating that socio-economic status does not influence. These included family type ( $r = 0.008$ ,  $n=86$ ,  $p=0.945$ ), female caregiver's education level ( $r=-0.133$ ,  $n=86$ ,  $p=0.240$ ), male caregiver's education level ( $r = 0.033$ ,  $n=86$ ,  $p=0.791$ ), female caregiver's source of income ( $r=-0.021$ ,  $n=86$ ,  $p=0.854$ ) and male caregiver's source of income ( $r=0.103$ ,  $n=86$ ,  $p=0.396$ ). The personality types presented were extraversion, emotional stability, agreeableness, conscientiousness and openness. Extraversion had a significant positive correlation with verbal aggression ( $r=0.282$ ,  $n=86$ ,  $p=0.008$ ) implying that the more extraverted a girl was the more verbally aggressive she was likely to be. Findings showed that the girls' level of agreeableness was not significantly correlated to the manifestation of physical aggression ( $r=0.001$ ,  $n=86$ ,  $p=0.996$ ). Conscientiousness type did not have a significant relationship with aggression. The correlation analysis showed that emotional stability had a significant negative correlation with physical aggression ( $r=-0.257$ ,  $n=86$ ,  $p=0.017$ ), an indication that emotionally stable girls were less likely to display aggressive behavior. Emotional stability and verbal aggression also had a significant negative correlation ( $r=-0.241$ ,  $n=86$ ,  $p=0.026$ ). Emotional stability also revealed a significant negative correlation with hostility level ( $r=-0.369$ ,  $n=86$ ,  $p<0.001$ ), probably suggesting that emotionally stable girls were likely to be less hostile. The forms of aggression presented in the study are physical aggression, verbal aggression, anger and hostility. Findings showed that 54% of the girls were physically aggressive, 52% verbally aggressive, 41% manifested anger aggression, while 64% registered hostility form of aggression, There was no significant difference between the girls in the two centers as far as aggression was concerned. It was recommended that counseling psychologists be brought on board to work together with the juvenile justice system and other stakeholders, in coming up with a family based therapeutic approach that can be tailored to meet the unique needs of the girls and their caregivers. Further research could be conducted establishing the relationship between personality traits, family and other contextual factors and aggressive behavior among adolescent girls.

## ABBREVIATIONS AND ACRONYMS

AQ	Aggression Questionnaire
GAM	General Aggression Model
MBTI	Myers Briggs Type Indicator
NACOSTI	National Commission for Science, Technology and Innovation
NSW	New South Wales
SES	Socio Economic Status
USA	United States of America
US	United States
WHO	World Health Organization

## DEFINITION OF TERMS

- Adolescents* This will refer to girls between the ages of 12-17
- Personality* In this study personality will mean the relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances.
- Personality traits* This will refer to the Big Five personality traits of extraversion, neuroticism/emotional stability, agreeableness, conscientiousness, and openness.
- Aggressive behavior* Aggressive behavior in this study will refer to an emotional state, which is accompanied with a desire to attack others driven by internal and/or external factors. The aggressive behavior in this study will be categorized into four sub-scales according to the Buss and Perry Aggression Questionnaire. This includes physical aggression, verbal aggression, anger and hostility.
- Violence* This will be used to mean a form of physical assault.

## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### Introduction

This chapter presents the background to the study, problem statement, purpose of the study, objectives and research questions. The justification and significance of the study, scope of the study as well as a summary of the chapter are also presented.

#### Background to the study

The participation of adolescent females in aggressive and antisocial behavior has recently emerged at the forefront of research, policy, and programming agendas. This shift in focus has been largely attributed to increasing rates of violent offending among female adolescents over the past two decades (Odgers & Moretti, 2002). As a result, adolescent females are now considered an important population in the study of aggression and antisocial behavior.

Achuka (2015), states that girls in Kenya are becoming increasingly involved in aggressive and violent activities. The report states that some adolescent girls barely in their 15's have joined criminal gangs such as the dreaded Gaza gang, thereby causing havoc to residents in Nairobi's Eastlands area. In addition, the opening of the Kamae Girls Borstal Institution which is set to house the first female juvenile jail in Kenya has been informed by the changing times which have seen an increase in crimes by juvenile female offenders.

Arnott (1998), states that girls who display aggressive behavior tend to drift out of school early and into mixed sex relationships with deviant males. Without a vision of their career potentials and a sense of their rights for safety, aggressive girls

may default to a trajectory of early pregnancy and victimization at the hands of a deviant partner (Brown, Burman, Tisdall & Batchelor, 2002). Aggressive girls are more likely than boys to experience internalizing disorders such as anxiety, depression and suicidal ideation (Pepler, 2003). Further, they are also far more likely than males to select antisocial partners, increasing the likelihood of ongoing aggressive interactions (Leschied et al., 2000). According to Moffitt, Caspi, Rutter and Silva, (2001), these alliances frequently result in teenage parenting, domestic violence and female depression, creating a poor outlook for the next generation. Pepler, Madsen, Webster and Levene (2012), challenge researchers to focus on the nature of girls' aggression and the complexity of psychosocial difficulties as aggressive girls grow into the mothers of tomorrow.

The concept of personality is one of the most comprehensive concepts and lacks a common definition (Anitei & Dumitrache, 2013). Personality psychology aims to describe the whole person, considering both universal traits and individual differences. According to Burger (2006), personality consists of substantial behavioral patterns of the individual and intra-personal processes. Roberts (2009), defines personality traits as the relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances. Although the individual changes from year to year as he grows, this trait pattern tends to continue or persevere. Thus, unity, consistency and continuity mark the personality traits and also the behavior which is the result of one's personality (Friedman & Schustack, 2006).

According to Soto, Kronauer and Liang (2016), the five-factor model of personality which is the most widely used model of personality structure, is a set of

five broad trait dimensions of extraversion, agreeableness, conscientiousness, neuroticism which is sometimes named by its polar opposite, emotional stability, and openness to experience. Highly extraverted individuals are assertive and sociable, rather than quiet and reserved. Agreeable individuals are cooperative and polite, rather than antagonistic and rude. Conscientious individuals are task focused and orderly, rather than distractible and disorganized. Neurotic individuals are prone to experiencing negative emotions, such as anxiety, depression, and irritation, rather than being emotionally resilient. Finally, highly open individuals have a broad rather than narrow range of interests, are sensitive rather than indifferent to art and beauty, and prefer novelty to routine. Many personality psychologists agree that its five domains capture the most important, basic individual differences in personality traits.

Zirpoli (2008), states that aggressive behavior can be conceptualized as the observable manifestation of aggression, which is defined as any act intended to cause harm, pain or injury to another. Aggression has been defined as an emotional state, which is accompanied with a desire to attack others driven by internal and/or external factors (Kruti & Melonashi, 2015). It is important to note that although aggressive behavior and violence are often thought of as synonymous, they are not. Violence is a form of physical assault, whereas aggressive behavior is a broader construct that includes physical, verbal, psychological and other means of causing harm. Violence is one form of aggressive behavior. Aggressive behavior does not necessarily include a physical component however, non-violent aggressive behavior can still lead to negative outcomes and is equally deserving of attention (Liu, Faan, Lewis & Evans, 2013).

According to Arnott (2008), there is general agreement, across a wide range of disciplines that in most cultures, males far outnumber females in terms of anti-social or aggressive behaviors. However, Batchelor (2005), states that over the past twenty years, there has been a growing perception that females are becoming more aggressive and that this aggression is becoming more violent and overt. He continues to state that this perception is supported by court statistics which indicate an actual increase in the number of females charged with serious offences of aggression.

Countries such as England, Scotland, Canada, United States of America (US), Australia and New Zealand have reported a significant increase in convictions. Carrington (2013), states that in the US, for instance, the crime trends data from 2000 to 2009 show nearly an 18% increase in arrests of females under the age of 18 for assaults compared to just a 0.2% increase for similarly aged males (US Department of Justice 2010). During this time frame, there were significantly higher increases in arrests of young females for drug abuse violations and driving under the influence of alcohol compared to males. Arrests of females under the age of 18 for disorderly conduct increased by 8% while the arrests of males in this age group decreased by 8% over the same time frame.

According to Arnall and Eagle (2009), in England and Wales, a major study of juvenile female offending between 2000 and 2005 found that the number of young female offenders had risen by approximately 18% and that the number of violent offences for juvenile females more than doubled over the same period. In the three year period between 2003 and 2006, rates of violence recorded for girls in England increased by 78%. In Australia, while boys still outnumber girls under Australian juvenile justice supervision, the gender gap is narrowing. The New South Wales



(NSW) Bureau of Crime Statistics and Research (1989-2012) reported that in Australia's largest jurisdiction, across a fifty two year period of trend data (1960-2012), the ratio of young women to young men appearing before the children's courts for criminal matters narrowed from around one in fourteen (1:14) in 1960 to around one in four (1:4) in 2012. According to the report, crime data for girls' violence has also been rising over the last two decades. The report continues to state that acts intended to cause injury (violent offences) accounted for around 36.5% of all the matters for which young females appeared before the children's courts in NSW in 2012, compared to just 13.8% in 1989 .

According to Hogg, (2010), in Africa, women played a central role during the 1994 Rwanda genocide against the Tutsi contrary to the dominant narrative of women as victims and bystanders. Many Hutu women exercised agency, in particular as perpetrators, to the murderous detriment of their community. He continues to state that in South Africa, there is a dearth of specific information regarding young women's offending behaviors and conviction rates. Carrington (2013), states that violent behavior by girls can be noted in some of the statistics provided by the 2002 National Youth Risk Behavior survey, which reveal that one in four girls (24.5%) was part of a physical fight six months prior to the survey. A surprising 4.6% of the girls also reveal that they had forced someone to have sex with them. Although these statistics do not necessarily prove that crime among girls is escalating, it does reveal that girls and young women are violent.

Okon, Momoh, Imhonde and Idiakheua (2011), state that aggression may result from the early socialization of children. Families play an important role in the socialization of children. Invariably, parental characteristics and imitation of parents

by children influence social development in subtle ways. The role of families in socialization is reflected in the literature of adolescents at risk (Dolmadge, 1995). This study demonstrates the importance of family processes and family dynamics in promoting and maintaining aggressive behaviors and attitudes, negative feelings of home, serious conflicts with parents and regular quarrels with parents are some of the home based factors reported to constitute risk for adolescent's aggressive behavior.

Weak parent-child attachment has been identified as an important factor to be considered with aggressive girls. In a path analysis, Brook, Whiteman, and Finch (1993), found that weak attachments were characteristic of the families of aggressive girls. Viale-Val and Sylvester (1993) found that the effects of coming from separated families were greater for girls than it was for boys as reflected in higher rates of aggression. Aggression within the home also plays an important role in promoting aggression with girls. This aggression takes two forms. The first is reflected in the rate of verbal aggression expressed between parents and their daughters. Garnefski and Okma (1996), noted that aggressive girls tended to come from homes characterized by high levels of verbal aggression. Peers can play a dual relationship in both the promotion and protection from violence among children and adolescents (Matthews, 1998). While boys see popularity increase within a select peer group when they express violence, girls seem to be the recipients of rejection at the expression of their aggression (Messer & Gross, 1994).

According to Grath and Elgar (2016), several conceptualizations of socio-economic status may predict aggressive behavior. These include an individual's social class or position in society, income, occupation, and education. They continue to state that several other contextual variables exist that may serve to mediate socio-

economic status with their effect on aggressive behavior problems in adolescents. These are abuse, neglect, exposure to violence, poor neighborhood environment, inadequate housing, chaotic home environment, poorer access to good schools, harsh or inconsistent parenting style, parental stress, including depression, anxiety, and isolation, and poor access to effective interventions. All of these variables are more common exposures among lower socio-economic status (SES) adolescents. However, they continue to state that it is critical to realize that aggressive behavior problems occur at all levels of society and these behavior problems are not restricted to the poor. They state that the majority of adolescents with behavior problems are not poor. Consequently, efforts to reduce aggressive behavior problems should not be restricted to families of lower SES only.

There has seldom been any doubt expressed that there are certain individuals who are predisposed to responding with aggression across a wide variety of interpersonal situations. Aggression as a variable of psychological study has the hallmarks of a deeply ingrained personality trait. They continue to state that investigations of the influences of personality variables were not prevalent until the late 1970s. The majority of these relatively recent studies have examined personality variables hypothesized to increase aggressive behavior. The studies suggest that whereas some findings have reveal that personality variables are positively associated with aggressive behavior under relatively neutral conditions as well as under provoking conditions, other results have shown that personality variables predict greater levels of aggressive behavior only under provocation (Bettencourt, Talley, Benjamin & Valentine, 2006). Burnette and Repucci (2009), state that despite rises in the proportion of women and girls within the violent offender population, the

development of aggression in girls is not as well understood or studied as that of boys. Female offenders in Kenya make up to about 18% of the total prison population with the number increasing from 10,857 to 18,112 in 2012. They also account for up to 4% of all violent crimes in Kenya. More women are getting increasingly involved in crimes that hitherto were male dominated (Kenya Police Crime Statistics, 2011). The opening of the Kamae Girls Borstal Institution, Kiambu County, which is set to house the first female juvenile jail in Kenya, has been informed by the changing times which have seen an increase in crimes by juvenile female offenders (Achuka, 2015). According to Artz and Nicholson (2002), no single factor can predict aggressive and violent behavior. The factors that contribute to the risk of aggressive and violent behavior among girls include both systemic (family, community and social context) and individual (personal) variables. Usually, many factors act in combination. Empirical studies and meta-analytic reviews have shown that the presence of violent cues, parental conflict and divorce, poverty, and the quality of parent-child relations are a few of the many situational variables that reliably influence aggressive behavior (Bettencourt, Talley, Benjamin & Valentine, 2006).

#### Statement of the problem

Jantjies and Popovac (2011), state that traditionally, female roles expect women to be nurturing, maternal, sensitive and emotionally driven. Toughness and aggression is considered as typical male behaviors hence, aggression among girls has not been regarded as a problem worth studying. A study on the relationship between personality traits and aggressive behavior has not been studied in relation to underage girls who are in Kenyan correctional institutions. Most research has focused on boys'

aggression hence there is a dearth of information on girls' aggression. This study will attempt to fill this knowledge gap.

#### Purpose of the study

The purpose of the study was to establish the relationship between personality traits and aggressive behavior among adolescent girls in correctional institutions, Kiambu County, Kenya.

#### Objectives of the study

##### *General objective*

The overall aim of the research was to establish the relationship between personality traits and aggressive behavior among adolescent girls in correctional institutions in Kiambu County, Kenya.

##### *Specific objectives*

- i. To find out the relationship between the parent's socio-economic status and respondent's aggressive behavior.
- ii. To determine the common forms of aggressive behavior among the respondents.
- iii. To determine the relationship between personality traits and aggressive behavior.

##### *Research questions*

- i. What is the relationship between parent's socio-economic status and respondent's aggressive behavior?
- ii. Which are the common forms of aggressive behavior of the respondents?
- iii. What is the relationship between personality traits and aggressive behavior among the respondents?

### Assumptions of the study

- i. The responses that will be received from the research participants will be accurate.
- ii. The participants have all been involved in aggressive behavior.

### Justification of the Study

There is a common belief in almost every culture in the world that men are more aggressive than women thus, aggressive behavior by women has been neglected by the society at large. However, findings from several research reveal that females are as aggressive as their male counterparts. Although, female aggression and conflict have always been a part of human society, it has remained under researched (Edalati, Redzuan, Mansor & Talib, 2010). Over the past few decades, juvenile justice statistics have documented an unprecedented increase in the rate of violent crime perpetrated by girls, a trend that has both alarmed and puzzled researchers, clinicians and social policy analysts (Moretti, Catchpole & Odgers, 2005). The review of several studies has shown that female aggression is an important worldwide problem, and it exists in all countries. Unfortunately till the present day, little attention has been given to fully understand female aggression. A good understanding of the problem can only be achieved if more research is done to study both men and women behavior. Without ample studies on female aggression, the problems related to it will not be clear (Edalati, et. al. 2010).

