

THE RELATIONSHIP BETWEEN THE BIG FIVE PERSONALITY TRAITS AND  
AGGRESSIVE BEHAVIOR: THE CASE OF DANDORA SECONDARY SCHOOL IN  
EMBAKASI NORTH, NAIROBI COUNTY.

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**DECLARATION**

**STUDENT'S DECLARATION**

I declare that this research project is my original work and has not been presented for the award of an academic degree in any other university.

Signature  .....

Date ...04/12/2022...

**Jackline Awino**

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**SUPERVISOR'S DECLARATION**

I confirm that the candidate under my supervision has written and submitted this research project.



Signature .....

Date ...14/01/2023.....

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## **DEDICATION**

Dedicated to my beloved Mother Hellen, Sister Elizabeth, Brother Richard and Nephews Ian, Alvin and Jason.

## **ACKNOWLEDGEMENT**

My sincerest gratitude to Prof. Luke Odiemo for academic supervision. Your critique and advice were an invaluable asset. I cannot express enough thanks to the Chairman Psychology Department Dr. Charles Kimamo, All the staff Members (Teaching and Non- Teaching) Department of Psychology, University of Nairobi. Am grateful for the scholarship opportunity, Graduate assistant teaching experience, research and academic mentorship.

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## ABSTRACT

According to research, understanding adolescent aggressive behavior may aid in their developmental process to become well-adjusted individuals going forward. This research looked into whether there was a connection between personality (the Big 5 dimensions) and aggressive behavior among adolescents living in urban informal settlements in Embakasi North, Nairobi County, enrolled at Dandora Secondary School, aged 15 and above. The research design utilized was a case study. A stratified random sample of 234 students with 185 final respondents was used to collect quantitative data. To acquire qualitative information for the study, purposive sampling was utilized among the two focus groups and four key informants. Self-reporting standardized tests (questionnaires) were utilized to evaluate aggression and personality traits. Interpretation of quantitative data was achieved through descriptive statistics, multiple regression, and the Chi-square test to test the hypothesis. Qualitative data analysis was done and reported in regards to the main objectives and emerging themes. The Big Five personality traits reported were 30.8% conscientiousness, 22.2% agreeableness, 16.2% extraversion, 15.7% neuroticism, and 15.1% openness. 50.8% verbal aggressiveness and 49.2% physical aggressiveness made up direct aggression, while 50.3% anger and 49.7% hostility constituted indirect aggression. Results from the Chi-square analysis in regards to the hypothesis findings were shared. The personality (Big 5 dimensions) and direct aggressiveness association was discovered to be strong and positive ( $\chi^2=4.9328$ ,  $p=0.294$ ,  $V=0.1633$ ). Furthermore, indirect aggressiveness and personality (Big 5 dimensions) showed a strong and positive association ( $\chi^2=2.9635$ ,  $p=0.564$ ,  $V=0.1266$ ). Results from the correlation analysis uncovered personality traits (the Big 5 dimensions) and both direct and indirect aggressiveness positive connections. Nevertheless, a negative correlation was put forward that linked direct and indirect aggressiveness. Furthermore, the results were reinforced by Chi-square analysis, which found personality (the Big 5 dimensions), direct aggressiveness, and indirect aggressiveness possessed positive and strong associations ( $\chi^2=7.4403$ ,  $p=0.114$ ,  $V=0.2005$ ). Regression analyses revealed that the confounding variables—age, gender, socioeconomic status, peers, and media—all had an impact on the connection between both direct and indirect aggressiveness and personality (the Big 5 dimension).



# CHAPTER ONE

## INTRODUCTION

### **1.0 Background of the study**

Aggression constituted the type of behavior carried out intentionally to inflict harm on an individual driven to steer clear of the harm (Heilbron & Prinstein, 2008). Hitting, kicking or pushing are examples of physical aggression that entails hurting others physically. Screaming, yelling, swearing are some of the behaviors that fall under verbal aggression, the use of harsh words and tone to inflict hurt on others. Harmful behavior that arises from irate feelings form emotional aggression. Behavior that is controlled, planned and goal-oriented in hurting others establishes instrumental aggression. The behavior that deliberately strives to hurt the collective relationship of an individual sense of belonging and/or acceptance in a group was referred to as relational aggression. Aggressive acts are expressed in different forms; active versus passive, overt versus covert, direct versus indirect etc.

Aggression was conceptualized as the product of situational, personal, and biological factors. The existence of provocation constituted a situational factor. Interpersonal provocation was the major cause of human aggression. Provocation included sabotage, insults, physical aggression, and other forms of verbal aggression. Personality factors constituted; personality traits, attitudes, and sex. High level of aggression in an individual was predisposed to definite traits that influenced hostile cognition and perception biases. How aggression was operationalized determined the size of sex differences (Archer, 2004). Aggressive beliefs, attitudes and values significantly predicted future levels of aggressive behavior (Huesmann & Guerra, 1997). Biology factors linked to aggression included; brain functioning, hormones, and genes. Aggression was influenced by the possibilities of biological vulnerability that interacted with the environment and psychological stressors (Buss & Duntley, 2006). Several neurotransmitters were also linked to aggression when excessive or deficient (e.g., Low serotonin, Excess dopamine). Gamma-amino-butyric acid (GABA) deficiency allowed other neurotransmitters to go unchecked hence influencing aggression. Hormones were also associated with aggression (e.g., Testosterone). Aspects of brain structure and functioning were linked to aggressive behavior. The prefrontal cortex assists in regulating emotions and behavior thus injury may result in aggressive behavior. An overactive amygdala was also

associated with violent aggression. Some medical diseases could cause aggression, such as Alzheimer's and Epilepsy when the brain was affected.

The study examined aggression through the personality perspective. According to Miller, (2016) the dynamics that determined personalities were composed of habits, attitudes, emotions, states and sentiments, motives and beliefs. Personality theoretical perspectives are well structured and describe the manner individual's link with the world thus contributing to academic discoveries.

In history, various approaches were used to project aggressive personalities. Astrology used scientific knowledge about heavenly bodies to link to individuals' personalities. For example, Zodiac signs determine one's temperament and traits. Ward & Grasha, (1986) argued that astrology was a pseudo-science that had no basis in scientific facts. Empirical observations entailed collecting information through viewing the natural surroundings. Through observation, one had the advantage of witnessing first-hand what participants were doing instead of what they reported. Setback to empirical observation was that it was susceptible to observer biases and the Hawthorne effect (McCambridge et al., 2014). Psychological assessment involved administration, scoring and interpretation of psychological tests (Maloney & Ward, 1976, p. 9). The study used psychological assessment to discover aggressive personalities. The Big Five Model was chosen due to the several well-established instruments that accurately measured the five traits. The model has been in use for decades and considered universal (Costa & McCrae, 1992).

O'Brien, (2011) found that in British schools, students in elementary schools encountered forms of physical bullying (29% boys & 24% girls) and verbal buying (41% boys & 39% girls). According to Athanasiades et al., (2016) peer aggression was witnessed among students (15% and 26%) in Greece as victims or perpetrators. Traditional bullying was reported among German students, where 12.1% bullied others while 11.1% were bullied. Cyberbullying showed that 22% of the German students report to have bullied others or were bullied (Festl et al., 2014). Zhang et al., (2012) school-based study evidenced that physical and verbal aggressiveness were at 13.38% and 12.95% respectively. In Canada, 33.70% students admitted to online bullying while 49.50% were bullied online (Mishna et al., 2010). Ncontsa & Shumba, (2013) study in South Africa found that 41% - 83% of students faced or witnessed physical and verbal aggression. Secondary schools in Kenya frequently experience student unrest. The July-August 2016 Rapid Assessment of Arsons in Secondary Schools report revealed within less than 15 weeks, above 130 secondary schools

were affected by school fires that destroyed property in the month of May and August (National Crime Research Center, 2017). The recurring student unrest has posed a significant threat to the educational system. The continuous destruction of properties, loss of learning time, and negative psychological effects to students, parents, and staff. The quality of education has been impacted as a result. Kenya's Vision 2030 Education Sector objectives were; illiteracy reduction, increased education admission, improved education transition rate, and raised the quality and relevance of education. These objectives were aligned with Sustainable Development Goals of education for all according to The Republic of Kenya, (2005). The study examined aggressive personalities of adolescents living in urban informal settlements using the Big Five Personality model in a school setting; to better understand the behavior and recommended probable long-last solutions.

### **1.1 Statement of the Problem**

Psychological testing uses standardized tests to objectively and systematically measure a sample of behavior. The superiority of a psychological test are two fundamental properties; reliability and validity. The Big Five model has been applied to various settings and cultural contexts and has proven reliability and validity in numerous research (Paunonen & Ashton, 2001). Psychological assessment supports students in identifying problems of learning, school adjustment and in achieving academic success. Personality tests should be introduced in Kenyan secondary schools to determine personality strengths and weaknesses to help curb the ever-growing problem of indiscipline and school unrest due to aggressive personalities. The test can assist in detecting undiagnosed psychological, emotional, or behavioral difficulties thus facilitating personal and intellectual growth. The Ministry of Education uses Curriculum-based measurement tests that are not standardized, except for the Kenya Certificate of Secondary Education. Curriculum tests only assess learning outcomes by tracking academic progress and University selection and placement after completion of secondary education. A vast gap exists in understanding students' personalities in the Kenyan secondary school population. The recurring phenomenon of student unrest plaguing Kenyan secondary schools stems from a poor understanding of the personality dynamics in the school population. Identifying precise psychometric tools that would assist in predicting behavior goes a long way in providing probable long-lasting solutions. The current technique applied-subjective observation, is insufficient in terms of reliability and validity. As a result, increased behavioral problems are witnessed at schools with limited successful intervention efforts. This

research sought to explore whether aggressive behavior and personality (Big 5 dimensions) were connected to an extent and attempt to fill the existing void.

### **1.2 Purpose of the Study**

Research's main goal was to look at any association between personality (the Big 5 dimensions) and aggressive behavior among adolescents living in urban informal settlements.

### **1.3 Objective of the Study**

The specific objectives of the study are to:

1. Make certain of whether personality (the Big 5 dimensions) and direct aggressiveness have any connection among adolescents living in urban informal settlements.
2. Figure out whether an association exists between personality (the Big 5 dimensions) and indirect aggressiveness among adolescents living in urban informal settlements.
3. Get a fix on whether a correlation exists linking direct and indirect aggressiveness and personality (the Big 5 dimensions) among adolescents living in urban informal settlements.

### **1.4 Research Questions**

1. To what extent is personality (the Big 5 dimensions) connected to direct aggressiveness among adolescents living in urban informal settlements?
2. In what ways are personality (the Big 5 dimensions) and indirect aggressiveness associated among adolescents living in urban informal settlements?
3. What is the correlation between direct and indirect aggressiveness among adolescents and personality (the Big 5 dimensions) living in urban informal settlements?

### **1.5 Hypothesis**

The following hypotheses were tested:

1. Ha: Personality (the Big Five dimensions) has a relationship with direct aggression among adolescents living in urban informal settlements.
2. Ha: Personality (the Big Five dimensions) has a relationship with indirect aggression among adolescents living in urban informal settlements.

3. Ha: There is a correlation between personality (the Big Five dimensions), direct and indirect aggression among adolescents living in urban informal settlements.

### **1.6 Justification of the Study**

Understanding personality features, according to Sharpe & Desai, (2001), can help parents, teachers, and counselors detect likely patterns of aggression, supporting preventative and intervention efforts among adolescents. Even though research has shown adolescent aggressiveness as a significant issue, there is still a need for strong, trustworthy, and well-founded measures that quantify problems in their actual contexts. Context-specific tools are effective in assessing the success of programs designed to lessen aggression and boost academic performance. According to Mathiesen et al., (2002), designing measurement tools that focus on a variety of problem areas is vital to improve our understanding of how people interact with their surroundings. Additionally, these measurements must be clear to all participants and demonstrate reliability and solid foundation. The five-factor model has been proven to be one of the most efficient and successful ways to observe an individual's personality using a range of frameworks and instruments in different cultures. However, the majority of these empirical research were conducted on adults and college students. The study set out to fill the research gap by collecting empirical data on the relationship between aggressive behavior in adolescents living in urban informal settlements and the Big Five personality dimensions.

### **1.7 Significance of the Study**

Teachers, counselors, school officials, students, and parents will all benefit from the findings. By introducing personality psychometric testing, filling policy gaps that identify incidences of indiscipline across schools and providing preliminary training on Guidance and counseling programs, the problem of school discontent and indiscipline caused by aggressive behavior will be addressed. The study's findings will aid the Education ministry in putting policies in place to deal with problems brought on by aggressive personalities. Students will have a better understanding of selves, how to relate with others and how to address challenges faced positively. Teachers will have all the tools and sufficient training to guide students through guidance and counseling programs. School administrators will know how to implement policies and rules that bring about harmony and effective learning outcomes. Parents will be able to assist teachers in

enforcing positive habits and behaviors. By demonstrating the superiority of the Big Five model in describing behavior, the research findings will also contribute to the field of personality.

### **1.8 Scope of the Study**

Case study exploration was done at Dandora Secondary School in Embakasi North, Nairobi County. The research sought to ascertain whether personality (the Big 5 dimensions) and aggressive behavior in adolescents living in urban informal settlements aged 15 and above were related.

### **1.9 Limitation and Delimitation of the Study**

The study used self-report questionnaires. One expected limitation was the possibilities of some degree of insincerity by respondents needing to preserve a positive self-image and therefore provide responses that may be affected by social desirability. The researcher assured of confidentiality of information obtained. The information gathered from the self-report surveys was additionally developed and validated using focus groups and key informant interviews.

The results from the study could not be applied to other secondary schools in Kenya, since data was only gathered from a single public secondary school. Furthermore, the research design applied – Case study presented the constraints of the findings not being extrapolated.

