# THE ASSOCIATION BETWEEN PERCEIVED MALADAPTIVE PARENTAL BEHAVIOR AND CONDUCT DISORDER SYMPTOMS AMONG ADOLESCENTS ATTENDING THE YOUTH CLINIC AT KENYATTA NATIONAL HOSPITAL

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**H58/34165/2019**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE OF MASTER OF MEDICINE IN PSYCHIATRY AT THE UNIVERSITY OF NAIROBI**

**2023**

## DECLARATION

I declare that this project is my original work and has not, to the best of my knowledge, been submitted to any other university for the award of any other degree.

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# AKNOWLEDGEMENT

I want to thank God for his mercy and guidance through my life, my postgraduate studies and the work of this paper.

I appreciate my children, Ayana and Amari and my youngest brother Derek for being a constant reminder that someone is looking up to me and therefore inspiring me to always do better, my husband, for always being my number one cheerleader and my mother, for always reminding me that I was born for greatness and should always strive to achieve my greatest potential.

My sincere gratitude goes to my very able supervisors, Prof. Anne Obondo and Dr. Anne Mbwayo who patiently guided me throughout this project from proposal development to the study and writing of this paper, the late Dr. Khasakhala who inspired my choice of topic and Dr. Josephine Omondi who inspired my love for pediatric and adolescent psychiatry. The lecturers at the University of Nairobi department of psychiatry for affirming my work and their teaching and nurturing my career.

Finally, I want to thank the management and staff at the Kenyatta National Teaching and referral Hospital youth centre for their cooperation and the participants and their parents/guardians for willingly accepting to be part of my study.

# DEDICATION

I dedicate this work to my children Ayana and Amari for always being my inspiration to always strive to be better.

This work is also dedicated to the adolescents in the country struggling with mental illness and specifically those with Conduct disorder, the parents/guardians of these adolescents who unknowingly influence the occurrence of their symptoms and pray that God will guide them to strive to do better.

# LIST OF ABBREVIATIONS

| | |
|---|---|
| ADHD: | Attention Deficit Hyperactivity Disorder |
| APA: | American Psychological association |
| CD: | Conduct disorder |
| CDS: | Conduct disorder Scale |
| IQ: | Intelligence Quotient |
| KNH: | Kenyatta National Hospital |
| S-EMBU: | Simplified Egna Minnen Beträffande Uppfostran |
| SPSS: | Statistical Package for Social Sciences |
| KNH: | Kenyatta National Hospital |
| UoN: | University of Nairobi |
| ERC: | Ethics and Research Committee |
| NACOSTI: | National Commission for Science Technology and Innovation |

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## DEFINITION OF TERMS

**Conduct disorder (CD):** This is described as a relentless and repetitive pattern of aggressive and violent behavior that violates rules and societal norms and the basic rights of other people (APA, 2013).

**Maladaptive parenting behavior:** This is defined as the behavior that stops parents from refashioning or modifying their actions and responses to suit difficult or new circumstances (Johnson et al., 2001).

**Socio-demographic Factors:** This describes factors of age, gender, education, family type and school type that explain the characteristics of the adolescents in the study.

# ABSTRACT

**INTRODUCTION**: Youth with a diagnosis of Conduct disorder present the highest level of impairment and distress in all the living domains when compared with youths with other mental issues. Studies in Kenya have shown a high prevalence rate of Conduct disorder among juvenile delinquents and among adolescents. However, such prevalence has not been comprehensively examined when linked to maladaptive parental behavior.

**OBJECTIVES**: The study examined the association between perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents at the youth centre at Kenyatta National Teaching and Referral Hospital. More specifically it sought to determine the prevalence of conduct disorder symptoms among adolescents; examine the socio-demographic associated factors to conduct disorder among the adolescents; determine the prevalence of perceived maladaptive parental behavior among adolescents and determine the association between perceived maladaptive parental behaviors with conduct disorder Symptoms among adolescents at the KNH youth centre.

**METHODS**: The study applied a quantitative method and a cross-sectional study design. Adolescents attending the youth center at KNH were the target population; from which 324 adolescents between the ages of 14-17 were sampled using the stratified random sampling technique. The Standard Conduct Disorder Scale (CDS) was used to measure conduct disorder, a researcher designed socio-demographic questionnaire was used to measure socio demographic factors and the Simplified Egna Minnen Betr¨affende Uppfostran (S-EMBU) tool was used to measure maladaptive parental behavior.

**DATA ANALYSIS**: Data was analyzed using SPSS version 26.0. Descriptive statistics (mean, standard deviation, percentages and counts) used to describe data distribution. Inferential (Pearson's correlations) statistics used to describe the relationship between variables. Regression analysis used to assess how independent variable predicts the dependent variable. ANOVA, a test of variance was used to test association between factors.

**RESULTS**: A total of 324 adolescents participated in the study. The study finds that the prevalence of conduct disorder among adolescents attending the KNH youth centre at 37.6%. The respondents were mostly male (N=184, 56.8%) than female (N=140, 43.2%). Most respondents were between the ages of 16-17 (N-164, 50.6%) while those aged between 14 and 15 (N=160, 49.4%). Majority of the respondents had both parents (N=212, 65.4%) compared to those from single parent home (N=112, 34.6%). Majority of the respondents went to boarding school (N=226, 69.8%) than those in day schools (N=98, 30.2%). Further, only sex and age had a significant statistical difference with conduct disorder (Sex: P-value=.000; <0.05; Age: P-value=.004; <0.05). There was no statistical difference between family type and school type (family type: P-value=.202; >0.05; School type: P-value=.785; >0.05). The prevalence of perceived maladaptive parental behavior among adolescents at KNH youth centre was at 43.8%. There was a statistically significant effect of Perceived Maladaptive parental behavior on conduct disorder (p-value=<0.01).

**CONCLUSION**: There is high prevalence of both Conduct and perceived maladaptive parental behavior among adolescents attending the KNH Youth centre. Sex and age has an impact on Conduct disorder symptoms. Perceived maladaptive parental behavior is associated with conduct disorder symptoms. There is need for psychological interventions to help curb conduct disorder and maladaptive parental behavior to help adolescent grow mentally healthy.

# CHAPTER ONE

# 1.0 INTRODUCTION

## 1.1 Introduction

Conduct disorder (CD) is defined as a relentless and repetitive pattern of aggression and violence that violates rules, societal norms and the basic rights of other people (APA, 2013). Maladaptive parenting behavior on the other hand has been defined as the behavior that stops parents from refashioning or modifying their actions and responses to suit difficult or new circumstances (Johnson et al., 2001). In this case, the inability of parents to respond and adapt their own behavior, which in this study may influence conduct disorder exhibited by their adolescent children. Studies have shown a significant direct link between maladaptive parental behavior with psychiatric symptoms in youth and young adults (Johnson et al., 2001). A parent with mental illness has a high probability of developing maladaptive behavior, (Johnson et al 2001)

## 1.2 Background of the Study

Adolescent and even children exhibiting conduct disorder often present with aggressive behavior characterized by physical fights, bullying, brutality towards animals, stealing, threatening, destroying peoples possessions and contravention of set norms and directives in their various spectrum (APA, 2013; Patel et al., 2018). Conduct disorder is such a key psychiatric illness in that in the United States, it is the most prevalent primary presenting problems among adolescents and children referred to the hospitals (Nock et al., 2016) and the youths with a diagnosis of CD, present the highest level of impairment and distress in all the living domains when compared with youths with other mental issues (Nock et al., 2016). Further, an estimation from a meta-analysis of epidemiological data showed that the occurrence of the behavioral disorder worldwide in children and teenagers with ages between 6 and 18 years is 3.2% with no significant variance across countries (Canino et al., 2010).

Conduct disorder is estimated to possibly present before a child gets to 10 years old or in adolescence, with the early onset presentation presenting more persistent and significant difficulties (Patel et al., 2018). Available data indicates, presently, the prevalence of this disorder within the ages between 5-12 years is 2-5% but increases to 5-9% for older children aged between 13-18 years (Maughan et al., 2014). Other studies show that male children

have a higher likelihood to present with this behavioral disorder symptoms as in comparison to girls but that this gender difference is less significant for children under the age of 5 years (Moffit et al., 2011).

Further, analyses have approximated the lengthy effect of this behavioral disorder on later stage criminality and significant antisocial behavior (Diamantopoulouet al., 2010; Sourander et al*., 2017*). It has also been associated with high school drop-out rates, occupational problems, substance abuse, mental illnesses and legal problems (Odgers et al., 2017). Further, it has been estimated that many adolescents with conduct disorder may also present with other co-existing mental conditions like anxiety disorder (41%), depression (46%) and ADHD (4-41%) (Boat & Wu, 2015; Odgers et al., 2017). Significant studies have linked the heightened prevalence of conduct disorder to socio-economic variables, state of neighborhoods and maladaptive parental behavior (Ang et al., 2018; Mohan et al., 2020).

Globally, studies have proven that both children of parents with and without psychiatric problems are more likely to develop psychiatric problems when their parents engage in dysfunctional parenting behavior (Ma & Wang, 2021: Russell et al., 2020). More specifically, Sajadi et al, (2020) examined the issues with families and conduct disorder as perceived by professionals, families and patients in Iran noted a direct link between aspects of maladaptive parental behavior and conduct disorder. This study however did not measure maladaptive parental behavior comprehensively but only cursorily mentioned few aspects of it under family problems. Further, it did not focus on the potential for conduct disorder among adolescents and how it is associated with perceived maladaptive parental behavior in the Kenyan set-up. Another study done by Vera-Rios (2018) among Hispanic teens examines parenting styles and its relationship with Conduct disorder. The study observes no significant impact of parental styles on conduct disorder among Hispanic teens despite its admission that conduct disorder is a serious issue among them. The study however has significant research gaps because it surveys parents and not the adolescents themselves hence implying reliability and credibility issues. However, Masud et al, (2017) in a research looking at the relationship between parental styles with aggression; one of the measures of conduct disorder, found a direct and positive influence of parenting styles, especially the authoritative style on aggression. From the global studies, it is noted that, it is not clear whether there is significant associations between maladaptive parental behavior and all its forms and conduct disorder.

A study done in the UK by Speyer et al. (2021) examined maladaptive parental behavior and its effect on the socio-emotional outcomes of persons within the early-to middle childhood scope. The study was hinged on the Paterson Coercive model which describes how ineffective parenting or maladaptive parenting behavior progressively leads to significant anti-social behavior among adolescents and teenagers. From the analysis done in the study, it was clear that the Paterson Coercive model as a descriptor or maladaptive parenting behavior led to anti-social behavior that included, emotional, social and conduct problems. This study adds on to the many other global studies that have found a link between maladaptive parental behavior and mental challenges including conduct problems. However, the significant limitation of these studies is their inability to establish a clear link between maladaptive parental behavior and conduct disorder as a specific psychological construct. Instead, they often categorize it under a broader umbrella of mental health issues.

In Africa, some studies have been done to try and associate maladaptive parental behavior with conduct disorder. However, it is important to note from the outset that there is a paucity of such studies done within the African context. Nonetheless, scholars like Holzman et al. (2022) looks at dispositional emotional status of parents and how they impact mental health outcomes of youths and adolescents in Morocco. One way that the study measured the dispositional emotional status of parents is by examining maladaptive parental behavior. The study found a strong positive correlation between maladaptive parental behavior and mental health outcomes of the youths and adolescents; such that generally, higher likelihood of maladaptive parental behavior led to higher chances for negative mental health outcomes. The study also found no significant association between the age of the youth and adolescents and mental health outcomes. While this study is helpful, it does not specify the mental health outcomes that it measured and the present study thus becomes useful as it settles on conduct disorder as a specific mental health outcome. Another African study that comes closer to examining maladaptive parental behavior and conduct disorder is one done in Eswatini by Mafumbate and Mkhatjwa (2020). The study accesses the perspectives of teachers regarding how they perceive to be the reason for maladaptive behavior among adolescents within the school setting. The study finds that teachers allocated maladaptive parental behavior as the key reason for negative behavior among adolescents. Of course, the findings here are anecdotal but they serve to strongly imply that there is a perceived role that maladaptive parental behavior plays in the conduct problems exhibited by adolescents. Mmusi et al. (2022) did a study in South Africa and considered parenting behavior plus attitudes and how

it affected risk behavior of adolescents under the foster care dynamic. The study found that maladaptive parental behavior characterized mostly by harshness and authoritarianism increased chances for risk behavior among adolescents. Again, this study did not consider maladaptive parental behavior and how it is associated with conduct disorder inasmuch as it underscores the probability that maladaptive parental behavior could correlate with conduct disorder.

In Kenya, there is paucity of studies that have looked at the relationship between perceived maladaptive parental behaviors with conduct disorder symptoms among adolescents. Many have linked perceived maladaptive parental behavior with depressive symptoms and psychological disorders. A notable Kenyan study has been done on the prevalence of depression symptoms and its association with maladaptive parental behavior among adolescents. This study by Khasakhala et al (2012) found that the symptoms of depression was higher in female more than in males and in those in boarding more than those in day schools. Further, the study found a strong correlation between perceived maladaptive parental behavior and depression among adolescents. Another study by Khasakhala et al, (2013) sought to investigate the association between major depressive disorder and parental maladaptive behavior and parental psychiatric disorder and found a strong and positive correlation between them. Another study was done by Mbwayo and Mathai (2016) to determine the link between despair and behavior problems among adolescents in the Kenyan setup. The study noted that high levels of hopelessness led to increased conduct problems. However, most importantly, two of these studies looked at depressive symptoms as a dependent variable and not conduct disorder as the present study will do while the last study looked at hopelessness as an independent variable and not maladaptive parental behavior. Further, the study did not consider the prevalence of conduct disorder among adolescents and how it's link to maladaptive parental behavior. It did not also examine the socio-demographic association with conduct disorder; variables that the present study hopes to investigate.