### Significance of the study

This study will contribute valuable knowledge to the field of aggression in girls. There is no study that has studied the relationship between personality traits and

aggressive behavior among adolescent girls in correctional institutions in Kenya. As such, it is expected to produce unavailable knowledge on this subject and form a useful material for reference to other researchers and readers in general. The study of aggressive behavior is important to the healthcare field due to the wide range of possible negative health outcomes, including youth violence, increased medical resource use such as emergency department, psychological, psychiatric and critical care, economic costs, and greater involvement in the criminal justice system (Liu et al, 2013).

A report from the World Health Organization (2002), found that 4,400 people die each year due to acts of violence underscoring the relevance of understanding and preventing aggressive behavior (Krug, Dahlberg, Mercy, Zwi, Lozano, 2002). Although boys still account for the majority of aggression by adolescents, aggression by adolescent girls has been increasing (Acoca, 1998). However, because aggressive adolescent girls are in the minority in many treatment facilities, they have often received treatment with boys in groups that are designed to meet the needs of boys. Even in schools, many psycho educational groups are more related to aggression by boys. Recent research has shown that some of the variables related to aggression in adolescent girls and boys are different. Thus, treatment and psycho educational groups for girls need to be designed with these differences in mind (Cummings, Hoffman & Leschied, 2004). The information and recommendations to be provided will be useful to clinicians, researchers, education sector, policy makers and the justice system, among others. This will help them develop gender-specific interventions for girls with the understanding of the role that female gender role socialization plays in aggression with girls' as they become the mothers of tomorrow.

### Scope of the study

This study was carried out at the Kamae Girls Borstal Institution and Kirigiti Girls Rehabilitation Centre, Kiambu County, Kenya. It was conducted through descriptive design.

### Limitations

In terms of limitations, adolescents tend to be suspicious with strangers who wish to gather information from them. Hence, they may not have been willing to give accurate and full information about their aggressive behavior for fear of consequences thus, presenting a limitation to the study. Further, the researcher faced other challenges such as time constraints due to the strict requirements of gaining access into these institutions. In terms of delimitations, the study confined itself to female adolescents at Kamae Girls and Kirigiti Girls correctional institutions in Kiambu County. Adolescent girls in the general population were not included in the study.

### Summary of chapter

This chapter has set the stage by presenting a background, stating the problem, and providing a justification for the study. It has also presented the purpose and objectives of the study as well as the research questions. It has further explained the significance of the study and outlined the assumptions, scope, limitations and delimitations. In addition it has provided the definition of main terms used in this proposal.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

This chapter reviews the literature pertinent to the subject of female adolescent aggression. It will provide an understanding related to aggression and violence in girls. The theoretical framework upon which the study will be grounded as well as the conceptual framework will also be included.

#### Rates of aggression and violence in girls

According to Chesney-Lind (2001), public concern about girls' aggression and violence has rarely been higher. In order to understand the renewed focus on girls' violence, it is important to review the crime trends that have drawn media attention to youth violence in general. Although the United States (U.S) had experienced relatively stable crime rates from the early 1980s to the mid-1990s, violent crime rates for juveniles soared during this period. By the mid-nineties, the grim statistics regarding adolescent violence gained national attention. Among the more sobering statistics was an approximately 70% increase in youth arrest rates for violent offenses and a nearly 300% growth in youth homicide arrest rates from 1983 to 1994 (Snyder & Sickmund, 1999). Soon the attention of the media was drawn to what some were calling an "epidemic of youth violence" (Cook & Laub, 1998).

The vast majority of violent perpetrators and victims during the youth violence epidemic were boys. However, while boys were the primary individuals driving the violence arrest statistics, by the mid-nineties boys' arrests began to decline while girls' did not. Between 1992 and 2003, girls' arrests increased 6.4% while arrests of boys actually decreased by 16.4%. While decreases were seen across many crimes of

violence for both boys and girls, the period saw a 7% increase in girls' arrests for aggravated assault during a period that showed a 29.1% decrease in boys' arrests for this offense. Likewise, arrests of girls for assault climbed an astonishing 40.9% when boys' arrests climbed by only 4.3% (Federal Bureau of Investigation, 2003).

Concomitant with these arrest increases were increases in girls' referrals to juvenile courts from police and other sources like school officials and parents. Between 1990 and 1999, the number of delinquency cases involving girls increased by 59 percent (from 250,000 to 398,600) compared to a 19 percent increase for males (from 1,066,900 to 1,274,500).

Looking at specific offense types, the growth in cases involving females outpaced the growth in cases involving males in all offense categories. For males and females, simple assault cases increased more than any other person offense (136% for females and 80% for males)" (Stahl, 2003). Most significantly, the detention of girls (a focus of three decades of "de-institutionalization efforts") suddenly increased. Between 1989 and 1998, girls detentions increased by 56% compared to a 20% increase seen in boy's detentions.

The large increase was tied to the growth in the number of delinquency cases involving females charged with person offenses (157%)" (Harms, 2002). More girls were arrested in the last decade, and they were being arrested for "nontraditional" offenses like assault and aggravated assault. It seemed that just when the public and policy makers were able to put aside their fears of the juvenile super predator, they had a new problem on their hands: violent girls (Chesney-Lind, 2001).

Jantjies and Popovac (2011), state that female violence and involvement in crime has always been an unacknowledged societal problem. The research focus is,

however, slowly moving towards females and crime since statistics reveal that females are now committing more violent crimes and are offending at much younger ages. For instance, data from the United States (US) on girls' involvement in crime shows an escalation in female offending. Data for 2009 from the Office of Juvenile Justice confirmed that young girls are the fastest growing cohort of offenders in the juvenile system. The escalation in female offending is growing twice as fast as that of their male counterparts.

More specifically, official US statistics show that between 1991 and 2000, charges for female offences increased by some 28% for serious crimes such as murder and robbery. Similar changes were noted in Canada. While male offending statistics remained relatively stable, female offending for both serious and minor crimes had increased by an overwhelming 66%. While Canadian data have suggested a slight decrease in the official rate of adolescent violence during the past decade, statistics have also indicated a 66% increase in criminal charges for female adolescents (Canadian Centre for Justice Statistics, 2002).

The increase in female incarceration in South Africa has not been as dramatic as that in the US or Canada; however, there was a marked increase in female inmates from 2,535 in March 1995 to 3,652 in March 2010 (Jantjies & Popovac, 2011). The area of female inmates had not received much attention in Kenya due to the relatively small population of female offenders as compared to their male counterparts. However, the rapid increase in the number of female offenders has occasioned the need for viable structures for treatment of female offenders.

Female offenders in Kenya make up to about 18% of the total prison population with the number increasing from 10,857 to 18,112 in 2012. They also

account for up to 4% of all violent crimes in Kenya. More women are getting increasingly involved in crimes that hitherto were male dominated (Kenya Crime Statistics Kenya, 2011).

#### Socio-economic status and aggressive behavior

According to Krieger, Williams and Moss (1997), socio-economic status (SES) is an economic and sociological combined total measure of an individual or family's economic and social position in relation to others, based on income, education and occupation. Socio-economic status is typically broken into three categories, high SES, middle SES, and low SES. Mejovsek, Budavonak, and Sucur (2000), state that many studies have reached the conclusion that there is a consistent relationship between low socio-economic family status and the aggressive behavior of children and adolescents. Dodge et al., (1994), found a relationship between low socioeconomic family status and aggressive behavior of children and also aggressive behavior and violent offences in adolescence.

Rahman, Bairagi and Kumar (2014), state that education plays a role in income. Median earnings increase with each level of education. Higher levels of education are associated with better economic and psychological outcomes which include more income, more control, and greater social support and networking. Education plays a major role in skill sets for acquiring jobs, as well as specific qualities that stratify people with higher SES from lower SES.

Rahman and Huq (2005), studied to explore aggression in adolescent boys and girls as related to socio-economic status (SES) and residential background in Bangladesh. They investigated 240 respondents and found that respondents with high SES expressed more aggression than the middle and low SES. Respondents with

middle SES expressed more aggression than the low SES and girls expressed more aggression than boys. Taylor (2006) found that lower and middle class respondents report feeling more anger than their upper class counterparts. Gallo and Matthews (2003) studied socio-economic class-based patterns in emotion and found lower-class individuals experience more negative emotions, such as anxiety, sadness, and anger, than upper class individuals. They posit that aggressive behavior may serve an adaptive function hence adolescents from low-income communities characterized by economic and social hardships may engage in aggression as a means of survival.

### Forms of Aggression

There are various forms of aggression which refer to how the aggressive act is expressed. These include physical, verbal, anger, hostility or relational forms of aggression (Bushman & Huesman, 2010). Physical aggression involves harming others physically such as hitting, kicking, stabbing, or shooting them. Verbal aggression involves harming others with words such as yelling, screaming, swearing and name calling. Relational aggression also called social aggression is defined as intentionally harming another person's social relationships, feelings of acceptance, or inclusion within a group.

Some examples of relational aggression include saying bad things about people behind their backs, withdrawing affection to get what one wants, excluding others from their circle of friends, and giving someone silent treatment. Research shows that social pain may linger longer than physical pain (Chen, Williams, Fitness, & Newton, 2008).

Adolescent anger and aggression are an important concern in recent years, given the incidents of school violence. In particular, the mental health and educational

communities have sought to understand the factors related to adolescent anger and aggression. Anger and aggression can potentially result in negative emotional, physical, behavioral, educational, and therapeutic outcomes. Anger has been associated with serious harm in adolescents as well. In the worst case scenario, homicides may result. Impulsivity and anger may contribute significantly to adolescent suicidal behavior. If an adolescent's anger occurs with aggression, a host of additional negative consequences may ensue. Aside from immediate physical harm, possible long-term outcomes include peer difficulties early school withdrawal, future antisocial behavior, and substance abuse (Fives, Kong, Grace, Fuller & DiGiuseppe,, 2011).

The different forms of aggression can be expressed directly or indirectly. With direct aggression, the victim is physically present while with indirect aggression, the victim is absent. Aggression may also be active or passive. With active aggression, the aggressor responds in a hurtful manner while with passive aggression the aggressor fails to respond in a helpful manner. Direct and active forms of aggression can be quite risky, leading to injury or even death. Thus, most people prefer to use indirect and passive forms of aggression instead (Lagerspetz, Bjorkqvist, & Peltonen, 1988). Adolescent girls often perpetrate relational aggression such as gossiping and spreading rumors about others, attempting to ruin relationships and manipulating and excluding others.

In a study that examined individual, peer and parental contextual factors, girls who used high levels of relational forms of aggression showed the worst adjustment problems notwithstanding the level of physical aggression they displayed. They also showed low levels of caring and empathy toward others, characteristics associated

with a callous-unemotional lack of remorse or empathy, callous use of others, shallow or deficient emotions and interpersonal style. Relational aggression, on its own, may be particularly important to look at in girls, because these aggressive tactics appear to negatively affect girls (Centifanti, Fanti, Thomson, Demetriou, Anastassiou-Hadjicharalambous, 2015).

### Personality and aggressive behavior

Anitei and Dumitrache (2013), state that personality traits can affect behavior and can be associated with many aspects. Substantial evidence from the personality literature suggests that the Big Five personality traits of extraversion, neuroticism/emotional stability, agreeableness, conscientiousness, and openness are associated with a wide range of aggressive and violent behaviors (John, Robins & Pervin, 2008).

The concept of personality is one of the most comprehensive concepts and lacks a common definition. Personality psychology is the branch of psychology that aims to describe the whole person, considering both universal traits and individual differences. Roberts (2009) defines personality traits as “the relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances” Burger (2006), defines personality as consisting of substantial behavioral patterns of the individual and intra-personal processes. The consistent behavior model means that a person performs the same actions at any time, in any situation, while the intra-personal processes means that all emotional, cognitive and motivational processes that have an influence on our actions and feelings.

For a long time, the study of personality has been handicapped due to the lack of a systematic taxonomy of constructs to represent individual differences. However, this situation began to change when some of the main dimensions of personality were agreed upon. Psychometric studies and personality inventories have identified the Big Five major personality dimensions namely, agreeableness, extraversion, conscientiousness, neuroticism and openness to experience (Bettencourt, Talley, Benjamin, & Valentine, 2006). Roberts (2009), states that personality psychology aims to describe the whole person, considering both universal traits and individual differences. He defines personality traits as the relatively enduring patterns of thoughts, feelings, and behaviors that reflect the tendency to respond in certain ways under certain circumstances.

Gleason, Jensen-Campbell and Richardson (2004), state that the agreeableness dimension has often been associated with aggressive behavior. Agreeableness evaluates an individual's relationships and effort to live in social agreement. Agreeableness is a social personality trait that positively correlates to relationship quality and leadership skills. It refers to behaviors directed toward the needs of others, including aspects such as trust, honesty, and altruism (Bettencourt, Talley, Benjamin, & Valentine, 2006). This dimension is related to the maintenance of positive interpersonal relationships and minimization of conflicts (Benet-Martínez & John, 1998). Miller et al. (2012) conducted a study to assess the association between the dimensions of the General Aggression Model and aggression. The results showed that the agreeableness factor was negatively related with aggressive behavior. Theories and studies also suggest that there is a strong connection between aggression and the neuroticism factor (Bettencourt et al., 2006). In a study conducted by Sharpe



and Desai (2001), the neuroticism factor was positively related to aggressive behavior, whereas the conscientiousness dimension was negatively associated with aggression.

According to Anitei and Dumitrache (2013), neuroticism/emotional stability is the susceptibility to experience negative emotions and vulnerability. The neuroticism dimension is connected to the characteristics of people prone to psychological distress, which tend to have unrealistic ideas and low tolerance for frustration and suffer from anxiety, depression, hostility, impulsivity, self-criticism, and vulnerability. People with neurotic tendencies, complain of at least one of many psychosomatic indications, such as chronic fatigue, headaches, insomnia, vision disability or anorexia. Neuroticism is typically tested as emotional stability, meaning lower scores translate to greater neuroticism and higher scores translate to better emotional stability. The conscientiousness factor is related to the degree of persistence, control, organization and motivation of the individual to achieve goals. Features most commonly associates with conscientiousness include reliability, care, thoroughness, responsibility, organization, planning, hard work, guidance, achievement. The personality traits that greatly influence conscientiousness are knowledgeable, persistent and intelligent. In this research, extraversion was negatively correlated with aggressive behavior. Extraversion is related to positive emotions and sociability (Benet-Martínez & John, 1998). It is characterized by sociability, assertiveness, impulsivity and activity. Extrovert people are adventurous, active, talkative, cheerful, optimistic and energetic, enjoy fun and action (Anitei & Dumitrache, 2013).

In an endeavor to understand the relationship between the General Aggression model and physical aggression and whether these have direct and/or indirect effects on aggressive attitudes and emotions (integrating hostility and anger), Bartlett and Anderson (2012) concluded a survey with 1,220 college students. The results showed that the openness and agreeableness factors were directly and indirectly related to physical aggression, but were only indirectly associated with aggressive attitudes and violent behavior. The openness factor is related to giving importance to new experiences and exploratory behavior. Openness to experience is a trait of people characterized by creativity, imagination, liberalism in thoughts and acts who embrace new perspectives and multi-dimensional ways of thinking and mental curiosity. In addition it is marked by open mindedness, intelligence and artistic sensibility (Anitei & Dumitrache, 2013). People who obtain high scores on this factor tend to prefer new activities and emotions (Benet-Martínez & John, 1998). The neuroticism dimension was directly and indirectly related - via aggressive emotions - to physical aggression, but not to violent behavior. A recent survey was conducted with a sample of offenders and the results showed that the agreeableness and conscientiousness factors were significant predictors of an aggressive life history (Housie et al., 2013). Once again, this shows the importance of the five major personality factors for the understanding of aggression.