### **1.10 Assumption of the Study**

The main premise of the research was that personality (the Big 5 dimensions) reflected and influenced distinctive thought, feeling, and behavior patterns in adolescents living in urban informal settlements.

### **1.11 Definition of Terms**

**Personality:** How a person acts, perceives, comprehends or appreciates other people.

**Big five Model:** Five primary areas that make up the personality structure model: Conscientiousness, openness, extraversion, neuroticism, and agreeableness.

**Aggression:** Intentionally injuring or hurting or harming others

**Adolescent:** Maturation phase that has significant body growth, mind comprehension and peer affiliation.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

The chapter provides an overview of the literature on the association between personality (the Big 5 dimensions) and adolescent aggressive behavior. In addition, this review aims to establish gaps that this research seeks to fill with a fresher and refined perspective.

#### **2.1 Personality Traits and Aggression**

Aggressiveness in teens may have long-term effects that can lead to substance abuse, delinquency, peer rejection, and academic failure, according to research (DeWall et al., 2011). According to Pope & Bierman, (1999) adolescents that act aggressively may end up having issues in school and forming aberrant peer networks. The said researchers conducted a longitudinal correlation design study among 196 boys in Grade 3 - 6 in 1991, with follow up assessment among 145 boys in Grade 7-10 four years later. The relative role of aggressive behavior was looked at in the study together with other dysregulated behaviors that predicted adolescent peer problem and antisocial behavior. Multi-peer rating inventory was used to assess peer perception which described aggressive behaviors. All 196 participants were interviewed by the research assistants and rated the list of boys shared from most to least liked. Follow up assessment was done after 4 years with 145 participants. Individual interviews were conducted and two forms were filled that rated the participant's familiarity and the degree of friendship in a Likert scale. Second session was done after two weeks, where participants were grouped in small groups of four to eight persons. The participants rated the social behavior of assigned individuals with the aid of two research assistants. Data analysis techniques included multiple regression and analyses of variance (ANOVAs). Stability in aggression and withdrawal were indicated. The findings revealed the likelihood of victimization, peer rejection and antisocial behavior in teenagers to occur; it would coincide with irritable or inattentive behaviors. The study was limited in scope, and failed to conclusively document the function of emotional control in social integration. According to Sullivan et al., (2010) difficulties in emotional regulation in adolescents was associated with their use of aggression. The study also neglected to examine the role or effects of both genders.

Correlation design research was carried out by Watson et al., (2004) in Springfield, Massachusetts longitudinally. Research looked at the routes of aggression in children and adolescents. The said

researchers sought to gauge the determinants associated with increased risks of aggressiveness in two different ways. Normative sample was determined through community-based sampling. A random sample of 440 families with kids aged 7 to 13 and mothers between the ages of 25 and 44 were chosen. Baseline interviews were conducted in participants' homes in a dyadic format (Mother-Child) that lasted 90 minutes. All participants were rewarded for participation (Token payment). Three follow up were conducted using the initial procedure at different intervals with 391 families completing the study. Data was collected and measured in four categories; demographic variables, family and neighborhood factors, cognitive, personality and temperament variables and finally developmental outcomes of aggression. The findings provided compelling evidence of both the issues that predisposed individuals to aggressive conduct and determinants linked to it. Only the probabilities of aggression-producing pathways and the risk variables for aggression were disclosed by the research findings. The study failed in clearly identifying probable behavioral patterns for specific individuals. The study relied heavily on the children's and parent' interviews due to the sampling technique used and were unable to incorporate any comparison assessments of peers' and the teachers.

According to Goldberg, (1990) conscientiousness, openness, agreeableness, extraversion, and neuroticism were the main areas in the Five-Factor Model. Conscientiousness was noted as a general propensity to withstand temptations and irrational thoughts. The individual is characterized as tenacious, intentional, and strong-willed. McCrae & Costa, (1985) stated that extraversion, often known as the disposition to be outgoing, was characterized by sentiments of pleasure and friendliness, as well as boisterousness and spontaneity. The broad disposition to be altruistic, which includes high levels of collaboration, trust, and attachment, was referred to as agreeableness. The general tendency of curiosity in both the inner and outside worlds is openness to experience. The predisposition to feel unpleasant emotions including fear, sadness, embarrassment, anger, shame, disgust, anxiety, and insecurity is known as neuroticism McCrae & Costa, (1985).

Pennsylvania research by John et al., (1994) dedicated to surveying the Five-Factor model's nomological net for teenage boys. Using longitudinal design, research was conducted among African American and Caucasian boys in Pittsburgh with prior connections to early forms of delinquency. A targeted sample of 249 participants in the fourth grade during spring 1987 and 619 participants during spring 1988 were chosen using simple random sampling from public schools.



Teachers filled out questionnaires to identify boys at risk for delinquency and criminal behavior, and one-on-one interviews were done with participants and their primary caregiver. Using data from all three informants, the overall risk index was calculated. The study included the top 30% of the overall risk index-ranking participants, together with an extra 30% randomly chosen from the remaining 70% of the group. The final sample consisted of 508 participants with 484 participants completing the longitudinal study. Data were gathered using a variety of measurement tools, including the California Child Q-set (CCQ) completed by caretakers, Wechsler Intelligence Scale for Children and juvenile delinquency questionnaires completed by participants, as well as teacher reports on participant students' academic performance and childhood psychopathology. The results showed that the Five-Factor model accurately predicted significant effects in terms of behavior, mental health, and academic performance. According to the findings, personality traits unique to childhood and adolescence may exist and be significant. John et al., (1994) findings supported previously research done by Costa & McCrae, (1992) that proved the possibility of evaluating personality dimensions in adolescents using instruments designed for adults. The study was limited in scope, failed to examine the gender difference in personality dimensions as it relied heavily on boys as subjects.

Cross-sectional research was undertaken in five nations with the goal of examining the universality of the arrangement of personality rank from childhood up to early youth according to Tackett et al., (2012). The sample constituted young kids and teenagers aged 3 - 14 and 3,751 in number chosen using stratified random sampling. Across the five countries four age groups were carved up. The parents were required to rate the personality attributes of each of the subjects. "The Big Five model" was utilized to interpret the results in a hierarchical structure across the five countries and the four-age group. The results revealed that across cultures and age ranges, only extraversion, agreeableness, and openness were reliably replicated. The findings contributed to the study of personality across nations and ages by using structural and item-level covariation perspectives as opposed to mean trait levels. De Fruyt et al, (2006) earlier work focused on mean trait levels. The study relied heavily on parental reports, focusing primarily on the mother despite the child-self report being available to provide converging evidence of personality in the research. The study did not describe how the dimensions of age and culture were looked at separately, nor did it explain the standard measure of culture. The influence of culture on a child's personality and development,

according to Super & Harkness, (2002), raises awareness of what may be the most significant contextual influence on a personality attribute.

## **2.2 Relationship between Personality (the Big 5 Dimensions) and Direct aggression**

An association between neuroticism and aggression was found to be favorable in earlier research by Buss & Perry, (1992). To look over the association of aggressiveness and personality, other researchers divided aggressive behavior into its various forms. Lower agreeableness was linked to both reactive and proactive physical aggressiveness, according to a study by Miller & Lynam, (2006), although only reactive aggression had a connection with neuroticism.

Aggressiveness and personality dimensions were compared in correlation research by Barlett & Anderson, (2012) that looked at direct and indirect relationships. Using two samples, 347 participants were selected for sample 1 and 873 participants for sample 2. All the participants completed 3 self-reported questionnaires on aggressive personality, violent behavior and attitude towards violence. In addition, sample 1 completed a 60-items Five Factor Inventory while sample 2 used a 100-item. Data path analysis was done using MPLUS. The findings indicated that whereas agreeableness and openness to experience are directly and indirectly associated with physical aggressiveness. Also, indirectly connected to violent behavior only by aggressive attitudes. Physical aggression through aggressive feelings directly and indirectly associated with neuroticism, except violent conduct. According to the findings, aggressiveness and the Big five personality dimensions were connected directly or indirectly by aggressive attitudes and emotions.

### **2.2.1 Age**

According to Srivastava et al., (2003) conscientiousness and agreeableness levels were favorably correlated with age. In contrast, extraversion and openness to experience levels were adversely correlated. Donnellan & Lucas, (2008) study looked at the evolution of Personality with age during a lifetime in Germany and Great Britain. The results supported Srivastava et al., (2003) study by showing that agreeableness was favorably associated with age while extraversion and openness negatively linked with age. Cross-section research that included one million individuals, ranging in age from 10 to 65, was conducted by Soto et al., (2011). How differences in age across the Big Five domain from late childhood and adolescence correlated with changes among adults was investigated. The research showed that conscientiousness, openness and agreeableness levels decreased out of late childhood up to early youth. It quickly grew amid late youth to early maturity.

Ibáñez et al., (2016) examined the continuity of personality in Spanish teenagers aged twelve to fifteen years. NEO-PI-R inventory that was translated in Spanish together with two assessment waves were employed in the study. The findings revealed decline of average conscientiousness and agreeableness levels. The research confirmed and added to earlier works by Soto & Tackett, (2015) that demonstrated reduction of conscientiousness and agreeableness.

Aggression has been shown to change with age, and levels of direct forms of aggression decline as people mature, according to Björkqvist et al., (1992). The said researcher looked at the age difference in direct aggression in kids and youths aged 8-15. Results revealed direct aggressiveness was highest in kids below eight years. Österman et al., (1998) replication research that investigated aggressiveness in a cross-cultural population in respect to three age groups: 8 years, 11 years, 15 years across Finland, Israel, Italy, and Poland. The results revealed an age-related decrease in physical aggressiveness and a minor rise in verbal aggressiveness for direct aggression. The study came to the conclusion that children were more likely than adolescents to utilize more overtly physical types of aggression. Cross-sectional research on adolescent aggressiveness among schoolchildren and dropouts was done by Selah-Shayovits, (2004). The study examined the effects of age on adolescents aged 15-16 years and 17-18 years in an educational setting. T-tests were utilized to assess the connection of age and aggression indices. According to the findings, younger age groups showed more aggression than older ones. The results demonstrated that as people age, levels of all forms of aggression declined. Descartes & Maharaj, (2016) looked into how age and cultural influence affected direct aggression in children and adolescents in Trinidad. The sample included 170 students who completed self-report questionnaires. Data was analyzed using General Linear Modeling. The study results showed age-group differences for direct aggression. The finding was consistent to other studies that showed physical aggressiveness reduced with age (Björkqvist et al.,1992; Toldos, 2004).

### **2.2.2 Gender**

Klimstra et al., (2009) longitudinal study on Dutch teenagers sought to assess personality maturity by measuring the big five-dimension steadiness and adjustments. Survey method was utilized. In contrast to boys, who displayed increase or decrease in age, agreeableness and conscientiousness attributes in girls grew or stayed stable throughout adolescence. The research showed that throughout adolescence, compared to boys, girls were more neurotic and conscientious and by the

conclusion of adolescence, the increase in higher levels of agreeableness for girls had disappeared. To investigate gender disparities in the developmental trajectories of traits, Soto et al., (2011) carried out large-scale research that had a cross-sectional design. Personality attributes were quantified by utilization of the Big Five Inventory. Findings indicated that neuroticism increased from childhood to adolescence in girls, but then declined from early adulthood to middle age, while it decreased from childhood to middle age in boys.

Large-scale cross-cultural research that investigated gender variation in teenagers from a personality perspective was performed by De Bolle et al, (2015). Age and culture were controlled and data were gathered using self-report questionnaires. In over 23 cultures, the general direction of gender differences was consistent according to accounts from observers. For instance, neuroticism decreased in both genders, with boys having a stronger effect than girls. (Björkqvist et al., 1992; Archer, 2004) argued on the close similarities between gender and aggression. The said researchers claimed that, when compared, direct and indirect types of aggressiveness are the sole ways in which males and females vary from one another. Adolescent boys exhibited greater physical and verbal aggressiveness directly compared to girls, according to Toldos, (2004) research. Buss & Perry, (1992) study used a questionnaire to measure anger, hostility, physical and verbal aggressiveness. According to the survey, men reported higher physical aggressiveness than women. (Archer, 2004) meta-analytic assessment of sex differences during aggressiveness from the theoretical perspective of social role and sexual selection. According to the assessment, how aggression was operationalized, assessed, and analyzed had an impact on how much there were gender differences. The aforementioned study discovered that physical aggressiveness, a sub-type of direct aggression, was more prevalent in men than women across all ages and cultures and started in early childhood. The extent of the gender gap in children and adolescents' direct and indirect aggression was investigated through review (Card et al.,2008). According to the study, direct aggression was more popular for boys than girls. Peak levels of correlation were found between externalizing issues, low prosocial conduct, and strained peer relationships and direct aggression.

### **2.2.3 Socioeconomic status**

Judge et al., (1999) study on professional achievement over the lifespan indicated that neuroticism levels were probably greater among people with lower socioeconomic position. Longitudinal

research in the United States on socioeconomic position and neuroticism observed that both could combine to raise rates of all-causes mortality among the relatively less advantaged (Chapman et al., 2009). In addition, Kajonius & Carlander, (2017) study found that income was inversely correlated to neuroticism. Heckman & Kautz, (2012) study found that conscientiousness positively predicted socioeconomic status on top of intelligence. Childhood socioeconomic status could predict patterns in personality according to Jonassaint et al., (2009). Higher levels of openness and extraversion were exhibited among children from homes with greater socioeconomic position. In contrast, higher levels of neuroticism, below par conscientiousness were exhibited by children from homes with lower socioeconomic status. The study concluded that lower socioeconomic position during childhood was associated with increased neuroticism as an adult. The results corroborated those of Lahey, (2009) study, which showed that people with lower socioeconomic position tended to score higher on neuroticism.

