

**KENYATTA UNIVERSITY**

**DEPARTMENT OF PSYCHOLOGY**

**RELATIONSHIP BETWEEN PERCEIVED PARENTAL INVOLVEMENT  
AND ADHERENCE TO TREATMENT OF ADOLESCENTS IN  
REHABILITATION CENTRES IN KIAMBU COUNTY, KENYA**

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## DECLARATION

“This project is my original work and has not been presented for a degree in any other university”



Signature \_\_\_\_\_

Date: 11<sup>th</sup> June, 2024

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This project has been submitted for review with my approval as the University’s supervisor.



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Date: — 11<sup>th</sup> June, 2024 —

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## **DEDICATION**

I dedicate this project to my husband and my daughter in appreciation of their unwavering support, motivation, and selflessness in my endeavor. I appreciate you being here and seeing this through.

## **ACKNOWLEDGEMENT**

I thank God, this far, only His grace and mercies. My sincere gratitude to Dr. Karega Muchiri, my supervisor, for all of his support, counsel, and academic guidance along this journey.

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## **ABSTRACT**

Adolescent substance use is a concern to families, schools, psychologists, and society at large as it hampers the ability to achieve personal and national goals. Despite the government's intention to institute policies to assist with adolescent treatment, there is scarce information on parental involvement in adolescent treatment while in rehabilitation. The purpose of the study was to determine the relationship between perceived parental involvement and adherence to treatment of adolescent in rehabilitation centres in Kiambu County. Based on family interaction theory, the study utilized a correlational design to establish the relationship between the study variables. The population targeted was all adolescents undergoing treatment in various rehabilitation centres in Kiambu County. Multistage sampling was used to obtain the sample. It involved identifying the rehabilitation centres that admitted adolescents and secondly identifying the adolescents to participate in the study. A questionnaire was used to collect quantitative data. Descriptive statistics was used to analyze demographic factors, levels of adherence to treatment and perceived parental involvement. Correlation between perceived parental involvement and adherence to treatment was established using Spearman's Rank correlation coefficient. The study found that adolescents living with single mothers scored higher on adherence to treatment. It also found that adolescents rated their fathers' involvement higher than their mothers' involvement. There was a markedly weak relationship between perceived parental involvement and adherence to treatment among adolescents. The study recommended that counsellors and psychologists working in in-patient treatment facilities make considerations for the nature and form of maternal involvement to ensure that mother-child dynamics do not dilute the effectiveness of treatment programs.

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## **ABBREVIATIONS AND ACRONYMS**

**ADHD:** Attention Deficit Hyperactivity Disorder

**CBT:** Cognitive Behavioral Therapy

**NACADA:** National Authority for the Campaign against Alcohol and Drug Abuse

**OCD:** Obsessive Compulsive Disorder

**SUD:** Substance Use Disorder

## OPERATIONAL DEFINITION OF TERMS

**Perceived parental involvement:** is the subjective report of the extent to which an adolescent with substance use disorder feels supported and progress monitored by their parent while in rehabilitation

**Adherence to treatment:** the degree to which a client follows a health care professional's recommended advice for instance taking medicine, adhering to a diet, or creating a new routine.

**Adolescent in treatment:** a person between the ages of 13-19 years who are undergoing treatment in a rehabilitation centers

**Substance use disorder (SUD):** a problematical pattern of using alcohol or any substance that leads to impairment in daily life or noticeable suffering

**Rehabilitation:** the process of restoring someone to health or ordinary life, due to substance use and dependency, using therapy.

## **CHAPTER ONE**

### **1.0 Introduction**

The chapter contains the background to the study, statement of the problem, research objectives, research questions, assumptions, justification, significance, scope and limitation.

### **1.1 Background to the Study**

Adolescent substance use is a concern to families, schools, psychologists, and society at large. It hampers the ability to achieve personal and national goals as it affects performance in school as one is constantly in punishment, on suspension, or expelled from school and in extreme cases has to seek treatment in rehabilitation centres (Chadi, N., Bagley, S. M., & Hadland, S. E., 2018). Further, it has been on the rise because firstly, adolescents perceive substance use as a means of enhancing their excitement and improving their experience. Secondly, adolescents who live in extreme environments abuse drugs to cope with their difficult circumstances (World Population Prospectus, 2018).

Adolescents seeking treatment for substance use disorders contrast with their adult counterparts in a number of ways: the prevalence of less severe substance misuse, common patterns and environments of use, the nature of substance-related problems, and the fact that most substance usage is not self-referral. (National Institute on Drug Abuse, 2014). Adolescents with SUD may require treatment for a few days to several months (Chadi, 2018). According to the National Survey on Drug and Health, many adolescents may not realize the need to stop misusing drugs

or seek help, making it difficult for substance abuse treatment facilities to enroll them (SAMHSA, 2015).

Adherence to treatment is the degree to which a client follows a health care professional's recommended advice for instance taking medicine, adhering to a diet, or creating a new routine. The willingness to participate in a program, medical adherence, exercise participation, and nutritional observance are all factors that affect a client's treatment efficacy (Modi, 2012). Adherence to treatment can be measured in terms of how many adolescents participate in available activities, how actively they participate, and how willing they are to undertake therapy (Blackwell, 2012). Positive adherence has been documented as a result of psychosocial factors such as personal belief in therapy and family interactions, particularly maternal support (Joury, 2013).

Adolescents' treatment adherence has been explored in relation to various mental health issues. The prevalence of comorbidity, specific medicines and amounts, drug side effects, embarrassment regarding mental treatment, and adolescents' attitudes toward taking medicine are all factors that influence adolescents' adherence (Hamrin, 2010). The adolescent, their families, healthcare specialists, and the medicines, (Charach, 2008), are all predictors of drug adherence in adolescents with ADHD. Previous research has found that adolescent adherence is directly linked to parental awareness of treatment risks and benefits. Furthermore, both adolescent and

parent awareness of the reasons for taking medicine has an impact on continued use (Thorell & Dahlström, 2009).

Timlin (2012) researched adherence to treatment among adolescents in a psychiatric ward with a sample size of 72 (51 males, 21 females). Adherence was measured by attending activities, actively participating in treatment, willingness to undergo treatment and the effects of adherence. Adherent adolescents had a good attitude towards the staff and concentrated well during activities. 71% took medication or agreed to attend outpatient sessions after discharge. One-third of them attended group therapy and were able to share. Adherence to treatment relieved their symptoms in several cases, allowing them to be discharged. It also led to a decrease in suicidal thoughts and attempts and increased their socialization with others.

James (2019) carried out a qualitative study among 8 participants, on the experiences of adolescent cannabis users in treatment. Adherence to treatment was measured based on adolescents' perception of harm and societal norms. Although they understood the harmful effects of use, they were generally unwilling to head towards abstinence. They perceived that it was the quantity, not the smoking that was the problem.

Nagae, (2015) studied factors affecting medication adherence among adolescents with a sample of 30 mother-child pairs (19 males, 11 females). They found that children's adherence was associated with maternal awareness of the medication.

However, there was no relationship between medical adherence and participants' demographic features such as age, gender and living with parents.

Parental involvement means participating in their child's daily activities. It may assist adolescents in dealing with a variety of challenges and stressors to maintain their mental health (Davids, 2017). Adolescent well-being, age-related milestones, and health risk behaviours are all influenced by the parent-adolescent relationship (Harrison, 2014). In developed nations, research on parental involvement has focused on specific health behaviors, whereas in developing countries, more research is needed on a variety of habits, including substance use, aggression, food, physical activity, and mental health (Newman, 2012).

Involvement of parents in adolescent SUD therapy is critical because it aids in the development of closeness, which aids in learning how to cope with them following treatment. Many parents, according to Howard (2010), do not know how to interact with their children before, during, or after treatment. Parental participation, according to Carr (2009), is a predictor of adolescent treatment retention, post-treatment abstinence maintenance, and relapse avoidance. Dowel and Ogles (2010) discovered that in the absence of parents, the effect of family therapy on adolescents' treatment is negligible.

Parental involvement can obstruct treatment if the frequency is not monitored or explicitly established. The rate of parent-adolescent engagement during treatment, according to Crane (2009) and McPherson (2017), raises the chance of short-term

relapse while Baker (2013) found that although parental involvement was beneficial during adolescent treatment; it was infrequent (parents and adolescents met once a month) and the adolescents felt uncomfortable expressing their issues. In general, physical visits between parents and children have better outcomes than phone calls (Robst, 2013), although other research has found no difference. Frequent parental involvement may obstruct the treatment process in instances involving family-related domestic violence, financial issues, blaming, parental mental health, parental pathology, high stress levels, inappropriate attitudes by parents (such as strict disciplinary measures) and the low literacy level of parents. In this case, the parent may not comprehend or appreciate the rehabilitation process and hence may demonstrate poor motivation to accompany the teenager through it (Stein, 2013; Demirgoren 2017).

In Kenya, studies related to parental involvement and substance use treatment have concentrated on the frequency of substance use among students both in secondary and college, the relationship between different parental styles and risk of substance use, Parental Contribution to the SUD Management among Children and Youth and adverse childhood experiences with SUD among patients in treatment (NACADA, 2019; Musyoka, 2019; Kemei, 2014; Cheloti, 2016) hence the need for this study.