#### Theoretical framework

According to Dewall and Anderson (2011), psychologists have proposed a variety of theories to understand why people sometimes behave aggressively. Some examples include frustration-aggression theory, socio-ecological models, cognitive neo-association theory, social learning theory, script theory, excitation transfer theory

and social interaction theory. Each theory offers crucial insight into understanding specific reasons why people behave aggressively. However, these mini theories do not provide an overarching framework for understanding human aggression and violence. This study will use The General Aggression Model (GAM) proposed by Anderson and Bushman (2002). It was designed to integrate the existing mini-theories of aggression into a unified whole.

The General Aggression Model draws from these more specific theories to create an integrative and comprehensive framework for the study of human aggression (Anderson & Bushman, 2002). It improves upon previous theories as explanations for aggression in four important ways. First, it is more parsimonious than its theoretical precursors. Second, it better explains aggression based on multiple motives. Third, it provides a multidimensional classification scheme for human aggression that allows one to focus on multiple aspects influencing aggressive behavior instead of the narrow scope provided by previous theories. Fourth, it allows parents, teachers, therapists, and policymakers to make better decisions concerning child rearing by giving a broader view of developmental issues (DeWall, Anderson & Bushman, 2011). The General Aggression Model adopts a dynamic, episodic, “person in the situation” approach to explain aggression. It separates each episode of aggressive behavior into three phases: inputs, routes, and outcomes. The first phase (inputs) focuses on the influence of person factors and situational variables. The second phase (routes) focuses on how input variables influence affect, cognition, and arousal to create an individual’s present internal state. The third phase (outcomes) focuses on how that present internal state influences appraisal and decision processes

that then lead to either thoughtful or impulsive action (DeWall, Anderson & Bushman,2011).

According to Allen and Anderson (2016), the first phase of the GAM postulates that person factors and situational input variables may increase or decrease the likelihood of aggressive behavior by influencing a person's present internal state which includes affect, cognitions, and arousal. Person factors are personal characteristics or traits that influence how a person reacts in a situation. Most are relatively stable across time, situations, or both, to the extent that a person consistently uses the same scripts, schemata, and other knowledge structures (Mischel & Shoda,1995). Thus, personality can be considered the sum of an individual's knowledge structures. Aggressive knowledge structures predispose people toward aggression. Individuals with hostile attribution, perception, and expectation biases are more likely to aggress than people without those biases. That is because such people tend to attribute ambiguous behavior in hostile ways, which makes them angry and desirous of retaliation. Similarly, people who believe that aggression is common and acceptable are more likely to aggress than those who believe aggression is uncommon and unacceptable. Further, the General Aggression Model is currently the most common approach used to explain personality in empirical research. It describes personality as a key variable for understanding personal factors that influence aggressive behavior (Allen & Anderson, 2016).

#### Conceptual Framework

The conceptual framework for this study was adapted from Cavalanti and Pimentel (2016). They state that the General Aggression model postulates that personality traits as well as other environmental factors may increase or decrease the

likelihood of aggressive behavior and that many personality factors have been identified as risk factors for aggression. These include high trait anger, low extraversion, high neuroticism or low emotional stability, low agreeableness, and low conscientiousness. Aggressive emotions, beliefs and attitudes also predispose individuals towards aggression. Further, environmental factors such as maladaptive families or parenting, difficult life conditions, aggressive and antisocial peer groups are likely to increase the likelihood of developing an aggressive personality (Allen, Anderson & Bushman, 2016). According to Idamokoro (2005), adolescents live in different family structures such as single mother, step-parent, dual parent, mother with extended family or extended family only. This variation influences both the way parents interact with adolescents and their behaviors. Moyle (2000) opined that the most important influences in adolescents' lives are their family environment. Adolescents who are exposed to dysfunctional or unstable family lives often engage in aggressive and criminal behavior.

In the conceptual framework the independent variables are the personality traits namely, extraversion, neuroticism which is also tested as emotional stability, agreeableness, conscientiousness, and openness to experience. The dependent variables are the four sub-scales of aggressive behavior as postulated by Buss and Perry (1992). These are physical aggression, verbal aggression, anger and hostility. The mediating variables are the socio-economic factors family type, education and occupation which also influence personality and aggressive behavior. The General Aggression Theory posits that for an individual to manifest aggressive behavior, aggressive emotions, beliefs and attitudes must be present. The conceptual

framework also explains that personality traits and socio-economic factors do not always lead to aggressive behavior thus an individual can be non-aggressive.

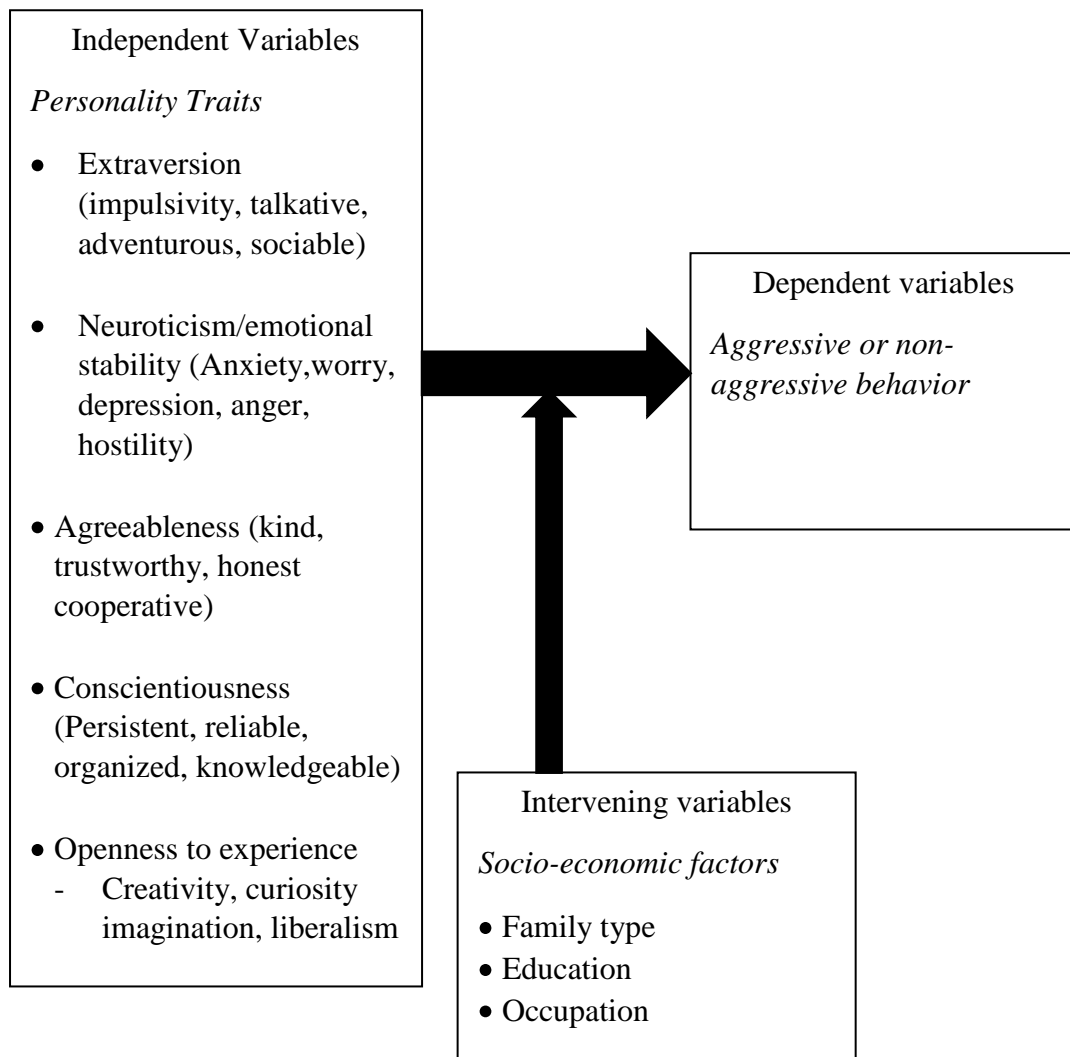


Figure 2. 1 Conceptual Framework

Source: Adapted from Cavalanti & Pimentel (2016).

## Summary of Chapter

This chapter has reviewed literature on female aggression. It has presented the concept of aggression. This includes providing an overview of the rates of aggression among female adolescents as well as the forms of aggression that female adolescents often perpetrate. Further, literature showing the relationship between socio-economic status and aggressive behavior as well as personality and aggressive behavior has been reviewed in this section. Lastly, the theoretical and conceptual framework has been provided.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### Introduction

This section describes the methods and processes used to conduct the research. The chapter describes the research design, location of the study, target population, sampling procedures and sample size, methods of data collection, research instruments, data analysis and logistical and ethical considerations.

#### Research Design

This study adopted a correlation design. A correlation research design enables the researcher to assess the degree of relationship that exists between two or more variables. It analyses the correlation between two or more variables (Kombo and Tromp, 2016). Therefore, this research design was applicable for the study because of the need to establish the relationship between personality traits and aggressive behavior.

#### Location of the study

The research was conducted at the Kamae Girls Borstal Institution and at Kirigiti Girls Rehabilitation Center in Kiambu County. Kamae Girls Borstal Institution is located on Kamiti Road in the agricultural county of Kiambu. It neighbors Kahawa zone and is approximately 10 kilometers from Kiambu town and 17km from Nairobi, Central Business District. Kamae Girls Borstal Institution was opened in July 2016 and is the first juvenile jail for female offenders in Kenya. Kirigiti Girls is located on the Kiambu/Kamiti/Ruiru road in Kiambu County.



### Target population

The target population was the female adolescents at the Kamae Girls Borstal Institution and Kirigiti Girls Rehabilitation Centre, Kiambu Count, Kenya.

### Sampling procedure and sample size

The sampling procedure adopted at Kirigiti Girls was simple random sampling. It is a procedure in which each subject in the defined population has an equal and independent chance of being selected as a member of the sample (Kombo & Tromp, 2016). The number of girls who participated from Kirigiti were 61. The total population in this institution at the time of the study was 82. The sample represents 75% of the population. According to Brase & Brase, (2008), this sample size is considered adequate because it satisfies the threshold for purposes of data analysis.

At Kamae Girls, a census study of 25 girls was conducted. A census study occurs if the entire population is very small or it is reasonable to include the entire population (for other reasons). It is called a census sample because data is gathered on every member of the population (Kombo & Tromp, 2016). This population was considered small to provide valid and reliable representation hence the inclusion of Kirigiti Girls Rehabilitation Centre to make the data richer and more representative. The institutions are correlated in that they are both correctional institutions for female adolescents who possess similar characteristics. In addition, most of the girls at Kamae have been referred from Kirigiti Girls Rehabilitation Centre.

### Methods of Data collection

This involved the pilot study followed by actual data collection and procedure.

### *Instrument Pre-testing*

For the purpose of testing the validity and reliability of the tool, the questionnaire was pre-tested among 6 girls at the Kiambu Children's Remand Prison which is adjacent to Kirigiti Girls Rehabilitation Centre. Refinement of the tool was undertaken after the pre-testing taking into consideration the observations noted by the researcher during pre-testing. Girls selected for pre-testing did not participate in the main study.

### *Validity and reliability of questionnaire tool*

Data collected was evaluated for validity using Cronbach's Alpha. An alpha value of 0.7 and beyond is considered highly reliable (Kothari, 2004). A reliability analysis done during pretest gave a Cronbach's alpha of 0.953 (Table 1).

*Table 3.1 Reliability analysis for questionnaire tool*

Cronbach's Alpha	N of Items
.953	29

Source: Survey data, 2017

### *Data collection procedures*

The researcher sought the requisite academic approval from Pan African Christian University. The researcher then proceeded to the National Commission for Science, Technology and Innovation and obtained a permit to conduct the study. Thereafter, the researcher proceeded to the Prisons Department and the Children's Services Department to seek approval to access Kamae Girl's Borstal Institution. And Kirigiti Girl's Rehabilitation Centre respectively. Once all the approvals had been obtained, the researcher proceeded to make appointments with the institutional heads in both institutions and discussed the modalities of collecting the data. The

researcher was assigned institutional staff who assisted in planning for the availability of the girls for the data collection exercise. Consequently, specific appointments were organized for the exercise in each of the two institutions.

On the appointed day, and in each of the institutions, the girls were assembled in one room where the institutional staff introduced the researcher and the research assistant to the girls. The researcher then explained the purpose of the research and what was required of the girls. The researcher further explained that participation was purely on a voluntary basis with no inconveniences to respondents. Their right to choose to volunteer, their right to refuse to answer any questions and their right to end the questionnaire at any time was also emphasized. The respondents were also accorded opportunities to ask questions regarding the study.

Once the girls were satisfied with the purpose of the study, the researcher with the help of one research assistant distributed the questionnaires. The questions had been translated into Kiswahili taking into consideration that the population to be studied may be semi-illiterate. This was to make it easier for the respondents to understand the questions asked. The instrument was physically administered by the researcher, who remained present throughout to clarify any issues or questions that the respondents raised. Upon completion by the respondents, the questionnaires were collected the same day and coded in readiness for data analysis.

### *Research Instruments*

The research instruments used were the Buss and Perry (1992) aggression questionnaire and the International Personality Item Pool (Goldberg, 1999). The Buss and Perry aggression questionnaire was used to measure aggression while the International Personality Item Pool was used to measure personality. The Buss and

Perry (1992) aggression questionnaire is one of the most widely used questionnaires to measure aggression. It assesses aggression by means of four subscales: physical aggression (nine items), verbal aggression (five items), anger (seven items) and hostility (eight items). The questionnaire is made up of 29 items, yielding a minimum score of 29 points and a maximum score of 145.

A Likert-type response format was used, which ranged from 1 (*extremely uncharacteristic of me*) to 5 (*extremely characteristic of me*) (Valdivia, Fonseca, Eduardo, González, Giraldez, 2014). The Buss and Perry Aggression Questionnaire has been validated in different countries. In the Spanish context, Andreu, Peña and Graña (2002) validated the instrument with a sample of 15- to 25-year-olds, and Vigil-Colet, Lorenzo-Seva, Codorniu-Raga and Morales (2005) also validated it with a sample of 237 people, aged 16 to 84. Both confirmed that this instrument is appropriate for measuring physical and verbal aggression, anger and hostility. Similar results were reported by Porras, Salamero and Sender (2001-2002). Also noteworthy is an adaptation of the instrument that was tested on a group of pre-adolescents and adolescents, which confirmed the four-dimensional structure of the questionnaire (Santisteban, Alvarado, & Recio, 2007).

Since its inception in 1996, the use of items and scales from the International Personality Item Pool (IPIP) by Goldberg (1999) has increased dramatically. This 50-item measure comprises of short sentences describing various behaviors associated with each of the Big Five personality dimensions, extraversion, conscientiousness, agreeableness, neuroticism and openness. Each Big Five scale contains 10 items paired with a 5-point Likert response scale (1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4=agree, and 5=strongly agree) (Guenole &

Chernyshenko, 2005). The minimum score is 50 points while the maximum score is 250. The questionnaire-based individual differences approach to the study of personality searches for a universally applicable set of traits that can explain the inter-individual variation in personality. It is now agreed by many personality researchers that the five broad dimensions account for a large proportion of the variance in self-report personality questionnaires. Because the Big Five personality dimensions are found to be robust across cultures, languages, gender and age groups, it provided a common foundation for comparing results from different studies which, in turn, galvanized personality research around the world (Guenole & Chernyshenko, 2005).

#### Data Analysis

Data was analyzed using the Statistical Package for Social Sciences (SPSS) version 21. During data analysis, independent variables were the personality traits of extraversion, conscientiousness, agreeableness, neuroticism/emotional stability and openness. Dependent variables were the different sub-scales of aggression which include physical aggression, verbal aggression, anger and hostility. Frequency tables were used to capture the demographics of the respondents surveyed. Behavioral characteristics were determined using Likert scales to determine the respondents' personality traits. Personality types were calculated according to the International Personality Item Pool (Goldberg, 1999). Chi-square was used to test if there was any significant difference in the characteristics of Kirigiti and Kamae Girl's. Spearman's correlation analysis were used to assess the level of association between personality traits and various aspects of aggression. These findings are presented using mainly tables.