## 1.3 Statement of the Problem

As far as conduct disorder is concerned, studies in Kenya have shown a high frequency rate of the behavioral problem in juvenile offenders and adolescents (Naomi, 2017; Gitonga & Ongaro, 2017). However, such prevalence has not been examined when linked to maladaptive parental behavior. From the foregoing, what is clear is that, never before have parents had an extended period living and dealing with their adolescents at home as a result of the restrictions and lockdown created by COVID 19. Judging from the reviewed literature,

this has the potential of creating a serious psychological problem for adolescents. One psychological problem is conduct disorder which for this study is important because there is paucity of scholarly work that has linked perceived maladaptive parental behavior with Conduct disorder symptoms among adolescents as compared to those that have linked parental behavior to depression. Bearing this in mind, this offered a strong opportunity to examine the link between of perceived maladaptive parental behavior with Conduct disorder symptoms in adolescents.

Studies done in developed countries (Ma & Wang, 2021: Masud et al., 2017; Russell et al., 2020) have examined the link between dysfunctional parenting practices and psychiatric disorder. However, many of these studies have not measured maladaptive parental behavior comprehensively but only cursorily mentioned few aspects of it under family problems. Further, they did not focus on the potential for conduct disorder among adolescents and how it is associated with perceived maladaptive parental behavior in the Kenyan set-up. Those done in the Kenyan set-up like studies by Khasakhala et al (2012) looked at depressive symptoms as a dependent variable and not conduct disorder as the present study did. Consequently, this study filled a significant gap in research.

### 1.4 Scope of the Study

This research did focus on the association between perceived maladaptive parental behavior and conduct disorder Symptoms among adolescents aged between 14and 17 at the youth centre at Kenyatta National Teaching and Referral Hospital in Nairobi, Kenya. It targeted young people from the KNH youth center and examined specifically their socio-demographic factors and the prevalence of conduct disorder symptoms and the perception of perceived maladaptive parental behavior. This research collected the necessary data using the S-EMBU instrument to measure maladaptive parental disorder and another scale, the Conduct disorder Scale (CDS) to measure conduct disorder and a researcher designed socio-demographic questionnaire to measure socio demographic factors of the adolescents.

# CHAPTER TWO

# 2.0 LITERATURE REVIEW

## 2.1 Introduction

This chapter examines the conceptualization and measurements of maladaptive parental behavior and conduct disorder. It presents some empirical reviews that have looked at the association of perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents accompanied by the research gaps identified.

## 2.2 Maladaptive Parental behavior and its Measurements

It has been observed that parents who have a positive relationship with the multifaceted systems within their disposal that offer organization and support within their specific environments exhibit more adaptive parenting behavior than those without the positive relationships and supportive mechanisms (Koerner et al., 2015). Further, positive relationships that are also characterized by meaningful and open communications between the parent and the child have shown positive correlations with adaptive parenting behavior (Balsamo et al., 2015; Corral & Calvete, 2014). Some studies have shown that some parents even those living in high-risk psychosocial conditions post adaptive parenting when they are in a meaningful and reciprocal relationship with their children, when they are more involved in care-giving and when they have support from co-parents (Koerner et al., 2015; Renner et al., 2012). Thus, the linkage between adaptive parenting behavior and the environment within which they live has been espoused by system theorists like Belsky and Bronfenbrenner (Belsky, 1984; Bronfenbrenner, 1989).

Studies have thus highlighted the characteristics that exist and determine adaptive parental behavior; the lack of which leads to maladaptive parental behavior. Oskoff and Johnson (2014) picking up from studies done by earlier scholars like Winnicot (1965) delineated these characteristics as reciprocity, role of fathers and the presence of social networks. Reciprocity was based on the argument that adaptive parental behavior is largely predicated on a warm and responsive parental-child relationship where the parent is deliberately aware and responsive to the child’s intentions, moods, behavior, needs and wants and a parent-child relationship where the offspring is aware, is responsive to the parents’ aspirations, ambitions, needs and moods (Corral & Calvete, 2014; Oskoff & Johnson, 2014). Significant studies have shown that a disrupted parent-child relationship leads to early onset depressive symptoms,

anxiety, ADHD and oppositional disorders that left unattended creates significant mental deficits into adolescence and adulthood (Koerner et al., 2015).

Significant studies on adaptive parental behavior were mainly focused on the maternal-child relationship where emotional availability was considered a central predictor of psychological wellbeing among children (Balsamo et al., 2015; Renner et al., 2012). However, expanded reviews have shown that the father has a significant direct and moderating role in the enhancement of adaptive parental behavior (Corral & Calvete, 2014; Renner et al., 2012). The interactive element where a father creates a warm and reciprocal relationship with both the mother and the child, the availability component where the father's presence and involvement with the mother and the child and the responsibility component where the father provides the basic needs plus psychological benefits have all been associated with adaptive parental behavior, instilling of confidence in the child or adolescent and enacting of confidence in the child or adolescent; all of which enhances mental wellbeing (Koerner et al., 2015). There is still debate on whether single-headed households should be categorized as a maladaptive risk or not (Renner et al., 2012). Social networks in the form of economic foundations via work opportunities, educational avenues, community support and availability of social amenities like hospitals and recreational facilities have also been noted as emblematic of adaptive parental behavior (Balsamo et al., 2015).

Young (2005) presented autonomy, connectedness, realistic limits, reasonable expectation and worthiness as the five core domains that undergird child development. Based on the Schema theory, maladaptive parenting behavior is actions that hinder the attainment of these five core domains (Young, 2005). Thus, EMS: Early Maladaptive Schemas was crafted to underpin frustrations of the key domains by parents within their respective environments (Young, et al., 2013). Young (2005) defined EMS as:

> *"A broad, pervasive theme or pattern, comprised of memories, emotions, cognitions, and bodily sensations, regarding oneself and one's relationships with others, developed during childhood or adolescence, elaborated throughout one's lifetime and dysfunctional to a significant degree" (pg, 12).*

Early maladaptive schemas framework has been associated with social phobia, depression, eating disorders, ADHD, psychosis, anxiety and burnout among other mental illnesses or those related to it (Corral & Calvete, 2014).

## 2.3 Risk Factors for Maladaptive Parental Behavior

A review of significant studies has identified substance use is a significant threat for maladaptive parental behavior. Cocaine use, Marijuana, excessive alcohol and cigarette smoking has been associated with poor child development especially when introduced early in life (Corral & Calvete, 2014). However, very little is still known regarding how substance abuse moderates the bond between parents and children in a reciprocity framework. What is however known is that substance abuse lowers reciprocity levels and creates a significant maladaptive parenting behavior (Balsamo et al., 2015).

Violence is another significant risk factor for maladaptive parental behavior. Studies have shown that violence in the home and the coping mechanisms that accrue out of that experience compounds the parent-child relationship detrimentally (Renner et al., 2012). Other studies have linked domestic violence to loss of attachment between the parent and the child which leads to a broken relationship (Koerner et al., 2015). The other significant risk for maladaptive parental behavior is teenage mothers. Studies have shown the teenage mothers mostly operate in a problematic child rearing environment. There is often a stilted relationship between teenage mothers and their children owing to less interaction times (Corral & Calvete, 2014; Koerner et al., 2015). Parental psychopathology has also been identified as a risk factor for maladaptive parental behavior (Renner et al., 2012).

Further, some studies like that done by Johnson et al. (2002) have found that a history of family psychiatric disorder is a significant risk factor for maladaptive parental behavior. The study found that parents who possessed a history of psychiatric disorder were more prone to practice maladaptive parental behavior than parents who did not have such a history. This thus means that in the full-scale of things, child rearing becomes a significant factor that moderates maladaptive parental behavior to the extent that where positive child rearing behavior exists; chances of maladaptive parental behavior may decrease.

Osofsky and Thompson (2000) on their part were more elaborative when describing the risk and protective factors associated with maladaptive parental behavior. In considering these factors, the scholars first argue that both adaptive and maladaptive parenting behaviors are not static and unchangeable but alterable based on circumstances and efforts. Most importantly, argue that the environment, following in the ecological model presented by Bronfenbrenner (1989), is a significant risk factor for maladaptive parental behavior. The ecological model argues broadly that the parent-child interaction does not just depend on the

two aforementioned personalities but also depend on a milieu of environmental dynamics some of which happen way outside the contexts of the two personalities. Thus, socioeconomic factors characterized by parent education level, level of income and other socializations; the psychological wellbeing of both the parent and the child; the culture that undergirds the lifestyle of the parent and the child; the community issues and climate and child characteristics are significant risk factors for maladaptive parental behavior. The scholars thus take in the advice of Bronfenbrenner (1989) that a person-context model that looks at the interaction between the parent and the child beyond individualized circumstances and into the environment is the strongest predictor of maladaptive parental behavior.

Additionally, Osofsky and Thompson (2000) has mentioned teenage mothers as empirically and significantly associated with maladaptive parental behavior as a risk factor. They argue that teenage mothers, especially those below the ages of 16 years, are prone to problems with cognitive capacity and face challenges in their socio-emotional environments; both of which compound the whole situation and lend itself to serious maladaptive parental behavior. Studies have shown that teenage mothers are more inclined to respond less to their children and have a stillness to their interactions which affects attachment and leads to unresolved maladaptive parental behavior even to adulthood (Cecil et al., 2012; Turner & Avison, 1985; Winsper et al., 2017). Further, other studies have shown that teenage mothers are prone to giving commands and instilling corporal and other discipline coupled with lack of elaborate statements which eventually show itself in maladaptive parental behavior (Cecil et al., 2012; Turner & Avison, 1985; Winsper et al., 2017). Hartley et al. (2008) on their part delineate the lack of behavioral management strategies that would aid in sustained attention, increasing social engagement and lowering aggressive behavior as a risk indicator for maladaptive parental behavior. Generally, there seems to be a host of risk factors for maladaptive parental behavior that are characterized largely by, violence, substance use, a history of family psychiatric disorder, environmental issues and teenage mothers plus lack of behavioral management strategies that would aid in sustained attention, increasing social engagement and lowering aggressive behavior.

### 2.4 Conduct disorder, Measurements and associated factors

Studies have used various scales to measure and correctly diagnose CD in teens and pre-teens. There is the DISC: Diagnostic Interview Schedule for Children (Schaeffer et al., 1996); the Schedule of Affective Disorders and Schizophrenia for School-Age Children—Present and Lifetime (Kuafman et al., 1997); and the more common Diagnostic Interview for

Children and Adolescents (Herjanic & Reich, 1982). However, these instruments' validity have variously been called into question because they are very complicated and lengthy and hence requiring of an expert clinician and since they ask about age of early onset of the conduct disorder symptoms without regard for current changes, it often a misclassified diagnosis (Reavy et al., 2014). DAS: Delinquent Activities Scale crafted by Reavy et al (2014) offers a brief measuring scale that circumvents the gaps in the traditional conduct disorder measuring scales already mentioned. On the age front, it asks about the age of first occurrence as opposed to age of early onset which removes the diagnosis misclassification chances. However, no other studies have used it and thus validated it.

A review of studies have however shown that the Standard Conduct disorder Scale has been used extensively and effectively been validated. The conduct disorder scale has 40 items with subscales measuring the main domains of conduct disorder namely; Aggressive and Non-aggressive conduct; rule violation; deceitfulness and theft. The scale is applicable to children and adolescents aged between 5 and 22 years and can be administered by any interested party. Further, its face validity is high considering that it is aligned to the measures of conduct disorder under DSM-IV-TR (Gillian, 2002). Other studies have shown that in terms of internal consistency and reliability, all the items in the conduct disorder (Aggressive and Non-aggressive conduct; rule violation; deceitfulness and theft) have a reliability score of over 0.7 (Gitonga et al., 2017; Gillian, 2002; Humaida, 2012). Under such considerations, the conduct disorder scale is the tool that will be used for the present study.

On prevalence of CD, in a study done by Mohammadi et al. (2021) which examined 50 studies that integrated 186,056 adolescents strewn across 35 countries, the global prevalence of CD was placed at 8% (CI: 7-9% -99.7%) which comprised 7% among females and 11% among males. The prevalence decreased when diagnostic tools like Development and Well-Being Assessment (DAWBA) were used but increased to an average 16% when parental self-surveys were used. However, in the UK for instance, according to Balkey et al. (2021), 16% [95%CI: 15·2–17·5] people have CD as opposed to 5% [95%CI 4·6–5·9]. This shows that CD in the Western world is increasing. In Africa, the prevalence of CD especially among high school children is higher than the global figures at 15.8% according to a study done in Nigeria by Rogo and Garba (2018). In a study conducted in Kenya, Gitonga (2017) discovered that the prevalence of Conduct Disorder was 31.4% with men having a higher prevalence rate than women, similar to the findings by Mohammadi et al. (2021).

Murray and Farrington (2010) gave a succinct elaboration of the risk factors that eventually predict conduct disorder especially among adolescents. They were impulsiveness, poor school academic achievement, low IQ, erratic and ineffective parental discipline, lack or ineffective parental supervision, disrupted family ties, parental conflicts, peers that are anti-social, low socio-economic status, high crime residential locations, cold parental attachment and attitudes, large family sizes and expanded delinquency states. Of course, further research is needed to examine these risk factors within countries like Kenya where certain different dynamics exist.