Aggressive conduct in children and adolescents has consistently been linked to low socioeconomic position (Piotrowska et al., 2015). Galgotra, (2013) found that adolescents from lower socioeconomic origins score higher on aggression and behavior issues than adolescents from higher socioeconomic backgrounds. A cross-sectional study by Fatima & Sheikh, (2014) examined the mechanism through which socioeconomic status influenced adolescent aggression. The study analyzed the cognitive mechanism through which socioeconomic positions influenced aggression. The study found that lower-socioeconomic status adolescents reported more aggression than higher-socioeconomic adolescents. A substantial relationship between poor socioeconomic level and aggressive behavior in white children was discovered in research performed by Guerra et al., (1995). Furthermore, Borge et al., (2004) noted that children originating out of high-risk homes exhibited physical aggression more frequently. Greitemeyer & Sagioglou, (2016) discovered that adolescents of low socioeconomic status exhibited higher aggressive behavior in frustrating situations. The study concluded that socioeconomic status had an impact on both verbal and physical behavioral aggression.

#### **2.2.4 Peer**

Adolescence was a time when young people largely relied on their group of friends for help, approval, as well as behavior coping.

A qualitative study by Edwards et al, (2018) sought to understand how male adolescents in rural Australia perceived aggression. The participants recognized peer pressure as a contributing factor to physical aggressiveness. Wang et al., (2017) explored whether the association with delinquent peers had any links to aggressive behaviors. The aforementioned researchers investigated indirect verbal and physical aggressiveness linked to criminal teenage groups relations among middle school students in China. The relations between criminal peers had a positive connection with aggressiveness when gender, age, and socioeconomic position were taken into account in the analysis. A longitudinal study by Jung et al., (2016) examined the connection between perceived support for aggressive conduct. Utilizing a sample of 1446 German kids and teenagers between the ages of 10 and 18. In order to understand how aggressive conduct and acceptance by peers are related, the study looked at the function that external control beliefs play. According to the findings, aggressiveness could be foreseen through acceptability of aggression by peers. Group socialization theory posits according to (Harris, 1995) that as children grow with age and start socializing with friends in peer groups, this critical stage becomes an important determinant of adolescent personality development.

To examine the connection of personality attributes and how kids interacted with their peers in early adolescence, Jensen-Campbell et al., (2002) conducted research. Two studies with a multi-method design were described. In the first study, 206 fifth- and sixth-graders were asked about their personalities and how they related to friendship and peer acceptability. Both Harter's Self-Perception Profile (SPP) and the Big Five Inventory were employed. Peers were nominated by counting the number of best friends. Results demonstrated how extraversion plus agreeableness were associated with both friendship and acceptability among peers. The relationship between personality and peer problems was investigated in a second study utilizing a longitudinal methodology. According to the study, youngsters who are agreeable will be shielded from bullying by their peers. The research found that agreeableness was related to a reduction in victimization. According to the study's findings, children's processes and results relating to peer relationships were highly correlated with agreeableness.

### **2.2.5 Media**

The media can operate as a strong socializing agent for adolescents and may influence their behaviors during the critical period of self-identity and peer approval (Arnett, 1995). The

probability of becoming desensitized to violence and exhibiting more resistance may increase after being exposed to aggressive or violent media (Bushman & Anderson, 2009). According to Gentile et al., (2010) the association between relational, physical and verbal aggressiveness in school-age children and consumption of media violence was investigated in a longitudinal study from the general aggression model perspective. In five Minnesota schools, 430 third- through fifth-graders, aged 9.7(mean) were chosen. Survey was carried out on peers, teachers and media violence was measured across three types. The study found children were more likely to be hostile after viewing media violence. The children demonstrated physical aggression explaining how situational inputs affected a child's response and internal state.

Longitudinal research was conducted in the United States on media use among eight to eighteen years old in 3rd to 12th grades (Rideout et al., 2010). Using a survey design, data was collected with five years intervals. The findings showed that in 2005, teenagers between the ages of 8 and 18 used a typical of 6 1/2 hours daily; using computers, playing video games, viewing television and movies, and listening to music. In 2010, the average daily watching time for the same demographic grew to 8 1/2 hours. The study also noted, increase in cell phone and laptop ownership for the age group during the same period, not forgetting increased internet access. Adolescents who were exposed to media more frequently had poorer test scores and less personal satisfaction, according to the study. However, the study did not attempt to link media use with aggressive behavior in adolescents but it clearly outlined the hazardous amount of time spent on media use which was at least forty hours per week. The findings could be inferred in Richmond & Wilson, (2008) study that examined if cognitive distortions mediated the relationship between individuals' gratification of violence on media and the rate at which the individuals were displayed to it. The study discovered that people who frequently watched violent or aggressive media formed false beliefs, which altered their perceptions of what is moral or appropriate behavior. The study came to the conclusion that more aggressive behavior was caused by a larger tendency to disregard moral restraints, which was brought on by increasing exposure to violent media. This study however did not specify types or forms of aggression and was conducted in adults.

Vossen & Fikkers, (2020) carried out a longitudinal study in the Netherlands among adolescents aged between 10 -14years. Trying to grasp in what ways adolescent social behavior and media violence are related. The research was carried out to look at the mediation effect sympathy

displayed. The sample consisted of 1029 adolescents - two siblings from the same family paired together. Data was collected in three waves with one-year intervals using questionnaires. Aggression scale was utilized to quantify direct aggressiveness, while direct estimates were utilized to measure media violence exposure. Direct aggressiveness probability or chances of occurring were reduced when sympathy was high, in addition, sympathy fueled healthier prosocial behavior, according to the correlational analysis. Openness, neuroticism and extraversion strongly correlated with social media use in a study by Zywicki & Danowski, (2008) that assessed the link between personality together with social networking. Furthermore, research to see if the various dimensions of personality could forecast blogging was undertaken. The researcher found high scores in openness and neuroticism were linked to the likelihood of one starting a blog (Guadagno et al., 2008). Neuroticism and extraversion were linked to online activity through research. From the findings, people with low degree of extraversion, high degree of neuroticism were linked to consistent online activities endorsed fully by them compared to individuals that were highly extraverted and less neurotic (Amichai- Hamburger, Wainapel, & Fox, 2002).

### **2.3 Relationship between Personality (the Big 5 Dimensions) and Indirect aggression**

To clearly understand the link aggressive conduct and personality have, both when provoked or not. An evaluation was done in meta-analytic form. Some personality traits were found to affect aggressiveness both under neutral and provocative situations, whereas others just under provocation according to Bettencourt et al., (2006).

According to research by Sharpe & Desai, (2001), positive correlation was found between neuroticism and aggressive emotions like hostility and anger. The opposite was found for conscientiousness, extraversion and agreeableness, which were adversely correlated with emotions that were aggressive. In a study of African American adolescent students, Evans, (2005) looked at the relationship between personality factors and verbal, internalizing, and direct aggression as three types of school aggression. 133 adolescents chosen as the sample of average age 12.39. Three types of school aggression, the Big Five dimensions, internalizing habits, and academic attainment were all assessed using questionnaires. Results showed that neuroticism was negatively linked with direct aggressiveness but favorably associated with verbal aggression, internalizing behaviors, and indirect aggression. A study by Barlett & Anderson, (2012), also found that the Big Five



personality attributes may have direct or indirect association to aggressive conduct through aggressive emotions and attitudes.

Agreeableness, conscientiousness, and social aggression were shown to have strong negative correlations by Gleason et al., (2004). The study looked at how personality rated to direct and indirect aggressiveness. 74 adolescents in the seventh and eighth grades made up the sample. All the 5 aspects of personality, with an emphasis on agreeableness were measured. The findings revealed that indirect aggressiveness was strongly and adversely correlated with both agreeableness and conscientiousness. Adolescents described themselves as less agreeable and less conscientious. The study's limitations were its small sample size, contemporaneous design, and ignorance of the role of personality characteristics. Additionally, the study only took into account positive personality traits and ignored negative ones.

### **2.3.1 Age**

Björkqvist et al., (1992) predicted that as children's language skills advanced, their aggression shifted from predominantly physical to verbal, as their social cognitive abilities developed, aggressiveness changed from verbal to indirect. The research assessed the distinction in aggressiveness by age in kids and youths between the ages of 8 and 15. Direct aggressiveness levels were highest in children aged 8. Low levels of indirect aggressiveness were also registered among children aged 8. The age groups 11 and 15 demonstrated higher levels of indirect aggression. Researchers concluded that indirect aggression persisted until late adolescence.

Österman et al., (1998) duplicated the research. The study used a cross-cultural design to assess aggressiveness among children aged 8, 11, and 15 across Poland, Finland, Italy and Israel. The findings revealed a developmental pattern in which, by the age of 15, girls' indirect aggression dramatically increased. Boys experienced a little increase between the ages of 8 and 11 and a slight fall by the age of 15. According to the research, notably among girls, indirect aggressiveness grew during middle adolescence. A lack of prolonged extensive longitudinal research exploring the dynamic change of strategies (direct to indirect) in particular persons' during a lifespan. According to Heilbron & Prinstein, (2008) has prevented the development of a comprehensive theory that outlined the process by which indirect aggression came to be, how it grew and is constantly evolving in a particular order. The average age difference of personality from early childhood to late adolescence was examined by Slobodskaya & Kornienko, (2021) in Russia. Personality was

assessed using self- and parent-reports in a cultural setting as part of a cross-sectional design for the study. The results showed an increase in agreeableness, conscientiousness and neuroticism traits across childhood while openness and extraversion traits decreased. Based on the parent's report, the conscientiousness trait increased while neuroticism traits decreased in adolescence. In middle adolescence, agreeableness and youth-rated alpha also fell. The results of the study were in favor of personality development from early childhood through late adolescence.

### **2.3.2 Gender**

Owens, (1996) investigated the gender and developmental difference in aggression among children and adolescents with mean ages of 7.9, 11.9, 14.7 and 16.6 in Australia. Using random sampling, a sample of 422 students were selected from primary and high school. Data was collected using questionnaires. In light of the results, an indirect form of aggression was found among girls during the teenage years. The findings were similar to Björkqvist et al., (1992) study that measured types of aggressive behaviors using peer nomination techniques and compared with different age groups.

234 children in elementary, middle, and high school, with average ages of 9, 12, and 15, participated in Galen & Underwood, (1997) investigation of the emergence of indirect aggression. Data was collected using questionnaires. Data showed that in both 4<sup>th</sup> grade students aged 9 to 10 and 7<sup>th</sup> grade students aged 13 to 14, boys and girls utilized indirect aggression equally. In the tenth grade, there were noticeable gender disparities, with girls utilizing more indirect aggressiveness than boys. The results were at odds with Björkqvist et al., (1992) study which found students aged 10 to 14 in middle school utilized indirect aggression differently depending on their gender.

In Adelaide, Australia, Owens et al., (2000) qualitative research aimed at assessing the impact of indirect aggressiveness in girls and their responses. Randomly chosen from two schools, a sample of 54 girls aged 15 was used. To acquire information from teachers and students, paired and individual interviews in addition to focus group discussions were held. Type of indirect aggression displayed by teenage girls was looked into. Results showed gossiping and peer exclusion from groups were the common aggressive behaviors. The findings were due to the girls' need to form close personal relationships and attachment with peers thus were more predisposed to victimization. The study was constrained as a result of the qualitative approach, lack of gender difference and small sample size.

Toldos, (2004) research aimed at exploring the strength and pattern of disparities in physical, verbal, and indirect aggressiveness among Spanish teenagers between the ages of 14 and 17 in terms of gender and age. Boys utilized physical aggression, plus direct verbal aggressiveness more frequently than girls, according to peer estimates, whereas indirect aggressiveness was used equally by both sexes. Similarly, Card et al. (2008) and Archer, (2004) meta-analyses review displayed no gender difference for indirect aggressiveness since the statistical difference were negligible.

### **2.3.3 Socioeconomic status**

Situational elements interacted with an individual's characteristic to predict the likelihood of an aggressive response according to Anderson & Bushman, (2002). Guerra et al., (1995) study aimed at examining the influence on aggression from socioeconomic neighborhoods, stressful events and individual beliefs among children. Using a longitudinal design, information was gathered from a sample of 1935 kids, peers, archival family economic status reports from schools, and parent interviews. The results showed that children from low-socioeconomic status neighborhoods displayed more aggression and suggested its effects may have exacerbated stress and sparked aggressive beliefs in young children. Despite controlling for factors including ethnicity and family socioeconomic level, the study only examined overall aggressive behaviors rather than specific forms or types of aggressiveness. Similar findings on how neighborhood socioeconomic disadvantage contributes to children's emotional and behavioral issues were reported by Schneiders, (2003). Family socioeconomic status was controlled. The findings showed living in a low-socioeconomic neighborhood was associated with higher internalizing problems (indirect aggression) and would cause issues to worsen as kids grew older and transitioned from childhood to adolescence.

Yizhen et al., (2006) study aimed at identifying risk factors of aggression through family characteristics in children and adolescents. Using stratified cluster sampling, 4010 students were selected in Hubei province from 5 different areas in primary and secondary school. Data was gathered using questionnaires and statistical analyses conducted using multiple logistic regression. The results showed aggressiveness was more common among kids and teenagers whose socioeconomic position and maternal education were lower. Aggression was also more pronounced in children and teenagers from single-parent households. According to the research,

aggression in children and adolescents was substantially correlated with maternal education, father occupation, and family type. Aggressive forms or types were not identified in the study. A study by Baker et al., (2018) accessing how family socioeconomic status related to relational aggression moderated by social cognition in children. According to the findings, children with low socioeconomic class demonstrated greater relational aggression than children with high socioeconomic status.