### Ethical considerations

Prior to embarking on this research, the proposal was presented to the supervisor for academic approval. Ethical considerations included obtaining a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) which is the government agency that regulates all research activities in Kenya. In addition, permission to conduct the study at Kamae Girls Borstal Institution was sought from the Prisons Department while that for Kirigiti Girls Rehabilitation was sought from the Children's Services Department. The researcher observed research ethics including obtaining informed consent from research participants and protecting their confidentiality.

### Summary of Chapter

This chapter has explained the methodology used for collection and analysis of the data. It has detailed the research design, the population, sample and sampling method, type of data, data collection methods and procedures, pre-testing, data analysis plan and ethical considerations. The findings of the study are presented in the next chapter.

CHAPTER FOUR  
RESULTS AND DISCUSSION

Introduction

This chapter presents the findings and discussions of the study. The chapter begins by providing a demographic background of the respondents. Thereafter, the findings are organized according to the objectives of the study, which are to find out the relationship between the caregiver's socio-economic status and respondent's aggressive behavior, to identify the common forms of aggressive behavior among the respondents and to determine the relationship between personality traits and aggressive behavior.

Demographic Characteristics of the respondents

The background characteristics included here are age of the respondents, education level and the reason for which the girls were placed under rehabilitation at the two centers.

*Table 4.1 Age of the respondents*

Age (Years)	Kirigiti		Kamae		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
12	1	2%	0	0%	1	1%
13	7	12%	0	0%	7	8%
14	13	22%	1	4%	14	16%
15	18	30%	4	16%	22	26%
16	12	20%	8	32%	20	24%
17	9	15%	12	48%	21	25%
Total	60	100%	25	100%	85	100%
Chi square	(X <sup>2</sup> =6.87, df=5, p=0.005)					

Results in table 4.1 reveal that while 13.4% of the girls at Kirigiti rehabilitation center were between ages 12 and 13 years, there were no girls at Kamae in this age category. At Kamae 80% of the girls were between the ages of 16 and 17 while 35% of the girls at Kirigiti Rehabilitation Centre were in this age categories. There was a significant difference in age categories between girls at Kirigiti Centre and Kamae Girl's ( $X^2=6.87$ ,  $df=5$ ,  $p=0.005$ ) implying that Kamae Centre receives much older girls when compared to Kirigiti Centre.

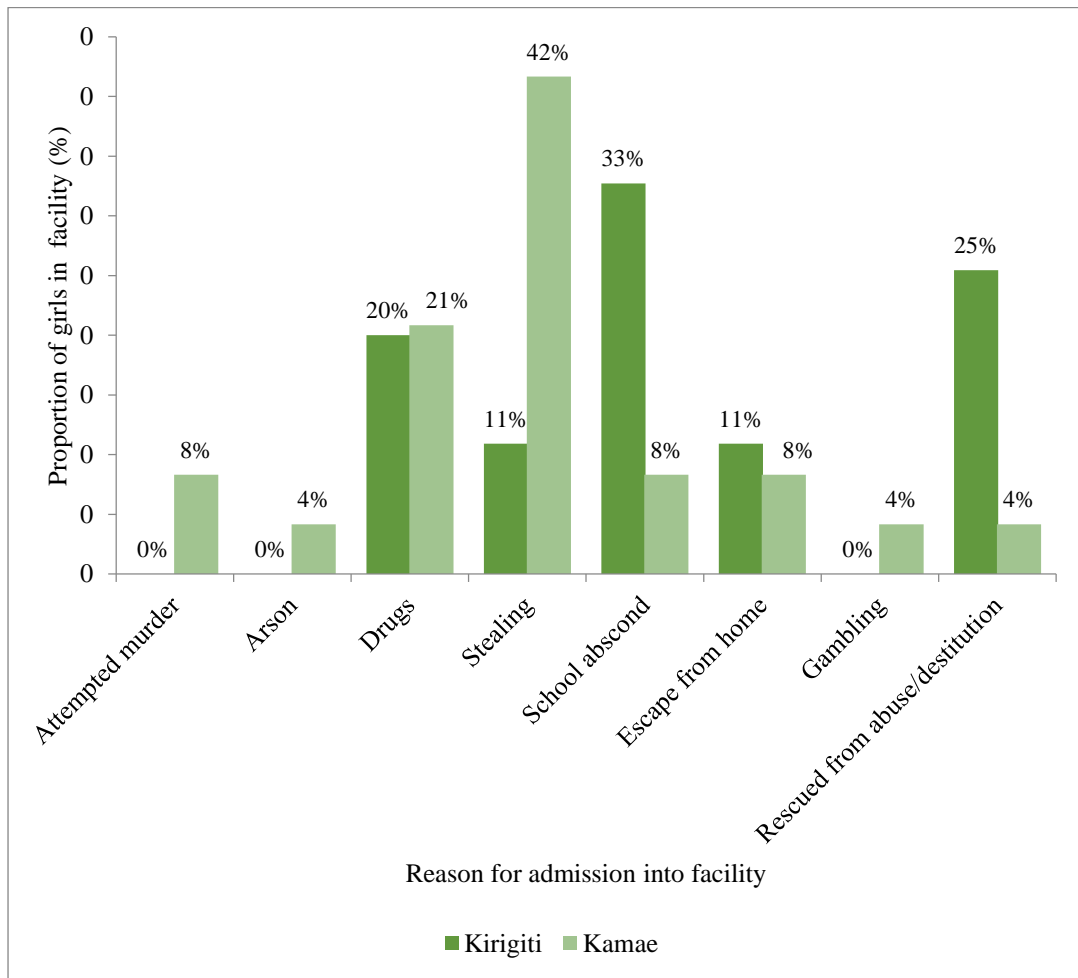
*Table 4.2 Education level of respondents*

Education level	Kirigiti		Kamae		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No formal education	2	3%	3	12%	5	6%
Primary	54	90%	16	64%	70	82%
Secondary	3	5%	6	24%	9	11%
Vocational training	1	2%	0	0%	1	1%
Total	60	100%	25	100%	85	100%
Chi square	$X^2=10.14$ , $df=3$ , $p=0.17$					

Results in Table 4.2 reveal that while 90% of the girls in Kirigiti Centre were in primary school, only 64% of those in Kamae were in primary school. on the other hand, 24% of the girls in Kamae Centre were in secondary school while, only 5% of those in Kirigiti were in secondary school. The education level of girls at the two centers, Kirigiti and Kamae, were not significantly different ( $X^2=10.14$ ,  $df=3$ ,  $p=0.17$ ) implying that Kamae and Kirigiti centers received girls with similar education level.



*Reasons for the girls' admission into the institutions*



*Figure 4. 1 Reasons for the girls' admission into the institutions*

Survey data, 2017

Results in Figure 4.1 show the different reasons for the girl's admission into Kirigiti and Kamae institutions. The reasons include attempted murder (5%), arson (3%), drug abuse which seems to be the same for both institutions at 20%. Other reasons include stealing at 10% for Kirigiti and 40% for Kamae. Absconding from school, running away from home and gambling are also included. Some of the girls have been brought into the institution as a rescue from abuse or destitution.

### Socio-economic status of caregivers

The first objective of the study was to find out the relationship between the caregiver's socio-economic status and respondents aggressive behavior. Information was therefore sought on the caregivers' family type, level of education and sources of income.

*Table 4. 3 Family types*

Family types	Kirigiti	Kamae	Total
Nuclear family	26(43%)	13(52%)	39(46%)
Single mother	18(30%)	5(20%)	23(27%)
Single father	3(5%)	0(0%)	3(4%)
Uncle/auntie	5(8%)	0(0%)	5(6%)
Step parent	1(2%)	3(12%)	4(5%)
Children's home	2(3%)	0(0%)	2(2%)
Sibling	1(2%)	1(4%)	2(2%)
Extended family	4(7%)	3(12%)	7(8%)
Total	60(100%)	25(100%)	85(100%)

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$X^2=10.13, df=7, p=18$

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Table 4.3 shows the Family types for the girls in the two centers where 46% of the girls were from nuclear families, 27% were from single mothers, additionally, 6% lived with uncles and aunties, 5% lived with step parents, 2% in children homes while 8% lived with the extended families. The results further reveal that there was no significant relationship between family types for the girls in both Kirigiti and Kamae Centres ( $X^2=7.54, df=5, p=0.18$ ).

*Table 4. 4 Female caregiver's education level*

Female caregiver's education	Kirigiti	Kamae	Total
No formal education	1 (2%)	2 (9%)	3 (4%)
Primary	16 (28%)	5 (22%)	21 (26%)
Secondary	8 (14%)	7 (30%)	15 (19%)
Vocational training	1 (2%)	0 (0%)	1 (1%)
College	3 (5%)	3 (13%)	6 (8%)
Degree	15 (26%)	2 (9%)	17 (21%)
Don't know	13 (23%)	4 (17%)	17 (21%)
Total	57 (100%)	23 (100%)	80 (100%)

$X^2=9.05$ ,  $df=6$ ,  $p=0.17$

Table 4.4 shows the female caregiver's education level. There was no significant difference in the female caregiver's educational level for girls in both Kamae and Kirigiti ( $X^2=9.05$ ,  $df=6$ ,  $p=0.17$ ).

*Table 4. 5 Male caregiver's education level*

Male caregiver's education	Kirigiti	Kamae	Total
No formal education	0 (0%)	1 (6%)	1 (1.5%)
Primary	9 (18%)	3 (17%)	12 (17.6%)
Secondary	6 (12%)	6 (33%)	12 (17.6%)
Vocational training	2 (4%)	0 (0%)	2 (2.9%)
College	6 (12%)	4 (22%)	10 (14.7%)
Degree	14 (28%)	1 (6%)	15 (22.1%)
Don't know	13 (26%)	3 (17%)	16 (23.5%)
Total	50 (100%)	18 (100%)	68 (100%)

$X^2=11.38$ ,  $df=6$ ,  $p=0.077$

There was no significant difference for the education level of the male caregivers as revealed by a chi square test ( $X^2=11.38$ ,  $df=6$ ,  $p=0.077$ ). However, it can be noted that for Kirigiti 28% of them had degree level of education while only 6% had the same education level at Kamae.

*Table 4.6 Female caregiver's income source*

Female caregivers' income source	Kirigiti	Kamae	Total
Unemployed	1 (2%)	2 (8%)	3 (4%)
Permanent employment	8 (14%)	5 (21%)	13 (16%)
Small business	22 (39%)	8 (33%)	30 (38%)
Large business	13 (23%)	2 (8%)	15 (19%)
Farming	6 (11%)	3 (13%)	9 (11%)
Casual labour	5 (9%)	3 (13%)	8 (10%)
Other	1 (2%)	1 (4%)	2 (3%)
Total	56 (100%)	24 (100%)	80 (100%)

$X^2=5.15$ ,  $df=6$ ,  $p=0.52$

Table 4.6 shows female caregivers' source of income where 16% of all the female caregiver's were in permanent employment, 38% in small business, 19% in large businesses while 11% were in farming. Notably, 4% were unemployed while 10% did casual jobs. The results further reveal that there was no significant difference ( $X^2=5.15$ ,  $df=6$ ,  $p=0.52$ ) between the caregivers of the adolescents at Kirigiti and Kamae Centres.

*Table 4. 7 Male caregiver's income source*

Male caregivers' occupation	Kirigiti	Kamae	Total
Permanent employment	11 (22%)	5 (24%)	16 (23%)
Small business	11 (22%)	5 (24%)	16 (23%)
Large business	15 (31%)	4 (19%)	19 (27%)
Farming	10 (20%)	2 (10%)	12 (17%)
Casual labour	1 (2%)	3 (14%)	4 (6%)
Other	1 (2%)	2 (10%)	3 (4%)
Total	49 (100%)	21 (100%)	70 (100%)

$X^2=7.54$ ,  $df=5$ ,  $p=0.18$

Results in Table 4.7 shows the income sources for the male caregivers where 23% of them were in permanent employment, 23% in small business, 27% in large businesses, 17% in farming, while 6% did casual jobs. There was no significant variation between the income sources for the male caregivers of the girls in Kirigiti Centre and those in Kamae Centre ( $X^2=7.54$ ,  $df=5$ ,  $p=0.18$ ).

#### Forms of aggression amongst the girls under rehabilitation

The second objective was to identify the common forms of aggression among the adolescent girls. To achieve this, the girls were required to fill out the Aggression Questionnaire which was used to determine their aggressive behavior.

*Aggression status of girl's at Kirigiti and Kamae Girl's*

*Table 4. 8 Aggression status of the girls at Kirigiti and Kamae*

Aggression	Centre	Aggression status		$X^2$	df	p value
		Aggressive	Not aggressive			
Physical	Kirigiti	32 (52%)	29 (48%)	.089	1	0.765
	Kamae	14 (56%)	11 (44%)			
	Total	46(54%)	40(46%)			
Verbal	Kirigiti	35 (57%)	26 (43%)	2.146	1	0.143
	Kamae	10 (40%)	15 (60%)			
	Total	45(52%)	41(48%)			
Anger	Kirigiti	27 (44%)	34 (56%)	1.105	1	0.293
	Kamae	8 (32%)	17 (68%)			
	Total	35(41%)	51(59%)			
Hostility	Kirigiti	39 (64%)	22 (36%)	.000	1	0.995
	Kamae	16 (64%)	9 (36%)			
	Total	55 (64%)	31(36%)			

On physical aggression, the results show that 52% of the girls in Kirigiti and 56% of the girls in Kamae were physically aggressive. The results further reveal that there was no significant relationship between the girls at Kirigiti and Kamae with a score of, ( $\chi^2= 0.089$ ,  $df=1$ ,  $N=86$ ,  $p=0.765$ ). This finding implied that there was no significant variation in the composition of the girls in both centers as far as physical aggression was concerned.

These findings support the arguments of Chesney-Lind, (2001), that more girls are being arrested for “nontraditional” offenses like assault and aggravated assault and that the issue of aggressive and violent girls is a new problem on the hands of public and policy makers.

In addition Fares, Ramirez, Cabrera, Lozano and Salas (2011), state that girls who lack verbal skills are likely to use physical aggression, such as hitting, pushing and kicking.

On verbal aggression, the results were verbally aggressive 57% of the girls in Kirigiti and 40% of the girls in Kamae were verbally aggressive. Therefore a greater proportion of girls in Kirigiti that were verbally aggressive when compared to Kamae. However this difference was not statistically significant ( $\chi^2=2.146$ ,  $df=1$ ,  $N=86$ ,  $p=0.143$ ) implying that there was no significant variation in the composition of the girls in both centers as far as verbal aggression was concerned.

On the issue of anger, the results show that there was a marginally higher proportion of girls at Kirigiti who displayed anger aggression (44%) compared to those in Kamae Girls (32%). However, this difference was not significant ( $\chi^2 =1.105$ ,  $df=1$ ,  $N=86$ ,  $p=0.293$ ) implying that the composition of the girls in both centers as far as Anger aggression was concerned was similar.

These findings are supported by Fares, et.al. (2011), who state that girls preferred to express anger and pursue social goals in ways that may prominently feature social aggression rather than physical aggression and other overt expressions of anger.

A high proportion (64%) of the girls in both Kirigiti and Kamae registered hostility form of aggression. The difference between the two centers was therefore not significant ( $\chi^2=0$ ,  $df=1$ ,  $N=86$ ,  $p=0.995$ ) implying that the composition of the girls in both centers as far as hostility was concerned was similar.

The findings on the aggression status of the girls at Kirigiti and Kamae suggest that girls are increasingly involved in aggressive behavior. These findings are supported by Achuka (2015) who states that girls in Kenya are becoming increasingly involved in aggressive and violent activities. The report states that some adolescent girls barely in their 15's have joined criminal gangs such as the dreaded Gaza gang, thereby causing havoc to residents in Nairobi's Eastlands area. In addition, the opening of the Kamae Girls Borstal Institution which is set to house the first female juvenile jail in Kenya has been informed by the changing times which have seen an increase in crimes by juvenile female offenders.