## **1.2 Statement of the problem**

Studies on parental involvement in adolescent SUD treatment have shown various results: some show a positive relationship in terms of adapting to the program and completion of treatment, while others a negative one such as high chances of relapse (McPherson 2017) and some indicate no relationship at all (Dowel and Ogles 2010). In Kenya, studies related to parental involvement and substance use treatment have concentrated on the frequency of substance use among students both in secondary and college, the relationship between different parental styles and risk of substance use, Parental Contribution to the SUD Management among Children and Youth and adverse childhood experiences with SUD among patients in treatment

Little has been done, however, to study the relationship between perceived parental involvement and adherence to treatment among adolescent SUD clients. This research sought to address this gap.

## **1.3 Purpose of the study**

The purpose of the research was to determine the relationship between perceived parental involvement and adherence to treatment of adolescents in rehabilitation centres in Kiambu County, Kenya.

## **1.4 Objectives of the study**

1. To determine the levels of adherence to treatment of adolescents in rehabilitation centres in Kiambu County, Kenya

2. To find out the perceptions of parental involvement by adolescent on treatment in rehabilitation centres in Kiambu County, Kenya
3. To determine the relationship between perceived parental involvement and adherence to treatment of adolescent in rehabilitation centres in Kiambu County, Kenya

### **1.5 Research questions/ Hypothesis of the study**

#### **1.5.1 Research questions of the study**

1. What are the levels of adherence to treatment of adolescents in rehabilitation centres in Kiambu County, Kenya?
2. What are the perceptions of parental involvement by adolescents in rehabilitation centres in Kiambu County, Kenya?
3. What is the relationship between perceived parental involvement and adherence to treatment of adolescents in rehabilitation centres in Kiambu County, Kenya?

#### **1.5.2 Hypothesis of the study**

$H_{01}$ : there is no relationship between perceived parental involvement and adherence to treatment of adolescents in rehabilitation centres in Kiambu County, Kenya.

### **1.6 Justification and Significance of the study**

Research has shown that parental involvement has a positive impact on adherence to treatment. Adherence to treatment is a prerequisite for not only completion of the

program but also maintenance of sobriety. The study will therefore substantiate how adolescents understand the involvement of their parents while in treatment.

By emphasizing the link between parental involvement and adherence to treatment for adolescents, the findings may help NACADA and the Ministry of Health design policies that would benefit the community and treatment providers.

The findings would help treat adolescent substance use disorders by giving conceptual clarity to aspects related to treatment adherence and parental involvement. Future researchers would find it easier to understand these notions and possibly use them in their studies by offering clarification on these elements, which would help fill in research gaps on the topics that had been studied.

The results of the study may help treatment-seeking adolescents better understand their own and their parents' roles in achieving adherence. Understanding parental involvement and treatment adherence may be helpful to practitioners in the social sciences, psychological wellbeing, and development domains.

### **1.7 Scope and limitations of the study**

The study took place in SUD rehabilitation centres in Kiambu County which has 34 centres registered with NACADA. The study sampled participants of both genders undergoing treatment for substance use disorder in different centres.

The study used self-reports on perceptions of parental involvement of adolescent clients SUD clients in rehabilitation. The use of standardized research instruments aided in validating the information they provided.

The limitation experienced was that the study only focused on adolescents in rehabilitation centres whose numbers kept fluctuating because on the frequency of the discharge process. Another limitation was that the study was conducted in one county. The researcher overcame these limitations by extending the time period of the study so as to gather more participants.

### **1.8 Assumptions of the Study**

The study worked with these assumptions;

1. Adolescents in the study were able to make inferences about the level of involvement of their parents in their care
2. Self-report instruments were able to accurately measure the variables under study
3. Adolescents would readily cooperate and give truthful and correct answers to the questions on the research instruments.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter contained the theoretical framework, a review of related literature and a conceptual framework.

#### **2.2 Theoretical Framework**

The study will be guided by family interaction theory that was developed by Brook, (1990). First, it makes the following four distinct but continuous hypotheses regarding the nature of the parent-child attachment relationship: (1) identification; (2) absence of conflict; (3) warmth, or the enduring affectionate bond between parent and adolescent; and (4) involvement, or the degree to which the parent focuses their attention on the adolescent. The close mutual attachment between parent and adolescent is highlighted by this paradigm, wherein the adolescent identifies with the parent and the relationship is marked by affection and lack of conflict.

The second feature is how the family system interrelationships and how it interacts with five key domains: (1) assimilation influences; (2) ecological factors, like the school environment; (3) the personality and behavior traits of the adolescent, like risk-taking behavior; (4) the domain of peer group attributes, like deviance; and (5) drug context variables, like friends' drug use and availability. The sequence of

domains that ultimately result in the adolescent's drug usage is the subject of the framework's third feature (Brook, 1990)

Adolescents whose parents lack conventional values or provide little affection and whose mothers exert little control are at risk of developing poor relationships with their parents, maladjusted personalities and involvement with substance using peers and experimental substance use. The theory posits that a close mutual parent-child relation can assist the adolescent in coping with intra and interpersonal problems without rebellion since they are able to control their emotions and maintain problem solving behavior (Brook, 1990).

The theory was selected because it showed how a positive parent-adolescent relationship is likely to influence not only engagement in substance use but also adherence to treatment. It identifies how supportive parenting styles can assist an adolescent in treatment, manage negative emotions, make better choices and develop both intra and interpersonal relationships with their parents by attending both individual counseling and family therapy sessions.

Once the adolescent completes treatment, the parent-adolescent attachments are anticipated to help improve their communication and family functioning thus increase the adolescent functioning in society.

## **2.3 Review of Literature Related to the Study**

The section contained an evaluation of related literature on the relationship between perceived parental involvement and adherence to treatment among ASU clients as per the study objectives.

### **2.3.1 The levels of adherence to treatment among adolescent substance use disorder patients**

Adherence to treatment is the degree to which a client follows a health care professional's recommended advice for instance taking medicine, adhering to a diet, or changing their lifestyle. The adherence of a client to treatment determines the effectiveness of the treatment and it entails the willingness to participate in the program, medical adherence, engaging in exercise and nutritional observance (Modi et al., 2012).

Adherence to therapy by adolescents is examined either while the program is in progress or after it is completed, or utilizing a control group, according to related research. The distinction in the research evaluated was that adherence to therapy was assessed based on teenage self-reports rather than behaviour observation while in treatment. Timlin, Riala, and Kyngas (2012) investigated adolescent adherence to medicinal and non-medicinal treatment in mental inpatient care. A total of 72 adolescents took part in this reflective, mixed-methods study. Adherence was measured in terms of participation in ward activities, enthusiasm for treatment, willingness to continue therapy, and the impact of adherence throughout the

treatment period. Most adolescents were in treatment for only a few weeks, and they improved when they thought the drug was working. The study discovered that treatment improved the mental health of the adolescents and that many of them stuck to their treatment plans. The adolescents studied took part in ward activities, and around a third of them began to concentrate better in school because of their adherence. This study's flaw was that the assessment was dependent on information gathered from clients' files, particularly the ending doctor's release reports, which the researcher assumed was correct.

Related literature on adherence to treatment by adolescents that focuses on adolescents being interviewed using either structured or semi-structured questions was reviewed. Moses (2011) used a mixed-methods approach to investigate (1) whether fifty adolescents receiving psychotropic medication would continue to use it if they had the choice, (2) their overall subjective interactions with medicine, and (3) which medical experiences and personal variables are associated with increased medication adherence. Face-to-face interviews with fifty adolescent participants were conducted, with questions that were partially structured and open-ended. According to the findings, a significant proportion of people said they would quit taking their prescription if they had the option, implying a lack of "dedication" to medication. The rest said they'd keep taking their prescription even if no one forced them to, a decision that was frequently motivated by the fear of negative consequences if they didn't. Those classified as 'less dedicated' reported more negative drug experiences, such as side effects or long-term negative impacts, and

thought medication was worthless. Even if their medications are effective, some people claim that they would stop taking them if they could. The outcomes' universalizability is hampered by the small, non-representative sample size.

James (2019) conducted a descriptive qualitative study to learn more about adolescent cannabis users who are seeking treatment. Eight adolescents who were seeking outpatient cannabis treatment were interviewed for the study. Structured and semi-structured questions were used in the interview. Although the adolescents were aware of the negative consequences of their cannabis usage, they were often hesitant to strive for abstinence. They believed the problem was with the amount of cannabis they smoked rather than with smoking itself. Treatment aided a number of people in reducing or gaining control over their drug usage. Most planned to use cannabis in the future, although in smaller amounts. Although some respondents were forced to seek therapy, they had no complaints about it. Positive feedback emphasized the objective attitude, the freedom to speak freely in a secure environment, and the fact that staff were aware of drug issues. The sample for this study was selected from two treatment locations in a relatively small section of a city, with only eight participants.