There is also need to consider actions that have proposed to treat or deal with conduct disorder among adolescents. Studies done in this area are divided into two. The first class of scholars speaks of using Cognitive Behavioral Therapy (CBT) and Mode Deactivation Therapy (MDT) to alleviate or management conduct disorder (Busari & Ojo, 2011; Busari, 2013; Kaufman et al., 2005). CBT has commonly been used to manage depression and anxiety and is largely premised on talking therapeutically in order to alter or shape the way the patient thinks and eventually behaves (Busari, 2013; Caldwell et al., 2021; Searight et al., 2001). Studies have shown that CBT is a reliable tool used to treat conduct disorder in adolescents because it alters the thought processes of the affected adolescent and seeks to shape behavior away from the conduct problem (Kaufman et al., 2005). In fact, some of these studies have empirically shown a strong correlation between CBT and effective management of CD among adolescents (Busari & Ojo, 2011; Kaufman et al., 2005). This strong correlation is seen especially where CBT focuses on problem solving training and skilling for the patient and where there is effective collaboration between the therapist, patient, and the school context or/plus the family context (Busari & Ojo, 2011; Busari, 2013; Riise et al., 2021). However, there are others that have discounted the feasibility of CBT in treating CD (Apsche & Bass, 2006). They have argued that CBT while instrumental in shaping and managing conduct disorder among adolescents does not offer a detailed guideline on how adolescents who practically would not want to engage due to the problem that the therapy is seeking to management would be brought into collaboration (Apsche & Bass, 2006). Nonetheless, in the general scheme of things, CBT appears to largely have a positive impact on management and reduction of CD.

The other therapy noted to have a positive influence on the management of CD is Mode Deactivation Therapy (MDT). MDT is a therapy that takes the conduct-dysfunctional child in the manner the child is and offers that child validation and unconditional acceptance (Apsche

& Bass, 2006). This is meant to create rapport with the affected adolescent by validating even the wrong things done with the view of showing the affected that their life's experiences are true and valid. Once the rapport is built, the therapist can then slowly reshape the perspectives of the adolescent and try and replace the misguided view of life with a 'good' view of life (Apsche & Bass, 2006). There is a purposefulness and mindfulness of the whole MDT process that allows the affected adolescent to begin to look at things in a new way. However, there is a lack of empirical reviews that have assessed the viability of Multidisciplinary Team (MDT) approaches to effectively treat Conduct Disorder (CD) in adolescents. Nonetheless, Apsche and Bass, (2006) reported anecdotal evidence from therapist who had applied MDT for over 5 years and found it to be helpful. Others scholars have found no such significant helpfulness of MDT in the management and treatment of CD (Apsche et al., 2004).

A bigger scope of reviews has examined parent management techniques (PMT) in the treatment and management of conduct disorder. Kazdin (2018), one of the key proponents of PMT for treating CD, describes PMT as the process of engaging affected parents with information about how their training and empowerment would benefit both them and their affected children; an engagement via video or otherwise that presents testimonials from parents who have hitherto befitted from the PMT training and a development of a support system paradigm with the affected parents. Significant studies have shown that the use of PMT is a valuable mechanism that creates positive CD outcomes (Kemp et al., 2020; Fairchild et al., 2019; Ward et al., 2022). These studies have also argued that PMT when done effectively and appropriately, allows for a change in behavior and perspective that benefits the whole family and mostly builds the parent-adolescent relationship; even that relationship that had seemed unsalvageable (Fairchild et al., 2019; Ward et al., 2022). The main problem with PMT as used in CD treatment and management is the lack of measurable indicators as this is still a new frontier.

In a study to evaluate family issues connected to conduct disorder as experienced by professionals, families and patients in Iran, Sajadi et al, (2020) found a clear connection between elements of dysfunctional parental behavior and conduct disorder. This study however did not measure maladaptive parental behavior comprehensively but only cursorily mentioned few aspects of it under family problems. Further, it did not focus on the potential for conduct disorder among adolescents and how it is associated with perceived maladaptive parental behavior in the Kenyan set-up. Another study done by Vera-Rios (2018) among

Hispanic teens examines parenting styles and its relationship with Conduct Disorder. The study observes no significant impact of parental styles on conduct disorder among Hispanic teens despite its admission that CD is a serious issue among them. The study however has significant research gaps because it surveys parents and not the adolescents themselves hence implying reliability and credibility issues.

Studies have been done within global contexts, mainly Western regions of the world, on maladaptive parental behavior and mental health outcomes. These results have varied results that are important and insightful. Kemp et al. (2020) did a study in the UK to examine the treatment of conduct disorder among adolescents. Appropriate to this study, the study found that parental behavior is sturdily associated with conduct disorder. The study also observed that very few analyses on conduct disorder misses the element of maladaptive parental disorder. To that extent, the study recommended the use of parental management strategies to help in the management and treatment of conduct disorder. Of note however is that this study did not specifically delineate maladaptive parental behavior and its measurements and how they then affect conduct disorder as measured using validated psychometric tools like the Conduct Disorder Scale. Such a study would be useful especially in the Kenyan context where paucity of such analysis is missing.

On their part, Bordin et al. (2022) did a study to examine the link between violent exposure and conduct disorder with sex and age as moderators and parental emotional warmth as part of the measures of maladaptive parental behavior plus resilience as confounders. The confounders represented by parental emotional warmth were measured using the Strengths and Difficulties Questionnaire/SDQ. The study found that severe physical punishment by parents was associated with conduct problems among younger adolescents while peer aggression led to higher conduct disorder among older adolescents. The study also noted higher levels of aggression among girls and generally noted that sex and age were significant moderators of the relationship between violent exposure, emotional warmth and conduct disorder among adolescents. These results are crucial in determining that maladaptive parental behavior is strongly associated with conduct disorder among adolescents. However, the study does not measure maladaptive parental behavior using commonly acceptable and validated tools which would offer reliable effects to conduct disorder if any.

Watson (2022) in examining conduct disorder and parenting and familial manifestations by surveying 1017 year olds noted certain important issues. First, the study, a scoping review,

found that from a host of empirical literature, it was clear that maladaptive parental behavior had a significant effect on conduct disorder of adolescents aged 10-17 years. Further, the study found that parenting and familial corrective behavior and techniques were most significant associated with reduction of conduct disorder among the selected age group. This study is particularly useful because it examined various studies that measured parental behavior and conduct disorder using various validated instruments and the fact that generally there was such an association between maladaptive and adaptive parental behavior and conduct disorder is itself a validation of that finding. Nonetheless, it is important to note that while this study examined a cross section of peer reviews on the subject of parental behavior and conduct disorder, none of these studies were done within the Africa Setup or even more particularly the Kenyan set-up.

Another recent study is done by Awada and Shelleby (2021) who examined the bidirectional association between parental behavior and conduct disorder among persons in the early childhood bracket (36 years). Notably, though, mothers of these children were recruited via an Amazon access scale. The parenting behavior examined included adaptive behavior represented by positive parenting and maladaptive parenting behavior represented by lax, lack of emotional warmth and over reactive parenting. Child sex, parental resilience, ethnicity of the mother and mother marital status were accounted in the study as confounders. The study found a significant association between lax parenting behavior (maladaptive) with conduct disorder but no such association between positive parenting and conduct disorder. There was also a link between over reactive parenting and conduct disorder but not as significant as that tagged on lax parenting. The results in this study support scholarly outputs related to parenting behavior and mental health outcomes like conduct disorder. One significant gap noted in studies like the Awada and Shelleby (2021) one is the lack of socio-demographic association with conduct disorder.

As earlier noted, never before have parents had an extended period living and dealing with their adolescents at home as a result of the restrictions and lockdown created by COVID 19. Judging from the reviewed literature, this has the potential of creating a serious psychological problem for adolescents. To that extent Hails et al. (2022) looked at negative and maladaptive parenting and behavioral problems in the wake of COVID-19. The study finds that COVID-19 exacerbated maladaptive parental behavior because parents were stopped from refashioning or modifying their actions and responses to suit difficult or new circumstances. Further, maladaptive parental behavior led to significant problem behavior among children.

There is a host of studies done to examine maladaptive parental behavior and how they affect problem behavior but these are focused on children and not adolescents. Further, they focus on problem behavior which may not be diagnosed and categorized the same as conduct disorder.

Further, Devlin et al. (2018) offers a look at how maladaptive parental behavior and conduct disorder may apply within the African set-up. More significantly, the scholars compare adolescents residing in high-income countries and those in low-income countries in Sub Saharan Africa. The study examined 44 studies done in both countries and noted that maladaptive parental behavior affected conduct disorder in adolescents residing in low-income countries in Sub Saharan Africa by a significant 3.6% more than those residing in high-income countries. While the study did not give details regarding the reasons for the difference, it nonetheless mentioned socioeconomic and environmental differences. Another African study that comes closer to examining maladaptive parental behavior and conduct disorder is one done in Eswatini by Mafumbate and Mkhatjwa (2020). The study accesses the perspectives of teachers regarding how they perceive to be the reason for maladaptive behavior among adolescents within the school setting. The study finds that teachers allocated maladaptive parental behavior as the key reason for negative behavior among adolescents. Of course, the findings here are anecdotal but they serve to strongly imply that there is a perceived role that maladaptive parental behavior plays in the conduct problems exhibited by adolescents. From the analysis, it is clear that there are very few studies done to link maladaptive parental behavior and conduct disorder within the Africa setting making the present study both necessary and invaluable.

Significant studies have been done to link maladaptive parental behavior with psychiatric disorders. Adeniyi with Ekundayo in (2020) examined this behavioral disorder in association among Nigerian Secondary School pupils with socio-demographic concerns. The Conduct Disorder Scale was used in the investigation of conduct disorder among 384 students and checked the age, sex, family type and school type as the socio-demographic factors. The study used multiple regression analysis and correlation analysis to compute and analyze the data and found a conduct disorder prevalence rate of 14.5%. Additionally, a substantial and a favorable association between the socio-demographic factors with conduct disorder, gender and school type being the most significant associative factor. The prevalence rate was in Nigeria while the present study seeks to find out that prevalence in Kenya. Further, the study

did not associate conduct disorder will maladaptive parental behavior as the present study will do.

Rogo and Garba (2018) also did a study in Nigeria to observe the level to which gender differences associated with conduct disorder among adolescents. The study also used the CDS to measure conduct disorder and used correlations and regression analyses to predict the differences and to check for the relationships. The studies found no significant gender difference between male and female and conduct disorder. This goes against the study by Adeniyi and Ekundayo (2020) and thus underscores the lack of consensus regarding the level to which gender differences associated with CD among adolescents. This work aims to close the gap when it examines the socioeconomic and demographic associated factors to conduct disorder among the adolescents at the KNH Youth Centre.

Kumuyi et al. (2021) did a cross-sectional study to examine parental influences as predictors of conduct disorder in secondary school going children n Nigeria. A multi-stage sampling technique was used to access 1006 adolescents and data was collected using Socioeconomic Status (SES) scale, Frequency of Delinquent Behavior Scaling Instrument (FDBSI) and the Parenting Styles Scale (PSS). The study found that controlling parents and those with occupations had a significant influence on CD. However, the study did not examine the prevalence of CD as the present study will do.

Gitonga et al (2017) examined the frequency of conduct disorders in Kenyan secondary schools among teenagers. Using univariate and multivariate analytical tools and CDS as a measuring tool to test conduct disorder, the study found a conduct disorder prevalence rate of 31.4% with males having a higher likelihood of presenting with CD than their female counterparts. This study is vital because it presents data on the prevalence rate of conduct disorder; however, it does not examine any associations of conduct disorder with maladaptive parental behavior as the present study will do.

Khasakhala et al (2012) did a study to examine the frequency of depressive symptoms among teenagers in secondary schools with associated the symptoms to maladaptive parental behavior. The study used the EMBU rater to measure maladaptive parental behavior and used chi-square test and correlation analysis to check for that association. The study subsequently observed that symptoms of depression were higher among females as compared to males and in those in boarding more than those in day schools. Further, the study found a strong correlation between perceived maladaptive parental behavior and depression among

adolescents. Another study by Khasakhala et al, (2013) sought to investigate the association between major depressive disorder and parental maladaptive behavior and parental psychiatric disorder and found a strong and positive correlation between them. However, most importantly, these studies looked at symptoms of depression as a dependent element and not conduct disorder as the present study will do. Further, the study did not consider the frequency of conduct disorder in teenagers and the socioeconomic and demographics association with CD; variables that the present study hopes to investigate.

A summary of gaps show that some of the studies reviewed did not specifically delineate maladaptive parental behavior and its measurements and how they then affect conduct disorder as measured using validated psychometric tools like the Conduct Disorder Scale. Such a study would be useful especially in the Kenyan context where paucity of such analysis is missing. Further, some of the studies do not measure maladaptive parental behavior using commonly acceptable and validated tools which would offer reliable effects to conduct disorder if any. Also, it is important to note that while many of these studies examined a cross section of peer reviews on the subject of parental behavior and conduct disorder, none of these studies were done within the Africa Setup or even more particularly the Kenyan set-up. Further, one significant gap noted in studies is the lack of socio-demographic association with conduct disorder. There is a host of studies done to examine maladaptive parental behavior and how they affect problem behavior but these are focused on children and not adolescents. Further, they focus on problem behavior which may not be diagnosed and categorized the same as conduct disorder. Also, some of the studies did not measure maladaptive parental behavior comprehensively but only cursorily mentioned few aspects of it under family problems. Further, they did not focus on the potential for conduct disorder among adolescents and how it is associated with perceived maladaptive parental behavior in the Kenyan set-up. There is also the lack of consensus regarding the level to which gender and age differences associated with CD among adolescents. This work aims to close the gap when it examines the socioeconomic and demographic associated factors to conduct disorder among the adolescents at the KNH Youth Centre. Moreover, from the analysis, it is clear that there are very few studies done to link maladaptive parental behavior and conduct disorder within the Africa setting making the present study both necessary and invaluable.