#### Correlation between the various categories of aggressive behavior

*Table 4. 9 Correlation between the various categories of aggressive behavior*

Aggressive behaviour	Spearman's rho	Physical aggression
Verbal aggression	Correlation Coefficient	-.543**
	Sig. (2-tailed)	.000
	N	86
Anger	Correlation Coefficient	.448**
	Sig. (2-tailed)	.000
	N	86
Hostility	Correlation Coefficient	-.392**
	Sig. (2-tailed)	.000
	N	86

Findings in Table 4.9 show that there was a strong negative correlation between physical aggression and verbal aggression among the girls which was statistically significant ( $r = -0.543$ ,  $n=86$ ,  $p=0.000$ ). This finding implied that 54.3% of the girls manifesting physical aggression were not likely to manifest verbal aggression and vice versa.

Findings further show that there was a strong positive correlation between physical aggression and anger among the girls which was statistically significant ( $r =$



0.448, n=86, p=0.000). This finding implied that 44.8% of the girls manifesting physical aggression would simultaneously manifest anger and vice versa.

Findings also show that there was a strong negative correlation between physical aggression and hostility among the girls which was statistically significant ( $r = -0.392$ , n=86, p=0.000). This finding implied that 39.2% of the girls manifesting physical aggression would not manifest hostility and vice versa.

#### Correlation between aggression and Socio-economic status

A Spearman's correlation analysis was carried out to determine the relationship between aggression and Socio-economic status.

*Table 4.10 Correlation between aggression and Socio-economic status*

Socio-economic status	Spearman's rho	Aggression
	Correlation Coefficient	.008
Family type	Sig. (2-tailed)	.945
	N	86
Female caregivers education level	Correlation Coefficient	-.133
	Sig. (2-tailed)	.240
	N	86
Male caregivers education level	Correlation Coefficient	.033
	Sig. (2-tailed)	.791
	N	86
Female caregivers main income source	Correlation Coefficient	-.021
	Sig. (2-tailed)	.854
	N	86
Male caregivers main income source	Correlation Coefficient	.103
	Sig. (2-tailed)	.396
	N	86

The results reveal that there was a very weak positive correlation between family type and forms of aggression. However the relationship was not statistically significant. ( $r = 0.008$ , n=86, p=0.945). This implied that the type of family that

raised the girls does not in any way influence the manifestation of any particular form of aggression amongst the girls.

The results also show that there was a very weak negative correlation between the female caregiver's education level and the forms of aggression manifested in the girls. The relationship was however not statistically significant ( $r=-0.133$ ,  $n=86$ ,  $p=0.240$ ). The result implied that the manifestation of any particular form of aggression amongst the girls was not in any way influenced by the education level of the female caregiver who raised the respective girls.

There was a very weak positive correlation between the male caregiver's education level and the forms of aggression manifested by the girls. The relationship was however not statistically significant ( $r = 0.033$ ,  $n=86$ ,  $p=0.791$ ). The result implied that the manifestation of any particular form of aggression amongst the girls was not in any way influenced by the education level of the male caregiver who raised the respective girls.

There was a very weak negative correlation between the female caregiver's source of income and the forms of aggression manifested by the girls. The relationship was however not statistically significant ( $r=-0.021$ ,  $n=86$ ,  $p=0.854$ ). The result implied that the manifestation of any particular form of aggression amongst the girls was not in any way influenced by the income source of the female caregiver who raised the respective girls.

There was a very weak positive correlation between the male caregiver's source of income and the forms of aggression manifested by the girls. The relationship was however not statistically significant ( $r=0.103$ ,  $n=86$ ,  $p=0.396$ ). This finding implied that the manifestation of any particular form of aggression amongst

the girls was not in any way influenced by the income source of the male caregiver who raised the respective girls.

Previous studies have shown that the relationship between socio-economic status and adolescent aggressive behavior is not well-established and research has produced mixed findings, particularly in the area of adolescent aggressive behavior. Only eight studies, all addressing adolescent aggression have reported overall a small significant relationship with socio-economic status (Piotrowska, Stride, Croft & Rowe, 2015). Despite these mixed findings Becker, Deckers, Dohmen, Falk and Kosse, (2012) state that socio-economic status is an important predictor of personality.

#### Personality traits and aggression

The third objective was to establish the relationship between personality traits and aggression. The International Personality Item Pool was used to determine the girls' personality traits which were then co-related with the respective forms of aggression.

*Table 4. 11 Personality trait comparison for Kirigiti and Kamae Girls*

Personality	Kirigiti		Kamae		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Agreeable	3	5%	2	8%	5	6%
Agreeable and conscientious	1	2%	1	4%	2	2%
Agreeable and open	2	3%	0	0%	2	2%
Conscientious	28	46%	18	72%	46	53%
Conscientious and open	1	2%	0	0%	1	1%
Emotionally stable	4	7%	0	0%	4	5%
Emotionally stable and open	1	2%	0	0%	1	1%
Extraverted	7	11%	0	0%	7	8%
Extraverted and Conscientious	0	0%	2	8%	2	2%
Extraverted and open	0	0%	1	4%	1	1%
Open	14	23%	1	4%	15	17%
Total	61	100%	25	100%	86	100%

The results in Table 4.11 above shows that 28 (46%) of the girls at Kirigiti and 18(72%) of the girls at Kamae were of conscientious type. The agreeableness type were 5 (8%) and 3 (12%) at Kirigiti and Kamae respectively. The emotional stability Type were, 5 (8%) at Kirigiti. The extraverted girls were 7 (11%) and 2 (12%) from Kirigiti and Kamae respectively. The openness type were 14(22%) and 2(4%) from Kirigiti and Kamae respectively.

This result supports studies by Anitei and Dumitrache (2013), who found out that personality traits can affect behavior and can be associated with many aspects. John, Robins & Pervin,( 2008) also established that all the Big Five personality traits of extraversion, neuroticism/emotional stability, agreeableness, conscientiousness, and openness are all associated with a wide range of aggressive and violent behaviors. Gleason, Jensen-Campbell and Richardson (2004), also found out that the agreeableness dimension has often been associated with aggressive behavior.

Spearman’s correlation analysis was carried out to determine the relationship between the personality traits and forms of aggression.

*Extraversion personality trait and aggression*

*Table 4. 12 Correlation between extraversion personality trait and aggression*

Personality trait		Aggression			
		Physical	Verbal	Anger	Hostility
Extraversion	Correlation Coefficient	-.051	.282	-.254	.012
	Sig. (2-tailed)	.643	.008	.018	.915
	N	86	86	86	86

Spearman’s correlation analysis was used to find the relationships. Results in Table 4.12 reveal that there was no significant association between the girls’ extraversion level and their physical aggression level ( $r=-0.051$ ,  $n=86$ ,  $p=.643$ ).

According to Benet-Martínez & John, (1998), extraversion is related to positive emotions and sociability it is characterized by sociability, assertiveness, impulsivity and activity.

The analysis further showed that adolescent extraversion had a significant positive correlation with verbal aggression ( $r=0.282$ ,  $n=86$ ,  $p=0.008$ ) implying that the more extraverted a teenage girl was the more the verbal aggression they were likely to have. Extrovert people are adventurous, active, talkative, cheerful, optimistic and energetic, enjoy fun and action (Anitei & Dumitrache, 2013).

There was a significant negative correlation between adolescent's extraversion and anger ( $r=-0.254$ ,  $n=86$ ,  $p=0.018$ ), an indication that the more extraverted a teenage girl was the less the anger aggression they were likely to have. On the other hand, there was no significant correlation between teenage extraversion and teenager's level of hostility ( $r=0.012$ ,  $n=86$ ,  $p=0.915$ ) implying that the level of extraversion was not necessarily an indicator of a teenager's level of hostility. This finding is supported by Hampson, Tildesley, Andrews, Luyckx and Mroczek (2010), who state that extraverted adolescents are not likely to express hostility aggression due to the sociability nature of extraversion trait.

*Agreeableness personality trait and aggression*

*Table 4. 13 Correlation between agreeable personality trait and aggression*

Personality trait		Aggression Form			
		Physical	Verbal	Anger	Hostility
	Correlation Coefficient	.001	-.105	-.094	-.085
Agreeableness	Sig. (2-tailed)	.996	.338	.388	.437
	N	86	86	86	86

The results show that the girls' level of agreeableness was not significantly correlated to the manifestation of physical aggression ( $r=0.001$ ,  $n=86$ ,  $p=0.996$ ). The result further reveal that there was no significant correlation between the level of agreeableness and verbal aggression amongst the teenage girls ( $r=-0.105$ ,  $n=86$ ,  $p=0.338$ ). The relationship between agreeableness and verbal aggression among the girls was also not significant ( $r=-0.094$ ,  $n=86$ ,  $p=0.388$ ). Further, result reveal that there was no significant relationship between agreeableness and hostility level among the teenage girls ( $r=-0.085$ ,  $n=86$ ,  $p=0.437$ ). Miller et. al. (2012) conducted a study to assess the association between the dimensions of the General Aggression Model and aggression. The results reveal that agreeableness was negatively associated with aggressive behavior.

*Conscientiousness personality trait and aggression*

*Table 4. 14 Correlation between Conscientious personality trait and aggression*

Personality		Aggression form			
		Physical	Verbal	Anger	Hostility
Conscientiousness	Correlation Coefficient	-.063	.071	-.233*	.133
	Sig. (2-tailed)	.562	.518	.031	.223
	N	86	86	86	86

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

The results in Table 4.14 reveal that that conscientiousness type did not have a significant relationship with physical aggression ( $r=-0.063$ ,  $n=86$ ,  $p=0.562$ ). In addition, conscientiousness did not have a significant correlation with verbal aggression ( $r=-0.071$ ,  $n=86$ ,  $p=0.518$ ). There was also no significant correlation between girls' conscientiousness and hostility level ( $r=0.133$ ,  $n=86$ ,  $p=0.223$ ).

However, conscientiousness was found to have a significant negative correlation with the level of anger aggression among the teenage girls ( $r=-0.233$ ,  $n=86$ ,  $p=0.031$ ), an indication that teenagers that were more conscientious were likely to have less anger aggression. People with high levels of conscientiousness have better personal control in stressful situations, they tend to be more careful, have good organization, effective planning and perseverance which make them responsible thus decrease the risk of aggressive behavior (Amitei & Dumitrache, 2013).

*Emotionally stable personality trait and aggression*

*Table 4. 15 Correlation between Emotionally stable personality trait and aggression*

Personality		Aggression form			
		Physical	Verbal	Anger	Hostility
Emotional stability	Correlation Coefficient	-.257*	-.241*	-.283**	-.369**
	Sig. (2-tailed)	.017	.026	.008	<0.001
	N	86	86	86	86

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

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

The correlation analysis showed that emotional stability had a significant negative correlation with physical aggression ( $r=-0.257$ ,  $n=86$ ,  $p=0.017$ ), an indication that emotionally stable girls were less likely to display aggressive behavior.

Emotional stability and verbal aggression also had a significant negative correlation ( $r=-0.241$ ,  $n=86$ ,  $p=0.026$ ). Emotional stability also reveal a significant negative correlation with hostility level ( $r=-0.369$ ,  $n=86$ ,  $p<0.001$ ), probably suggesting that emotionally stable girls were likely to be less hostile. Research shows that people with low levels of emotional stability tend to evaluate situations as more stressful than those with greater emotional stability (Amutei & Dumitrache, 2013). This

suggests that girls with low levels of emotional stability are easily angered, hostile and insecure and are likely to have an increased risk of aggressive behavior.

*Open personality trait and aggression*

*Table 4. 16 Correlation between Open personality trait and aggression*

Personality		Aggression form			
		Physical	Verbal	Anger	Hostility
Openness	Correlation Coefficient	-.035	.043	-.057	.018
	Sig. (2-tailed)	.751	.695	.602	.868
	N	86	86	86	86

Girls level of openness had no significant correlation with their physical aggression level ( $r=-0.035$ ,  $n=86$ ,  $p=0.751$ ). Verbal aggression level did not manifest a significant relationship with level of the girls openness ( $r=0.043$ ,  $n=86$ ,  $p=0.695$ ). The level of openness did not have a significant correlation with the teenage girl's anger level ( $r=-0.057$ ,  $n=86$ ,  $p=0.868$ ). In addition to this, teenage girls level of hostility did not have a significant correlation with the hostility level ( $r=0.018$ ,  $n=86$ ,  $p=0.868$ ), indicating no relationship between hostility and aggression. These findings do not agree with those by Bartlett and Anderson (2012) who conducted a survey on 1,220 students. The results revealed that openness was directly related to aggression especially aggressive attitudes and violent behavior. Openness is characterized by exploratory behavior, imagination, liberalism in thoughts and curiosity. This finding suggests that girls with high levels of openness are likely to engage in aggressive behavior as they explore new experiences out of curiosity.



## Summary of Chapter

This chapter has presented the findings and discussions of the study. The chapter begins by providing the demographic characteristics of the girls in Kamae and Kirigiti. It then gives the findings of the study according to the objectives. It has provided the findings regarding socio-economic status of the caregivers, forms of aggression amongst the female adolescents, relationship between caregiver's socio-economic status and female adolescent's aggressive behavior and lastly the relationship between the personality traits and aggression.

## CHAPTER FIVE

### SUMMARY OF FINDINGS, RECOMMENDATIONS, AREAS FOR FURTHER RESEARCH AND CONCLUSIONS

#### Introduction

This chapter presents the summary of findings, conclusion drawn from the results and the recommendations by the researcher. The main objective of this study was to establish the relationship between personality traits and aggressive behavior among adolescent girls in correctional institutions in Kiambu County. The specific objectives were to find out the relationship between socio-economic status and aggressive behavior, to identify the most common forms of aggression among the adolescent girls and to establish the relationship between personality traits and aggressive behavior.

#### Summary of Findings

##### *Socio-economic status of caregivers and girl's aggressive behavior*

The first objective was to find out the relationship between the caregiver's socio-economic status and the girls' aggressive behavior. On family type, the findings established that 46% of the girls were from nuclear families, 27% were from single mothers, additionally, 6% lived with uncles and aunties, 5% lived with step parents, 2% in children homes while 8% lived with the extended families. There was no significant relationship between family types for the girls in both Kirigiti and Kamae centers. These findings disagree with those of Vanassche, Sodermans, Matthijs and Swicegood (2014), who state that adolescents from single parent family, step- family or other family type are more prone to aggressive behavior and substance use than adolescents from intact families. This suggests that family types do not have

a significant relationship with aggressive behavior hence girls from any family type are likely to manifest aggressive or non-aggressive behavior.

The greatest proportion of the female care givers had primary level education while the greatest proportion of the male caregivers had degree level of education. There was no significant association between the education level of both female and male caregivers and the incidences of adolescent crime. This finding does not agree with previous findings by Rahman, Bairagi and Kumar , (2014) who state that higher levels of education are associated with better psychological outcomes hence lower levels of aggression. The greatest proportion of both male and female caregivers was in small businesses. There was no significant association between the income source of both female and male caregivers and the incidences of adolescent crime. There was no significant variation in the composition of the girls in both centers as far as the socio economic factors were concerned.

There was a very weak positive correlation between family type, male caregiver's education, male caregiver's source of income and forms of aggression. However the correlation was not statistically significant. A very weak negative correlation existed between the female caregiver's source of income and the forms of aggression manifested by the girls. However, the correlation was also not statistically significant. As such the manifestation of any particular form of aggression amongst the girls was not in any way influenced by the type of family that raised the girls, the education level of the female and male caregiver.

Previous studies have shown that the relationship between socio-economic status and adolescent mental health is not well-established and research has produced mixed findings, particularly in the area of adolescent aggressive behavior. Only eight

studies, all addressing adolescent aggression have reported overall a small significant relationship with socio-economic status (Piotrowska, Stride, Croft & Rowe, 2015). Despite these mixed findings Becker, Deckers, Dohmen, Falk and Kosse, (2012). state that socio-economic status is an important predictor of personality.