Gunter (2016) looked at the association between therapeutic participation and substance use following treatment for 1,627 participants. They were asked to fill close-ended interviews at entry, a month of in-treatment and 12 months after exit. The direct impacts were mostly insignificant, with 11 of the 12 direct effects

assessed being non-significant. The only exception is the alcohol use effect, in which individuals who said they were likely to finish treatment were more unlikely to drink alcohol afterwards and higher likelihood of finishing treatment. Participants with a greater level of institutional commitment are more likely to finish treatment and, as a result, are unlikely to use substances afterwards. The information utilized in this study was self-reported. Furthermore, individuals may feel compelled to over-report therapeutic engagement to look more invested in therapy. Since the data collected came from only 13 residential treatment centres spread throughout a small geographical area spanning six cities, it may not apply to other areas.

Related literature on adherence to treatment by adolescents that focuses on data collected using a questionnaire that was filled out online by adolescents and/or their parents was considered. The two kinds of research reviewed differed in terms of one involving both mothers and their children who were in treatment while the other involved adolescents only. Adherence to treatment was assessed based on the mother's awareness of their child's improvement after taking medicine and on adolescents' attitude either positive or negative, towards taking medicine for ADHD treatment. Nagae et al. (2015) explored the factors that influence treatment adherence in both mothers and their children in psychiatric sections, as well as the links between child and maternal medical adherence. A questionnaire was mailed to 33 women and their children as part of the study. The results indicated that children's adherence may be influenced by "mothers' acknowledgement of improvements in

their children's symptoms after visiting the centre" and "mothers' recognition of their children's improvement as a result of the effects of prescribed medicine".

Kosse et al. (2017) did a cross-sectional study to learn more about the attitudes of adolescents who take ADHD medication. An online questionnaire with sections on demographic, medical-status, medicine intake, and the role of family and peers was completed by 181 adolescents. Many adolescents had a neutral attitude toward it (perceived low worries and low necessity), despite believing that ADHD medication was effective. They described skipping prescription dosages regularly, both on purpose (weekends and holidays) and involuntarily (every day) (forgetfulness). Adolescents experienced several side effects, but they didn't express significant concerns. These findings were solely based on self-reported data and could be biased.

The above-related studies on levels of adherence to treatment reviewed studies that had different methods of data collection such as enrollment into a program, interviews and filling of questionnaires. Adherence to treatment was measured based on adolescents' self-reports and observation of their behaviour and this yielded different results. This study proposed to cover the reviewed studies gaps by examining the levels of adherence to treatment among adolescent substance use disorder patients in rehabilitation centres in Kiambu County.

### **2.3.2 Perceived parental involvement**

Perceived parental involvement is defined as the subjective report of the extent to which an adolescent with substance use disorder feels supported and monitored by their parent while in rehabilitation. Parental involvement in each phase of therapy, such as service designing, execution, assessment, minimizing family disturbance, strengthening the family with culturally competent services, and working toward reintegration following treatment is essential. The purpose of parental involvement is to create cooperative partnerships that bring together the resources and personal stories of families and professionals. Adolescents and their families need such collaborative partnerships to not only understand addiction, but also to engage in treatment, maintain recovery, and heal from the effects of substance usage. (Hornberger, 2011)

Related literature on adherence to treatment by adolescents that focuses on data collected using both structured and semi-structured interviews was considered. Lindstedt et al. (2015) used an interview to perform a qualitative study on adolescents' perceptions of eating disorder therapy. A total of 15 subjects, aged 13 to 19, were engaged from four specialized eating disorder centres in Sweden for the study. Interviews were conducted at the participant's selected location. The narratives of the adolescents showed that parents played an important part in the early stages of treatment, but that value later on was dependent on the home environment. Many adolescents were in a tough familial environment, and just a number considered family therapy to be beneficial, preferring instead to have

individual counselling sessions. The findings demonstrated that the adolescents felt pressured into therapy at times and had strong undecided attitudes about whether or not to participate in treatment. Adolescent perceptions of parental involvement in therapy were based on their experiences in the program, yet many believed they would prefer to participate on their own than include their parents.

Charach et al. (2014) used semi-structured interviews to evaluate adolescent and parent beliefs and attitudes on stimulant drug use, as well as their impact on ADHD treatment decisions. Twelve adolescents with a previous or present ADHD diagnosis, as well as their parents, participated. They were purposefully chosen to give a sample of six females and six males; 12 to 13 years old to 14 to 15 years old. Both adolescents' and their parents' perspectives on therapy were explored, resulting in differing viewpoints on ADHD treatment. The adolescents' ideas regarding ADHD were reflected in their attitudes toward medication use. The adolescents saw ADHD symptoms and behaviours as exceptional personality traits and a component of their self-identity, as opposed to being impairments. Approximately half of the adolescents stated that the medicine had affected them, either as a fear when they began taking the medicine or as a present unwanted impact. Those who said medication impacted their subjective sense of themselves said it made them feel less outgoing, while others said it made them feel closer to their friends. The parents shared a similar understanding of their adolescents' problems and the function of medicine and considered ADHD to be a chronic issue, with medicine as a last resort, and their main worries were negative, long-term physical repercussions.

In-depth, semi-structured interviews were done by Ortiz (2018) with adults who had attended a resident treatment program as adolescents to a) find out how they felt about their time in treatment; and b) pinpoint the elements of treatment that had a major impact on their experience from admission to discharge. The study included ten adults, aged 18 or older; treated between the ages of 13 and 17, for a minimum of six months. Phone calls, letters, home visits, and family visits to the facility were reported by all individuals. The majority of participants expressed significant negative feelings of betrayal, resentment, and anger against their parents; one person expressed mixed thoughts, and one expressed strong positive feelings since her family was highly supportive. This reflects the differing perspectives of adolescents' parents when they are in therapy.

Related literature on adherence to treatment by adolescents that focus on data collected using a focus group structure and an interview showed that Parental involvement was perceived as both beneficial and not helpful. Becker (2016) conducted a qualitative study to assess adolescent substance users' perceptions of treatment quality. Participants were recruited using purposeful sampling. The sample included 29 caregivers (18 male caregivers and 11 female caregivers) and 24 ASU students (17 males, 7 females). One-on-one interviews and focus groups were used in the research. The qualitative data revealed several significant themes, including parent presence, secrecy and respect for the caregiver's authority. Parental attendance was believed to have the following advantages: (a) helping "the family in getting well," (b) enabling the adolescent to "feel that support from the family,"

(c) fostering relationships, (d) enhancing communication and (e) "educating" caregivers.

ASU patients made fewer comments regarding parents' attendance, and those that did had mixed feelings about the topic. Parent attendance was described by three adolescents as "uncomfortable," placing the adolescent "at the centre," and turning "magnifying issues," while others described it as "solving family difficulties" and allowing the adolescent to discuss more topics. The management of secrecy concerns was a final part of parent involvement. For the care givers, this meant that the professional would respect the discretion of the adolescent while ensuring that they had sufficient facts to "keep my child safe." Although the adolescents respect their parents' involvement, they believe it is not always beneficial.

The literature on adolescent adherence to treatment that focuses on data gathered through enrollment in a program such as an inpatient residential treatment centre proved instructive. The importance of parental involvement in adolescent treatment has been identified. Ulas and Eksi (2019) looked into how well the family-based treatment worked to change family perceptions toward ASU. The 42 participants were split into two: a control and an action group, with the action group being enrolled in a program afterwards. Participants who received family-based psychological counselling demonstrated self-control and abstinence from substance abuse for at least one year, indicating that it had a favourable impact on the

adolescents' treatment. Adolescents' problem-solving skills, coping skills, and family resilience levels were all increased as a result of family therapy.

Uliaszek et al. (2019) investigated the role of adolescent factors as well as parental aspects in foreseeing their attrition from an inpatient SUD centre. 137 adolescents and their parents took part in the study. Data was gathered from (a) a practitioner's statement of adolescent behaviors; (b) parents' admission requests before their children's admittance; and (c) electronic client records demonstrating parental appearance during treatment. When it may be considered that because an adolescent is in a restricted environment, parental help and support are not required, parental participation predicts attrition rates in treatment. The study's shortcoming was that it only looked at attrition and unfavourable outcomes.

The above-related studies have found that different studies viewed parental involvement differently, for example, some found it beneficial at the onset of the treatment while others felt they would rather have individual therapy as compared to family therapy; others focused on the forms of parental involvement such as visits and telephone use while others still focused on the adolescents' feelings towards parental involvement which showed mixed reactions. The studies were conducted in different settings such as outpatient, inpatient, and clinics and on former clients. The studies reviewed used different forms of data collection instruments. This study utilized a questionnaire and other research instruments to add to the knowledge body of perceived parental involvement and adherence to treatment by adolescents.

### **2.3.3 The relationship between perceived parental involvement and adherence to treatment by adolescent substance use disorder patients in rehabilitation centres**

Parental involvement refers to family members' active engagement and participation in adolescent substance addiction treatment and recovery services and support, including practice, program, and policy. In an adolescent's SUD therapy, parental involvement lowers the risk of relapse and improves the odds of long-term recovery. Although parent participation can be challenging at times, studies have discovered that the more chances for their involvement become accessible, the more likely they are to recognize the value of it and desire to participate (Matheson & Lukic, 2011).