#### **2.3.4 Peer**

Huesmann & Guerra (1997) found that teenagers who trusted and thought their friends to be welcoming and accommodating to the use of aggression, the more prone the teenager was to view aggressiveness as prudent. Adolescents' normative ideas were examined as potential precursors to aggressive behavior by the aforementioned researchers, who discovered a positive relationship between them and children's aggressive behavior. Two studies were carried out by Prinstein & Cillessen, (2003) to investigate the link between two peer status indicators and aggressive behavior. The first study was concurrent in design, a sample of 235 students aged 15 to 17 years in 10th grade at New England high school were selected. Using peer nomination questionnaires, forms and functions of aggression and victimization were examined together with popularity and preference. The findings revealed that aggression was linked to low peer likability but high perceived popularity among peers. Teenagers who used indirect forms of aggression were more likely to receive positive attention from their friends compared to those who engaged in reactionary aggressiveness.

Using longitudinal design, the predictive factors for all forms of aggressive conduct in the same participants after 17 months were low social preference together with high peer-perceived popularity. The findings allowed for a more thorough theoretical study of the manifestations of numerous aggressive conducts linked to status.

In a study by Xie et al., (2002) aimed at investigating whether various forms of aggression had varied roles in social interactions and developmental processes. A sample of 475 adolescents in 7th grade with mean age of 13.4 years were selected through reported conflict narratives from a Carolina Longitudinal (Cairns & Cairns, 1994). Questionnaires and semi-structured interviews were used. The results revealed the more individuals were involved in a conflict; the more indirect aggression was used. For interpersonal disputes that stem from low levels of reciprocity, indirect

aggressiveness was observed as the initiation behavior. A higher network centrality among teenagers was linked to the usage of indirect aggression.

Valles & Knutson, (2008) study sought to assess whether rates of direct and indirect aggressiveness would be correlated with peer acceptance or rejection. A sample of 237 children aged 6 -11years, 296 mothers of children aged 4 – 11years from a sample of disadvantaged families and 151 teachers of participating children were selected. The Direct and Indirect Aggression scale was utilized together with other questionnaires. Age groups and gender were controlled. According to the findings, mothers and peers reacted more greatly to direct aggressiveness than indirect aggressiveness.

### **2.3.5 Media**

A study by Coyne & Archer, (2004) which was set on accessing how frequent indirect aggression occurred in popular British television programs among adolescents. A sample of 429 students aged 11- 14 years were selected from 2 high schools and requested to name 5 television programs they frequently viewed. Analysis of data collected revealed 29 programs. A metric for attractiveness levels and an inventory of aggression were devised for the 228 hours of programming analysis. The results showed, 92.04% of all the episodes analyzed depicted indirect aggression. Additionally, girls were highly prone to see indirect aggression in contrast to boys. Attractive aggressors, more profusely used indirect aggressiveness as it was presented as realistic, justified and even rewarded than other forms of aggressiveness.

Wallenius et al., (2006) investigated tracts that connected playing video games with both direct and indirect types of aggressiveness in Finland's middle school-aged children and early adolescent years. Data from 478 students in the 4th grade, with a mean age of 10.27, and the 7th grade, with a mean age of 13.38, were gathered using self-report questionnaires while controlling for age group. The findings demonstrated that participants with a high degree of social intelligence were more probable to correlate indirect aggression with game violence. The study's conclusion was that both boys' and girls' direct and indirect aggressiveness were associated with video game violence.

Coyne et al., (2019) in a longitudinal study, investigated whether adolescents' increased use of aggressive text messaging was related to their exposure to indirect aggression in media. Two tests

were administered within a year. The participants were tenth and eleventh grade students who formed the sample of 197. Their mean ages were 14.07 and 15.33. Surveys were utilized to gather information on media use and aggression. Data about aggressive text messages were gathered using a BlackBerry handset. After a multivariate analysis, using the General Aggression Model to interpret the results. The results showed that exclusively for girls, being exposed to indirect aggressiveness on television was linked with greater degrees of relational aggressive texting.

van der Wal et al., (2019) longitudinal survey study examined the relationship between teenagers' desire for various types of broadcast aggressiveness and trait aggression and sex. Linkage analysis was used to identify a sample of 156 adolescents between the ages of 10 and 14. Age, sex, and trait aggression were all taken into account in the survey. 4,839 scenes from the users' preferred television shows underwent content analysis. The findings revealed no significant relationship between trait aggression level and aggression preference. In terms of verbal aggression or indirect aggression, there was no discernible difference between adolescents who were high or low on the aggression scale. The findings indicated there were no variations in indirect aggressiveness preferences. This was at odds with earlier research by Coyne & Archer (2004), which identified indirect aggression as the most common type of aggressiveness. The study's limitations stem from its tiny sample size.

#### **2.4 Correlation between Personality (the Big 5 Dimensions), Direct and Indirect aggression**

Barlett & Anderson, (2012), using the General Aggression Model, postulated that personality factors affected aggressive emotions or cognition, which in turn affected aggression. To look into the connection that aggressive attitudes and emotion not forgetting dimensions of personality have, correlation design research was explored by aforementioned researchers. Using two independent samples, data was collected from each sample group using two different measures of the Big Five. Self -reported questionnaires were used and data path analysis done using MPLUS. The Big five variables and physical aggression were shown to have meaningful direct relationships in the results. By way of physical aggressiveness as well as aggressive feelings and attitudes. To illustrate, agreeableness was found to be indirectly and inversely linked to aggressive conduct. Across aggressive feelings, neuroticism was indirectly linked to aggressive conduct. According to the research, physical aggression was predicted by openness, agreeableness, and neuroticism. The study has limitations since it relied so much on correlational data and metrics.

Cavalcanti & Pimentel, (2016) attempted to replicate Barlett & Anderson, (2012) study in Brazil. The study assessed whether a direct or indirect relationship existed among personality traits on aggression in adolescents. Using convenience sampling, 218 participants were selected with mean age of 18.87 years from high school and undergraduate students. Data on aggression, socio-demographic factors and personality traits were gathered using self-report questionnaires. Correlational analysis was conducted on aggressive emotions, physical aggression and the five personality factors. The General Aggressiveness Model was used to explain the research framework, and findings revealed a powerful positive connection of neuroticism, aggressive emotions and physical aggressiveness. There were also notable associations between aggressive emotions and personality. The outcomes validated Bartlett & Anderson, (2012) research, which identified physical aggression and neuroticism were associated either directly or indirectly by aggressive emotions. Physical aggression and agreeableness were characteristics that were both directly and indirectly associated. The sole discrepancy was that Barlett & Anderson, (2012) research showed no significant relationship between the indirect impacts of openness on aggressive behavior findings.

Research that explored the probable connection socio-demographic factors and personality had to guide aggressiveness in teenagers was done by Ciriaka et al, (2021). The targeted population were girls from 3 rehabilitation centers that were aged 12- 17 years with a final sample of 86. A socio-demographic questionnaire, an aggressiveness questionnaire and the Big Five Inventory were utilized to collect information. These questionnaires were afterwards translated from Swahili into English. Analysis using descriptive, inferential and Spearman's correlation coefficient were performed. Findings showed that there was no conclusive link between physical aggressiveness and extraversion personality dimension, however there was a strong link between verbal aggressiveness and extraversion personality type. Physical aggression and agreeableness personality qualities did not significantly correlate. The findings agreed with those of Cavalcanti & Pimentel, (2016) and Bettencourt et al., (2006). Additionally, there was no connection between verbal aggression and the agreeable personality type. Conscientiousness lacked any significant relationship with physical aggression & verbal aggression. Similarly, there is no conclusive evidence linking verbal or physical aggression to openness. The results were at odds with those of a study by Barlett & Anderson, (2012) that displayed a substantial connection between openness, aggression, aggressive attitudes, and violent action. Neuroticism and verbal and physical

aggressiveness were found to have a strong negative association. The study was constrained by small sample size, sampling methodology and singular focus on girls. The findings did not truly represent an overview of aggressive personality among adolescents in Kenya. This current study will use a bigger sample size, incorporate both genders and be conducted in a secondary school with diverse personality traits. The study will also attempt to fill the knowledge gap.

## **2.5 Theoretical Framework**

Basic tendencies, characteristic adaptability and self-concepts are the three tenets of the Five-factor theory of personality. Biological causes to basic tendencies, external influences and objective biography all interact with the basic tendencies to define the interaction with systems outside personality. Dynamic processes like cognitive styles, affective style, defenses, or planning form the link that connects the all three peripheral elements. Basic tendencies are constant while characteristic adaptations are susceptible to changes. This is as a result of significant environmental impacts and aging-related changes (McCrae & Costa, 2008). The theory is limited as an explanatory theory. It fails to explain all human personality or the underlying causes. The five-factor model was a scientific framework according to Goldberg, (1993), that arranged the numerous unique variations that make up personality.

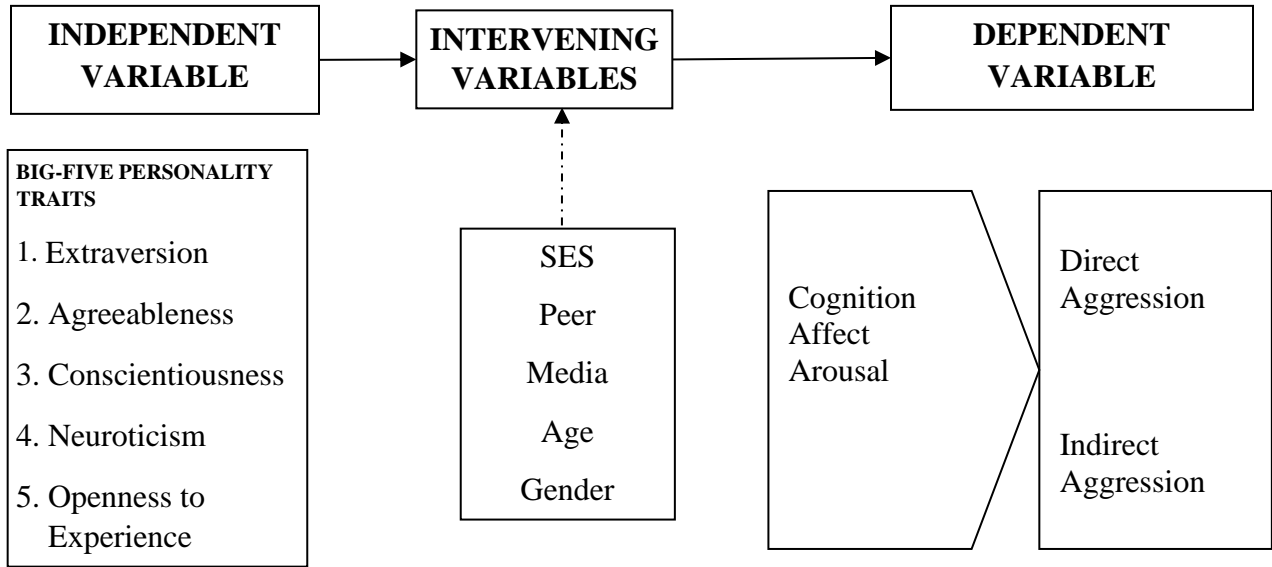
A thorough, integrated framework for comprehending aggressiveness is (GAM) General Aggression Model. Functions of developmental, biological, social, cognitive and personality factors on aggressiveness are all taken into account by the framework (Anderson & Bushman, 2002). "GAM's proximate processes explain the manner in which an individual and environmental factors affect arousal, cognition and emotions. Followed by, affect on appraisal and decision-making process that also affect the consequences of aggressive or non-aggressive conduct" (Anderson & Bushman, 2002). According to the model, an individual slowly starts to grow and exhibit signs of aggression through their thinking and/or behavior after the transformation process, they undergo through the proximal process cycle. Simply put, the GAM's distal processes explain how modification to knowledge structures may result from biological and persistent environmental influences having an impact on personality according to DeWall et al., (2011). The GAM has been utilized in numerous studies that have attempted to under human aggressiveness in various contexts. Although the GAM took into account individual differences, Ferguson & Dyck, (2012) stated that it placed a high emphasis



on “cognitive processes and scripts rather than personality-based differences”.

## 2.6 Conceptual Framework

Figure 2.1: Conceptual Framework Model



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The framework of the study and its rationale are outlined in detail in this chapter. It includes a research plan that is related to the theoretical foundation. The administration approach is mentioned along with the data collection tools. A description of the targeted population, sampling techniques, and data processing steps for the research's variables are provided.