#### *Forms of aggression amongst the girls under rehabilitation*

The second objective was to identify the common forms of aggressive behavior among the respondents. Findings showed that 54% of the girls were physically aggressive, 52% were verbally aggressive, 41% manifested anger aggression while 64% registered hostility form of aggression. There was no significant difference between the girls in the two centers as far as aggression was concerned.

A strong negative correlation was established between physical aggression and verbal aggression among the girls which was statistically significant which implied that 54.3% of the girls manifesting physical aggression were not likely to manifest verbal aggression and vice versa. A strong positive correlation between physical aggression and anger was also established among the girls which implied that 44.8% of the girls manifesting physical aggression would simultaneously manifest anger and vice versa. Further, a strong negative correlation was established between physical aggression and hostility among the girls which implied that 39.2% of the girls manifesting physical aggression would not manifest hostility and vice versa.

The findings showed that the most common form of aggression among the girls was hostility followed by physical aggression, Verbal and anger aggression was the third and fourth most common form of aggression. These findings disagree with

those of Cummings, et. al (2004) who states that the common forms of aggression expressed by girls is verbal aggression.

#### *Personality traits and aggression*

The third objective was to establish the relationship between personality traits and aggression. It was established that 54% of the girls were of conscientious type while 10% were of the agreeable personality trait. The emotionally stable were 6% while the extraverted were 11%. The open personality type were 17%. The findings agreed with John, Robins & Pervin, (2008) who state that all the Big Five personality traits of extraversion, neuroticism/emotional stability, agreeableness, conscientiousness, and openness are all associated with a wide range of aggressive and violent behaviors. It was further established that adolescent extraversion had a significant positive correlation with verbal aggression and that teenage extraversion was negatively correlated to anger. There was no significant association between the girls' extraversion level and their physical aggression level. There was no significant correlation between girls extraversion and their level of physical aggression or hostility.

#### Implications of the study

Aggressive behavior is a societal phenomenon. It is becoming increasingly prevalent among adolescent girls. If not checked, it can spread to every fabric of society affecting not only the girls and their families but also generations to come. Girls' aggression is under studied. This study has made contribution in this area by establishing the relationship between personality traits and aggressive behavior in adolescent girls in correctional institutions. The study found that personality traits are an important predictor of aggressive behavior. Further, DeWall, Anderson &

Bushman, (2011), state that previous studies have shown that for aggressive behavior to be manifested, aggressive emotions, beliefs and attitudes should exist. The General Aggression Model used in this study postulates that every instance of aggression involves a person, with all their characteristics, personality, attitudes, beliefs, emotions, behavioral scripts biology and genes. It is therefore, possible that the girls' aggressive behavior is preceded by aggressive emotions, beliefs and attitudes. Aggression brings tremendous costs to individuals, families and society as a whole due to its negative health outcomes. The implication is that the juvenile justice system, policy makers, mental health professionals and other stakeholders, may need to revise their policies and programs to include understanding personality characteristics and how they affect behavior.

The main aim of this study was to establish the relationship between personality traits and aggressive behavior. This study makes valuable contribution to research on understanding girl's aggression as most research has focused on boys aggression. It will be of contribution to the justice system, policy makers, the mental health profession and other researchers. The information provided will help them come up with programs and policies that are relevant to girl's aggression.

### Conclusion

The study had three objectives. The main objective was to establish the relationship between personality traits and aggressive behavior among adolescent girls in correctional institutions in Kiambu County. The second objective was to determine the relationship between socio-economic status and aggressive behavior while the third one was to identify the common forms of aggression among the girls. From the findings of the study emotional stability personality trait was found to have

a significant correlation with the level of anger. The girls had a negative correlation between level of extraversion and the level of anger aggression. Agreeableness and conscientiousness showed a negative association with aggression. From the findings it can be deduced that personality traits have a relationship with aggressive behavior hence the goal and objectives of this study have been met.

### Recommendations

Based on the findings of the study the following recommendations were made.

- i. While some form of guidance and counseling is provided in the institutions under study, it can be enhanced. It is recommended that a more structured form of therapy be adopted. This will take into account the various factors such as personality, socio-economic and other factors that influence the girls aggressive behavior so as to gain a better understanding of the girls aggression in order to be able to support them appropriately.
- ii. It is recommended that counseling psychologists be brought on board to work together with the juvenile justice system and other stakeholders, in coming up with a family based therapeutic approach that can be tailored to meet the unique needs of the girls and their caregivers.
- iii. It is recommended that an organized approach that draws on clinical knowledge, a thorough assessment and diagnostic interview be conducted on the girls. This will be useful in understanding better the nature of the aggressive behavior and risk factors which will be important in the treatment interventions.
- iv. It is recommended that stakeholders come up with programs to help the girls gain life skills and other skills such as hairdressing, cookery and dressmaking.

Such skills can be useful to the girls as they prepare to be released back to the society.

- v. It is recommended that the institutions partner with government and non-governmental organizations, individuals, churches and other well-wishers who could be willing to mentor and help the girls to pursue education and other God given talents they have to help them realize their full potential.

#### Areas for further research

The study identifies three areas for further research.

- i. A similar study could be replicated in a general population such as a school setting.
- ii. A study could be undertaken to compare one personality trait with one form of aggressive behavior.
- iii. Further research could be conducted establishing the relationship between personality traits, family and other contextual factors and aggressive behavior among adolescent girls.



## REFERENCES

- Achuka, V. (July 4, 2015). *Everybody will die some day! Meet the gangster girls of Nairobi's Eastlands*. Daily Nation.
- Acoca, L., (1998). Outside/inside: The violation of American girls at home, on the streets, and in the juvenile justice system. *Crime and Delinquency*, 44:561-589.
- Allen, J. J., Anderson, C. A., (2016). General Aggression Model. *International Encyclopedia of Media Effects*. Wiley-Blackwell
- Anderson, C. A., Bushman, B. (2002). Human aggression. *Annual Review of Psychology*, 53, (1).
- Anitei M., Dumitrache A., (2013). Correlative study between personality traits and aggression at young driver - a pilot study *International Journal of Traffic and Transportation Psychology*, 1 (2).
- Arnott, R., (2008). Are girls behaving like boys? *Kairaranga* (9), 2.
- Arnall, E., Eagle, S., (2009). *Girls and offending- patterns, perceptions and interventions*. London: Youth Justice Board for England and Wales, Home Office.
- Artz S., Nicholson, D., (2002). *Aggressive girls*. Family violence prevention unit, Health Canada.
- Barlett, C. P., Anderson, C. A. (2012). Direct and indirect relations between the big 5 personality traits and aggressive and violent behavior. *Personality and Individual Differences*, 52(8).
- Batchelor, S. (2005). 'Prove me the bam!': Victimization and agency in the lives of young women who commit violent offences. *Probation Journal, NAPO* 52 (4).
- Becker, A., Deckers, T., Dohmen, T., Falk, A., & Kosse, F., 2012, The Relationship between Economic Preferences and Psychological Personality Measures. *Annual Review of Economics*, 4(1), 453-478.
- Benet-Martínez, V., John, O. P. (1998). Los cinco grandes across cultures and ethnic groups: Multitrait multimethod analyses of the big five in Spain and English. *Journal of Personality and Social Psychology*, 75(3), 729-750
- Bettencourt, B.A., Talley, A., Benjamin, A.J., & Valentine, J. (2006). Personality and Aggressive Behavior Under Provoking and Neutral Conditions: A Meta-Analytic Review. *Psychological Bulletin*, 132, 5.

- Brase, C. H. & Brase, C. P. (2008). *Understanding basic statistics, brief*. New York: Cengage Learning.
- Brook, J. S., Whiteman, M., Finch, S. J., & Cohen, P. (1996). Young adult drug use and delinquency: Childhood antecedents and adolescent mediators. *Journal of the American Academy of Child Adolescent Psychiatry*, 35, 1584-1592.
- Bradley, R. H., Corwyn, R. F. (2002). Socioeconomic Status And Child Development. *Annual Review of Psychology*, 99.
- Brown, J., Burman, M., Tisdall, K., & Batchelor, S. (2002). *Girls and violence: A view from the girls project*. Retrieved May 15, 2017, from [www.gla.ac.uk/girls and violence/ publications.html](http://www.gla.ac.uk/girls%20and%20violence/publications.html)
- Burger, J. M. (2006). *Personality*. Istanbul: Kaknüs Publishing.
- Burnette M. L., Repucci, N.D. (2009). Childhood abuse and aggression in girls: The contribution of borderline personality disorder. *Development and Psychopathology*, 21, 309–31.
- Bushman, B., Huesman, R., (2010). *Aggression handbook of social psychology*. Michigan: John Wiley & Sons, Inc.
- Canadian Centre for Justice Statistics. (2002). Youth court statistics. Ottawa, ON: Author.
- Carrington, K., (2013). Girls and violence: The Case for a feminist theory of female violence. *International Journal for Crime, Justice and social democracy* 2, (2).
- Cavalcanti, J. G., Pimentel, C. E., (2016). Personality and aggression: A contribution of the General Aggression Model. *Estudos De Psicologia (Campinas)*, 33 (3).
- Centifanti, L., Fanti, K., Thomson, N., 1, Demetriou, V., Anastassiou-Hadjicharalambous, X., (2015). Types of relational aggression in girls are differentiated by callous-unemotional traits, peers and parental over control. *Behavioral. Sciences*, 5, 518-536
- Chen, Z., Williams, K. D., Fitness, J., Newton, N. C., (2008). When hurt won't heal: Exploring the capacity to relive social pain. *Psychological Science*, 19 (8).
- Chesney-Lind, M., (2001). Are girls closing the gender gap in violence? *Criminal Justice Magazine* (16), 1.
- Cook, P.J. Laub, J.H. (1998). *The unprecedented epidemic in youth violence*. Chicago: The University of Chicago Press.

- Cummings, A.L., Hoffman, S., Leschied, A.W., (2004). A Psychoeducational group for aggressive adolescent girls. *The Journal for Specialists in Group Work*, 29, (3)
- DeCoster, J. (1998). Overview of factor analysis. Retrieved May 15, 2017, from <http://www.stat-help.com/notes.html>
- DeWall C. N., Anderson C.A., Bushman, B.J., (2011). The General Aggression Model: Theoretical extensions to violence. *Psychology of Violence*, 1, (3).
- Dodge, K.A., Pettit, G.S., Bates, J.E. (1994): Socialization mediators of the relation between socio-economic status and child conduct problems. *Child Development*, 65, 649-665.
- Dolmadge, W. R. (1995). One less brick in the wall: The myths of youth violence and unsafe schools. *Education and Law Journal*, 7, 185-207.
- Edalati, A., Redzuan, M. R., (2010). Women physical aggression (a review). *Journal of American Science*, 6 (6)
- Fares, Ramirez, Cabrera, Lozano and Salas (2011). Justification of Physical and Verbal Aggression in Uruguayan Children and Adolescents. *The Open Psychology Journal*, 4.
- Federal Bureau of Investigation. (2003). *Crime in the U.S. 2002*. Washington, D.C.: U.S. Department of Justice.
- Fives C.J., Kong, Grace, Fuller J.R., DiGiuseppe R. (2011). Anger, Aggression, and Irrational Beliefs in Adolescents. *Cognitive Therapy & Research*, 35.
- Friedman, H., S., Schustack, M., W., (2006). "Personality classic theories and modern research". 3<sup>rd</sup> ed., New Delhi: Dorling Kindersley Private Limited.
- Gallo, L. C. and Matthews, K. A. (2003). Understanding the association between socioeconomic status and physical health: Do negative emotions play a role? *Psychological Bulletin*, 29.
- Garnefski, N., & Okma, S. (1996). Addiction-risk and aggressive/criminal behavior in adolescence: Influence of family, school and peers. *Journal of Adolescence*, 19, 503-512.
- Gleason, K. A., Jensen-Campbell, A., & Richardson, D. S. (2004). Agreeableness as a predictor of aggression in adolescence. *Aggressive Behavior*, 30(1)
- G.O.K. (2011). *Crime Statistics in Kenya. Police: Annual Report*. Nairobi: Government Printers.

- Goldberg, L. R., Johnson, J. A., Eber, H. W., Hogan, R., Ashton, M., Cloninger, R., Gough, H. G. (2006). The international personality item pool and the future of public-domain personality measures. *Journal of Research in Personality* 40, 84-96
- Goldberg, L. R. (1999a). A broad-bandwidth, public domain, personality inventory measuring the lower-level facets of several five-factor models. *Personality psychology* 7, pp. 7–28).
- McGrath, P.J., Elgar, F. (2015). Effects of Socio-Economic Status on Behavioral Problems. *International Encyclopedia of the Social & Behavioral Sciences*, 2 (2).
- Guenole, N., Chernyshenko, O.S. (2005). The suitability of Goldberg's Big Five IPIP Personality Markers in New Zealand: A Dimensionality, Bias and Criterion Validity Evaluation. *New Zealand Journal of Psychology Vol 34*, 2
- Harms, P. (2002, January). Detention in delinquency cases, 1989-1998. *OJJDP Fact Sheet #01* Washington, D.C.: U.S. Department of Justice.
- Hogg, N., (2010). Women's participation in the Rwandan genocide: mothers or monsters? *International Review of the Red Cross*, 92 (2)
- Housie, J., Gilbert, F., Simpson, K., Daffern, M. (2013). An examination of the relationship between personality and aggression using the general aggression and five factor models. *Aggressive Behavior*, 40 (2).
- Hampson, Tildesley, Andrews, Luyckx and Mroczek (2010). The relation in chance of hostility and sociability during childhood to substance use in mid adolescence. *Journal of Research in Personality*, 44
- Jantjies, J., Popovac, M., (2011). Gender dynamics and girls' perceptions of crime and violence. *Centre for Justice and Crime Prevention (CJCP) Issue Paper No. 11*.
- Kombo, D.K., Tromp, D.L.(2016). *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publications Africa
- Kothari, C. R. (2004). *Research Methodology*. New Delhi: New Age international.
- Krieger, N., Williams, D. R. and Moss, N. E. (1997). Measuring Social Class in U.S. Public Health; Research: Concepts, Methodologies, and Guidelines. *Annual Review of Public Health*, 18, 341–378.
- Krug, E., Dahlberg, L., Mercy, J., Zwi, A., Lozano, R., (2002). *World Report on Violence and Health*. Geneva: World Health Organization

- Kruti I., Melonashi, E., (2015). Aggression among Albanian adolescents. *International Journal of Academic Research and Reflection* (3), 6,
- Lagerspetz, K. M., Bjorkqvist, K., Peltonen, T. (1988). Is indirect aggression typical of females? Gender differences in aggressiveness in 11-12 year old children. *Aggressive Behavior*, 14, 403-414.
- Leschied, A., Cummings, A., Van Brunshot, M., Cunningham, A., & Saunders, A. (2000). *Female adolescent aggression: A review of the literature and the correlates of aggression (user report No. 2000-04)*. Ottawa: Solicitor General Canada.
- Liu, J., Faan, R., Lewis, G., Evans, L. (2013). Understanding aggressive behavior across the lifespan. *Journal of Psychiatric and Mental Health Nursing*, 20 (2).
- Martin, R., Choi, K., et al. (1999). Style of anger expression: Relation to expressivity, personality, and health. *Personality and Social Psychology Bulletin*, 25, 1196-1207.
- Mathews, F. (1998). Violent and aggressive girls. *Journal of Child and Youth Care*, 11, 1-23.
- Messer, S. C., & Gross, A. M. (1994). Childhood depression and aggression: A covariance structure analysis. *Behavior Research and Therapy*, 32, 663-677.
- Mejovsek, M., Budavonak, A., Sucur, Z., (2000). The Relationship Between Inmates Aggression And Their Socioeconomic and Family Characteristics. *Croatian Review of Rehabilitation Research* 36, 1.
- Miller, J. D., Zeichner, A., & Wilson, L. F. (2012). Personality correlates of aggression: Evidence from measures of the five-factor model, UPPS model of impulsivity, and BIS/BAS. *Journal of Interpersonal Violence*, 20(10).
- Mischel, W., Shoda, Y. (1995). A cognitive-affective system theory of personality: Reconceptualizing situations, dispositions, dynamics, and invariance in personality structure. *Psychological Review*, 102 (2).
- Moffitt, T., Caspi, A., Rutter, M., & Silva, P. (2001). *Sex differences in anti-social behavior*. Cambridge: Cambridge University Press.
- Moretti, M., Catchpole, R., Odgers, C., (2005). The dark side of girlhood: recent trends, risk factors and trajectories to aggression and violence. *Can Child Adolesc Psychiatry Rev.* 14 (1).
- NSW Bureau of Crime Statistics and Research (1989- 2012). *NSW Criminal Court Statistics, Annual Reports*. Sydney: NSW Bureau of Crime Statistics and Research.