### 2.5 Significance and Justification of the study

According to studies, both children of parents with and without psychiatric disorders are more likely to experience the onset of psychiatric disorders when their parents engage in maladaptive parenting practices (Ma & Wang, 2021: Russell et al., 2020). However, in Kenya, there is paucity of studies that have looked and associated perceived maladaptive parental behavior with conduct disorder symptoms in adolescents.

This study's conclusions will inform policies to support parents cope or prevent risks factors for maladaptive parental behaviors and the need for holistic care of adolescents presenting with conduct disorder. The research will also broaden the pool of knowledge of literature.

### 2.6 Research Question

The main research question is: Is there an association between perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents at the youth centre at Kenyatta National Teaching and Referral Hospital?

#### 2.6.1 Specific Research Questions

1 What is the prevalence of conduct disorder symptoms among adolescents at the youth centre at Kenyatta National Teaching and Referral Hospital, Kenya?

**2** What are the socio-demographic associated factors to conduct disorder among the adolescents at the KNH Youth Centre**?**

3 What is the prevalence of perceived maladaptive parental behavior of parents/guardians at the KNH youth centre?

**4** What is the association of perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents at the KNH youth centre?

### 2.7 Research objective

The overall objective is: to examine if there is an association between perceived maladaptive parental behaviors with conduct disorder Symptoms among adolescents at the youth centre at Kenyatta National Teaching and Referral Hospital.

#### 2.7.1 Specific objectives

The specific objectives will be:

1 To determine the prevalence of conduct disorder symptoms among adolescents at the youth centre at Kenyatta National Hospital, Kenya.

**2** To examine the socio-demographic associated factors to conduct disorder among the adolescents at the KNH Youth Centre

**3** To determine the prevalence of maladaptive parental behavior among parents/guardians at the KNH youth centre.

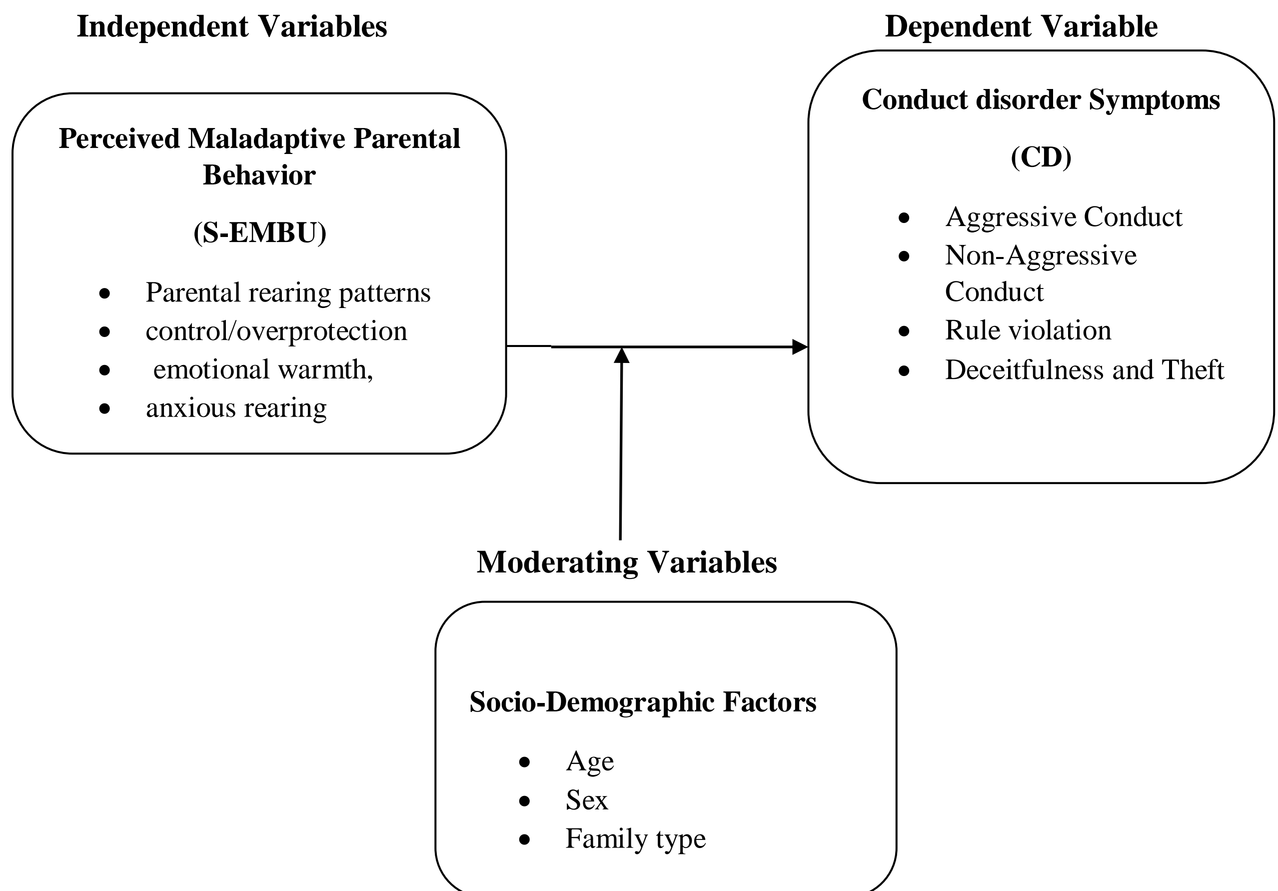
**4** To determine the association between perceived maladaptive parental behaviors with conduct disorder Symptoms among adolescents at the KNH youth centre.

## 2.8 Theoretical Framework

This study was anchored on the ecological systems theory by Bronfenbrenner (1989). Bronfenbrenner, (1989) using his ecological systems theory espoused the notion that parenting is significantly predicated on the environment within which such parenting takes place. The argument was that the bond between parents and children is largely determined by the socio-economic, community climate, psychological wellbeing of both the child and the parent and child characteristics. Bronfenbrenner, (1989) further noted that the relationship within the environment is transactional in the sense that the parent both is affected and influences the environment within which the parent-child relationship is anchored. Further, Bronfenbrenner, (1989) admonished the use of personal attributes via IQ testing as a sole determinant of parenting and proposed the use of individual and environmental characteristics in a joint manner to examine adaptive and even maladaptive parental behavior. Generally, the ecological model argues broadly that the parent-child interaction does not just depend on the two aforementioned personalities but also depend on a milieu of environmental dynamics some of which happen way outside the contexts of the two personalities. Thus, socioeconomic factors characterized by parent education level, level of income and other socializations; the psychological wellbeing of both the parent and the child; the culture that undergirds the lifestyle of the parent and the child; the community issues and climate and child characteristics are significant risk factors for maladaptive parental behavior (Bronfenbrenner, 1989).

## 2.9 Conceptual Framework

The conceptual framework offers a diagrammatic representation of the study variables and how each will be measured (See Figure 1 below).



Independent Variables
Dependent Variable
Perceived Maladaptive Parental Behavior
(S-EMBU)
Parental rearing patterns
control/overprotection
emotional warmth,
anxious rearing
Conduct disorder Symptoms
(CD)
Aggressive Conduct
Non-Aggressive Conduct
Rule violation
Deceitfulness and Theft
Moderating Variables
Socio-Demographic Factors
Age
Sex
Family type

# CHAPTER THREE

# METHODS

## 3.1 Introduction

This chapter examines the study site, the study design, the sample population, the data collection instruments and the data analytical procedures used.

## 3.2 Study Design

The study applied a quantitative method and a cross-sectional study design.

## 3.3 Study Site

The study was done at the Kenyatta National Hospital Youth Centre, which is located inside the Kenyatta National Teaching and Referral Hospital, as a section in the department of mental health, in Nairobi, Kenya. The unit of analysis was the adolescents aged between 14-17 years considering that conduct disorder is best diagnosed for persons under the age of 18. The study site was selected because it had significant visitors who present with various mental illnesses and it was useful to examine the extent to which perceived maladaptive parental behavior affected conduct disorder among the adolescents who come at the centre.

Kenyatta National Hospital was founded in 1901 as a 40 bed capacity hospital, making it the oldest hospital in the country. Since then, it has grown to become the biggest hospital in the country serving as both a referral and a teaching hospital for the University of Nairobi (KNH, 2021). The Kenyatta National Hospital Youth Centre offers its psychiatric services from Monday to Friday and begins to operate as from 8.00 am. The centre under the auspices of the mental health department of Kenyatta National Hospital was started in 1990 and was initially earmarked to offer services to depressed and suicidal HIV patients but later transitioned to a fully-fledge psychiatric care (KNH, 2021).

## 3.4 Sample Population

The KNH Youth Center receives approximately 1000 adolescents, both outpatient and inpatient every month (KNH, 2021). The Daniel (1999) sample size calculator for prevalence-based studies will be used which:

$$n = \frac{Z2P(1 - P)}{d2}$$

Where n is the sample size, Z is the statistic corresponding to level of confidence which in this case in 95% CI or 1.96, P is expected prevalence (that can be obtained from same studies and this study thus uses the Gitonga et al (2017) Conduct disorder prevalence rate which was at 31.4% or 0.314, and d is precision (corresponding to effect size) which is 95% or 0.05 when squared comes to 0.0025.

Thus:

$$n = \frac{3.8416 \text{ x } 0.314(1 - 0.314)}{0.0025}$$

=331

### 3.5 Sampling method

The study used stratified random sampling technique to get 331 participants differentiated in terms of their gender (Male and female) from the Kenyatta National Hospital Youth Centre. Stratified sampling was used because the respondents had heterogeneous characteristics in terms of the gender.

The main inclusion criteria were; adolescents between the ages of 14-17, parental consent and the adolescents assent. The exclusion criteria were those with diagnosed mental illnesses other than conduct disorder.

### 3.6 Recruitment Strategy, Consenting process and data collection

The recruitment process refers to the act of identifying potential participants for a study and inviting them to participate in the study. After getting approval from the Kenyatta National Hospital-University of Nairobi Ethics and Research Committee the National Commission for Science, Technology and Innovation. The researcher went through the daily register each day from Monday to Friday at the Kenyatta National Hospital Youth Centre and identified the adolescents who fit the criteria, that is, youth between the ages of 14-17, with no other psychiatric diagnosis except Conduct disorder. The researcher waited for the participants to engage with the counselors and psychologists, there after requesting for their time. The researcher explained the study to the parents/guardians and the potential participants and allowed them make an informed decision on whether to participate in the study or not, after which they were given the consents and assents to sign. The researcher sought verbal consent from the management of the Kenyatta National Hospital Youth centre and the staff at the

facility. During this time, the researcher requested for a room at the unit to allow the participants privacy to fill the questionnaires. After signing the consent form, the parent/guardian was to sit and wait for the adolescent at the waiting bay as the participant entered the designated room for data collection. After signing their assent form, the participant was handed the questionnaire to fill. On average, each participant spent between 15 to 20 minutes to complete filling in the questionnaire. Covid-19 protocols were adhered to through the whole process.

### 3.7 Data Collection Instruments

#### 3.7.1 Conduct disorder

The Standard Conduct Disorder Scale (CDS) was used to measure conduct disorder of the adolescents in the Kenyatta National Hospital Youth center. The CDS has 40 items with subscales measuring the main domains of conduct disorder namely; Aggressive and Non-aggressive conduct; rule violation; deceitfulness and theft (Gillian, 2002). The scale is applicable to children and adolescents aged between 5 and 22 years and can be administered by any interested party. Further, its face validity is high considering that it is aligned to the measures of conduct disorder under DSM-IV-TR (Gillian, 2002). Other studies have shown that in terms of internal consistency and reliability, all the items in the Conduct disorder scale (Aggressive and Non-aggressive conduct; rule violation; and deceitfulness and theft) have a reliability score of over 0.7 (Gitonga et al., 2017; Gillian, 2002; Humaida, 2012). Under such considerations, the CDS is the tool that was used for the present study.

#### 3.7.2 Socio-demographic Factors

A researcher designed socio-demographic questionnaire was used to collect demographic data of the adolescents. It had questions on the sex, age, family type and school type of the selected adolescents. This mainly constituted the section B of the questionnaire.

#### 3.7.3 Perceived Maladaptive Parental Behavior

The Simplified Egna Minnen Betr¨affende Uppfostran (S-EMBU) tool was used to measure maladaptive parental behavior. S-EMBU is a 23 item questionnaire that produces 4 subscales that measures perceived maladaptive behavior within five domains namely: parental rearing patterns, control/overprotection, and emotional warmth, anxious rearing and rejection. In each of the aforementioned domains, the father’s rearing behavior is first tested followed by

the mother's using a four-point Likert Scale that has 1=No, never, 2=Yes, but seldom, 3=Yes, often, 4=Yes, most of the time.