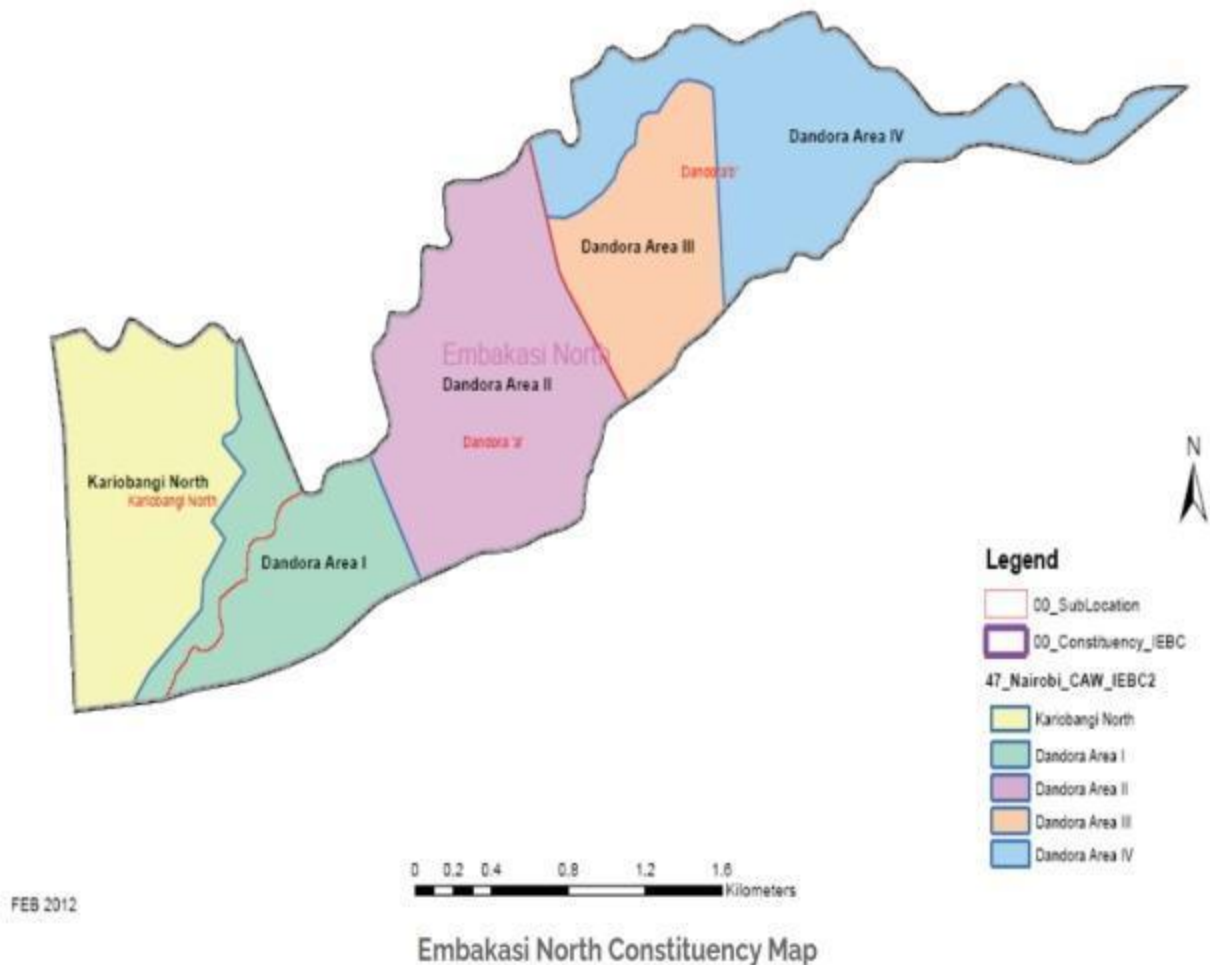
#### **3.1 Research Design**

A case study approach was applied. The research design treated personality (the Big Five dimensions—extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience) as an independent variable, with direct aggression (physical and verbal) and indirect aggression (anger, hostility) as dependent variables. Age, gender, peer, media, and socioeconomic status were treated as confounding variables in the relationship between the big five personality traits and aggressive behavior. The case study was both quantitative and qualitative. The qualitative technique allowed the study to go beyond quantitative data by obtaining more granular, in-depth information that was impossible to obtain from quantitative data. Through surveys, both qualitative and quantitative data were collected. To obtain the sample, a stratified random sampling approach was utilized. Participants responded to demographic questions and two published Likert-scale questionnaires. Two 10-member groups were purposively sampled to form focus group discussions, and four key informants were selected for in-depth interviews where qualitative data was collected.

#### **3.2 Research Site**

The study was carried out in the Dandora Area, Embakasi North, Nairobi County. Being an urban informal settlement, Dandora was chosen. The area also serves as the primary municipal landfill for Nairobi County's solid waste, which has had a negative impact on the area's population health. Due to diversity and other factors in the community, such as poverty, young people living in urban informal settlements are more likely to become radicalized. Poverty limits the livelihood choices of youths, and this gap may be filled by gangs. Other difficulties in the sub-county, which are typical of Nairobi's informal settlement, include insecurity, alcohol and drug misuse, early teenage pregnancy, and sexual and gender-based violence, especially among young people (NCPD 2017).

Figure 3.1: Site Map



### 3.3 Targeted Population

The study targeted 15 and above year-old students enrolled at Dandora Secondary school, Embakasi North, Nairobi County. The school has a total population of 1394 students; Form one (421), Form two (310), Form three (361) & Form four (302). This data was obtained from the school Principal.

### 3.4 Sample Size

234 Students in form 2 and 3 were determined to be the sample size using the Krejcie & Morgan formula (1970).

*Table 1: Sample Size*

<b>FORM 2 Target population</b>	<b>Sample size</b>	<b>FORM 3 Target population</b>	<b>Sample size</b>
310	86	361	99

### 3.5 Sampling procedure

The case study employed a mixed-methods approach, and the sample of quantitative data was chosen using stratified random sampling according to age (15 years or older). 20 students were purposive sampled from the main sample to form two focus group discussions where qualitative data was collected. 4 key informants were engaged in in-depth interviews.

### 3.6 Research Instruments

In the study, self-report questionnaires (Appendix I), structured interviews for focus groups (Appendix II), and Key Informant Interviews were used (Appendix III). The questionnaire had three parts. The researcher developed Part A to collect data on the participant's demographic parameters and attributes. Utilizing the Buss-Perry Aggression Questionnaire, Part B investigated the dependent variable, which were forms of aggressive behaviors. 29 self-administered items formed the questionnaire, which was rated on a Likert scale 1-5 "(1 Extremely uncharacteristic to 5 Extremely characteristic)". The aggregate of the item's ratings made up each scale's score. "Physical aggression (items 1-9), verbal aggression (items 10-14), anger (items 15-21), and hostility (items 22-29)". Two items (7 and 18) that were written in the antithetical to aggression's direction were reversed scored. The sum of the scale scores served as a representation of the overall evaluation of aggression. More aggressive behavior would be indicated by higher scores.

Part C had the Big Five Inventory (BFI), utilized to examine the independent variable. The BFI has 44 items, assessed on a Likert scale of "1 (disagree a lot) to 5 (agree a lot)", on five main

scales. The total of each item's score on the scale is calculated. Reverse scoring is applied to bolded items.

Focus Group Discussion (FGD) was used for structured interviews. Key Informant Interview (KII) was used for in-depth interviews of key informants. The FGD and KII were developed by the researcher to help build and clarify the self-report questionnaires.

### **3.7 Data Collection Procedure**

Quantitative and qualitative data were gathered. To conduct the survey, the researcher needed permission from (NACOSTI)- National Commission for Science, Technology, and Innovation (Appendix VI). School principal and the deputy both agreed to sign the informed consent forms (Appendix IV), given that the research would involve using minors. The researcher, along with two trained assistants distributed the questionnaires and supervised the subjects.

#### **3.7.1 Quantitative Data**

A pen and pencil self-report questionnaire with four parts was administered to all the students' respondents. In Part A of the questionnaire the participants responded on demographic characteristics. Part B constituted the aggression questionnaire which collected information on the forms of aggressive behavior utilizing a 5-point Likert scale. Part C utilized a 44-item instrument with five main scales to gather information on the participants' personality dimensions.

#### **3.7.2 Qualitative Data**

Focus group discussions (FDG) that included 20 students and interviews of 4 key informants were used to gather qualitative data. The conversation in the focus group was concentrated on themes of aggressive behaviors and attributes of personality. In addition, the discussion centered on how they relate to cognition, affect, and arousal in the school setting. Moderation of the FGD was facilitated by the researcher. Items in the interview schedule were chosen to provide qualitative information that was used to enhance and clarify what was learned from the survey and focus groups discussion.

### **3.8 Validity and Reliability**

Cronbach's coefficient alpha was 0.726 for the Buss-Perry aggression questionnaire (1992) 0.726 and 0.749 for the Big Five Inventory. All the instruments met the threshold of 0.7 (Cronbach's Alpha) and thus reliable and consistent.

### **3.9 Pilot Study**

Before distributing the questionnaire to the targeted population, piloting was done with a smaller sample. A sample size of 20 students excluded from the primary survey was purposefully selected. This accounted for 20% of the actual sample, falling within the 10% to 20% range that is advised by (Baker,1994). The topics that emerged were examined during a debriefing with the participants. The main amendments were on language and a few statements were simplified by using synonyms.

### **3.10 Data Analysis**

To assure correctness and data conversion from raw form to compressed and classified forms that are better suited for analysis, data analysis involves editing, coding, categorizing and tabulating (Kothari, 2004). Frequency measures of central tendencies, chi-square and multiple regression methods for analysis were utilized in the study. Information gathered in Part A (Demographic factors) of the questionnaire were keyed directly into the STATA version 17 for analysis. Parts B (Buss-Perry Aggression Questionnaire) & C (The Big Five Inventory) were coded using numbers on an ordinal scale of 1-5. For part A the mean responses and normal distribution around the mean were utilized to calculate measures of central tendency. Tables were utilized to illustrate the data by painting a clear picture of the results. The responses on each of the five components of Personality; Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness and were scored then correlated with the scores on form of aggression after scoring the Buss-Perry Aggression Questionnaire scales. To establish a possible connection and thus test the hypothesis, multiple regression and Chi-square test were utilized to compute the relationship. Qualitative information was gathered and analyzed according to the applicable theoretical themes in the study.

### **3.11 Ethical Considerations**

A research permit was applied by the researcher, which was granted by the research body -National Commission for Science, Technology, and Innovation. The researcher's request was granted and approved by the Regional Director of Education for the Nairobi Region on behalf of the Ministry of Education to conduct the study in a school setting. Since the study involved minors, the principal or deputy of the school provided informed consent by signing the form (Appendix IV). The goal of the study and the criteria for participation were conveyed to the sample's students. If the subjects decided to take part in the study, they were assured of confidentiality.

## CHAPTER FOUR

### RESULTS

#### 4.0 Introduction

Findings and the analysis of the collected data are presented in this chapter in order to determine the link between personality (the Big 5 dimensions) and aggressive behavior. Additionally, findings on the demographic factors and objectives of the study were reported, along with intervening variables. Statistics that are descriptive and inferential were used to present the research findings. Chi-square tests and multiple regression coefficients were utilized to explore possible connections linking the independent and dependent variables.

#### 4.1 Demographic characteristics

Information on students' demographic characteristics that were significant to the current study was collected through questionnaires. This section presents the distribution of the sample (frequency and percentages) by age, gender, ethnicity, socioeconomic status, level of study, and media among the 185 students who made up the sample.

##### 4.1.1 Age of Students

The students Age distribution is seen in Table 2.

*Table 2: Students' Age distribution*

<b>Variable</b>	<b>Description</b>	<b>Proportion</b>
Age	15-17 Years	148 (80.0%)
	18-19 Years	37 (20.0%)

The age distribution analysis showed that a sizable portion (80.0%) of the students were aged between 15-17 years old, while 37 (20.0%) were aged 18-19 years old.

##### 4.1.2 Gender of Students

The students' gender distribution is presented in Table 3. There were more males (56.8%) than females (43.2%) from the distribution analysis. Gender disparity trend is a regular occurrence

across the country for secondary school students. This is attributed to the African cultural social norm that perceives boys' education more important compared to girls.

*Table 3: Gender distribution*

<b>Variable</b>	<b>Description</b>	<b>Proportion</b>
Gender	Male	105 (56.8%)
	Female	80 (43.2%)

#### **4.1.3 Student' Level of Study**

Students' distribution by the level of study presented in Table 4. The analysis of students' level of study showed that a large portion of the students 99 (53.5%) were in form three while 86 (46.5%) were in form two.

*Table 4: Students' Form distribution*

<b>Variable</b>	<b>Description</b>	<b>Proportion</b>
Form	2	86 (46.5%)
	3	99 (53.5%)

#### **4.1.4 Ethnicity of Students**

Students' ethnic distribution is displayed in Table 5. The analysis indicated that a large portion of the students were Kikuyus 63 (34.1%), followed by Luo 52 (28.1%), Luhya 29 (15.7%), Kamba 22 (11.9%), Taita & Giriama tied with 4 (2.2%) students each, Kisii, Meru, Teso tied with 3 (1.6%) students each and Nandi and Somali tied with 1 (0.5%) student each.

*Table 5: "Students' ethnic distribution"*



Variable	Description	Proportion
Ethnicity	Kikuyu	63 (34.1%)
	Luo	52 (28.1%)
	Luhya	29 (15.7%)
	Kamba	22 (11.9%)
	Taita	4 (2.2%)
	Giriama	4 (2.2%)
	Kisii	3 (1.6%)
	Meru	3 (1.6%)
	Teso	3 (1.6%)
	Nandi	1 (0.5%)
	Somali	1 (0.5%)

#### 4.1.5 Socioeconomic status

Students' socioeconomic status distribution is displayed in Table 6. Students' socioeconomic status was determined by considering the educational attainment of the parents and their income. The analyses of the distribution indicated that 56 (35.95%) students reported that their fathers had over 17years of schooling, 45 (28.9%) students reported 9-12years, 40 (25.6%) students reported 13-16years, and 15 (9.6%) students reported below 8years. 57 (31.5%) students reported that their mothers had 9-12years of schooling, 55(30.4%) students reported over 17years, 47 (25.9%) students reported 13-16years, and 22 (12.2%) students reported below 8years. 58 (37.2%) students reported that their fathers earned between 15,000-30,000 Kenya Shillings, 49(31.4%) students reported less than 15,000 Kenya Shillings, 17(10.9%) students reported between 30,000-50,000 Kenya Shillings, 15(9.6%) students reported earned over 50,000 Kenya Shillings while 17(10.9%) students reported did not earn an income. 85(47.2%) students reported that their mothers earned less than 15,000 Kenya Shillings, 40(22.2%) students reported between 15,000-30,000 Kenya Shillings, 13(7.2%) students reported between 30,000-50,000 Kenya Shillings, 9(5.0%) students reported earned over 50,000 Kenya Shillings while 33(18.3%) students reported were not earning.