- Odgers, C., Moretti, M., (2002). Aggressive and antisocial girls: research update and challenges. *International Journal of Forensic Mental Health, 1*, (2).
- Okon, M.O., Momoh, S.O., Imhonde, H.O., Idiakheua E.O., (2011). Aggressive Tendencies Among Undergraduates: The role of personal and family characteristics. *REOP. (22)*, 1
- Pepler, D. (2003). *A developmental profile of risks for aggressive girls. La Marsh Research Centre for Violence and Conflict Resolution*, York University: Canada.
- Pepler D. J., Madsen, K.C., Webster, C., Levene, K.S., (2012). *The development and treatment of girlhood aggression*. New York: Psychology Press.
- Piotrowska, P. J., Stride, C.B., Croft, S. E., Rowe, R (2015). Socioeconomic status and antisocial behavior among children and adolescents: A systematic review and meta-analysis. *Clinical Psychology Review, 35*.
- Rahman A., Bairagi, A., Kumar, D. B. (2014). The Effect of Socio-Economic Status and Gender on Adolescent Anger in Chittagong. *IOSR Journal of Humanities And Social Science 19*, 3.
- Rahman, A. K., Huq M. M. (2005). Aggression in adolescent boys and girls as related to socio- economic status and residential background. *Journal of life Earth Science, 1*, (1)
- Roberts, B. W. (2009). Back to the future: *Personality and Assessment* and personality development. *Journal of Research in Personality, 43* (2)
- John O. P., Robins R. W., Pervin L. A. (2008). *Handbook of personality: Theory and research*. New York, NY: Guilford Press.
- Santisteban, C., Alvarado, J.M., & Recio, P. (2007). Evaluation of a Spanish version of the Buss and Perry aggression questionnaire: Some personal and situational factors related to the aggression scores of young subjects. *Personality and Individual Differences, 42*, 1453-1465.
- Sharpe, J. P., Desai, S. (2001). The revised neo personality inventory and the MMPI-2 psychopathology five in prediction of aggression. *Personality and Individual Differences, 31*(4), 505-518.
- Snyder, H.N., Sickmund, M., (1999). *Juvenile offenders and victims: 1999 national report* (NCJ 178257). Washington, DC: U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Soto, C. J., Kronauer, A., Liang, J. K. (2016). Five-factor model of personality. In S. K. Whitbourne (Ed.), *Encyclopedia of adulthood and aging*, 2, pp. 506-510). Hoboken, NJ: Wiley

- Stahl, A., (2003). *Delinquency cases in juvenile courts. OJJDP Fact Sheet #31*. Washington, D.C.: U.S. Department of Justice.
- Taylor, T. (2006). *Lower, working and middle class*. Chicago: Barbara Press
- United States Department of Justice (2010). *FBI Uniform Crime Reporting Statistics*. Washington, DC: Federal Bureau of Investigation.
- Vanassche Sodermans Matthijs Swicegood (2014). The Effects of Family Type, Family Relationships and Parental Role Models on Delinquency and Alcohol Use Among Flemish Adolescents. *Journal of Child & Family Studies*, 23
- Viale-Val, G., & Sylvester, C. (1993). *Female delinquency*. In M. Sugar (Ed.), *Female Adolescent Development* (2<sup>nd</sup> ed.). New York: Brunner/Mazel Inc.
- Zirpoli T.J., (2008). *Behavior Management: Applications for Teachers*, 5th edn. New Jersey: Pearson/Merrill Prentice Hall.

## APPENDICES

### APPENDIX I: INFORMED CONSENT FORM

My name is Elizabeth Chege. I am a post-graduate student conducting research for the award of a Masters Degree in Marriage and Family Therapy at Pan Africa Christian University, Roysambu Campus, Nairobi, Kenya.

Purpose of the study: The purpose of the study is to examine how personality contributes to aggressive behavior among female adolescents at the Kamae Girls Borstal Institution, Kamiti Prison, Kiambu County, Kenya.

Confidentiality: To enhance your confidentiality, all the information you write in the questionnaire is strictly confidential and will be used for the purpose of this research study only. Please do not reveal your name or identity anywhere on the questionnaire.

Statement of Informed Consent: I understand that participation in this study is voluntary and that I am free to withdraw my consent to participate in this study at any time. Refusal to participate or withdrawal will involve no penalty or benefits. I have been given the opportunity to ask questions about the research, and I have received answers concerning the areas that I do not understand. I willingly consent to participate in this research.



## **Taarifa ya Kuthibitishwa**

Jina langu ni Elizabeth Chege. Mimi ni mwanafunzi katika chuo Kikuu cha Pan Africa Christian University, Roysambu, Kenya. Niko katika muhula wa mwisho ili niweze kuhitimu katika maswala ya Ndoa na Familia katika Chuo hicho. Ili niweze kuhitimu, ninahitajika kufanya utafiti/uchunguzi katika maswala ambayo inalenga familia. Utafiti wangu unalenga zaidi watoto na vijana haswa vijana wa kike.

Kusudi la utafiti huu ni kuchunguza jinsi utu huchangia kwenye tabia kati ya vijana wa kike katika Taasisi ya Kirigiti Girls Rehabilitation Centre, Kiambu County, Kenya.

Huu utafiti unahakikisha usiri. Habari au majibu zote unazoandika katika utafiti huu ni ya siri na zitatumika kwa lengo la utafiti huu pekee. Kwa hivyo, kuimarisha na kuhakikisha ya kwamba usiri huu unadumishwa, usiandike jina lako au kujitambulisha mahali popote kwenye utafiti huu.

Taarifa ya Kuthibitishwa: Nimeelewa kuwa kushiriki katika utafiti huu ni kwa hiari na kwamba niko huru kutoa ridhaa yangu kushiriki katika utafiti huu wakati wowote. Kukataa kushiriki au kuondolewa hautahusisha adhabu au faida. Nimepewa fursa ya kuuliza maswali kuhusu utafiti, na nimepokea majibu kuhusu maeneo ambayo sijui. Ninakubali kwa hiari kushiriki katika utafiti huu.

APPENDIX II: QUESTIONNAIRE (MASWALI)

**SECTION A: GENERAL INFORMATION (HABARI ZA JUMLA)**

Please fill your answers by ticking in the boxes provided for.

Tafadhali weka alama ya ✓ katika sehemu yenye mraba.

**1. Age (Umri)** \_\_\_\_\_

**2. Religion (Dini)**

Christian  Muslim  None  Other (please specify) -  
(Mkristo) (Muislamu) (Hakuna) Nyingine(tafadhali eleza)

**3. Family Type (Aina ya familia)**

Nuclear family  Single Mother  Single father  Uncle/auntie   
(mama na baba mzazi) (mama bila baba) (baba bila mama)  
(mjomba/shangazi)  
Step parent  Children's home  sibling   
grandmother  (ndugu/dada mkubwa)  
(mzazi wa kambo) (makao ya watoto) (nyanya)

**4. Educational level (Kiwango chako cha elimu)**

No formal education  Primary/Class  Secondary/Form   
(Hajanza shule ya msingi) (Shule ya msingi/darasa)  
(Sekondari/Kidato)  
Vocational training  College   
(Chuo cha kiufundi) (Chuo cha stashahada)

If did not complete, upto which class? \_\_\_\_\_

(Ikiwa hukumaliza, eleza darasa ulipofika)

**5a. Educational level of female caregiver (Kiwango cha elimu cha mlezi wa kike)**

No formal education  Primary  Secondary  Vocational training   
(Hajanza shule ya msingi) (Shule ya msingi) (Shule ya upili) (Chuo cha kiufundi)  
College  Degree  Do not know   
(Chuo cha kiufundi) (Shahada ya chuo kikuu) (Sijui)

If did not complete, upto which class? \_\_\_\_\_

(Ikiwa hakumaliza, eleza darasa alipofika)

**5b. Educational level of male caregiver (Kiwango cha elimu cha mlezi wa kiume)**

No formal education  Primary  Secondary  Vocational training   
(Hajanza shule ya msingi) (Shule ya msingi) (Shule ya upili) (Chuo cha kiufundi)

College  Degree  Do not know   
(Chuo cha kiufundi) (Shahada ya chuo kikuu) (Sijui)

If did not complete, upto which class? \_\_\_\_\_  
(Ikiwa hakumaliza, eleza darasa alipofika)

**6. Female caregiver's main income source (Chanzo halisi cha mapato ya mlezi wa kike)**

Unemployed  Permanent employment  Small business  Large   
business  
(Hana kazi) (Ajira ya kudumu) (Biashara ndogo) (Biashara kubwa)  
Farming  Casual labour  Other (specify)  
\_\_\_\_\_  
(Ukulima) (Kibarua) (Kazi nyingine, eleza)

**7. Male caregiver's main income source (Chanzo halisi cha mapato ya mlezi wa kiume)**

Unemployed  Permanent employment  Small business  Large   
business  
(Hana kazi) (Ajira ya kudumu) (Biashara ndogo) (Biashara kubwa)  
Farming  Casual labour  Other (specify)  
\_\_\_\_\_  
(Ukulima) (Kibarua) (Kazi nyingine, eleza)

**8. Indicate who brought you up (Elezea ni nani aliyekulea)**

Both parents  Father only  Mother only  Step parent   
(Wote wawili) (Baba tu) (Mama tu) (mzazi wa kambo)  
Uncle/auntie  Foster parent non-relative  Sibling   
grandmother  
(Mjomba/Shangazi) (Mzazi asiyekuzaa) (Kaka/dada mkubwa)  
(nyanya)

**9. How many brothers and/or sisters do you have?**

(Una dada na kaka wangapi?) \_\_\_\_\_

**10. Indicate which town, estate/village you live. (Elezea mji, mtaa au kijiji mnapoishi)**

\_\_\_\_\_

**SECTION B: QUESTIONNAIRE DESCRIBING BEHAVIOR (MASWALI YA KUELEZEA HALI YAKO)**

Please answer these statements as honestly as possible. Any questions you may object to can be left blank. Please describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself in relation to other people you know of the same sex as you are and roughly your same age. Below are phrases describing people's behaviors. Please read each statement carefully and then indicate how accurately each statement describes you by circling the appropriate number on the scale beside each question.

(Tafadhali jibu maswali haya kwa ukweli iwezekanavyo. Ikiwa kuna maswali ambayo hutaji kuyajibu, unaweza kuyaacha bila majibu. Tafadhali jieleze kwa jumla vile ulivyo sasa, si vile unavyotaka kuwa katika wakati ujao. Jieleze kwa ukweli unavyojiona ukijilinganisha na watu unaowajua wa jinsia yako na ambao mnakaribiana umri. Hapa chini kuna maelezo yanayoelezea tabia za watu mbalimbali. Tafadhali soma kila sentensi kwa makini kisha uonyeshe ni vipi kila sentensi inavyoonyesha tabia yako kikamilifu kwa kusahihisha... nambari unayofikiri inalenga tabia yako).

	(1) Completely not like me ( <i>sio kama mimi hata kidogo</i> )	(2) Slightly not like me ( <i>sio kama mimi kiasi</i> )	(3) Sometimes like me sometimes not like me ( <i>Mara nyingine kama mimi, mara nyingine sio kama mimi</i> )	(4) A little bit like me ( <i>Kama mimi kiasi</i> )	(5) Completely like me ( <i>Kama mimi kabisa</i> ).				
1.	Once in a while I can't control the urge to strike another person. (Mara moja moja, siwezi kuzuia hali ya kutaka kumgonga mtu).				1	2	3	4	5
2.	Given enough provocation, I may hit another person. (Nikichokozwa kidogo, naweza kumchapa mtu mwingine)				1	2	3	4	5
3.	If somebody hits me, I hit back. (Ikiwa mtu atanigonga, pia mimi nitamgonga).				1	2	3	4	5
4.	I get into fights a little more than the average person. (Mimi hujipata nimepigana mara nyingi kuliko mtu wa kawaida)				1	2	3	4	5
5.	If I have to resort to violence to protect my rights, I will. (Ikiwa ni lazima nipigane, ili kulinda haki zangu, nitafanya hivyo).				1	2	3	4	5
6.	There are people who pushed me so far that we came to blows. (Kuna watu ambao walinichokoza hadi tukaishia kupigana)				1	2	3	4	5
7.	I can think of no good reason for ever hitting a person. (Siwezi fikiria sababu nzuri ya kumchapa mtu hata kidogo)				1	2	3	4	5
8.	I have threatened people I know. (Nimewahi kuwatisha watu ninaowajua)				1	2	3	4	5
9.	I have become so mad that I have broken things. (Nimewahi pandwa na hasira hadi nikavunja vitu)				1	2	3	4	5
10.	I tell my friends openly when I disagree with them. (Huwa nawelezea marafiki zangu wazi wanaponikosea)				1	2	3	4	5
11.	I often find myself disagreeing with people. (Mara nyingi mimi hujikuta nisipoelewana na watu)				1	2	3	4	5
12.	When people annoy me, I may tell them what I think of them. (Watu wanaponikasirisha, ninaweza kuwaambia ninavyowafikiria)				1	2	3	4	5
13.	I can't help getting into arguments when people disagree with me. (Siwezi kujizuia kugombana na watu wanapokosa kukubaliana na mimi)				1	2	3	4	5
14.	My friends say that I'm somewhat argumentative. (Marafiki zangu husema napenda kujibizana)				1	2	3	4	5
15.	I flare up quickly but get over it quickly. (Mimi hukasirika haraka lakini pia mimi husahau upesi)				1	2	3	4	5
16.	When frustrated, I let my irritation show. (Nikikata tamaa, hasira zangu huonekana wazi).				1	2	3	4	5
17.	I sometimes feel like a powder keg ready to explode. (Wakati mwingine, mimi hujisikia kama kilipuzi kinachotaka kulipuka)				1	2	3	4	5
18.	I am an even-tempered person. (Mimi ni mtu ambaye ninaweza kuzuia hasira za upesi)				1	2	3	4	5
19.	Some of my friends think I'm a hothead. (Marafiki zangu wengine hufikiria mimi hukasirika haraka)				1	2	3	4	5
20.	Sometimes I fly off the handle for no good reason. (Wakati mwingine mimi hukasirika bila sababu nzuri).				1	2	3	4	5
21.	I have trouble controlling my temper.				1	2	3	4	5

	(Nina shida ya kutoweza kuzuia hasira zangu).					
22.	I am sometimes eaten up with jealousy. (Wakati mwingine mimi huingiwa na wivu).	1	2	3	4	5
23.	At times I feel I have gotten a raw deal out of life. (Wakati mwingine naona kuwa sikupata nilichostahili katika maisha yangu).	1	2	3	4	5
24.	Other people always seem to get the breaks. (Watu wengine huonekana hufanikiwa kila wakati).	1	2	3	4	5
25.	I wonder why sometimes I feel so bitter about things. (Nashangaa kwa nini mimi huwa na machungu kuhusu mambo mengine)	1	2	3	4	5
26.	I know that "friends" talk about me behind my back. (Najua kuwa marafiki huongea kunihusu wakati sipo)	1	2	3	4	5
27.	I am suspicious of overly friendly strangers. (Mimi huwashuku watu nisiowajua ambao huonyesha upendo kwangu)	1	2	3	4	5
28.	I sometimes feel that people are laughing at me behind me back. (Wakati mwingine, mimi huhisi kuwa watu wananicheka wakati sioni)	1	2	3	4	5
29.	When people are especially nice, I wonder what they want. (Watu wakiwa wazuri sana kwangu, mimi hushangaa na kujiuliza wanataka nini)	1	2	3	4	5