So far, S-EMBU as a maladaptive parental behavior testing instrument has been variously validated and was found to have test-retest reliability and internal consistency (Cohen et al., 2015; Elmquist et al., 2015; González-Díez et al., 2015). It has also been found to have high reliability results after Cronbach's Coefficient alpha test with one study showing reliability index results for emotional warmth = 0.89, rejection = 0.83, overprotection = 0.64; and for anxious rearing = 0.81 (Mousavi et al., 2016). The S-EMBU in light of its widespread validation is the tool that the present study used to measure maladaptive parental behavior.

### 3.8 Data Management

After the participants filled the questionnaire, the researcher checked the entire questionnaire for completeness and ensured that all information captured was accurate. Each filled questionnaire was coded for identification. The filled questionnaires were then secured in a safe cabinet while awaiting data entry and examination. Using Epi data 3.1, data entry was carried out. Epi data exported the coded data after data entry for analysis using SPSS version 25. The study statistician and researcher were the only people with access to the accessible data in digital form, which was kept in a password protected laptop. The consent forms and questionnaires were safely stored and will remain in storage for five years; after which they will be destroyed.

### 3.9 Data Analysis

Utilizing statistical techniques with parameters like mean, standard deviation, frequency and percentages, data was evaluated. The statistical package for social sciences (SPSS) version 25 was used to perform the calculations and produce the output data. The study made use of inferential statistical techniques such as Pearson's Moment Correlation Analysis, which measures the statistical strength of the relationship between variables and multiple Regression Analysis which asses how well the independent variable predict the dependent variable. Within this analysis, ANOVA, which is the test of variance, was used to check the socio-demographic differences and the associations between those factors, maladaptive parental behavior and conduct disorder.

The prevalence of conduct disorder will be analyzed using the following formula:

$$\%\text{prevalence} = \frac{\text{Number of adolescent with CONDUCT DISORDER}}{\text{The total number of adolescents included in the study}} * 100$$

### 3.10 Results Presentation and Dissemination

The University of Nairobi, Department of Psychiatry received a presentation on the findings to meet the requirements of gaining the qualification. Further, a peer-reviewed journal will publish the results in order to gain global readership. The study will also be shared with the KNH Youth Center and both the parents and adolescents for informational purposes.

### 3.11 Ethical Considerations

The researcher sought approval for the study from the Ethics and Research Committee of Kenyatta National Hospital and the University of Nairobi and a NACOSTI permit obtained. Parents/guardians consent was sought and adolescents fully informed assent. No names were included in the questionnaires and serial numbers were instead assigned for identification. Participation in the study was voluntary, no coercion was used. The participants were informed that they could choose to cease to participate in the study for any reason and that they would not face any victimization. The participants were informed of no direct benefits to them. No physical harm was anticipated, however any emotional distress was handled by the researcher and participant taken through the counseling as this was a facility based study.

### 3.12 Study limitations and mitigation measures

The study was being carried out in an institution, and therefore could not be generalized to the general population. A proposal will be done for a similar study to be carried out in other centers and in the general public to get a more representative data.

With questions focusing on behavior, the participants may be tempted to exaggerate or minimize the reality. The participants were thus encouraged to be as truthful as possible as their privacy and confidentiality was assured.

# CHAPTER FOUR

# RESULTS

## 4.1 Introduction

This chapter presents the results related to the association between perceived maladaptive parental behavior and conduct disorder among adolescents in Kenya. The study presents results specifically related to the prevalence of conduct disorder symptoms among adolescents at the youth centre at Kenyatta National Teaching and Referral Hospital, Kenya; the socio-demographic associated factors to conduct disorder among the adolescents at the KNH Youth Centre; the prevalence of maladaptive parental behavior among parents/guardians at the KNH youth centre.; and the association between perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents at the KNH youth centre.

## 4.2 Response Rate

The study sampled 331 adolescents aged between 14 and 17 years from the Kenyatta National Hospital Youth Centre. From the responses, 324 adolescents responded to all questions asked. This gives a response rate of 97.8% which is acceptable. The rest of the questionnaires had errors and some were incompletely filled so they were destroyed and appropriately disposed.

## 4.3 Demographic Characteristics

The respondents were asked about their sex, age, family type and school type. The results are seen in the following table.

| SDV | Characteristic | N | % |
|---|---|---|---|
| Sex | Male | 184 | 56.8 |
| | Female | 140 | 43.2 |
| Age | 14-15 | 160 | 49.4 |
| | 16-17 | 164 | 50.6 |
| Family type | Both Parents | 212 | 65.4 |
| | Single Parents | 112 | 34.6 |

| School type | Day School | 98 | 30.2 |
|---|---|---|---|
| | Boarding school | 226 | 69.8 |

The results (Table 4.1) for demographic characteristics show that there were more male adolescents at the youth center at 56.8% but followed closely by female adolescents at 43.2%. This shows an almost even distribution of both sexes within the youth center. Also, slightly more than half of the adolescents at 50.6% were aged between 16 and 17 years followed by 49.4% aged 14-15 years. This implies that both age groups were almost evenly represented.

Majority of the respondents at 65.4% came from both parent family structures and only 34.6% came from single parenthood structures. Also, majority of the adolescents at 69.8% went to boarding schools while 30.2% went to day schools. The results imply that demographically, the adolescents came from a cross-section of ages, sex, family type and school type which lend itself to a deeper analysis when associated with conduct disorder.

### 4.4 Prevalence of conduct disorder symptoms among adolescents

Table 4.2 shows the descriptive results for conduct disorder among adolescents at the KNH Youth Centre. From those results the prevalence rate is calculated by adding the average scores of the results from the 4 point Likert scale on the Conduct disorder scale that represents mild, moderate and severe CD and dividing it with the number 324 which represents the total number of adolescents who participated in the study. Number of No, never responses in the Likert Scale are interpreted as no conduct disorder, yes, but seldom interpreted as mild CD; Yes, often interpreted as moderate CD and Yes, most of the time as severe CD. The raw data that categorizes each of the dimensions (aggressive conduct, Non-aggressive conduct, deceitfulness and theft and violating the rules) are placed in the appendix.

**Table 4.2 Results and Prevalence of Conduct Disorder**

| **Dimension** | **No Conduct Disorder** | | **Conduct disorder** | | **Mild** | | **Moderate** | | **Severe** | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **N** | **%** | **N** | **%** | **n** | **%** | **n** | **%** | **n** | **%** |
| Aggressive Conduct | 214 | 66.4 | 110 | 33.6 | 76 | 22.9 | 13 | 3.9 | 21 | 6.3 |
| Non-aggressive Conduct | 169 | 53.1 | 155 | 46.9 | 96 | 29.5 | 27 | 8.3 | 32 | 9.1 |
| Deceitfulness and Theft | 184 | 59.3 | 140 | 40.7 | 90 | 25.3 | 24 | 7.4 | 26 | 8.0 |
| Violating The Rules | 241 | 74.4 | 83 | 25.6 | 57 | 17.5 | 12 | 3.7 | 14 | 4.4 |
| **Average** | **202** | **62.3** | **122** | **37.6** | **80** | **23.8** | **19** | **5.8** | **23** | **7.0** |

The prevalence of mild conduct disorder among adolescent youth at KNH youth clinic is at 23.8%. The prevalence of moderate conduct disorder among adolescent youth at KNH youth clinic is at 5.8% while the prevalence of severe conduct disorder among adolescent youth at KNH youth clinic is at 7.0%. Cumulatively, the study finds that the prevalence of conduct disorder (mild, moderate to severe) among adolescent youth at KNH youth clinic is at 37.6%. The Prevalence calculation also attests to this.

$$P\% = \frac{122}{324}\text{x}100 = 37.6\%$$

Further, from the analysis, non-aggressive conduct (mild= 29.5%; moderate= 8.3%; Severe= 9.1%) and deceitfulness and theft (mild= 25.3%; moderate= 7.4%; Severe= 8.0%) were first and second most prominent dimensions of conduct disorder among adolescents from the youth clinic.

### 4.4.1 Association Between Socio-demographic factors and Conduct Disorder

Further, ANOVA test was done to check for statistical difference between sex, age, family type and school type and conduct disorder. Table 4.3 shows the summarized results.

**Table 4.3 ANOVA Test for Socio-demographics and conduct disorder**

| Sex | Sum of Squares | Df | Mean Square | n | Sig. |
|---|---|---|---|---|---|
| Between Groups | 13.934 | 1 | 13.934 | 17.725 | .000 |
| Within Groups | 253.128 | 322 | .786 | | |
| Total | 267.062 | 323 | | | |
| **Age** | | | | | |
| Between Groups | 3.064 | 1 | 3.064 | 13.737 | .004 |
| Within Groups | 263.998 | 322 | .820 | | |
| Total | 267.062 | 323 | | | |
| **Family Type** | | | | | |
| Between Groups | 2.645 | 2 | 1.322 | 1.605 | .202 |
| Within Groups | 264.417 | 321 | .824 | | |
| Total | 267.062 | 323 | | | |
| **School Type** | | | | | |
| Between Groups | .062 | 1 | .062 | .074 | .785 |
| Within Groups | 267.000 | 322 | .829 | | |
| Total | 267.062 | 323 | | | |

From Table 4.3, only sex and age had a significant statistical difference with conduct disorder (Sex: P-value=.000; <0.05; Age: P-value=.004; <0.05). This means that there was a statistical difference between the female and the male and between the 14-15 and 16-17 year old adolescents when associated with conduct disorder. However, there was no statistical difference between family type and school type (family type: P-value=.202; >0.05; School type: P-value=.785; >0.05). This means that there was no statistical significance between single parenthood and both parents on one hand and day school and boarding on the other hand when associated with conduct disorder among adolescents.

### 4.5 Prevalence of perceived maladaptive parental behavior

Table 4.4 gives the descriptive statistics related to maladaptive parental Behavior categorized under rejection, emotional warmth and (over) protection

**Table 4.4 Maladaptive parental behavior: Rejection**

| Items | N | Mean | Standard Deviation |
|---|---|---|---|
| 1. My parents get angry with me without letting me know the reason. | 324 | 1.51 | .773 |
| 4. My parents use physical punishment to discipline me. | 324 | 1.99 | .938 |
| 7. My parents criticize me and tell me how lazy and useless I am in front of others. | 324 | 1.38 | .748 |
| 13. I am treated as the 'black sheep' or 'scapegoat' of the family. | 324 | 1.25 | .659 |
| 15. My parents like my brother(s) and/or sister(s) more than they like me. | 324 | 1.51 | .959 |
| 16. My parents treat me in such a way that I feel ashamed. | 324 | 1.46 | .905 |
| 21. My parents punish me hard, even for small offenses. | 324 | 1.75 | .964 |
| **Mean Score** | | **1.55** | |

Based on the results from Table 4.4, the average score (1.55) shows that the adolescents did perceive mild rejection in their parent's behavior. Consequently, of the maladaptive parental behavior, rejection was not severe or moderate.

**Table 4.5 Maladaptive parental behavior: Emotional Warmth**

| Items | N | Mean | Standard Deviation |
|---|---|---|---|
| 2. My parents praise me. | 324 | 2.41 | 1.041 |
| 6. My parents try to make my adolescence stimulating, interesting and instructive (ex. giving me good books, arranging for me to go to camps, taking me to sports/club activities). | 324 | 1.60 | .940 |
| 12. My parents try to comfort and encourage me if things go badly for me. | 324 | 2.88 | 1.213 |
| 14. My parents use words and gestures to show that they like me. | 324 | 2.69 | 1.163 |

| | | | |
|---|---|---|---|
| 19. Warmth and tenderness exist between my parents and me. | 324 | 2.79 | 1.087 |
| 23. My parents are proud when I succeed in something I have undertaken. | 324 | 3.30 | .988 |
| Mean Score | | 2.6 | |

Based on the results on emotional warmth (Table 4.5), the adolescents perceived moderate emotional warmth from their parents (Mean Score=2.6). Consequently, of the maladaptive parental behavior, emotional warmth was moderately perceived by adolescents at the youth clinic.

**Table 4.6 Maladaptive parental behavior: (Over) protection**

| **Items** | **N** | **Mean** | **Standard Deviation** |
|---|---|---|---|
| 3. I wish my parents would worry less about what I am doing. | 324 | 1.80 | 1.001 |
| 5. When I come home, I have to account for what I had been doing to my parents. | 324 | 2.43 | 1.019 |
| 8. My parents forbid me to do things other adolescents are allowed to do because they are afraid that something might happen to me. | 324 | 2.21 | 1.266 |
| 9. My parents try to encourage me to become the best. | 324 | 3.53 | .788 |
| 10. When I behave badly, my parents try to make me feel guilty (for instance by looking sad). | 324 | 1.99 | .989 |
| 11. My parents get overly anxious that something might happen to me. | 324 | 2.62 | 1.119 |
| 17. I am allowed to go wherever I like without my parents caring too much. | 324 | 1.27* | .668 |
| 18. My parents interfere with everything I do. | 324 | 2.15 | .892 |
| 20. My parents set strict limits on what I am and what I'm not allowed to do, to which they adhere rigorously. | 324 | 2.60 | 1.153 |
| 22. My parents want to decide how I should dress or how I should look. | 324 | 2.40 | 1.206 |
| Mean Score | | 2.9 | |

From the results from Table 4.6, the adolescents perceived moderate overprotection from their parents (Mean score=2.9). From the analysis, the adolescents perceived mild rejection and moderate emotional warmth and overprotection from their parents.