*Table 6: Socioeconomic Status distribution*

Variable	Description	Proportion
Father's earnings	Not earning	17 (10.9%)
	<15,000	49 (31.4%)
	15,000-30,000	58(37.2%)
	30,000-50,000	17 (10.9%)
	>50,000	15 (9.6%)
Mother's earnings	Not earning	33 (18.3%)
	<15,000	85 (47.2%)
	15,000-30,000	40 (22.2%)
	30,000-50,000	13(7.2%)
	>50,000	9 (5.0%)
Father's years of schooling	<8 Years	15 (9.6%)
	9-12 Years	45 (28.9%)
	13-16 Years	40 (25.6%)
	>17 years	56 (35.95)
Mother's years of schooling	<8 Years	22 (12.2%)
	9-12 Years	57 (31.5%)
	13-16 Years	47 (25.9%)
	>17 years	55 (30.4%)

#### 4.1.6 Media

Students' media use distribution is presented in Table 7. The analysis of students' media use distribution showed that 40(21.6%) students reported to view aggression use in movies, 59(31.9%) students reported to view aggression use in Television, 52(28.1%) students reported to read on aggression use in magazines, and 34(18.4%) students reported to view aggression use on social media.

*Table 7: Distribution of students by Media Use*

Variable	Description	Proportion
Media	Movies	40 (21.6%)
	Television	59 (31.9%)
	Magazine	52 (28.1%)
	Social media	34 (18.4%)

#### 4.1.7 Peer

The sample's distribution by peer is seen in Table 8. The analysis of the peer distribution showed that 100(54.1%) students reported seeing their role model use aggression while 85 (45.9%) students reported not. 75(40.5%) students reported less than half of their friend's used aggression, 22 (11.9%) students reported more than half of their friends, 19 (10.3%) students reported almost all of their friends while 69 (37.3%) students reported none of their friend's used aggression.

*Table 8: Students' Peer distribution*

<b>Variable</b>	<b>Description</b>	<b>Proportion</b>
Peers (Role model use aggression)	Yes	100 (54.1%)
	No	85 (45.9%)
Peers (Friends use of aggression)	Less than Half	75 (40.5%)
	None	69 (37.3%)
	More than Half	22 (11.9%)
	Almost All	19 (10.3%)

#### 4.2 Summary Statistics

##### Personality Attributes

Personality attributes distribution is presented in Table 9.

*Table 9: Distribution of students Personality Traits*

<b>Variable</b>	<b>Description</b>	<b>Proportion</b>
Personality traits	Extraversion	30 (16.2%)
	Agreeableness	41 (22.2%)
	Conscientiousness	57 (30.8%)
	Neuroticism	29 (15.7%)
	Openness	28 (15.14%)

Extraversion trait was found among 30(16.2%) students, 41(22.2%) students displayed the agreeableness trait, 57(30.8%) students had conscientiousness trait, neuroticism was observed among 29(15.7%) students and openness to experience was displayed by 28(15.14%) students.

## Direct aggression

Direct aggression distribution is displayed in Table 10.

*Table 10: Distribution of students Direct Aggression*

Variable	Description	Proportion
Direct Aggression	Physical Aggression	91 (49.2%)
	Verbal Aggression	94 (50.8%)

Direct aggression was measured by examining physical and verbal aggression together. 91(49.2%) students scored on physical aggression while 94(50.8%) of the students scored on verbal aggression.

## Indirect aggression

Indirect aggression distribution is displayed in Table 11. Indirect aggression was measured by examining anger and hostility together. On indirect aggression, 93(50.3%) students indicated they manifested anger while 92(49.7%) indicated they were hostile.

*Table 11: Distribution of students Indirect Aggression*

Variable	Description	Proportion
Indirect Aggression	Anger	93 (50.3%)
	Hostility	92 (49.7%)

### 4.3 Relationship between Personality (the Big 5 Dimensions) and Direct aggression

The first objective sought to make certain whether personality (the Big 5 dimensions) and direct aggressiveness had any connection among adolescents living in urban informal settlements. To investigate the association, regression analysis and Chi-square statistical tests were run. The interaction linking personality attributes and direct aggressiveness was examined via linear probability regression analysis. The aim was to demonstrate the effect or influence of the confounding factors. The analysis results are presented in Table 12. The results indicated that individuals with agreeableness traits had a 6.4% lower chance of manifesting verbal aggression compared to those who were extraverted. Individuals with conscientiousness traits had 17.2%

more likelihood of manifesting verbal aggression compared to those who were extraverted. Individuals with the neuroticism trait were 4.0% less probable to display verbal aggression compared to extraverts, while those with the openness trait were 10.4% more probable to manifest verbal aggression compared to extraverts.

For the media, the findings indicated that respondents who viewed aggression use on television were less likely to display verbal aggression by 4.3% compared to those who viewed aggression use in movies. Respondents who read about aggression use in magazines were less likely to display verbal aggression by 15.3% compared to those who viewed aggression use in movies. Respondents that viewed aggression use on social media were less likely to display verbal aggression by 15.4% compared to those that viewed aggression use in movies. For peers, the findings indicated that respondents who had role models who used aggression were 5.4% more likely to engage in physical aggression compared to those whose role models did not use aggression.

On mothers' education, the findings indicated that respondents whose mothers had schooled for between 9 and 12 years were 13.7% less likely to engage in verbal aggression compared to those whose mothers had schooled for less than 8 years. Respondents whose mothers had schooled for between 13 and 16 years were 22.7% less likely to engage in verbal aggression compared to those whose mothers had schooled for less than 8 years, while those whose mothers had schooled for over 17 years were 18.7% less likely to engage in verbal aggression compared to those whose mothers had schooled for less than 8 years. For respondents whose fathers had schooled for between 9 and 12 years, the probability of displaying verbal aggression was 28.0% higher compared to those whose fathers had schooled for less than 8 years, while those whose fathers had schooled for 13–16 years were 34.0% more probable to display verbal aggression in contrast to those whose fathers had schooled for less than 8 years. Those whose fathers had been schooled for more than 17 years were 40.2% more likely to display verbal aggression in contrast to those whose fathers had been schooled for less than 8 years.

In terms of earnings, respondents whose mothers were earning less than 15,000 Kenyan shillings were 15.4% less likely to display verbal aggression in contrast to those whose mothers were not earning. For those whose mothers were earning between 15,000 and 30,000, they were 14.8% less likely to display verbal aggression in contrast to those whose mothers were not earning. For those whose mothers were earning 30,000–50,000, they were 15.2% less likely to display verbal

aggression in contrast to those whose mothers were not earning, while those whose mothers earned more than Ksh 50,000 were 31.8% less likely to display verbal aggression. Respondents whose fathers were earning less than 15,000 were 14.4% more probable to display verbal aggression; those whose fathers were earning 15,000–30,000 were 12.4% more probable to display verbal aggression; those whose fathers earned 30,000–50,000 were 30.5% more probable to display verbal aggression; and those whose fathers earned over 50,000 were 3.1% less probable to display verbal aggression compared to those whose fathers were not earning. On gender, respondents who were female were 10.9% less likely to manifest verbal aggression as opposed to those who were male. On age, respondents who were aged 18–19 years were 8.1% less likely to manifest verbal aggression compared to those aged 15–17 years.

The model had a small R<sup>2</sup> of .142, meaning the proportion of variation on the influence of the confounding variables on direct aggression explained by personality attributes was 14.2%. The implication was that there were other variables that influenced direct aggression that should be considered in future research.

*Table 12: Regression analysis - Influence of the Confounding variables on the interaction between Direct aggression and Personality attributes*

Direct Aggression	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
<b>Personality traits</b>							
Agreeableness	-.064	.142	-0.45	.655	-0.345	.217	
Conscientiousness	.172	.141	1.22	.224	-1.107	.45	
Neuroticism	-.04	.165	-0.24	.811	-0.367	.288	
Openness	.104	.152	0.68	.496	-0.198	.406	
<b>Media</b>							
Television	-.043	.126	-0.35	.73	-0.293	.206	
Magazine	-.153	.128	-1.19	.236	-0.407	.101	
Social media	-.154	.143	-1.08	.284	-0.438	.129	
Peers	-.054	.09	-0.61	.546	-0.231	.123	
<b>Mother's years of schooling</b>							
9-12 Years	-.137	.169	-0.81	.42	-0.472	.198	
13-16 Years	-.227	.189	-1.20	.232	-0.602	.147	
>17 years	-.187	.222	-0.84	.401	-0.626	.252	
<b>Father's years of schooling</b>							
9-12 Years	.28	.183	1.53	.13	-0.083	.643	
13-16 Years	.34	.202	1.69	.094	-0.059	.739	*
>17 years	.402	.239	1.68	.095	-.07	.875	*
<b>Mother's earnings</b>							
<15,000	-.154	.156	-0.99	.324	-0.463	.154	
15,000-30,000	-.148	.174	-0.85	.396	-0.493	.196	
30,000-50,000	-.152	.229	-0.66	.509	-0.605	.301	
>50,000	-.318	.25	-1.27	.205	-0.812	.176	
<b>Father's earnings</b>							
<15,000	.144	.201	0.72	.475	-0.254	.542	
15,000-30,000	.124	.206	0.60	.548	-0.283	.532	
30,000-50,000	.305	.242	1.26	.209	-0.173	.784	
>50,000	-.031	.254	-0.12	.904	-0.533	.472	
Gender	-.109	.091	-1.20	.232	-.29	.071	
Age	-.081	.114	-0.71	.478	-0.306	.144	
Constant	.499	.249	2.00	.047	.006	.992	**
Mean dependent var		0.507	SD dependent var		0.502		
R-squared		0.142	Number of obs		152		
F-test		0.872	Prob > F		0.638		
Akaike crit. (AIC)		247.420	Bayesian crit. (BIC)		323.017		

\*\*\* $p < .01$ , \*\* $p < .05$ , \* $p < .1$

1. Physical aggression is the base category while verbal aggression is the interest category that is referred to in the interpretation.
2. The extraverted personality trait is the base category and interpretation is made with reference to this category.
3. For media, movies are used as the base category

The Chi-Square analysis results in Table 15 indicated strong and positive association linking personality and direct aggressiveness ( $\chi^2=4.9328$ ,  $p=0.294$ ,  $V=0.1633$ ).

During the focus group discussions, there was a growing consensus among the students that

*“..... physical and verbal aggression used among the students in the school environment was common but not in the presence of the teaching staff due to the strict disciplinary measures....”*

In addition, one key informant during the interview reported that CCTV cameras were installed across the school compound to help reduce the incidence of direct aggression among the students. Most disciplinary cases went unresolved due to a lack of evidence.

#### **4.4 Relationship between Personality (the Big 5 Dimensions) and Indirect aggression**

The secondary objective sought to figure out whether an association exists between personality (the Big 5 dimensions) and indirect aggressiveness among adolescents living in urban informal settlements. To investigate the association, regression analysis and Chi-square statistical tests were run. The interaction connecting personality attributes and indirect aggressiveness was examined using linear probability regression analysis. The target was to demonstrate the effect or influence of the confounding factors. The analysis results are presented in Table 13. The results indicated that individuals with agreeableness traits were 9.1% more likely to manifest hostility compared to those who were extraverted. Those with conscientiousness traits were 18.2% more likely to manifest hostility compared to those with extraverted traits. Individuals with the neuroticism trait were 22.4% more likely to manifest hostility compared to those who were extraverted, while those with the openness trait were 16.3% more likely to manifest hostility compared to those who were extraverted.

On media, respondents who viewed aggression use on television were 3.8% more likely to manifest hostility; those who read about aggression use in magazines were 0.4% less likely to manifest hostility; and those who viewed aggression use on social media were 9.1% more likely to manifest hostility compared to those who viewed aggression use in movies. Respondents whose role models used aggression were 7.1% more likely to manifest hostility compared to those whose role models did not use aggression.

On parents' education, respondents whose mothers had spent 9–12 years of schooling were 24.2% more likely to engage in hostility; those whose mothers had 13–16 years of schooling were 16.0% more likely to manifest hostility; and those whose mothers had over 17 years of schooling were 8.3% more likely to manifest hostility compared to those whose mothers had less than 8 years of schooling. Further, respondents whose fathers had 9–12 years of schooling were 12.1% less likely to manifest hostility, and those whose fathers had 13–16 years of schooling were 25.0% less likely



to manifest hostility, while those whose fathers had over 17 years of schooling were 1.6% more probable to manifest hostility in contrast to those whose fathers had less than 8 years of schooling.

On parents' earnings, respondents whose mothers were earning less than 15,000 were 31.6% more likely to manifest hostility; those whose mothers were earning 15,000–30,000 were 37.4% more likely to manifest hostility; those whose mothers were earning 30,000–50,000 were 25.9% more likely to manifest hostility; and those whose mothers were earning over 50,000 were 32.9% more likely to manifest hostility compared to those whose mothers were not earning. Respondents whose fathers were earning less than 15,000 were 35.0% less likely to manifest hostility; those whose fathers earned between 15,000 and 30,000 were 38.1% less likely to manifest hostility; those whose fathers earned between 30,000 and 50,000 were 48.0% less likely to manifest hostility; and those earning more than 50,000 were 50.4% less likely to manifest hostility compared to those whose fathers were not earning. On gender, female respondents were 3.6% less likely to manifest hostility compared to male respondents, while those aged between 18 and 19 years were 13.8% less likely to manifest hostility compared to those aged between 15 and 17 years.

The model had a small R<sup>2</sup> of .125, meaning the proportion of variation on the influence of the confounding variables on indirect aggression explained by personality attributes was 12.5%. The implication was that there were other variables that influenced indirect aggression that should be considered in future research.