Related literature on adherence to treatment by adolescents focuses on data collected through enrollment into a program. The studies reviewed focused on adolescents' perceptions of parental involvement in panic disorder treatment, OCD and substance use disorder. Parental involvement was perceived differently by the literature to be both important and not important. Hardway (2015) examined whether increasing parental involvement in therapy mitigated the effects of a comprehensive treatment for panic disorder on constant depressive symptomatology as measured by the Children's Depression Inventory at a 3-month follow-up. 57 12-to 18-year-olds (23 boys and 34 girls) who had completed a rigorous course of treatment for Parkinson's disease were included. Adolescents underwent either Adolescent Intensive Panic treatment (AIP; n = 27) or Adolescent Intensive Panic treatment (AIP and FAM; n

= 30) with or without parental involvement. The research findings indicated that younger adolescents profited more when their parents were indirectly involved in therapy and that no clear benefits or drawbacks were associated with parents' involvement. Adolescents were reluctant to come back for the three-month evaluation if their parents were not directly involved. The study relied on adolescents' self-reports and used a small number of clients, which limits the inferences derived from the data collected.

Using family-focused cognitive behavioural therapy (FCBT) for obsessive-compulsive disorder (OCD), Peris et al. (2012) examined the relationship between treatment outcomes and poor family unity, parental blaming and family conflict in adolescents. 49 adolescents (8 to 17 years) and their families were included in the study. FCBT or a psychoeducation and relaxation training (PRT) comparative treatment was given to participants at random for twelve sessions over fourteen weeks. The FCBT treatment lasted 14 weeks and consisted of 12 90-minute sessions. Psychoeducation on OCD and gradual muscle relaxation were part of the PRT condition. Families frequently reported difficulties in a number of family functioning dimensions, and approving several domains of dysfunction was connected to a decreased likelihood of therapeutic response. The current finding that higher degrees of family dysfunction are linked to a lower treatment response emphasizes the need to examine many aspects of family operation at the start of treatment. This kind of assessment can be utilized to identify the family's strong and weak points and to modify treatment plans going forward. The study was carried

out as part of a family-centered CBT intervention. Adolescents responded better to treatment when aspects of family dynamics were based on self-report and family involvement.

Bertrand et al. (2013) looked at the links between changes in adolescents' SUD and parental practices in a treatment centre. 147 adolescents filled out questionnaires at least twice: at the start of treatment and the three or six-month follow-up. The mothers of 96 adolescents took part in the study as well, with 69 of them participating at two different periods. The findings revealed a link between better maternal mental health and more parental cordiality as judged by adolescents. Furthermore, increased parental utilization of treatment services was linked to increased adolescent own-disclosure and decreased adolescent substance use. Lastly, decreased adolescent substance use was linked to increased adolescent self-disclosure and parental friendliness.

Related literature on adherence to treatment by adolescents that focuses on data collected using focus groups was reviewed. Perceived parental involvement was assessed based on how adolescents in inpatient treatment perceive the significance of their parents' support. Landrum et al. (2015) sought to learn about participants' personal experiences and knowledge of their treatment decisions. 44 people, divided into five focus groups, were involved. The findings imply that three parts of impact determine motivation: individual, therapeutic, and outside. The individual component may be the most essential for certain people, whereas environmental

factors or treatment dimensions may be more important for others. The relevance of each dimension, as well as the complicated multilayered linkages between them, is likely to fluctuate depending on the client's values and experiences, which may be modified further by contextual factors. Adolescent clients say that having professionals and friends in therapy (whom they can connect to and trust) helps them stay motivated. They do, however, describe a tug-of-war between peers and family members, both external and internal to the therapy context. Peer pressure to flee and the absence of friends and family often tempt children to abandon therapy, and well-intentioned family members can sometimes sabotage retention efforts. It's crucial to figure out what aspects influence adolescents' choice to quit or stay in the current study.

To help with efforts to modify the South African Addiction Treatment Services Assessment (SAATSA) for adolescents, Myers et al. (2019) examined adolescents' knowledge of effective SUD treatment as well as potential roadblocks to completing patient-reported outcome measures (PROMs) and patient-reported experience measures (PREMs). The study used 38 Adolescent SUD treatment institutions in South Africa to conduct five focus groups. Participants identified four needs that they believe should be addressed: providing leisure substitutes for substance abuse, emotion-focused coping skills, providing after-treatment support services and increasing the motivation for change. The desire for significant alternatives to substance misuse and stress-relieving activities was expressed by the participants. While the majority were concerned about their ability to continue treatment without

family support, others concentrated on the facilitative role that families could play, reflecting that if their family actively participated in their treatment, they would feel more confident in their ability to change. The study's limitations included a sample size drawn from a few facilities in two of the country's nine provinces, and it was confined to adolescents receiving SUD treatment at the time.

Related literature on adherence to treatment by adolescents that focuses on data collected using an interview showed that perceived parental involvement was important in facilitating continuity of treatment. Vasters (2011) looked at how adolescents got into treatment and how they viewed the elements that help or obstruct them from sticking with it. In this qualitative study, 14 adolescents between the ages of 14 and 19 were interviewed. Forming new friends, family support, religious practices "strength of will," and a good association with professionals and sports were among the factors they reported as favourable for treatment adherence. Some talked about how important it is to stop using drugs before starting therapy, and how abstinence is just a side effect of that. One of the things that the adolescents in the study emphasized was their family's participation in treatment activities, claiming that its absence was a determining factor in treatment dropout. The study's drawbacks included a small number of participants and a reliance on their self-reports.

Related literature on adherence to treatment by adolescents that focuses on data collected using an online questionnaire was reviewed. Perceived parental

involvement was assessed based on the adolescents' thoughts about their parents knowing about their routine. Martinson (2016) examined whether parental monitoring predicts more or less positive trajectories of eating disorders and attitudes. 87 adolescents (13-18 years) and their parents, took part in the study. Participants completed an online survey, and caregivers were interviewed. Adolescents who reported less parental monitoring tended to develop disordered eating attitudes and behaviours. However, reporting of parental supervision on eating attitudes and behaviours was equally strong when studies were restricted to females alone because they were monitored more. The study sample only included treatment-seeking adolescents in an outpatient treatment thus, it would be crucial to additionally study a group in an inpatient facility or those who are not in a treatment centre, among the study's limitations.

The above-related studies showed researchers have done parental involvement concerning various aspects of adolescents' treatment such as degree of parental involvement, family variables that influence treatment, and adolescents and other stakeholders' experiences in treatment. Each reviewed study indicated that a positive relationship between parental involvement and adolescents' adherence to treatment exists. This study intended to advance this conclusion by addressing the adolescents' perceptions.

## **2.4 Summary of literature review**

Literature was studied according to the study's objectives. The first one examined levels of adherence to treatment among adolescent substance use disorder patients through their treatment in rehabilitation centres. The findings on this objective indicated low levels of treatment adherence among adolescents in various places globally. However, the studies seemed to focus on adherence to treatment on other issues except for drug use disorders. Most studies have focused on adolescent's adherence to mental health issues. This objective exposed the gap in studies on levels of adherence to treatment among adolescent substance use disorder patients through their treatment in rehabilitation centres.

The second objective investigated the perceptions of parental involvement by adolescent substance use disorder patients in treatment in rehabilitation centres. Literature as per this objective indicated that adolescents have a perception of their parent's involvement in various aspects of their lives like mental health issues. The literature exposed a study gap because these studies have not investigated adolescent substance use disorder patients' perceptions of parental involvement in their rehabilitation.

The last objective looked at the relationship between perceived parental involvement and adherence to treatment by adolescent substance use disorder patients in rehabilitation centres. The researchers have done parental involvement in relation to various aspects of adolescents' treatment such as the degree of parental

involvement, family variables that influence treatment, and adolescents and other stakeholders' experiences in treatment. This study intended to advance this conclusion by addressing the adolescents' perceptions.

## 2.5 Conceptual framework

This is a graphic diagram of the main variables joined by arrows to show connections. It illustrates the perceived parental interaction and adherence to treatment among adolescents with substance use disorder.

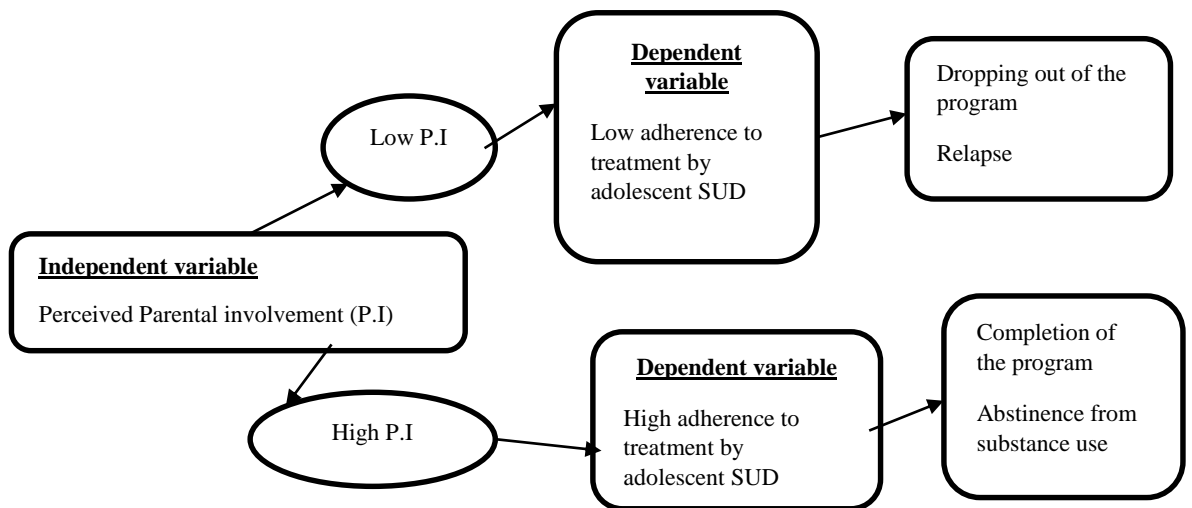


Figure 2.1: Conceptual Framework

The conceptual framework indicated the interactions between the study variables. The independent variable was the perceived parental involvement influenced by various parental factors like sex, age, level of education, parental marital status and living arrangements. The dependent variable was adolescent substance use disorder patients' treatment adherence which is heightened by; high, and low adherence

levels. The dependent variable was influenced by the respondents' aspects including age, sex and participation.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

The chapter detailed the study methodology which entailed the research design, study variables, location, target population, sampling and data analysis.