A calculation of the prevalence rate of perceived maladaptive parental behavior is seen in Table 4.7

**Table 4.7: Prevalence of Perceived Maladaptive Parental Behavior**

| Dimension | No maladaptive parental behavior | | Mild | | Moderate | | Severe | | Overall | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **F** | **%** | **F** | **%** | **F** | **%** | **F** | **%** | **F** | **%** |
| Rejection | 209 | 64.7 | 74 | 22.9 | 16 | 5.1 | 23 | 7.2 | 113 | 34.8 |
| Emotional Warmth | 155 | 47.8 | 98 | 30.5 | 28 | 8.9 | 43 | 13.1 | 169 | 52.2 |
| Overprotection | 181 | 55.9 | 88 | 23.3 | 30 | 9.4 | 25 | 9.0 | 143 | 44.1 |
| **Average Score** | **182** | **56.2** | **87** | **25.6** | **25** | **9.0** | **30** | **9.7** | **142** | **43.8** |

The prevalence of mild perceived maladaptive parental behavior among adolescent youth at KNH youth clinic is at 25.6%. The prevalence of moderate perceived maladaptive parental behavior among adolescent youth at KNH youth clinic is at 9.0% while the prevalence of severe perceived maladaptive parental behavior among adolescent youth at KNH youth clinic is at 9.7%. Cumulatively, the study finds that the prevalence of perceived maladaptive parental behavior (mild, moderate to severe) among adolescent youth at KNH youth clinic is at 43.8%. The Prevalence calculation also attests to this.

$$\square\% = \frac{142}{324} \text{x}100 = 43.8\%$$

Further, from the analysis, emotional warmth leading at 52.2% (mild= 30.5%; moderate= 8.9%; Severe= 13.1%) and overprotection at 44.15 (mild= 23.3%; moderate= 9.4%; Severe= 9.0%) were first and second most prominent dimensions of perceived maladaptive parental

behavior among adolescents from the youth clinic. Rejection was the least at 34.8% (Mild=22.95 Moderate= 5.1% Severe=7.2%)

## 4.6 The association between perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents

To test for the association between perceived maladaptive parental behavior with conduct disorder Symptoms among adolescents, Pearson's correlations analysis and regression analysis were utilized.

### 4.6.1 Pearson's correlations analysis

**Table 4.8: Correlations**

| | | Perceived Maladaptive parental behavior | Aggressive Conduct | Non-aggressive Conduct | Deceitfulness and theft | Violation of rules |
|---|---|---|---|---|---|---|
| Perceived Maladaptive parental behavior | Pearson Correlation | 1 | | | | |
| | Sig. (2-tailed) | | | | | |
| | N | 324 | | | | |
| Aggressive Conduct | Pearson Correlation | .152** | 1 | | | |
| | Sig. (2-tailed) | .348 | | | | |
| | N | 324 | 324 | | | |
| Non-aggressive Conduct | Pearson Correlation | .528** | .166** | 1 | | |
| | Sig. (2-tailed) | .000 | .000 | | | |
| | N | 324 | 324 | 324 | | |
| Deceitfulness and theft | Pearson Correlation | .603** | .214** | .329** | 1 | |
| | Sig. (2-tailed) | .000 | .000 | .000 | | |
| | N | 324 | 324 | 324 | 324 | |
| Violation of rules | Pearson Correlation | .119* | .014 | .149** | .186** | 1 |
| | Sig. (2-tailed) | .033 | .806 | .007 | .001 | |
| | N | 324 | 324 | 324 | 324 | 324 |

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

Field (2015) had mentioned that an R-Value of between 0.1-0.3 is weak, 0.3-0.4 is at the medium level and 0.5-1.0 is strong inasmuch as it should not exceed 0.8 to avoid the problems associated with multicollinearity. The correlations analysis shown in Table 4.10 show that perceived maladaptive parental behavior was positively associated with nonaggressive conduct (r=.528; p-value=.000) and deceitfulness and theft (r=.603; p-value=.000) as two of the dimensions of conduct disorder. However, there was no statistically significant association between perceived maladaptive parental behavior and aggressive conduct (r=152; p-value=348) and violation of rules (r=119; p-value=033).

### 4.6.2 Regression Analysis

The regression analysis was used to check the extent to which conduct disorder is predicted by maladaptive parental behavior. Table 4.9 and 4.10 shows those results**.**

**Table 4.9: Model Summary[b]**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|---|
| 1 | .287[a] | .582 | .580 | .900 | 2.066 |

a. Predictors: (Constant), Perceived Maladaptive parental behavior
b. Dependent Variable: Conduct Disorder

The model summary results show that there was a positive direction of the equation based on the R value result of .287[a] Further, the Durbin Watson score of 2.066 is above 2 and thus shows the absence of autocorrelation which means that no variable was eliminate from the equation. The adjusted R square of .580 shows that conduct disorder was predicted by perceived maladaptive parental behavior at 58.0%.

**Table 4.10: Coefficients[a]**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | Co linearity Statistics | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | T | Sig. | Tolerance | VIF |
| 1 | (Constant) | .992 | .101 | | 9.861 | .000 | | |
| | Perceived Maladaptive parental behavior | .246 | .046 | .287 | 5.379 | .000 | .765 | 1.321 |

a. Dependent Variable: Conduct disorder

From the results of Table 4.10, the independent variable had tolerance (.765) close to 1 which is far from the threshold of 0.1. Further, the independent variable, Perceived Maladaptive parental behavior, had a VIF close over 1, (1.321) which is far from the threshold of 10. Therefore, there was little evidence of multicollinearity hence no independent variable was removed from analysis. Furthermore, the Sig value of 0.000 shows that there was a statistically significant effect of Perceived Maladaptive parental behavior on conduct disorder.

# CHAPTER FIVE

# DISCUSSION

## 5.1 Introduction

This chapter presents the discussion of the results, which includes comparison with studies done elsewhere and locally.

## 5.2 Discussion of Findings

The study found that the prevalence of conduct disorder (mild, moderate to severe) among adolescent youth at KNH youth centre was at 37.6%. This prevalence was at variance with a host of literature on the matter. Mohammadi et al. (2021) who examined 50 studies that integrated 186,056 adolescents strewn across 35 countries, the global prevalence of CD was placed at 8% which comprised 7% among females and 11% among males. Also, Nock et al. (2016) did a met analysis of studies in USA and found that the lifetime prevalence of CD in USA was 9.5% with males having a higher prevalence at 12.0% than females at 7.1%. Thus, the prevalence in western countries was much lower than that in Kenya based on the study findings. The difference could be brought about by the difference in study designs used and the huge difference in the study sample size. These studies also differed with this study where, the males had a higher prevalence of CD, contrary to the study that finds more females with conduct disorder symptoms than their male counterparts. The prevalence of 37.6% was further much higher than in other western regions illustrated by Blakey et al. (2021), who posted a 16% prevalence of conduct disorder in London, however, he did a study in multiracial schools while this study was based in a hospital facility where they have most likely been referred to due to various difficulties including conduct disorder. The prevalence of conduct disorder in Kenya based on this result was also higher when compared with prevalence rates in Africa. According to a study done in Nigeria by Rogo and Garba (2018) and adeniyi et al. (2020), the prevalence of conduct disorder was 15.8% and 14.5% respectively. Both studies were done in schools. A study carried out in South Sudan by Humaida. (2012), the prevalence was low (p=0.000), however, the study was conducted in elementary school where the participants were of much lower age group than this study. Studies conducted in Kenya have near similar prevalence of conduct disorder to this study. Naomi et al. (2018) found that in Kenya there is a prevalence of 36.4% of conduct disorder

among juvenile offenders, while Gitonga et al. (2017) Kenya had a prevalence of 31.4% and his sample was drawn from secondary schools in Nairobi. Conclusively therefore, the prevalence of CD for adolescents at KNH Youth Centre of 37.6% was significantly higher that the prevalence of CD in the Western World and higher than the prevalence of CD in Africa. However, it was a bit closer to the prevalence of CD in Kenya.

Further, the adolescent aged 16-17 years had more conduct disorder occurrence than those aged 14-15 years. In fact, from the results age had a significant statistical difference with conduct disorder. This disagrees with results from Patel et al. (2018) in a study among African American males who found younger adolescents to exhibit more conduct disorder than older adolescents. However, it agrees with results from a Nigerian study by Ojuope and Ekundayo (2020) who found that the over 16-year-old adolescents exhibited higher prevalence of conduct disorder than the below 16 adolescents. It also agrees with a Kenyan-based study done by Naomi et al. (2018) which found higher prevalence of Conduct Disorder among older adolescents 16 and above than in younger adolescents. This disparity in age from African studies with American studies as illustrated above could be due to the corporal punishment in schools and at home in Africa such that, the younger adolescents could be afraid of acting out their behavior as compared to their older counterparts. Another reason could be due to the fact that older adolescents seem to enjoy more freedom than their younger counterparts hence expressing themselves more leading to this behavior that translate to conduct disorder. Further, on sex, this study found that female adolescents had a higher prevalence to conduct disorder than the male adolescents. This disagrees with Rogo and Garba (2018) who found no significant gender difference between male and female and conduct disorder. Further it disagrees with Gitonga (2017) within the Kenyan context who found a higher prevalence among male adolescents than female adolescents. But agrees with Ojuope and Ekundayo (2020) that female posted a higher prevalence to conduct disorder than the male especially where nonaggressive CD was higher as was the case in this study. This implies that if aggressive form of CD was higher, chances are the male prevalence to conduct disorder would have been higher. This is true as seen in female adolescents who mainly act of rebellion is non-aggressive unlike males who act aggressively. More so, in cases of bullying, female adolescents tend to participate in non aggressive forms. This is true as seen in the result finding of having female adolescents having more of the non aggressive conduct disorder.

There was no statistical difference between family type and school type and conduct disorder. This result partly agrees and disagrees with Ojuope and Ekundayo (2020) who found a positive relationship between school types and conduct disorder among adolescents but no such statistical difference between family type and conduct disorder among adolescents. However, the school type that Ojuope and Ekundayo (2020) examined was private versus public and not day school versus boarding as the present study has done. Much of the studies done to associate family type and school type and conduct disorder appeared to focus on the African case and not the global or Kenyan case. Consequently, the result in this study helps to fill a significant research gap. Further, it is difficult to compare and contrast the school and family type differences with conduct disorder owing to the paucity of studies on the subject. This means that the present study significantly fills a gap in literature with this finding that there is no statistical difference between family type and school type and conduct disorder.

The prevalence of perceived maladaptive parental behavior (mild, moderate to severe) among adolescent youth at KNH youth centre was at 43.8%. There is paucity of studies done on the prevalence of maladaptive parental behavior both worldwide, regionally and locally. Just to mention, William et al. (2004) did a study among Dutch high school students on association of perceived parental rejection with adolescent depression and aggression. He found that perceived parental rejection was high, which was similar to the study finding of high prevalence of perceived maladaptive parental behavior. In this case rejection being a component of the maladaptive behavior. Of note is that the study did not allocate a percentage to the maladaptive behavior exhibited. Rasmussen et al. (2016) in Michigan interviewed substance abusing mothers and found that, maladaptive parental behavior was high. This alludes to similar results this study found except that in this study, its 'perceived' as it's a behavior from the adolescents viewpoint, rather than the parent. This study therefore, fills a significant gap in literature.

Perceived maladaptive parental behavior was positively associated with non-aggressive conduct, deceitfulness and theft. However, there was no statistically significant association between perceived maladaptive parental behavior and aggressive conduct. Overall, though, there was a statistically significant effect of Perceived Maladaptive parental behavior on conduct disorder. The result largely agrees with literature. Young et.al (2013) in New York found that parental rearing behaviors described on EMBU-C were significantly related to children's anxiety symptoms and anxiety related disability. Holzaman et al. (2022) in Colorado found higher maladaptive emotional regulation heightened youth mental health

symptoms. Equally, Mousavi et al. (2016) in Malysia found significant association between parental rearing behaviors with early maladaptive schemas and anxiety symptoms. In Africa, Kumuyi et. al. (2021) in Nigeria found that parenting styles influenced conduct disorder. Locally, Khasakhala et al (2012) Kenya, found a strong correlation between perceived maladaptive parental behavior and depression among adolescents. Another study by Khasakhala et al, (2013) Kenya, sought to investigate the association between major depressive disorder and parental maladaptive behavior and parental psychiatric disorder and found a strong and positive correlation between them. Summarily, we can conclude that perceived parental behavior, in this case maladaptive behavior is associated with adolescent mental health symptoms, in this case, Conduct disorder as evidenced by the literature above.

This study is particularly useful because it has found a strong association between perceived parental maladaptive behavior and conduct disorder and not what had been studied before which is depressive symptoms. It thus fills a significant gap in literature.

# CHAPTER SIX

# CONCLUSION, STUDY STRENGTH AND LIMITATIONS AND RECOMMENDATIONS

## 6.1. Introduction

This chapter contains the conclusions drawn from the study, the strengths of the study, limitations and difficulties encountered during the study and the recommendations based on the study findings

## 6.2 Conclusion

The study found that the prevalence of conduct disorder among adolescent youth at KNH youth centre is high at 37.6%.

Female adolescents had higher conduct disorder than male adolescents. In fact, only sex and age had a significant statistical difference with conduct disorder. Basically, there was a statistical difference between the female and the male and between the 14-15 and 16-17-year-old adolescents when associated with conduct disorder. However, there was no statistical difference between family type and school type and conduct disorder.