*Table 13: Regression analysis – Influence of the Confounding variables on the interaction between Indirect aggression and Personality attributes*

Indirect Aggression	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
<b>Personality traits</b>							
Agreeableness	.091	.143	0.64	.526	-.192	.375	
Conscientiousness	.182	.142	1.28	.201	-.099	.463	
Neuroticism	.224	.167	1.34	.182	-.106	.554	
Openness	.163	.154	1.06	.291	-.141	.468	
<b>Media</b>							
Television	.038	.127	0.30	.763	-.213	.29	
Magazine	-.004	.13	-0.03	.973	-.261	.252	
Social media	.091	.145	0.63	.531	-.195	.378	
Peers	.071	.09	0.79	.434	-.108	.25	
<b>Mother's years of schooling</b>							
9-12 Years	.242	.171	1.41	.16	-.097	.58	
13-16 Years	.16	.191	0.84	.404	-.218	.538	
>17 years	.083	.224	0.37	.711	-.36	.526	
<b>Father's years of schooling</b>							
9-12 Years	-.121	.185	-0.65	.515	-.487	.245	
13-16 Years	-.25	.204	-1.23	.223	-.653	.153	
>17 years	.016	.241	0.07	.946	-.461	.493	
<b>Mother's earnings</b>							
<15,000	.316	.157	2.01	.047	.004	.627	**
15,000-30,000	.374	.176	2.13	.035	.027	.722	**
30,000-50,000	.259	.231	1.12	.264	-.198	.717	
>50,000	.329	.252	1.31	.194	-.169	.828	
<b>Father's earnings</b>							
<15,000	-.35	.203	-1.73	.087	-.751	.051	*
15,000-30,000	-.381	.208	-1.83	.069	-.792	.03	*
30,000-50,000	-.48	.244	-1.97	.052	-.963	.003	*
>50,000	-.504	.256	-1.97	.051	-1.011	.003	*
<b>Gender</b>	-.036	.092	-0.39	.694	-.218	.146	
<b>Age</b>	-.138	.115	-1.20	.232	-.365	.089	
<b>Constant</b>	.4	.251	1.59	.114	-.098	.898	
Mean dependent var		0.513	SD dependent var		0.501		
R-squared		0.125	Number of obs		152		
F-test		0.755	Prob > F		0.784		
Akaike crit. (AIC)		250.251	Bayesian crit. (BIC)		325.848		

\*\*\* $p < .01$ , \*\* $p < .05$ , \* $p < .1$

1. Anger is the base category while Hostility is the interest category that is referred to in the interpretation.
2. The extraverted personality trait is the base category and interpretation is made with reference to this category.
3. For media, movies are used as the base category

The Chi-Square analysis results in Table 16 proved that personality (the Big 5 Dimensions) and indirect aggressiveness were positively and strongly associated ( $\chi^2=2.9635$ ,  $p=0.564$ ,  $V=0.1266$ ).

The findings were in line with comments made during the focus group discussions, where more than one student expressed:

*“..... I get angry and hostile towards my fellow students all the time, sometimes it is within reason, other times out of my own frustration due to academic stress, home situation or just hormonal imbalance....”*

One key informant during the interview confirmed that when dealing with teenagers, one has to be keen and observe their mood; sometimes it becomes erratic with outbursts of anger and hostility if they do not understand a concept in class or are going through difficult financial times like being chased home for fees.

#### **4.5 Correlation between Personality (the Big 5 Dimensions), Direct and Indirect aggression**

The third objective sought to get a fix on whether a correlation exists linking direct and indirect aggressiveness and personality (the Big 5 dimensions) among adolescents living in urban informal settlements. The overall results provided proof that showcased a correlation linking direct and indirect aggressiveness together with personality attributes. The results obtained from the correlation analysis are displayed in Table 14. According to the results, a negative link was uncovered between direct and indirect aggressiveness. However, a positive association was observed linking personality attributes to both direct and indirect aggressiveness.

*Table 14: Matrix of correlations*

Variables	(1)	(2)	(3)
(1) Big 5 Personality Traits	1.000		
(2) Direct Aggression	<b>0.060</b>	1.000	
(3) Indirect Aggression	<b>0.042</b>	<b>-0.081</b>	1.000

The findings were further supported by a three-way Chi-square analysis, which demonstrated a high and favorable correlation connecting personality attributes, direct and indirect aggressiveness ( $\chi^2=7.4403$ ,  $p=0.114$ ,  $V=0.2005$ ) presented in Table 17.

## 4.6 Test of Hypotheses

All the hypotheses result of the study are discussed in this section.

### Hypothesis One

Using a two-way Chi-square test for independent samples, ways in which the students' personalities (the Big 5 dimensions) were related to their direct aggressiveness were explored. The Chi-Square test results in Table 15 demonstrated a robust and favorable correlation between direct aggressiveness and personality attributes ( $\chi^2=4.9328$ ,  $p=0.294$ ,  $V=0.1633$ ). In regards to the results, the null hypothesis was rejected, which stated that there was no relationship linking personality with direct aggressiveness among adolescents. The alternative hypothesis was accepted as a result of the study's substantial correlation linking personality with direct aggressiveness among adolescents. The findings were similar to Barlett & Anderson's (2012) study, which found that personality attributes could be directly linked to aggressive conduct through aggressive emotions and attitudes.

Table 15: Chi- Square Analysis - Association linking Personality with Direct aggressiveness

Direct Aggression	Personality traits			
	Degrees of Freedom (DF)	Chi-Square Statistic ( $\chi^2$ )	P-value	Cramer's V
	4	4.9328	0.294	0.1633

### Hypothesis Two

Using a two-way Chi-square test for an independent sample, the extent to which the students' personality (the Big 5 dimensions) was related to their indirect aggressiveness was examined. The Chi-Square test results in Table 16 exhibited that indirect aggressiveness was positively and significantly associated with personality ( $\chi^2=2.9635$ ,  $p=0.564$ ,  $V=0.1266$ ). The study rejected the null hypothesis, which stated no connection existed between indirect aggressiveness and personality among adolescents, based on the study results. The results supported the alternative hypothesis by showing a robust and positive relationship existed between personality and indirect aggressiveness. The findings were similar to Sharpe & Desai's (2001) study that found aggressive emotions like anger and hostility were positively correlated with neuroticism.

Table 16: Chi- Square Analysis - Association linking Personality with Indirect aggressiveness

Indirect Aggression	Personality traits			
	Degrees of Freedom (DF)	Chi-Square Statistic ( $\chi^2$ )	P-value	Cramer's V
	4	2.9635	0.564	0.1266

### Hypothesis Three

Using a three-way Chi-square analysis, the relationship between the students' personalities (the Big 5 dimensions) and their direct and indirect aggressiveness was investigated. The Chi-Square analysis results in Table 17 revealed that direct aggression, indirect aggression, and personality were all strongly and positively correlated ( $\chi^2=7.4403$ ,  $p=0.114$ ,  $V=0.2005$ ). The study once again rejected the null hypothesis that stated there was no connection linking indirect and direct aggressiveness with personality among adolescents. The research findings provided proof that demonstrated a high and favorable correlation linking personality traits, direct aggressiveness, and indirect aggressiveness; hence, the alternative hypothesis was adopted. The findings were similar to Barlett & Anderson's (2012) research that indicated that the Big Five traits could be directly or indirectly linked to aggressive conduct through aggressive emotions and aggressive attitudes.

Table 17: Three-way Chi-Square Analysis- Personality, Direct and Indirect aggressiveness

Direct Aggression	Big 5 Personality traits			
	Degrees of Freedom (DF)	Chi-Square Statistic ( $\chi^2$ )	P-value	Cramer's V
	4	7.4403	0.114	0.2005
Indirect Aggression				

## CHAPTER FIVE

### DISCUSSION, CONCLUSION AND RECOMMENDATIONS

#### 5.0 Introduction

The research goal was to determine the correlation between personality dimensions and aggressive behavior in students aged 15 and above living in urban informal settlements and enrolled at Dandora Secondary School in Embakasi North, Nairobi County. The three research objectives, as well as the conclusions reached, are discussed in this chapter, along with the demographic factors, significant findings, and internal and external validity. In addition, suggested recommendations and areas for additional study are discussed.

#### 5.1 Internal and External Validity

The research focused on measuring aggressive behavior in two forms: direct and indirect aggression. The independent variable was the Big Five personality dimensions, with direct aggression (physical and verbal) and indirect aggression (anger, hostility) as dependent variables. Some students were alarmed and distressed by offering details about their parents' education, income, or occupation. The majority of the students needed further clarification on how the information about their parents' socioeconomic status was relevant in the survey. Time was taken by the researcher to educate and reassure the participating students of the goal of the study. A few students declined to participate and were excused from the survey. The findings from the study could not be generalized since a case study design was employed, limiting the generalization across secondary schools or other urban informal settlements in Kenya.

#### 5.2 Summary of major findings

The study's main discoveries are outlined in the section below:

- i. Multiple personality traits were found at Dandora Secondary School, with the majority of the students (30.8%) reporting to have conscientious traits, 22.2% agreeableness traits, 16.2% extraversion traits, 15.7% neuroticism traits, and 15.1% openness traits.
- ii. Direct aggression was observed, with 50.8% of the students displaying verbal aggression and 49.2% displaying physical aggression. Indirect aggression was also noted, with 50.3% of the students indicating they manifested anger and 49.7% indicating they were hostile.

- iii. Personality (Big 5 Dimensions) was positively and strongly associated with direct aggressiveness, according to Chi-square analysis results ( $\chi^2=4.9328$ ,  $p=0.294$ ,  $V=0.1633$ ).
- iv. Indirect aggressiveness and personality (the Big 5 dimensions) were positively and strongly correlated, according to the Chi-Square analysis results ( $\chi^2=2.9635$ ,  $p=0.564$ ,  $V=0.1266$ ).
- v. Correlation analysis results showed a negative association between direct and indirect aggressiveness. In addition, there is a positive correlation between personality (the Big 5 dimensions) and both direct and indirect aggressiveness.
- vi. The findings displayed a high and favorable correlation between personality, direct aggressiveness, and indirect aggressiveness ( $\chi^2=7.4403$ ,  $p=0.114$ ,  $V=0.2005$ ) according to the Chi-Square analysis.
- vii. According to the regression analyses, all the confounding factors—age, gender, socioeconomic status, peers, and media—had an effect on the link connecting personality with both direct and indirect aggressiveness.

### **5.3 Discussion of the Findings**

An analysis of the research findings with reference to the three main objectives is presented in this section.

#### **5.3.1 Relationship between Personality (the Big 5 Dimensions) and Direct aggression**

Utilizing Chi-Square analysis, an association was established linking personality with direct aggressiveness, which was positive and strong. In addition, regression analyses found that individuals with agreeableness traits had a 6.4% lower likelihood of displaying verbal aggression compared to individuals who were extraverted. Individuals with conscientiousness traits had 17.2% more likelihood of manifesting verbal aggression compared to those who were extraverted. Individuals with neuroticism traits were 4.0% less likely to display verbal aggression in contrast to extraverts, while those with openness traits were 10.4% more likely to manifest verbal aggression in contrast to extraverts. The findings concurred with early research by Barlett and Anderson (2012) that demonstrated that the Big Five traits could be directly linked to aggressive conduct through aggressive emotions and attitudes. Lower probabilities were found for age, gender, media, peers, mother's years of schooling, and mother's earnings influence on the

association connecting personality and direct aggressiveness. Father's years of schooling—13–16 years and over 17—had higher probabilities that were statistically significant to influence the link connecting the personality and direct aggressiveness at a 10% level of confidence.

### **5.3.2 Relationship between Personality (the Big 5 Dimensions) and Indirect aggression**

Through chi-square analysis, a robust and positive relationship between personality attributes and indirect aggressiveness was discovered. Further regression analysis revealed that individuals with agreeableness were 9.1% more likely to manifest hostility compared to those who were extraverted. Those with conscientiousness traits were 18.2% more likely to manifest hostility compared to those with extraverted traits. Individuals with the neuroticism trait were 22.4% more likely to manifest hostility compared to those who were extraverted, while those with the openness trait were 16.3% more likely to manifest hostility compared to those who were extraverted. Sharpe & Desai's (2001) study also found aggressive emotions like anger and hostility were positively correlated with neuroticism. Lower probabilities were found for gender, age, magazines (media), father's years of schooling (9–12 years, 13–16 years), and father's earnings influence on the relationship indirect aggressiveness and personality have. Only the father's earnings were statistically significant at the 10% level of confidence. Mothers' years of schooling, media, fathers' years of schooling (over 17 years), and mothers' earnings had a higher probability of influencing the connection between personality and indirect aggressiveness. With Mother's earnings less than 15,000 and between 15,000 and 30,000 being statistically significant at a 10% level of confidence.

### **5.3.3 Correlation between Personality (the Big 5 Dimensions), Direct and Indirect aggression**

According to correlational analysis results, there is a negative relationship between direct and indirect aggressiveness. Furthermore, the exploration of the association linking personality and both direct and indirect aggressiveness uncovered a positive relationship. Additional investigation utilizing the Chi-square test revealed a high and favorable correlation connecting personality, direct aggressiveness, and indirect aggressiveness. Both findings were similar to Barlett and Anderson's (2012) research that revealed the Big Five traits could be directly or indirectly linked to aggressive conduct through aggressive emotions and aggressive attitudes. In addition, Cavalcanti & Pimentel's (2016) research also found a powerful positive connection between



neuroticism, aggressive emotions, and physical aggressiveness. There were also notable associations between aggressive emotions and personality.