#### **3.2 Research Design**

A correlational design was utilized. This was suitable because it involved researching perceived parental involvement and adherence to treatment by adolescents to establish a connection between the study variables.

#### **3.3 Variables**

The study variables were perceived parental involvement and adherence to treatment by adolescents. Perceived parental involvement was the independent variable while adherence to treatment by adolescents was the dependent variable.

Perceived parental involvement was measured based on a subjective report of the extent to which an adolescent with substance use disorder felt supported and progress monitored by their parent while in a rehabilitation centre.

Adherence to treatment was measured based on the different activities the centres have developed for the adolescents.

### **3.4 Location of the study**

The study was undertaken in Kiambu County, in chosen SUD rehabilitation institutions that are NACADA-registered (NACADA, 2018). Kiambu County was a good choice because it contained 34 approved rehabilitation centres; the highest number of centres in Kenya

Kiambu County lies in Kenya's Central Highlands, in the former Central Province, and is bordered by Nairobi, Murang'a, Nyandarua, and Kajiado counties. It comprises 12 sub-counties with a total area of 2,543.42 square kilometres.

### **3.5 Target population**

The study's target population was all adolescents getting treatment in Kiambu County's various rehabilitation clinics. This covered both males and females who have one or both parents/guardians, and who have been diagnosed with a single drug or poly-substance use disorder.

### **3.6 Sampling techniques and sample size**

#### **3.6.1 Sampling techniques**

Multi-stage sampling procedure was applied to identify both rehabilitation centers and participants. The technique will be done at two levels. The first level was identifying rehabilitation centres that admit adolescents for inpatient treatment in Kiambu County using a simple random sampling technique. The researcher found that 20 out of 34 rehabilitation centres had admitted adolescents.

The second level of sampling was on the study respondents. The study included all adolescents admitted to the rehabilitation centres using a purposive sampling technique as shown in the table below:

	Number of rehabilitation centres in Kiambu county accredited by NACADA	Total number of clients during the study period	Total number of adolescents during the study period
Number of rehabilitation centres that had admitted adolescents during the study period	20	278	120
Number of rehabilitation centres that admitted adolescents during the study period	14	106	0
<b>TOTAL</b>	<b>34</b>	<b>384</b>	<b>120</b>

### 3.6.2 Sampling frame

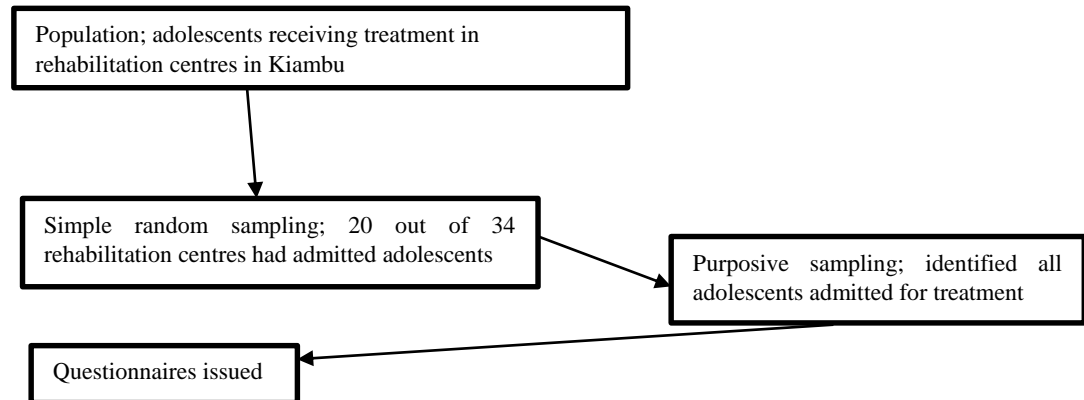


Figure 3.1 Sample frame

### 3.6.3 Sample size

Chowdhury-Hossan (2011) formula for calculating sample size was used as indicated:

$$\text{Sample Size} = \frac{\frac{Z^2 \times P(1-P)}{e^2}}{1 + \left(\frac{Z^2 \times P(1-P)}{e^2 N}\right)}$$

The Z score (Z) used was 1.96, with a margin of error (e) of 0.05. P is 0.1 and the population size is N. The following was calculated:

$$\begin{aligned} N &= \frac{1.96^2 \times 0.1(1-0.1)}{0.05^2} \\ &= \frac{1.96^2 \times 0.1(1-0.1)}{0.05^2} \times 120 \\ &= 72 \text{ people} \end{aligned}$$

### **3.7 Research Instruments**

The researcher developed a questionnaire that measured adherence to treatment by adolescents and perceived parental involvement.

It contained 2 sections: section A and Section B. Section A contained the demographic data. Section B had three tables. The scoring for Table 1 which measured adherence to treatment, was as follows; positive sentences: 1=Not at all, 2=Sometimes, 3=Not sure, 4=Most times, 5=All the time; while all negative statements were the reversed scored. The responses were then added up and averaged. A score of; 0-18= not adherent; 19-37= moderate adherent; 38-55= Adherent

Tables 2 and 3 had 21 questions each, that measured adolescents' perception of their parental involvement. The scoring was as follows; positive sentences: 1=strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= strongly agree; while all negative statements were reversed scored. The responses were then added up then averaged.

A score of; 0-9= low parental involvement; 10-19= moderate parental involvement; 20-29= high parental involvement.

### **3.8 Pilot Study**

A pilot test was done in 6 rehabilitation centres in Nairobi County to check the suitability of the research instruments. Nairobi County was chosen because it neighbors Kiambu County and has similar characteristics in rehabilitation centres. The data collected from the pilot study test was omitted from the final sample. The sample size was estimated at twenty. This was done to analyze the research instrument for its validity and reliability. The study involved twenty participants Means were calculated for adherence to treatment items ( $\alpha$  reliability =0.86) and perceived parental involvement items ( $\alpha$  reliability =0.89). The test–retest reliability for instrument was significant,  $r(20) =0.83$

### **3.9 Validity and Reliability**

The researcher developed the research instrument. Face validity of the questionnaire was done on the research instrument ensuring had questions based on each objective. Another form to test the validity of the instruments was test-retest approach. A sample of ten respondents were given the tool to answer, then the same process was repeated after two weeks.

The instrument was coded into SPSS to test for internal reliability using Cronbach's coefficient. The study utilized the recommended alpha coefficient of 0.8.

### **3.10 Data Collection Techniques**

Only the researcher collected data. Questionnaires were given to each adolescent individually, with the support of the employees at different rehabilitation centres. The researcher offered assistance and guidance to any participant who had a challenge filling. They were collected on the same day of issue.

The questionnaires were filled out anonymously. The researcher emphasized that participation in the research was voluntary, and no monetary compensation was to be issued.

### **3.11 Data Analysis and Presentation**

Data was analysed using both inferential and descriptive statistics. Percentages and frequencies were calculated and data was presented using figures, graphs and tables for demographic data. Quantitative data was entered into the Statistical Package for Social Sciences (SPSS) for analysis, interpretation and conclusion.

A correlation coefficient was conducted to determine the relationship between the study variables. Correlations between perceived parental involvement and adherence to treatment were established using Spearman's rank correlation coefficient. The study's hypothesis was also tested using analysis of variance (ANOVA).

### **3.12 Data management and Ethical Considerations**

Kenyatta University's Graduate School gave the researcher permission to perform the study while Kenyatta University's Ethics Board gave ethical clearance for the study. In addition, clearance from NACADA and the heads of the relevant rehabilitation centres was requested, as well as a research permit from the National Council of Science and Technology.

At the onset, the researcher told the participants of the study's purpose so that they may resolve whether or not to join. Participants were not required to fill out any personal information to maintain their anonymity. The consent form was attached to the questionnaire, and all participants were urged to fill it out. All information gathered was kept private and used solely for the purposes stated.

The researcher obtained written consent from the rehabilitation center's management to conduct the study. Before beginning the study, the researcher explained to the adolescents the procedure, what questions they would be asked, and that they had the right to join or withdraw at any moment throughout the research without penalty. Throughout the study, the researcher guaranteed that the adolescents' safety and well-being were protected. There was no photography, audio or video recording. No reimbursement or compensation was given for data collection. The researcher ensured that the questionnaires were completed anonymously to preserve the privacy of the adolescents and that the information was kept in a secured desk.