The prevalence of perceived maladaptive parental behavior among adolescent youth at KNH youth clinic is high at 43.8%.

Perceived maladaptive parental behavior was positively associated with nonaggressive conduct and deceitfulness and theft, violation of rules and aggressive behavior. Significant association was only seen with nonaggressive conduct and deceitfulness and theft .Overall, there was a statistically significant effect of Perceived Maladaptive parental behavior on conduct disorder.

## 6.3 Study Strength

Based on the fact that there was paucity of studies on the prevalence of maladaptive parental behavior, this study therefore becomes one of its kinds to measure this prevalence. Moreover, this is one of the few studies that have linked maladaptive parental behavior with conduct disorder both locally and worldwide. This provides a data base for reference purposes in

management, policy formulation and therapy approaches to patient care. It also acts as a basis from which other studies can be carried out.

**6.4 Study limitations.**

The study was conducted among adolescents presenting at the Youth centre in one hospital in Kenya, the Kenyatta National Teaching and referral Hospital, hence the results may not be generalized to the general population. This being a hospital setting, the sampled adolescents may have presented at the facility having other issues including behavior problems or ailments that needed attention and hence may have interfered with the judgment at the time of data collection**.** Some of the adolescents presenting at the Kenyatta National Hospital Youth Centre are referred from schools due to various reasons including behavioral problems.

**6.5 Recommendations**

Adolescents battling conduct disorder should deliberately, with the help of their parents and guardians, engage psychologists for therapeutic help. Behavioral Therapy could be one of the effective therapies used. These interventions can be carried out in schools since this is a school going age group. Places of worship like churches and mosques could also be a target to recruit youth into adaptive training and therapy where need be. This therapy should focus on both male and female adolescents and more emphasis given to the female adolescents as they have been noted to have higher conduct disorder according to this study.

Psychologists, therapists and/or counselors collaborating with parents should engage in parental management techniques (PMT) and other appropriate training opportunities to help deal with maladaptive parental behavior. This may help reduce the prevalence of maladaptive parental behavior among parents and Conduct disorder among adolescents**.**

Another study is to be carried out in other centers, and or in schools to enable generalization of results. This will have a wider scope and possibly engage a bigger sample size for better accuracy.

A policy that provides opportunities for engaging parental training to be formulated and one that enables adolescents and parents to have access to therapy in the community. This will ensure a healthy community for both the parent and the adolescent reducing cases and prevalence of both conduct disorder and maladaptive parental behavior.

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## Appendix 1a: Parental Consent Form

**Title of Study: The association of perceived maladaptive parental behavior with conduct disorder symptoms among adolescents attending the youth clinic at Kenyatta National Teaching and Referral Hospital**

**Principal Investigator and institutional affiliation:** Dr. Praxides Pessah, a medical resident at the Department of Psychiatry, University of Nairobi.

**Introduction:**

I would like to tell you about a study being conducted by the above listed researcher. The purpose of this consent form is to give you the information you will need to help you decide whether or not your child should participate in the study. Feel free to ask any questions about the purpose of the research, what happens if your child participates in the study, the possible risks and benefits, the rights of your child as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions to your satisfaction, you may decide if you want your child to be in the study or not. This process is called 'informed consent'. Once you understand and agree for your child to be in the study, I will request you to sign your name on this form. The general principles which apply to all participants in medical research will be adhered to

i. Your child decision to participate is entirely voluntary
ii. You child may withdraw from the study at any time without necessarily giving a reason for his/her withdrawal
iii. Refusal to participate in the research will not affect the services your child is entitled to in this health facility or other facilities.

May I continue? YES / NO

We will go over this information with you and you need to give permission in order for your child to participate in this study. We will give you a copy of this form for your records.

**What is the purpose of the study?**

The researcher listed above is interviewing individuals aged 14-17 years who attend the youth clinic at Kenyatta National Teaching and Referral Hospital. The purpose of the study is to obtain information on the association of perceived maladaptive parental behavior with conduct disorder symptoms among adolescents attending the youth clinic at Kenyatta

National Teaching and Referral Hospital. Participants in this research study will be asked questions about maladaptive parental behavior, conduct disorder symptoms and socio-demographic factors. There will be 331 participants in this study randomly selected. This study is being conducted in this facility with permission from the management of the hospital, the University of Nairobi and National Commission for Science, Technology and Innovation NACOSTI). I am asking for your consent to consider your child to participate in this study.

**What will happen if you decide you want your child to be in this research study?**

If you agree for your child to participate in this study, the following things will happen: Your child will be asked for assent, if they agree they will be given a questionnaire to fill. The results of the study will be availed at this facility where you can access them from.

**Are there any risks, harms, discomforts associated with this study?**

Medical research has the potential to introduce physical, psychological, social, emotional and physical risks. However, there is no physical harm anticipated in this study as there are no procedures or drugs to be administered. Your child will fill the questionnaires in privacy. A code number will be used to identify your child. Information obtained will be kept in a password-protected computer database and all paper records kept in a locked file cabinet.

Answering questions in the questionnaire may be uncomfortable for your child and may cause some emotional distress. If it does, counselors at the facility will be involved to counsel your child.

**Are there any benefits being in this study?**

There will be no direct benefits to participating in this study. The information you provide will help us better understand the association between perceived maladaptive behavior and conduct disorder and thus improve care for such children. The information obtained will be a major contribution to science and academia.

**Will being in this study cost you anything?**

Being in this study will not cost you anything.

**Is there reimbursement for participating in this study?**

There is no reimbursement for participating in this study.

**What if you have questions in future?**

If you have further questions or concerns about your child participating in this study, please call or send a text message to the researcher, Dr Praxides Pessah, University of Nairobi, College of Health Sciences Department of Psychiatry. Mobile number: 0737650327; email – ppessah@gmail.com.

**The supervisors:**

Dr Anne Mbwayo

Email: annembwayo@gmail.com

Phone no: 0733823896

Prof Anne Obondo

Email: obondo@uonbi.ac.ke

Phone No. 0721849686

You may also contact the Ethics and Research Committee, Kenyatta National Hospital /University of Nairobi through, P. O. Box 19676-00202, Nairobi or Tel №. (020) 2726300-9, Ext 44355, Email uonknh_erc@uonbi.ac.ke.

**What are your other choices?**

Your decision to have your child participate in this research is voluntary. You are free to decline or withdraw participation of your child in the study at any time without any form of intimidation.

You do not have to give reasons for withdrawing your child if you do not wish to do so. Withdrawal of your child from the study will not affect the services your child is otherwise entitled to in this health facility or other health facilities.

**STATEMENT OF CONSENT**

The person being considered for this study is unable to consent for him/herself because he or she is a minor (a person less than 18 years of age). You are being asked to give your permission to include your child in this study.

**Parent/guardian statement**

I have read this consent form or had the information read to me. I have had the chance to discuss this research study with the researcher. I have had my questions answered by him or

her in a language that I understand. The risks and benefits have been explained to me. I understand that I will be given a copy of this consent form after signing it. I understand that my participation and that of my child in this study is voluntary and that I may choose to withdraw it any time.

I understand that all efforts will be made to keep information regarding me and my child's personal identity confidential.

By signing this consent form, I have not given up my child's legal rights as a participant in this research study.

**I voluntarily agree to my child's participation in this research study:**

**Yes No**

**Parent/Guardian signature /Thumb stamp: _______________**

**Date ___________________**

**Researcher's statement**

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has knowingly given his/her consent.

**Printed Name**: **__________________________________**

**Date**: **________________________**

**Signature**: **__________________________________**

**Appendix 1b: Child Assent Form**

**Title of Study: The association of perceived maladaptive parental behavior with conduct disorder symptoms among adolescents attending the youth clinic at Kenyatta National Teaching and Referral Hospital**

**Principal Investigator and institutional affiliation:** Dr. Praxides Pessah**,** a medical resident at the Department of Psychiatry, University of Nairobi.

**Introduction**

I would like to tell you about a study being conducted by the above listed researcher. The purpose of the consent form is to give you the information you need to make a decision on whether to participate in the study or not.

Feel free to ask any questions if any information in this form is not clear.

Once your questions have been answered to your satisfaction, you will make a decision on whether to participate or not. I will then request you to sign on this document.

The general principles that apply to all participants include;

i. Participation is completely voluntary
ii. You may withdraw from the study without necessarily giving a reason for your withdrawal
iii. Your refusal to participate will not affect the services you are entitled to at this facility or any other.

May I continue? **YES/ NO.**

I will go over this information with you and once you sign, you will get a copy of this form for your own records.

**What is the purpose of this study?**

The researcher is interviewing adolescents aged 14-17 attending the youth centre at KNH. The purpose of the study is to obtain information on the association of maladaptive parental behavior with conduct disorder symptoms at the Kenyatta National Teaching and Referral Hospital youth centre. You will be asked questions on maladaptive parental behavior, conduct disorder symptoms and socio-demographic factors. There will be 331 participants randomly selected. The study is being conducted with the permission of the Hospital and the University of Nairobi research and ethics commission and the National Commission of Science, Technology and Innovation (NACOSTI)

**What will happen if you decide to participate?**

You will be given a questionnaire to fill. The results of the study will be availed at the facility where you can access them from.

**Are there any risks, discomforts associated with this study?**

There is no physical harm anticipated in this study. You will fill the questionnaire in privacy and code numbers will be used to identify you and no names will appear in the questionnaire. Information obtained will be kept in a password protected computer and paperwork stored in locked file cabinet accessible only by the researcher. Answering the questions may cause emotional distress; there are counselors in the facility who will attend to you in case you get affected

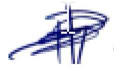
**Are there benefits of participating in this study?**

There will be no direct benefits in participating in this study. The information you provide will help us understand if there is an association between perceived maladaptive parental behaviors and conduct disorder symptoms and thus improve care for adolescents with conduct disorder. The information obtained will also be a major contribution to science and academia.

**What if you have questions in future?**

If you have questions or concerns about the study, please call or send a message to the

**Researcher:**

Dr Praxides Pessah,
Mobile no: 0737650327, Email ppessah@gmail.com 

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You may also contact the Ethics and Research Committee, Kenyatta Hospital/University of Nairobi through

PO BOX 19676-0020 Nairobi,

Tel №. (020)2726300-9 Ext 44355

EMAIL: uonknh_erc@uonbi.ac.ke

Statement of Assent

**Participant's statement**

I have read this assent form or had the information read to me. I have had the chance to discuss this study with the researcher and my questions have been answered regarding the research. The risks and benefits have been explained to me. I understand that I will be given a copy of this assent from after signing. I understand that my participation is voluntary and that I can withdraw at any time. I understand that my information will be kept confidential.

I voluntarily agree to participate in this study.

Yes No

Participants signature/Thump stamp _______________Date_____________

**Researcher's statement**

I, the undersigned, have fully explained the relevant details of this research study to the participant named above and believe that the participant has understood and has knowingly given his/her consent.

**Printed Name**: __________________________________

**Date**: ________________________

**Signature**: _________________________________

## Appendix 2: Data Collection Instruments for Adolescents

Instruction: Please answer all the questions

**Study Title**: The Association of Perceived Maladaptive Parental Behavior with Conduct Disorder Symptoms among Adolescents Attending the Youth Clinic at Kenyatta National Teaching and Referral Hospital.

### PART A: Socio-Demographic Factors

1. Gender
   Male ( ) Female ( )
2. Age
   15-16 years ( ) 16-18 years ( )
3. Family Type
   Single Parenthood ( ) Both parents ( ) Other……………………
4. School Type
   Day school ( ) Boarding ( ) other………

### PART B: Perceived Maladaptive Parental Behavior

Please Read through the following questions and mark your response in the appropriate box.

| | **No, never** | **Yes, but seldom** | **Yes, often** | **Yes, most of the time** |
|---|---|---|---|---|
| 1. My parents get angry with me without letting me know the reason. | 1 | 2 | 3 | 4 |
| 2. My parents praise me. | 1 | 2 | 3 | 4 |
| 3. I wish my parents would worry less about what I am doing. | 1 | 2 | 3 | 4 |
| 4. My parents use physical punishment to discipline me. | 1 | 2 | 3 | 4 |
| 5. When I come home, I have to account for what I had been doing to my parents. | 1 | 2 | 3 | 4 |
| 6. My parents try to make my adolescence stimulating, interesting and instructive (ex. giving me good books, arranging for me to go to camps, taking me to sports/club activities). | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 7. My parents criticize me and tell me how lazy and useless I am in front of others. | 1 | 2 | 3 | 4 |
| 8. My parents forbid me to do things other adolescents are allowed to do because they are afraid that something might happen to me. | 1 | 2 | 3 | 4 |
| 9. My parents try to encourage me to become the best. | 1 | 2 | 3 | 4 |
| 10. When I behave badly, my parents try to make me feel guilty (for instance by looking sad). | 1 | 2 | 3 | 4 |
| 11. My parents get overly anxious that something might happen to me. | 1 | 2 | 3 | 4 |
| 12. My parents try to comfort and encourage me if things go badly for me. | 1 | 2 | 3 | 4 |
| 13. I am treated as the 'black sheep' or 'scapegoat' of the family. | 1 | 2 | 3 | 4 |
| 14. My parents use words and gestures to show that they like me. | 1 | 2 | 3 | 4 |
| 15. My parents like my brother(s) and/or sister(s) more than they like me. | 1 | 2 | 3 | 4 |
| 16. My parents treat me in such a way that I feel ashamed. | 1 | 2 | 3 | 4 |
| 17. I am allowed to go wherever I like without my parents caring too much. | 1 | 2 | 3 | 4 |
| | **No, never** | **Yes, but seldom** | **Yes, often** | **Yes, most of the time** |
| 18. My parents interfere with everything I do. | 1 | 2 | 3 | 4 |
| 19. Warmth and tenderness exist between my parents and me. | 1 | 2 | 3 | 4 |
| 20. My parents put strict limits for what I am and am not allowed to do, to which they then adhere rigorously. | 1 | 2 | 3 | 4 |
| 21. My parents punish me hard, even for small offenses. | 1 | 2 | 3 | 4 |
| 22. My parents want to decide how I should dress or how I should look. | 1 | 2 | 3 | 4 |
| 23. My parents are proud when I succeed in something I have undertaken. | 1 | 2 | 3 | 4 |