#### **5.4 Conclusion**

The research goal was to discover whether a connection existed linking the personality (the Big 5 Dimensions) and aggressive behavior in adolescent students living in urban informal settlements. Confounding variables influences were also examined. The study concluded from the findings above:

Aggressive behavior or conduct was recorded in the school settings, first foremost, in four different types then categorized into two distinct forms for deeper analysis. In addition, the 5 unique traits of personality were also displayed among the adolescent students. Personality was examined in the research under the Five-Factor model, was found to be positively and strongly related to adolescent aggressive behavior in the school surveyed. The research confounding variables which were media, peers, age, socioeconomic status and gender to some extent influenced the association that linked personality and aggressive conduct among the adolescent students surveyed.

#### **5.5 Recommendations**

1. Guidance and counseling Teachers should be trained on administering, interpreting, and analyzing psychometric tests for a better understanding of students' personalities that will enhance learning outcomes and manage problematic behavior.
2. Weekly group discussions on life skills and stress coping mechanisms should be introduced to students to help them manage daily stressors.
3. Students should be sensitized on how to deal with peer pressure depending on how their friends and role models behave. For example, if a friend or role model uses aggression, how should the student behave?
4. Desensitization of students through psycho education to understand how aggression portrayed in the media can have a negative influence on their personality and behavior and how to cope.

## **5.6 Recommendations for further research**

1. A longitudinal study can be conducted with a larger and more diverse sample to assess the connection between adolescent aggressiveness and personality traits.
2. A study can be conducted to establish the cause and effect of aggressive personality behavior among adolescents in approved schools.
3. It is possible to conduct research to determine how well-equipped teachers are to comprehend and assist in resolving the students' aggressive personalities.

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**APPENDICES**

**APPENDIX I: QUESTIONNAIRE**

**PART A: DEMOGRAPHIC FACTORS**

**Answer all the questions in Part A as asked.**

- 1. My age is 13 years old    14 years old    15 years old     16 years old  
 17 years old     18 years old    other age (indicate)
  
- 2. I am in    form 1    Form 2    form 3    form 4
  
- 3. Please indicate your Gender     Female    Male
  
- 4. Please indicate your ethnic identity    \_\_\_\_\_
  
- 5. I live with my    Father & Mother    Father    Mother    Grandparents  
 Other
  
- 6. How many years of schooling has your father had .....  
 Below 8     9-12    13-16     OVER 17
  
- 7. How many years of schooling has your mother had.....  
 Below 8     9-12     13-16     OVER 17
  
- 8. My father earns income from Employment Farming Business    Other(indicate)
  
- 9. My mother earns income from Employment Farming Business    Other(indicate)
  
- 10. My father earns approximately (Kshs)    less than 15,000     between 15,000-30,000  
30,000 - 50,000    Over 50,000    Not earning
  
- 11. My mother earns approximately (Kshs)    less than 15,000    between 15,000-30,000  
 30,000 - 50,000     Over 50,000    Not earning
  
- 12. Please indicate either (a) Never (b)Sometimes (c) Often, the times you see Aggression /Violence used in (a) Movies.....(b)Television..... (c)Magazine..... (d)social media.....
  
- 13. Have you ever seen anyone you admire using Aggression/Violence (e.g., parent, other adult, media celebrity etc.) ..... if yes please indicate who.....

14. How many of your friends use Aggression/Violence at least sometimes None

Less than half More than half Almost all

15. Have you ever used Aggression/Violence in the school environment? Never Once

Few times  Many times

## **PART B**

### **Buss-Perry Aggression Questionnaire**

*Please rate each of the following items in terms of how characteristic they are*

*of you. Record your response by placing a circle around one of the choices listed directly below each statement.*

(**1** = Extremely uncharacteristic **2** = Somewhat uncharacteristic **3** = Neither uncharacteristic nor characteristic **4** = Somewhat characteristic **5** = Extremely characteristic)

1. Once in a while I can't control the urge to strike another person.

**1 2 3 4 5**

2. Given enough provocation, I may hit another person.

**1 2 3 4 5**

3. If somebody hits me, I hit back.

**1 2 3 4 5**

4. I get into fights a little more than the average person.

**1 2 3 4 5**

5. If I have to resort to violence to protect my rights, I will.

**1 2 3 4 5**

6. There are people who pushed me so far that we came to blows.

**1 2 3 4 5**

7. I can think of no-good reason for ever hitting a person. (R)

**1 2 3 4 5**

8. I have threatened people I know.

**1 2 3 4 5**

9. I have become so mad that I have broken things.

**1 2 3 4 5**

10. I tell my friends openly when I disagree with them.

**1 2 3 4 5**

11. I often find myself disagreeing with people.

**1 2 3 4 5**

12. When people annoy me, I may tell them what I think of them.

1 2 3 4 5

13. I can't help getting into arguments when people disagree with me.

1 2 3 4 5

14. My friends say that I'm somewhat argumentative.

1 2 3 4 5

15. I flare up quickly but get over it quickly.

1 2 3 4 5

16. When frustrated, I let my irritation show.

1 2 3 4 5

17. I sometimes feel like a powder keg ready to explode.

1 2 3 4 5

18. I am an even-tempered person. (R)

1 2 3 4 5

19. Some of my friends think I'm a hothead.

1 2 3 4 5

20. Sometimes I fly off the handle for no good reason.

1 2 3 4 5

21. I have trouble controlling my temper.

1 2 3 4 5

22. I am sometimes eaten up with jealousy.

1 2 3 4 5

23. At times I feel I have gotten a raw deal out of life.

1 2 3 4 5

24. Other people always seem to get the breaks.

1 2 3 4 5

25. I wonder why sometimes I feel so bitter about things.

1 2 3 4 5

26. I know that "friends" talk about me behind my back.

1 2 3 4 5

27. I am suspicious of overly friendly strangers.

1 2 3 4 5

28. I sometimes feel that people are laughing at me behind my back.

1 2 3 4 5



29. When people are especially nice, I wonder what they want.

1 2 3 4 5

**Scoring:**

Physical Aggression subscale: items 1-9.

Verbal Aggression subscale: items 10-14.

Anger subscale: items 15-21.

Hostility subscale: items 22-29.

The score for each scale is the sum or the ratings for its items. The two items (7 and 18) worded in the direction opposite to aggression are reverse-scored. The total score for aggression is the sum of these scale scores. Higher scores indicate higher aggressive behavior

**PART C**

**The Big Five Inventory (BFI)**

Please read each statement carefully. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.

**1= Disagree strongly 2= Disagree a little 3=Neither agree nor disagree 4= Agree a little 5= Agree Strongly**

I see Myself as Someone Who...

\_\_\_ 1. Is talkative

\_\_\_ 2. Tends to find fault with others

\_\_\_ 3. Does things carefully and completely

\_\_\_ 4. Is depressed, sad

\_\_\_ 5. Is original, comes up with new ideas

\_\_\_ 6. Is reserved, Keeps their thoughts to themselves

\_\_\_ 7. Is helpful and unselfish with others

\_\_\_ 8. Can be somewhat careless

\_\_\_ 9. Is relaxed, handles stress well

\_\_\_ 10. Is curious about many different things

- \_\_\_ 11. Is full of energy
- \_\_\_ 12. Starts arguments with others
- \_\_\_ 13. Is a good, hard worker
- \_\_\_ 14. Can be tense, not always easy going
- \_\_\_ 15. Is clever, a deep thinker
- \_\_\_ 16. Makes things exciting
- \_\_\_ 17. Forgives others easily
- \_\_\_ 18. Tends to be disorganized
- \_\_\_ 19. Worries a lot
- \_\_\_ 20. Has an active imagination
- \_\_\_ 21. Tends to be quiet
- \_\_\_ 22. Is generally trusting
- \_\_\_ 23. Tends to be lazy
- \_\_\_ 24. Is emotionally stable, not easily upset
- \_\_\_ 25. Is creative and inventive
- \_\_\_ 26. Has a good, strong personality
- \_\_\_ 27. Can be cold and aloof, distant with others
- \_\_\_ 28. Perseveres until the task is finished
- \_\_\_ 29. Can be moody
- \_\_\_ 30. Values artistic, aesthetic experiences
- \_\_\_ 31. Is sometimes shy, inhibited
- \_\_\_ 32. Is considerate and kind to almost everyone
- \_\_\_ 33. Does things efficiently

- \_\_\_34. Remains calm in tense situations
- \_\_\_35. Prefers work that is routine
- \_\_\_36. Is outgoing, sociable
- \_\_\_37. Is sometimes rude to others
- \_\_\_38. Makes plans and follows through with them
- \_\_\_39. Gets nervous easily
- \_\_\_40. Likes to reflect, play with ideas
- \_\_\_41. Has few artistic interests
- \_\_\_42. Likes to cooperate with others
- \_\_\_43. Is easily distracted
- \_\_\_44. Knows a lot about art, music, or Literature

**Scoring:**

BFI scale scoring (“R” denotes reverse-scored items):

Extraversion: 1, 6R, 11, 16, 21R, 26, 31R, 36

Agreeableness: 2R, 7, 12R, 17, 22, 27R,32, 37R, 42

Conscientiousness: 3, 8R, 13, 18R, 23R, 28, 33, 38, 43R

Neuroticism: 4, 9R, 14, 19, 24R, 29, 34R, 39

Openness: 5, 10, 15, 20, 25, 30, 35R, 40, 41R, 44

## **APPENDIX II: Focus Group Discussion (FGD)**

Age.....

Form.....

Prior use of aggression /violence: Yes No

Sex:  Male  Female

The focus group discussion will focus around the following thematic issues:

- Students' perspectives on personality traits
- Students' perspectives towards aggression in relation to cognition, affect and arousal.

*Interviewer: Thank the students for participation and close the session*

## **APPENDIX III: Interview of Key Informant**

### **Key Informant Interview Questions**

The Key informants will be 4 Teachers from each Form in the school in the sample.

1. How have you been involved in the teens and the student's social issues?
2. What would be your description of the teen's aggression in school? Are they aggressive, how often, what is usually the cause and how is it handled?
3. Does the aggressive student's personality differ according to different cultures, social classes or age?
4. How do the teens make decisions concerning aggression either negatively or positively and what or who influences these decisions?
5. What motivates some teens to be involved in aggressive behavior? Not to be involved?

6. How are the teens' decisions on aggressiveness affected by Peers? School environment? Media? Culture? Other? Are you aware of any current trends in teen's aggressive behavior related to decision making?
7. Where do you acquire the information, you have about teen aggression and personality traits? Would you consider yourself as having enough information?
8. Are there changes that you would recommend in the current laws with regard to teen aggression in the school environment? What and why?

## APPENDIX IV: Consent Form

### Appendix IV: Informed Consent Form Example

#### RESEARCH PROJECT ON THE ROLE OF BIG FIVE PERSONALITY TRAITS IN PREDICTING AGGRESSION AMONG ADOLESCENTS


I, the undersigned School Principal/Deputy, on behalf of the participating students confirm that  
(please tick box as appropriate)

1.	I have / have been explained to and understood the information about the project.	<input checked="" type="checkbox"/>
2.	I have been given the opportunity to ask questions about the project and the students as well as my participation.	<input type="checkbox"/>
3.	I voluntarily agree to participate and allow the students to participate in the project.	<input type="checkbox"/>
4.	I understand I or the student can withdraw at any time without giving reasons and that we will not be penalised for withdrawing nor will we be questioned on why we have withdrawn.	<input checked="" type="checkbox"/>
5.	The procedures regarding confidentiality have been clearly explained (e.g., use of names, pseudonyms, etc.) to me.	<input type="checkbox"/>
6.	If applicable, separate terms of consent for interviews, audio, video or other forms of data collection have been explained and provided to me.	<input type="checkbox"/>
7.	The use of the data in research, publications, sharing and archiving has been explained to me.	<input type="checkbox"/>
8.	I understand that other researchers will have access to this data only if they agree to preserve the confidentiality of the data and if they agree to the terms I have specified in this form.	<input checked="" type="checkbox"/>
9.	Select only one of the following: <ul style="list-style-type: none"> <li>• I would like my name used and understand what I have said or written as part of this study will be used in reports, publications and other research outputs so that anything I have contributed to this project can be recognized.</li> <li>• I do not want my name used in this project.</li> </ul>	<input checked="" type="checkbox"/> <input type="checkbox"/>
10.	I, along with the Researcher, agree to sign and date this informed consent form.	<input checked="" type="checkbox"/>

Participant:

Mrs. P. WACHORI

Name of School Principle/Deputy

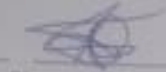
  
Signature



Researcher:

Jacqueline Aworo

Name of Researcher

  
Signature

12 September 2022  
Date

## APPENDIX V: Authorization Letter- University of Nairobi



**UNIVERSITY OF NAIROBI**  
FACULTY OF ARTS  
DEPARTMENT OF PSYCHOLOGY

Telegrams: Varsity Nairobi  
Telephone: 318262 ext.28439/28194  
Telex: 22095

P.O. BOX 30197  
NAIROBI  
KENYA  
EAST AFRICA

September 2<sup>nd</sup>, 2022

The Chief Executive Officer  
National Commission for Science Technology and Innovation  
P. O. Box 30623-00100  
Nairobi

Dear Sir/Madam:

**RE: INTRODUCTION- JACKLINE AWINO (C50/35162/2019)**

The above mentioned is a student in the Department of Psychology pursuing a Master of Counseling Psychology. She has completed the coursework and defended her research proposal.

This letter therefore is to introduce her to you to enable her to collect data on "MAPPING BIG FIVE PERSONALITY TRAITS ONTO AGGRESSIVE BEHAVIOUR: THE CASE OF DANDORA SECONDARY SCHOOL IN EMBAKASI NORTH, NAIROBI COUNTY"

Your support is highly appreciated.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Charles Kimamo'.

**Dr. Charles Kimamo**  
Chairman,  
Department of Psychology







THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

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**APPENDIX VII: Research Authorization Letter -Ministry of Education**