## CHAPTER FOUR

### PRESENTATION OF FINDINGS

#### 4.1 Introduction

This chapter covers the findings of the study on the relationship between perceived parental involvement and adherence to treatment among adolescents in rehabilitation centres in Kiambu County, Kenya. It is subdivided into five segments. The first segment contains the demographic data. The second and third segments comprise data analysis on perceived parental involvement and adherence to treatment respectively. The fourth segment indicates the findings on the relationship between the study variables while the fifth segment covers a summary of the findings.

#### 4.2 Demographic data of the study

In this section, the data sample was analyzed by looking into the sex, age of the respondents, their level of education and their living arrangements (who they lived with before treatment). The response rate was seventy-two respondents.

##### 4.2.1 Sex and age of respondents

The respondents were seventy-two; sixty-three were male while nine were female.

The table below indicates the percentages and frequency of each sex in the sample.

The age of respondents was between 15 years to 19 years.

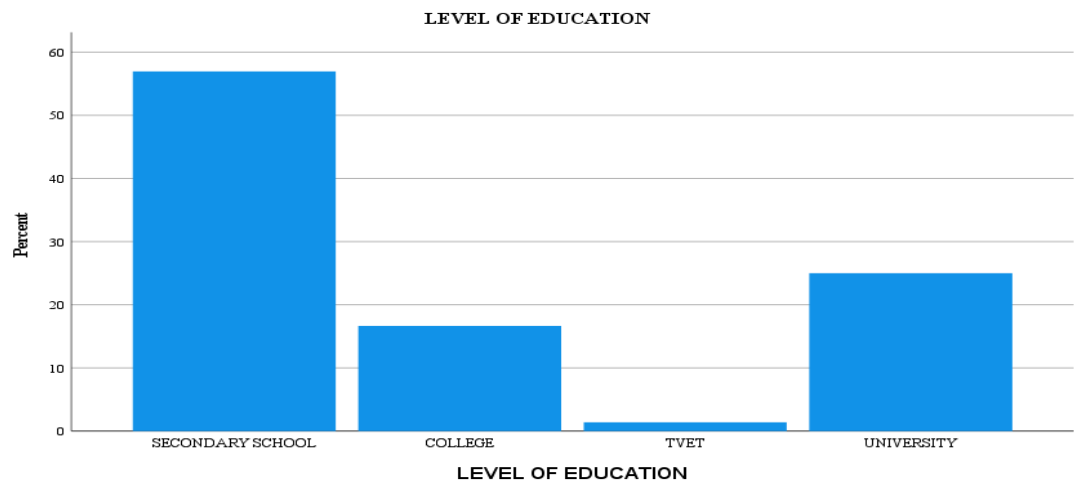
		<u>AGE</u>						
		15 years	16 years	17 years	18 years	19 years	Total	Percentages
SEX	Male	7	10	19	14	13	63	87.5%
	Female	2	2	1	1	3	9	12.5%
<b>Total</b>		<b>9</b>	<b>12</b>	<b>20</b>	<b>15</b>	<b>16</b>	<b>72</b>	<b>100%</b>

**Table 4.1: Sex and Age of Respondents**

The table above shows that there were more males in the sample than females at 87.5% and 12.5% respectively. On age, majority of the respondents were 17-year-olds with 19 males and a female. This may be an indication that more males are admitted for treatment. Lake, (2018) found that the difference in the number of males and females may be because females are more prone to stigma because of their substance use conditions thus they tend to shun seeking treatment. On the other hand, males use substances more frequently, in greater quantities and often begin using substances at an earlier age as compared to females. This result of males being more than females is in line with the findings of the present research.

#### 4.2.1.2 Level of education

The respondents were requested to specify their current level of education. It was divided into; primary, secondary, college, TVET and university.



**Figure 4.1: Level of education**

Figure 4.1 indicated that 41 respondents (56.9%) were in secondary education, 12 (16.7%) were in college education while 1(1.4%) and 18(25%) were in TVET and university respectively.

#### 4.2.1.3: Living arrangements

The participants were requested to specify who they lived with before they were admitted for treatment. A yes response indicated they had both parents while no indicated having one or no parent. The respondents who indicated that they did not have both parents, were asked to indicate whether they lived with a Mother or Father.

		Frequency	Percentage	Cumulative Percent
Response	Yes (both parents)	49	68.1	68.1
	No (one or no parent)	23	31.9	100.0
	<b>Total</b>	<b>72</b>	<b>100.0</b>	

**Table 4.2a: Living with both parents**

		Frequency	Percentage	Cumulative Percent
Response	Not applicable	49*	68.1	68.1
	Mother/female guardian	23	31.9	100.0
	<b>Total</b>	<b>72</b>	<b>100.0</b>	

**Table 4.2b: Living with single parent**

49 respondents (68.1%) had both parents while 23 respondents (31.9%) had either one or no parent. This indicates that the respondents were aware of the existence of their parents when they were in rehabilitation. 23 (31.9%) respondents indicated that they had a Mother. This indicated that those without both parents had only a Mother.

The 68% may indicate that more adolescents from families with both parents are admitted for treatment. The 31.9% may indicate that more single mothers as opposed to single fathers are present during the treatment process of the adolescent. Bertrand (2013), conducted a study on changes in parenting practices and ASU with 199 adolescents (119 males and 80 females). He found that adolescents' living arrangements were as follows; 89 from blended families, 63 from a nuclear family and 45 from a single-parent family although the study did not specify whether the single-parent family was a father or mother-only. These living arrangements differ from the current study since in the current study, more adolescents live with both parents.

Dikec (2020), found that out of 142 adolescents; 100 lived in nuclear families, 23 with extended families, 13 with fragmented families and 6 were raised in an orphanage. These living arrangements are consistent with the current study since in both, more adolescents live with both parents although the sample size is different.

### **4.3 Perceived Adherence to treatment**

The first objective was to determine the levels of adherence to treatment among adolescent substance use disorder clients in treatment in rehabilitation in Kiambu County, Kenya

#### **4.3.1 Perceived Adherence to treatment general descriptive data**

Adherence to treatment was measured using an 11-item Likert scale where the participants were supposed to answer from all the time (1 for every negative

response and 5 for every positive answer) to not at all (1 for every positive answer and 5 for every negative response). The highest probable score was 50 while the lowest possible score was 23. Scores were added up for each question and then divided by eleven to find the mean score.

The mean score was 35.5 while the median was 37.0.

		<b>Statistic</b>
Adherence to treatment	Mean	35.5000
	Median	37.0000
	Variance	37.408
	Std. Deviation	6.11624
	Minimum	23.00
	Maximum	50.00
	Range	27.00
	Interquartile Range	8.00
	Skewness	-.057
	Kurtosis	-.399

**Table 4.3: Adherence to treatment**

#### 4.3.1.1 Specific adherence to treatment activities

The study wanted to find out how often or not the respondents engaged in several activities while in treatment.

	Mean	Std. Deviation	Minimum	Maximum
I take medication given by a nurse/doctor	3.57	1.890	1	5
I participate in the class program	4.49	1.021	1	5
I never do my assigned duty in the dormitory/compound	1.53	1.472	1	5
I take all meals as proposed by the nutritionist	4.11	1.439	1	5
I make my bed daily	4.47	1.210	1	5
I attend my psychiatric review	3.85	1.725	1	5
I never participate in family therapy sessions	1.18	.998	1	5
I rarely participate in individual counselling sessions	1.81	1.498	1	5
I participate in games	3.90	1.334	1	5
I rarely do my laundry weekly	2.32	1.643	1	5
I participate in group therapy sessions	4.28	1.224	1	5

**Table 4.4: Specific adherence to treatment activities**

Participating in class had the highest mean score of 4.49 followed by making the bed daily with a mean of 4.47.

#### 4.3.1.2 Adherence to Treatment Categories

The study sought to find out the categories of adherence to treatment among adolescents. The categories used were; high, moderate and low. This was calculated by finding the range of the total of all items then dividing it by three (a formula on SPSS).

Adherence to treatment		
	Frequency	Percentage
Low adherence	27	37.5
Moderate adherence	31	43.1
High adherence	14	19.4
Total	72	100.0

**Table 4.5 Categories of adherence to treatment**

Table 4.5 shows that majority of the respondents (43.1%) reported moderate adherence to treatment. 27(37.5%) reported low adherence to treatment while 14(19.4%) reported high adherence to treatment.

#### 4.3.1.3 Adherence to treatment by sex

The study wanted to find out whether there was a difference in how the respondents adhered to treatment based on their sex.

	Sex		Statistic
Adherence to treatment	Male	Mean	1.7619
		Std. Deviation	.71198
	Female	Mean	2.2222
		Std. Deviation	.83333

**Table 4.6: Adherence to treatment by sex**

Females scored a mean of 2.22 and a standard deviation of 0.71 while males recorded a mean of 1.76 and a standard deviation of 0.83. To test the null hypothesis of no significant difference in adherence to treatment between females and males an Independent T-test was computed.