**Part C: Conduct disorder Scale**

Please Read through the following questions and mark your response in the appropriate box; rule violation; and deceitfulness and theft

| | **No, never** | **Yes, but seldom** | **Yes, often** | **Yes, most of the time** |
|---|---|---|---|---|
| ***Aggressive Conduct Towards People and Animals*** | | | | |
| 1. I often bully, threaten and intimidate others | 1 | 2 | 3 | 4 |
| 2. I often initiate physical fights | 1 | 2 | 3 | 4 |
| 3. I have used physical weapons that can cause serious harm to animals and other people | 1 | 2 | 3 | 4 |
| 4. I have been physically cruel to people | 1 | 2 | 3 | 4 |
| 5. I have been physically cruel to animals | 1 | 2 | 3 | 4 |
| 6. I have stolen while physically confronting the victim | 1 | 2 | 3 | 4 |
| 7. I have forced someone into sexual activity | 1 | 2 | 3 | 4 |
| **Non-Aggressive Conduct** | | | | |
| 8. I use insults on others | 1 | 2 | 3 | 4 |
| 9. I hide things from people | 1 | 2 | 3 | 4 |
| 10. I scare people away | 1 | 2 | 3 | 4 |
| 11. I scare animals away | 1 | 2 | 3 | 4 |
| 12. I ignore when being called | 1 | 2 | 3 | 4 |
| 13. I pretend a lot when engaging with people | 1 | 2 | 3 | 4 |
| 14. I do not like listening to people | 1 | 2 | 3 | 4 |
| 15. I tease people alot | 1 | 2 | 3 | 4 |
| 16. I make other people feel ashamed of themselves | 1 | 2 | 3 | 4 |
| 17. I like to disturb others when they are working by making noise | 1 | 2 | 3 | 4 |
| **Deceitfulness and theft** | | | | |
| 18. I have stolen goods without people knowing | 1 | 2 | 3 | 4 |
| 19. I have stolen goods by force | 1 | 2 | 3 | 4 |

| | | | | |
|---|---|---|---|---|
| 20. I have violated the home, house or car of another person. | 1 | 2 | 3 | 4 |
| 21. I have stolen goods of value | 1 | 2 | 3 | 4 |
| 22. I have lied to another about what I am doing most of the time | 1 | 2 | 3 | 4 |
| 23. I have lied to another about what where I am most of the time | 1 | 2 | 3 | 4 |
| 24. I have conned another of his/her money | 1 | 2 | 3 | 4 |
| 25. I have goods with me that do not belong to me and I have not surrendered them | 1 | 2 | 3 | 4 |
| 26. I have used others to falsely gain favors | 1 | 2 | 3 | 4 |
| 27. I have engaged in malicious portrayal of others | 1 | 2 | 3 | 4 |
| 28. I have lied about other people | 1 | 2 | 3 | 4 |
| 29. I have told falsehoods to gain undue advantage | 1 | 2 | 3 | 4 |
| 30. I am generally deceitful | 1 | 2 | 3 | 4 |
| Violation of rules | | | | |
| 31. Often stays out at night despite parental prohibition | 1 | 2 | 3 | 4 |
| 32. The staying out at night started before I was 13 years of age | 1 | 2 | 3 | 4 |
| 33. Has run away from home at night at least 2 times | 1 | 2 | 3 | 4 |
| 34. Has run away from surrogate home at night at least 2 times | 1 | 2 | 3 | 4 |
| 35. Has been truant from school | 1 | 2 | 3 | 4 |
| 36. The truancy started before I was 13 years of age | 1 | 2 | 3 | 4 |
| 37. I refuse to do house chores as demanded by my parents | 1 | 2 | 3 | 4 |
| 38. I am always reprimanded for not finishing my homework on time | 1 | 2 | 3 | 4 |
| 39. I do not always go to where I am sent by my parents | 1 | 2 | 3 | 4 |
| 40. I do not like any of the rules set out by my parents and so a do not keep many of them | 1 | 2 | 3 | 4 |

## Appendix 3: Raw Data

**Conduct Disorder: Aggressive Conduct**

| Dimension | No, Never | | Yes, but Seldom | | Yes, Often | | Yes, Most of the Time | |
|---|---|---|---|---|---|---|---|---|
| | F | % | F | % | F | % | F | % |
| 1. bulling, threatening and intimidating others | 268 | 82.7 | 44 | 13.6 | 0 | 0.00 | 12 | 3.7 |
| 2. Initiating physical fights | 212 | 65.4 | 88 | 27.7 | 4 | 1.2 | 20 | 6.2 |
| 3. Using physical weapons that can cause serious harm to animals and other people | 188 | 58.0 | 108 | 33.3 | 12 | 3.7 | 16 | 4.9 |
| 4. Being physically cruel to people | 188 | 58.0 | 92 | 24.4 | 24 | 7.4 | 20 | 6.2 |
| 5. Being physically cruel to animals | 120 | 37.0 | 124 | 38.3 | 28 | 8.6 | 52 | 16.0 |
| 6. Stealing while physically confronting the victim | 252 | 77.8 | 40 | 12.3 | 16 | 4.9 | 16 | 4.9 |
| 7. Forcing someone into sexual activity | 276 | 85.2 | 36 | 11.1 | 4 | 1.2 | 8 | 2.5 |
| **Average** | **215** | **66.3** | **76** | **22.9** | **13** | **3.9** | **21** | **6.3** |

**Conduct Disorder: Non-aggressive Conduct**

| Dimension | No, Never | | Yes, but Seldom | | Yes, Often | | Yes, Most of the Time | |
|---|---|---|---|---|---|---|---|---|
| | F | % | F | % | F | % | F | % |
| 8. Using insults on others | 148 | 45.7 | 108 | 33.3 | 24 | 7.4 | 44 | 13.5 |
| 9. Hiding things from people | 164 | 50.6 | 104 | 32.1 | 16 | 4.9 | 40 | 12.3 |
| 10. Scaring people away | 232 | 71.6 | 60 | 18.5 | 12 | 3.7 | 20 | 6.2 |

| 11. Scaring animals away | 144 | 44.4 | 100 | 30.9 | 44 | 13.6 | 36 | 11.1 |
|---|---|---|---|---|---|---|---|---|
| 12. Ignoring when being called | 144 | 44.4 | 100 | 30.9 | 44 | 13.6 | 36 | 11.1 |
| 13. Pretending a lot when engaging with people | 124 | 38.3 | 148 | 45.7 | 20 | 6.2 | 32 | 9.9 |
| 14. Not liking to listening to people | 212 | 65.4 | 64 | 19.8 | 28 | 8.6 | 20 | 6.2 |
| 15. Teasing people a lot | 188 | 58.0 | 84 | 25.9 | 32 | 9.9 | 20 | 6.2 |
| 16. Making other people feel ashamed of themselves | 204 | 63.0 | 76 | 23.5 | 24 | 7.4 | 20 | 6.2 |
| 17. Disturbing others when they are working by making noise | 160 | 49.4 | 112 | 34.6 | 24 | 7.4 | 28 | 8.6 |
| **Average** | **172** | **53.1** | **96** | **29.5** | **27** | **8.3** | **32** | **9.1** |

**Conduct Disorder: Deceitfulness and Theft**

| **Dimension** | **No, Never** | | **Yes, but Seldom** | | **Yes, Often** | | **Yes, Most of the Time** | |
|---|---|---|---|---|---|---|---|---|
| | **F** | **%** | **F** | **%** | **F** | **%** | **F** | **%** |
| 18. Stealing goods without people knowing | 144 | 44.4 | 112 | 36.6 | 24 | 7.4 | 44 | 13.6 |
| 19. Stealing goods by force | 296 | 91.4 | 12 | 3.7 | 4 | 1.2 | 12 | 3.7 |
| 20. Violating the home, house or car of another person. | 268 | 82.7 | 52 | 16.0 | 0 | 0.00 | 4 | 1.2 |
| 21. Stealing goods of value | 288 | 88.9 | 20 | 6.2 | 12 | 3.7 | 4 | 1.2 |
| 22. Lying to another about what I am doing most of the time | 108 | 33.3 | 120 | 37.0 | 48 | 14.8 | 48 | 14.8 |
| 23. Lying to another about what where I am most of | 140 | 43.2 | 112 | 34.6 | 36 | 11.1 | 36 | 11.1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| the time | | | | | | | | |
| 24. Conning another of his/her money | 176 | 54.3 | 100 | 30.9 | 24 | 7.4 | 24 | 7.4 |
| 25. Having goods with me that do not belong to me and I have not surrendered them | 188 | 58.0 | 100 | 30.9 | 20 | 6.2 | 16 | 4.9 |
| 26. Used others to falsely gain favors | 196 | 60.5 | 84 | 25.9 | 28 | 8.6 | 16 | 4.9 |
| 27. Engaged in malicious portrayal of others | 204 | 63.0 | 72 | 22.2 | 32 | 9.9 | 16 | 4.9 |
| 28. Lied about other people | 124 | 38.3 | 112 | 34.6 | 36 | 11.1 | 52 | 16.0 |
| 29. Told falsehoods to gain undue advantage | 176 | 54.3 | 84 | 25.9 | 32 | 9.9 | 32 | 9.9 |
| 30. I am generally deceitful | 192 | 59.3 | 80 | 24.7 | 20 | 6.2 | 32 | 9.9 |
| **Average** | **192** | **59.3** | **90** | **25.3** | **24** | **7.4** | **26** | **8.0** |

**Conduct Disorder: Violation of Rules**

| Dimension | No, Never | | Yes, but Seldom | | Yes, Often | | Yes, Most of the Time | |
|---|---|---|---|---|---|---|---|---|
| | **F** | **%** | **F** | **%** | **F** | **%** | **F** | **%** |
| 31. Often stays out at night despite parental prohibition | 236 | 72.8 | 52 | 16.0 | 12 | 3.7 | 24 | 7.4 |
| 32. The staying out at night started before I was 13 years of age | 268 | 82.7 | 32 | 9.9 | 16 | 4.9 | 8 | 2.5 |
| 33. Has run away from home at night at least 2 times | 264 | 81.5 | 44 | 13.6 | 4 | 1.2 | 12 | 3.7 |
| 34. Has run away from surrogate home at night at least 2 times | 280 | 86.4 | 24 | 7.4 | 12 | 3.7 | 8 | 2.5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 35. Has been truant from school | 256 | 79.0 | 56 | 17.3 | 8 | 2.5 | 4 | 1.2 |
| 36. The truancy started before I was 13 years of age | 260 | 80.2 | 52 | 16.0 | 0 | 0.00 | 12 | 3.7 |
| 37. Refusing to do house chores as demanded by my parents | 236 | 72.8 | 56 | 17.3 | 16 | 4.9 | 16 | 4.9 |
| 38. Always reprimanded for not finishing my homework on time | 152 | 46.9 | 120 | 37.0 | 28 | 8.6 | 24 | 7.4 |
| 39. I do not always go to where I am sent by my parents | 228 | 70.4 | 76 | 23.5 | 4 | 1.2 | 16 | 4.9 |
| 40. Not liking any of the rules set out by my parents and so a do not keep many of them | 232 | 71.6 | 56 | 17.3 | 16 | 4.9 | 20 | 6.2 |
| **Average** | **241** | **74.4** | **57** | **17.5** | **12** | **3.7** | **14** | **4.4** |

## APPENDIX 4: STUDY TIMEFRAME

| NO | Activity | June-2022-Nov-2022 | Dec-2022 | Jan-2023 | Feb-2023 | Mar-2023 |
|---|---|---|---|---|---|---|
| 1 | Development of proposal and presentation | | | | | |
| 2 | Proposal submission for ethical approval and subsequent corrections | | | | | |
| 3 | Data collection | | | | | |
| 4 | Data analysis | | | | | |
| 5 | Thesis writing | | | | | |
| 6 | Thesis Submission | | | | | |

# APPENDIX 5: STUDY BUDGET

| **Category** | **Remarks** | **Units** | **Unit cost** | **Total (Kshs.)** |
|---|---|---|---|---|
| Proposal development | Proposal copies | 334 copies | 250 | 12500 |
| Ethical clearance | One-time fee | 1 | 2000 | 2000 |
| Data collection | Consent copies | 331 | 20 | 6620 |
| | Assent forms | 331 | 15 | 4965 |
| Thesis | Thesis copies | 10 copies | 1500 | 15000 |
| Investigators costs incurred | Transport | 1000 per day | 20 days | 20000 |
| Miscellaneous | | | | **10000** |
| **TOTAL** | | | | **71085** |