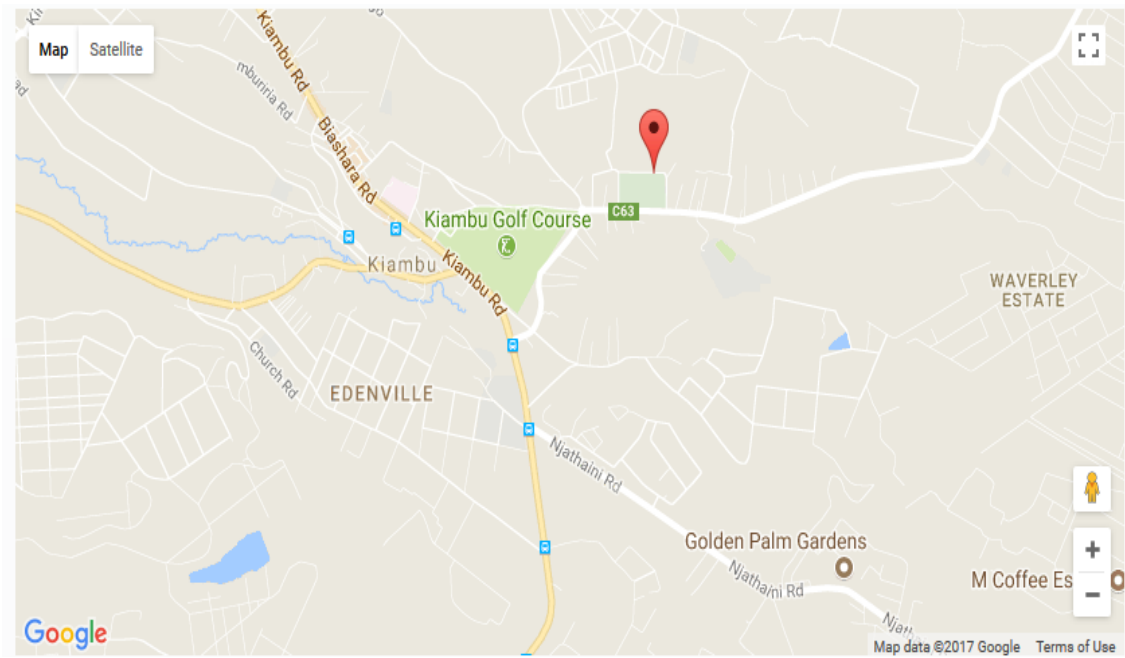
**SECTION C: QUESTIONNAIRE DESCRIBING PERSONALITY (MASWALI YA KUELEZEA UTU)**

	(1) Strongly disagree (Nakataa kabisa)	(2) Disagree (Nakataa)	(3) Neither disagree nor agree (Sikatai na sikubali)	(4) Agree (Nakubali)	(5) Strongly agree (Nakubali kabisa)
1.	I am the life of the party (Watu wengine katika kikundi hunitegemea mimi).				1 2 3 4 5
2.	I feel little concern for others (Siwajali watu wengine sana).				1 2 3 4 5
3.	I am always prepared (Kila mara mimi huwa nimejiandaa).				1 2 3 4 5
4.	I get stressed out easily (Mimi huhuzunika kwa urahisi).				1 2 3 4 5
5.	I have a rich vocabulary (Ninajua maneno mengi ya kutumia).				1 2 3 4 5
6.	I don't talk a lot (Siongei sana).				1 2 3 4 5
7.	I am interested in people (Ninapenda kujua juu ya watu).				1 2 3 4 5
8.	I leave my belongings around (Mimi huwa sichungi vitu vyangu vizuri).				1 2 3 4 5
9.	I am relaxed most of the time (Mara nyingi mimi huwa nimetulia).				1 2 3 4 5
10.	I have difficulty understanding abstract ideas (Nina shida kuelewa mawazao ambao si wazi).				1 2 3 4 5
11.	I feel comfortable around people (Mimi hufurahia kuwa kati ya watu wengi).				1 2 3 4 5
12.	I insult people (Mimi hutukana watu).				1 2 3 4 5
13.	I pay attention to details (Mimi husikiliza na kutaka kuelewa kila kinachosemwa).				1 2 3 4 5
14.	I worry about things (Mimi huwa na wasiwasi kuhusu mambo).				1 2 3 4 5
15.	I have a vivid imagination (Nina uwezo wa kutoa mawazo mazuri).				1 2 3 4 5

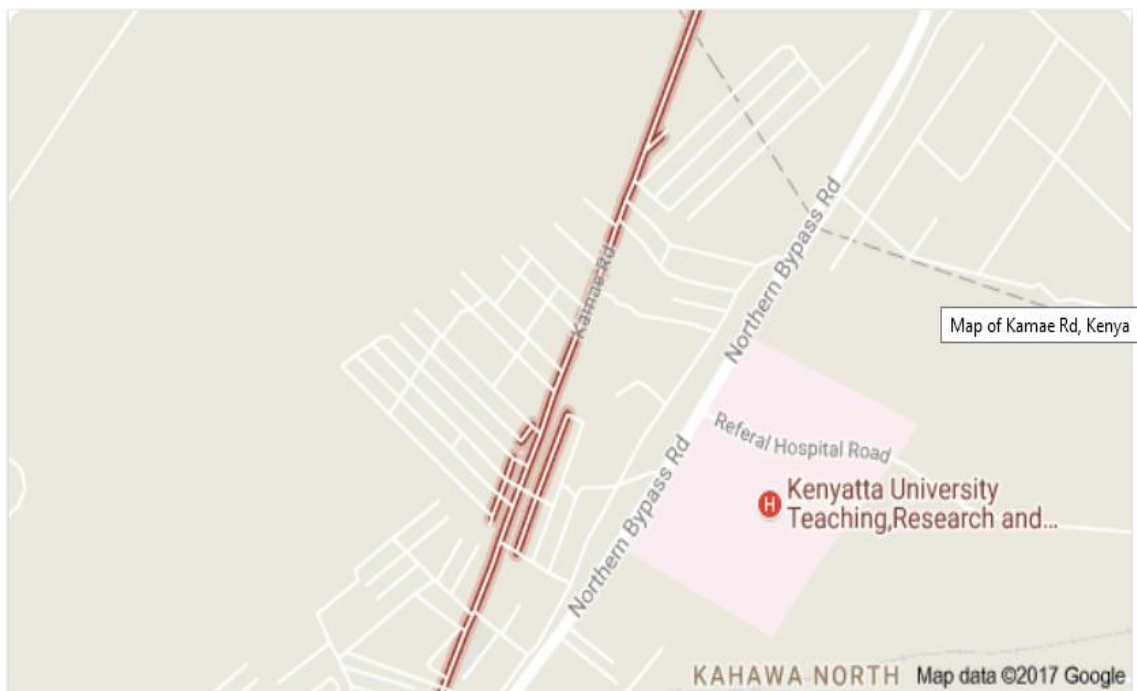
16.	I keep in the background (Sipendi kujitokeza mbele).	1	2	3	4	5
17.	I sympathize with other's feelings (Mimi huhurumia watu na wanavyohisi/sikia).	1	2	3	4	5
18.	I make a mess of things (Mimi ni mharibifu).	1	2	3	4	5
19.	I seldom feel blue (Si rahisi kunipata nimetulia. na kukasirika).	1	2	3	4	5
20.	I am not interested in abstract ideas (Sijali sana kuelewa mambo ambayo si wazi).	1	2	3	4	5
21.	I start conversations (Mimi huweza kuanzisha mazungumzo).	1	2	3	4	5
22.	I am not interested in other people's problems (Sijali shida za watu wengine).	1	2	3	4	5
23.	I get chores done right away (Mimi humaliza kazi zangu upesi).	1	2	3	4	5
24.	I am easily disturbed (Mimi husumbuka kiakili kwa urahisi).	1	2	3	4	5
25.	I have excellent ideas (Nina mawazo mazuri ya kufanya mambo).	1	2	3	4	5
26.	I have little to say (Huwa siongei sana).	1	2	3	4	5
27.	I have a soft heart (Nina moyo wa huruma).	1	2	3	4	5
28.	I often forget to put things back in their proper place (Mara nyingi mimi .husahau kurudisha vitu nilipovipata).	1	2	3	4	5
29.	I get upset easily (Mimi hukasirika kwa urahisi).	1	2	3	4	5
30.	I do not have a good imagination (Mimi sina uwezo wa kutoa mawazo mazuri).	1	2	3	4	5
31.	I talk to a lot of different people at parties (Nikiwa katika sherehe, mimi huongea na watu wengi tofauti).	1	2	3	4	5
32.	I am not really interested in others (Sijali kujua juu ya watu wengine).	1	2	3	4	5
33.	I like order (Napenda vitu vipangwe vizuri).	1	2	3	4	5
34.	I change my mood a lot (Mimi hubadilisha hali yangu sana).	1	2	3	4	5
35.	I am quick to understand things (Mimi huelewa mambo haraka).	1	2	3	4	5
36.	I do not like to draw attention to myself (Sipendi kujitokeza mbele ya watu ili wanitambue).	1	2	3	4	5
37.	I take time out for others (Mimi huchukua muda kuwa na watu wengine).	1	2	3	4	5
38.	I shirk my duties (Huwa sitekelezi / sifanyi majukumu yangu).	1	2	3	4	5
39.	I have frequent mood swings (Mimi hununa mara kwa mara).	1	2	3	4	5
40.	I use difficult words (Mimi hutumia maneno magumu kwa watu kuelewa).	1	2	3	4	5
41.	I don't mind being the center of attention (Sioni vibaya kuwavutia watu na kuwa katikati ya mambo).	1		3	4	5
42.	I feel other's emotions (Mimi huhisi hisia za watu wengine).	1	2	3	4	5
43.	I follow a schedule (Mimi hufuata mpangilio wa kufanya mambo).	1	2	3	4	5
44.	I get irritated easily (Mimi hukasirika kwa haraka).	1	2	3	4	5
45.	I spend time reflecting on things (Mimi huchukua muda kuwaza juu ya mambo).	1	2	3	4	5
46.	I am quiet around strangers (Nikiwa kati ya watu nisiowajua, mimi hunyamaza).	1	2	3	4	5
47.	I make people feel at ease (Mimi hufanya watu wasiwe na wasiwasi).	1	2	3	4	5
48.	I am exacting in my work (Mimi hutaka kazi yangu ifanywe ipasavyo).	1	2	3	4	5
49.	I often feel blue (Mimi mara nyingi, huwa na huzuni).	1	2	3	4	5
50.	I am full of ideas (Nina mawazo mengi mazuri).	1	2	3	4	5
51.	What brought you here? (Elezea ni nini ilifanya uletwe hapa)?					

### APPENDIX III: STUDY LOCATION

#### Kirigiti Girls Rehabilitation Centre



#### Kamae Girls Rehabilitation Centre





APPENDIX IV: LETTER OF AUTHORIZATION FROM PAC UNIVERSITY

14<sup>th</sup> June, 2017



P.O. Box 56875, 00200 Nairobi, Kenya  
+254 721 932050, +254 734 400694  
enquiries@pacuniversity.ac.ke,  
admissions@pacuniversity.ac.ke  
www.pacuniversity.ac.ke

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

**RE: ELIZABETH WAIGWE CHEGE MET/0247/14**

Greetings! This is an introduction letter for the above named person a final year student in Pan Africa Christian University (PAC University), pursuing Master of Arts in Marriage and Family Therapy.

She is at the final stage of the programme and she is preparing to collect data to enable her finalise on her thesis. The thesis title is "**Relationship between Personality Traits and Aggressive Behaviour among Female Adolescents in Correctional Institutions in Kiambu County, Kenya**".

We therefore kindly request that you allow her conduct research at your organization

Warm Regards,

**Dr. Hilan Yikiru**  
**Registrar Academics**

14<sup>th</sup> June 2017


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*Where Leaders are made*

APPENDIX V: NACOSTI PERMIT

THIS IS TO CERTIFY THAT: **Permit No : NACOSTI/P/17/71585/17844**  
**MISS. ELIZABETH WAIGWE CHEGE** **Date Of Issue : 6th July, 2017**  
**of PAN AFRICA CHRISTIAN UNIVERSITY,** **Fee Received :Ksh 1000**  
**32216-600 Nairobi, has been permitted**  
**to conduct research in Kiambu County**  
**on the topic: RELATIONSHIP BETWEEN**  
**PERSONALITY TRAITS AND AGGRESSIVE**  
**BEHAVIOR AMONG FEMALE**  
**ADOLESCENTS IN CORRECTIONAL**  
**INSTITUTIONS IN KIAMBU COUNTY,**  
**KENYA**  
**for the period ending:**  
**6th July, 2018**

*Rhonda Kip*  
.....  
**Applicant's Signature**

  
*Rhonda Kip*  
.....  
**Director General**  
**National Commission for Science,**  
**Technology & Innovation**

## APPENDIX VI: PERMIT FOR KIRIGITI GIRLS



**MINISTRY OF EAST AFRICAN COMMUNITY, LABOUR AND SOCIAL PROTECTION  
STATE DEPARTMENT FOR SOCIAL PROTECTION  
DEPARTMENT OF CHILDREN'S SERVICES**

**Telegrams:** "APPROVED", Nairobi  
**Telephone:** Nairobi 2228411  
**E-mail:** children@labour.go.ke  
**Fax:** Nairobi 2248827

NSSF BUILDING  
Block C  
P. O. BOX 46205-  
00100  
**NAIROBI**

**CS/6/11/VOL VI**

**17<sup>TH</sup> JULY, 2017**

**THE MANAGER,**  
KIRIGITI GIRLS REHABILITATION CENTRE

**KIAMBU**

**RE: AUTHORITY TO CONDUCT RESEARCH**

The bearer of this letter (**Elizabeth Waigwe Chege, ID No.7112676**) is as student at Pan African University pursuing a Masters in Marriage and Family Therapy.

The course requires that the student conducts research in his area of study.

In this regard, authority has been granted to the above named to undertake her research in your institutions.

Attached find copies other introductory letter from The National Commission for Science, Technology and Innovations.

A handwritten signature in blue ink, appearing to read 'Grace N. Gitau'.

**GRACE N. GITAU**  
**FOR: DIRECTOR CHILDREN'S SERVICES**

APPENDIX VII: KAMAE GIRLS PERMIT

MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT.  
KENYA PRISONS SERVICE

Telegrams: "COMPRISONS", Nairobi  
Telephone: +254022722900-6.  
Email: Comprisons@yahoo.com  
When replying please quote



PRISONS HEADQUARTERS  
P.O. BOX 30175-00100  
NAIROBI

REF: PRIS 1/112 VOL XIV/103

31st July 2017

Elizabeth Waigwe Chege  
P.O. Box 32216  
**NAIROBI**

**REF: APPLICATION TO CONDUCT RESEARCH**

We acknowledge receipt of your letter requesting to conduct an academic research on '*Personality traits and aggressive behaviour among female adolescents in Kiambu County, Kenya.*' At Kamae Girls Boarding Institution.

This is to inform you that your request has been approved for the period between July 2017 to 30th September 2017.

The research findings should be for academic use only. You are also required to provide this Prisons Headquarters with a copy of your research report at the end of your research.

By a copy of this letter, The Officer in Charge, Kamae Girls BI is requested to accord you the necessary assistance.

**P.W. NGARA, OGW (SACP/A)**  
**FOR: COMMISSIONER GENERAL OF PRISONS**

Cc.  
Officer in Charge  
Kamae Girls BI