McHugh et al. (2018) conducted an analysis of sex and gender differences in SUD among adolescents and adults. They found that generally, females were less likely to seek SUD treatment when compared to males but there was no difference concerning treatment retention or outcome. ASU females are more likely to receive treatment than males. However, adolescent males with cannabis use disorder are more likely to receive treatment than females. The findings are inconsistent with the current study that found the number of males seeking treatment to be higher than that of females. This study varies from the current one in that it focused on both adults and adolescents, without specifying the sample size.

Anderberg and Dahlberg (2018) studied gender differences among ASU at Maria clinics with a sample of 2169 (1576 males, 593 females) over 3 years. 75% of the adolescents lived with their parents (1246 males, 421 females). 37% of the females began treatment on their own or through the healthcare system as compared to 29% of males who begin treatment through parental efforts or social services. Both the reviewed study and current study were conducted among ASU, they found a higher number of males than females undergoing treatment, however, the current study did not consider how the adolescents begin treatment.

Nagae et al. (2015) studied factors influencing prescription adherence in adolescents (7-17 years) receiving outpatient pharmacotherapy with a sample of 30 mother-child pairs (19 males, 11 females). They discovered that moms' knowledge of the prescription was related to the children's adherence. However, there was no relationship between medical adherence and participants' demographic features such as age, gender and living with parents. The higher number of males than females is consistent with the current study however, the current study only involved adolescents and not their caregivers.

James (2019) carried out a study of the experiences of adolescent cannabis users in treatment with 8 participants (5 males, and 3 females). Adherence to treatment was measured based on adolescents' perception of harm and societal norms. In as much as they recognized the harmful effects of use they were generally unwilling to head towards abstinence. They perceived that it was the quantity, not the smoking that was the problem. The higher number of males than females is consistent with the current study but the current study has a higher sample size and focuses on several substances not on cannabis use only.

Timlin (2012) researched adherence to treatment among adolescents in a psychiatric unit with a sample size of 72 (51 males and 21 females). Adherence was measured by willingness to undergo treatment, attending activities, active engagement in treatment, and the effects of adherence. Adherent adolescents had a good attitude towards the staff and concentrated well during activities. 71% took

medication or agreed to attend outpatient sessions after discharge. One-third of them attended group therapy and were able to share. Adherence to treatment relieved their symptoms in several cases, allowing them to be discharged. It also led to a decrease in suicidal thoughts and attempts and increased their socialization with others. The higher number of males than females is consistent with the current study but the reviewed study involved a higher number of females and it was conducted in a hospital setting among adolescents with several mental disorders including SUD while the current study only focuses on rehabilitation centers and SUD.

#### 4.3.1.4 Adherence to treatment by Living arrangements

The study sought to establish whether there was a difference in how the respondents adhere to treatment based on whether they have both parents. The study also wanted to find out whether there was a difference in how the respondents adhered to treatment based on them having either a mother or a father.

	Both Parents		Statistic
Adherence to treatment	YES	Mean	1.7551
		Std. Deviation	.72257
	NO	Mean	1.9565
		Std. Deviation	.76742

**Table 4.7a: Living arrangements with both parents**

	A single parent/guardian		Statistic
Adherence to treatment	Not Applicable	Mean	1.7551
		Std. Deviation	.72257
	Mother/Female Guardian	Mean	1.9565
		Std. Deviation	.76742

**Table 4.7b: Living arrangements with a single parent**

Respondents without both parents recorded a mean of 1.96 and a standard deviation of 0.77 while those with both parents scored a mean of 1.76 and a standard deviation of 0.72. To test the null hypothesis of no significant difference in adherence to treatment when living with both parents, one-way ANOVA was computed. Dikec (2020) did a study on adherence to prescribed treatment by adolescents with mental disorders with a sample of 142 participants (79 females, 63 males). 100 adolescents lived in nuclear families, 23 with extended family, 13 with fragmented family and 1 was raised in an orphanage. 69% of the adolescents used medication regularly while 23.9% used generally regularly. When they had a doctor's appointment; 61.3% attended regularly while 5.6% made it occasionally. This reviewed study was conducted in an outpatient psychiatric clinic and covered a number of mental disorders such as SUD, anxiety disorder and ADHD among adolescents while the current study focused on SUD treatment in rehabilitation centers. The study findings only stated the composition of the adolescents' living arrangements but did not provide details on how it affects their adherence to treatment.

Demirci et al. (2014) investigated the sociodemographic features and drug abuse patterns of ASU with a sample of 1969 (1623 males, and 346 females). 1161 adolescents lived with their parents and most of them were accompanied by their parents during treatment (1523). Females started treatment earlier than males mainly because families reject females ASU more easily. Majority of the respondents were self-referred; which was a significant analysis of reporting substance use and treatment completion. The study was conducted in Istanbul, Turkey; in the only

hospital that has two inpatient and two outpatient clinics whereas the current study focused on rehabilitation centers in a given county. The findings are consistent with the current study about having more adolescents living with both parents, however, the current study did not look into how the adolescents enter into treatment.

Nagae et al. (2015) studied factors affecting medication adherence in children (7-17 years) receiving outpatient pharmacotherapy with a sample of 30 mother-child pairs (19 males, 11 females). They discovered that moms' knowledge of the medicine was related to the children's adherence. However, there was no relationship between medical adherence and participants' demographic features such as age, gender and living with parents. The study was conducted in psychiatric and pediatric sections in five hospitals whereas the current study focused on inpatient rehabilitation centers. It also focused on both the mothers and adolescents as participants in the study while the current study only focused on the adolescents. The study reviewed focused on adolescents and their moms.

#### **4.3.2 Perceived Parental Involvement**

The second objective was to find out the perceptions of parental involvement by adolescent substance use disorder clients on treatment in rehabilitation centres in Kiambu County, Kenya.

##### **4.3.2.1 Perceived Parental Involvement General Descriptive Statistics**

Perceived parental involvement descriptive data analysis scores were obtained. Perceived parental involvement was measured using a 42-item Likert scale where

the respondents were supposed to respond from strongly agree (1 for every negative answer and 5 for every positive response) to strongly disagree (5 for every negative response and 1 for every positive answer).

The highest probable score was 168 while the lowest likely score was 48. Individual scores were summed up for each question and then divided by 42 to find the mean score. The mean score was 103.26

		Perceived Maternal involvement	Perceived Paternal involvement	Perceived Parental involvement
N	Statistic	72	72	72
Minimum	Statistic	25.00	.00	48.00
Maximum	Statistic	81.00	93.00	168.00
Mean	Statistic	65.9583	37.3056	103.2639
Std. Deviation	Statistic	9.83302	31.98619	36.12498
Skewness	Statistic	-1.390	-.121	-.029
	Std. Error	.283	.283	.283
Kurtosis	Statistic	3.161	-1.741	-1.600
	Std. Error	.559	.559	.559

**Table 4.8: Perceived Parental Involvement**

#### 4.3.2.2 Perceived Parental Involvement Categories

The study intended to find out the categories of Perceived Parental involvement among adolescents. The categories used were; high, moderate and low.

Levels	Frequency	Percentage
Low perceived maternal involvement	26	36.1
Moderate perceived maternal involvement	22	30.6
High perceived maternal involvement	24	33.3
<b>Total</b>	<b>72</b>	<b>100.0</b>
Low perceived paternal involvement	28	38.9
Moderate perceived paternal involvement	21	29.2
High perceived paternal involvement	23	31.9
<b>Total</b>	<b>72</b>	<b>100.0</b>

**Table 4.9: Perceived Parental Involvement Categories**

Table 4.11 showed that on maternal involvement, 26 respondents (36.1%) reported low perceived maternal involvement, and 24 (33.3%) and 22 (30.6%) reported high and moderate perceived maternal involvement respectively. On paternal involvement, 28 respondents (38.9%) reported low perceived paternal involvement, and 23 (31.9%) and 21 (29.2%) reported high and moderate perceived paternal involvement respectively.

#### 4.3.2.3 Perceived parental involvement by sex

This study wanted to find out whether there was a difference in how the respondents perceived either their Maternal involvement or paternal involvement.

	SEX		Statistic
Perceived Maternal involvement	Male	Mean	2.0000
		Std. Deviation	.84242
	Female	Mean	1.7778
		Std. Deviation	.83333
Perceived Paternal involvement	Male	Mean	1.9206
		Std. Deviation	.82894
	Female	Mean	2.0000
		Std. Deviation	1.00000
Perceived Parental involvement	Male	Mean	2.0000
		Std. Deviation	.80322
	Female	Mean	2.0000
		Std. Deviation	1.00000

**Table 4.10: Perceived parental involvement by sex**

Females had a mean score of 2.0 and 1.76 on perceived parental involvement and perceived maternal involvement respectively as compared to the male with a mean of 2.0 respectively. However, females have a slightly higher mean score of 2 on perceived paternal involvement while males had 1.92.

Bertrand et al. (2013) conducted a study on changes in ASU and parenting practices with 119 males and 80 females; there was a decrease in mean substance use between admission and three three-month follow-ups and between admission and six-month follow-up. Adolescents' perceptions of own-disclosure increased considerably between admission and six-month follow-up and this was inversely associated with substance use. Adolescents' perception of their parental involvement based on parental warmth did not vary between admission and six-month follow-up. This was a longitudinal study that involved adolescents completing questionnaires on admission and or at three or six months' follow-up while the current study only is correlational and involves completing questionnaires during treatment. The findings are consistent with the current study about having more males than females, however, they did not show how each sex perceived parental involvement.

Goncalves et al. (2019) studied perceptions of ASU to adherence to treatment with a sample of 11 adolescents (10 males, one female). They reported that the support and encouragement they receive from family, such as being involved in joint activities, favors their adherence to treatment. The findings are consistent with the current study about having more males than females, however, they generalized perceived parental involvement by adolescents.

#### **4.3.2.4: Perceived parental involvement by Living arrangements**

This study wanted to find out whether there was a difference in how the respondents perceived their parental involvement when they had both parents. The study also

wanted to find out whether there was a difference in how the respondents perceived their parental involvement based on them having one parent.

		BOTH PARENTS		Statistic
Perceived Maternal involvement	YES	Mean		2.1429
		Std. Deviation		.81650
	NO	Mean		1.6087
		Std. Deviation		.78272
Perceived Paternal involvement	YES	Mean		2.3673
		Std. Deviation		.66752
	NO	Mean		1.0000
		Std. Deviation		.00000
Perceived Parental involvement	YES	Mean		2.3878
		Std. Deviation		.67133
	NO	Mean		1.1739
		Std. Deviation		.38755

**Table 4.11a: Living arrangements with both parents**

Living arrangements with a single-parent				Statistic
Perceived Maternal involvement	Not Applicable	Mean		2.1429
		Std. Deviation		.81650
	Mother/Female Guardian	Mean		1.6087
		Std. Deviation		.78272
Perceived Parental involvement	Not Applicable	Mean		2.3878
		Std. Deviation		.67133
	Mother/Female Guardian	Mean		1.1739
		Std. Deviation		.38755

**Table 4.11b: Living arrangements with a single parent**

Perceived paternal involvement had a higher mean score of 2.37 as compared to perceived maternal involvement with a mean score of 2.14. Perceived parental involvement had a mean of 2.39.

Trang et al. (2021) did a study on family-based intervention for ASU in Vietnam with 8 male adolescents and their caregivers. 4 lived with both parents, one with a

mother only while 3 lived with other relatives. Attending therapy sessions together brought a sense of liberation, and improved their communication thus improving their relationship and family functioning. It also led to retention in treatment and more disclosure from the adolescents. The study was conducted both in an outpatient clinic and an inpatient centre and used interviews for data collection while the current study only focused on inpatient rehabilitation centres and used questionnaires. The findings are consistent with the current study about having more males living with both parents however they did not give an analysis of perceived parental involvement.

Lindest et al. (2015) focused on adolescents' experiences of treatment for eating disorders with a sample size of fifteen participants. They found that adolescents in treatment perceived parental involvement as significant in the initial stage of treatment but that significance changed based on the existing family situation which meant that if an adolescent was from a problematic family they would be unwilling to have their parents involved in their treatment. It would be important to focus on the family environment and its relationship with adherence to treatment.

#### **4.4 Relationship between Perceived parental involvement and adherence to treatment**

The study wanted to find out whether there was a relationship between Perceived parental involvement and adherence to treatment. The null hypothesis to be tested was:

H<sub>01</sub>: There is no relationship between parental involvement and adherence to treatment.

To test this null hypothesis a Spearman correlation coefficient was calculated.

			Perceived Parental involvement	Perceived Maternal involvement	Perceived Paternal involvement
Spearman's rho	Adherence to treatment	Correlation Coefficient	-.034	.024	-.080
		Sig. (2-tailed)	.777	.841	.505
		N	72	72	72
	Perceived Maternal involvement	Correlation Coefficient	.632**	1.000	.411**
		Sig. (2-tailed)	.000	.	.000
		N	72	72	72
	Perceived Paternal involvement	Correlation Coefficient	.893**	.411**	1.000
		Sig. (2-tailed)	.000	.000	.
		N	72	72	72

**Table 4.12: Relationship between Perceived parental involvement and adherence to treatment**

Table 4.12 indicates that there is a markedly weak negative correlation (-0.034) between perceived parental involvement and adherence to treatment N (72) = p<0.01. There is a markedly weak positive correlation (0.024) between perceived maternal involvement and adherence to treatment while there is a markedly weak negative correlation (-0.08) between perceived paternal involvement and adherence to treatment. This may be indicative of the influence of parent-child dynamics on the readiness of adolescent clients to take part in treatment. Perhaps the nature of parental involvement such as the desire to be appraised of the details of treatment may raise anxiety in the client, thus impacting their adherence to treatment.

Literature on the relationship between perceived parental involvement and adherence to treatment has presented mixed results. Some studies have found a positive relationship while others such as Hardway (2015) revealed that no effects were showing a benefit or disadvantage to parents' participation in therapy and that younger adolescents benefited more when their parents were not directly involved.

Johnson and Tran (2020) analyzed the factors associated with SUD treatment completion within a sample of 25,587. 11.5% of the adolescents completed treatment which may have been linked to factors such as health concerns, unmet treatment needs and continuity of intervention programs. Previous participation in treatment resulted in an increased rate of treatment completion as compared to no previous participation. Adolescents were likely to complete treatment when there were stronger support networks from family and friends and when they had high optimism levels. Motivation and encouragement from family induced higher self-esteem, increased self-efficacy and reduced distress. The study presents a general positive relationship between perceived parental involvement and adherence to treatment.

Bertrand et al. (2013) looked at the relationship between changes in parenting and adolescents' SUD. They revealed maternal usage of services led to an increase in their adolescent self-disclosure and a reduction in SUD as they perceived their mothers as warm, supportive and friendly. These findings may help explain those of this study showing a weak positive correlation between maternal involvement

and adherence to treatment and a weak negative correlation between perceived paternal involvement and adherence to treatment. It might be the case that mothers are perceived as mother empathetic by their adolescent children hence being rated higher than fathers on involvement. It is likely therefore that this perception may have a healthy contribution to the effectiveness of in-patient treatment of adolescent clients with substance use disorders.

Robst et al. (2014) studied family involvement in the treatment of adolescents in inpatient centres with a sample of 1505 adolescents (888 males, 617 females). Mothers were the primary family members involved since they averaged more than 17 contacts in comparison with 5 contacts by the father with the adolescent. Maternal involvement was associated with a greater likelihood that the adolescent would be discharged to an outpatient facility. The number of treatment-related contacts was more strongly related to discharge to an outpatient facility such as in-person interaction, phone sessions and treatment planning sessions. These findings also help explain the results of this current study on a weak positive correlation between maternal involvement and adherence to treatment. This might be because the mothers are perceived to make more contact with the adolescents during treatment.

Vasters (2011) looked at how adolescents got into treatment and how they viewed the elements that help or obstruct them from sticking with it. One of the things that the adolescents in the study emphasized was their family's participation in treatment

activities, stating that its absence was a determining factor in treatment dropout. The current findings indicate that parental participation may have varying influence on adherence to treatment depending on the gender of the parent, a factor that is important to consider when designing the inpatient treatment milieu for adolescents with substance use challenges.

Cornelius et al. (2017) investigated motivational narratives among adolescents and their caregivers in substance use treatment. The study found that adolescents were least interested in sobriety and did not appear to be actively involved in treatment when caregivers made treatment decisions for them when they were not motivated about treatment. This indicated that if adolescents were fully allowed to make decisions about their treatment they would be fully engaged with little parental involvement.

#### **4.4.1 Partial correlation coefficients while controlling for various demographic statistics**

The null hypothesis to be tested was:

H<sub>02</sub>: There is no relationship between parental involvement and adherence to treatment while controlling for various demographic variables; sex, level of education, having both parents, parent's marital status, having one parent, maternal highest education level and paternal highest education level

To test this null hypothesis partial correlation coefficient for each demographic variable was controlled using Spearman's correlation coefficient.

<b>Partial Correlations</b>			Perceived Parental	Perceived Maternal	Perceived Paternal
Control Variables		Adherence To Treatment	Involvement	Involvement	Involvement
SEX	Correlation	.208	.000	-.088	.031
	Significance (2- Tailed)	.080	1.000	.461	.794
Living Arrangements With Both Parents	Correlation	.128	-.693	-.299	-.760
	Significance (2- Tailed)	.283	.000	.011	.000
Level Of Education	Correlation	-.026	.014	-.055	.023
	Significance (2- Tailed)	.829	.910	.649	.850
Parental Marital Status	Correlation	-.225	.219	.133	.250
	Significance (2- Tailed)	.057	.065	.264	.034
Living Arrangements With A Single Parent	Correlation	.128	-.693	-.299	-.760
	Significance (2- Tailed)	.283	.000	.011	.000

**Table 4.13: Partial correlation coefficients while controlling for various demographic statistics**

Table 4.13 indicated that each demographic variable; sex had a zero partial correlation; level of education had a markedly weak positive correlation of 0.014; parents' marital status had a markedly moderate correlation of 0.219, living arrangements with both parents or a single parent had markedly moderate negative partial correlations of -0.693

## **CHAPTER 5**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The chapter covers a summary of findings, conclusions and recommendations arising from the relationship between perceived parental involvement and adherence to treatment among adolescent substance use disorder clients in rehabilitation centres in Kiambu County, Kenya. It will begin with the summary of findings, then conclusions and finally recommendations drawn from the study.

#### **5.2 Summary of results**

In this section, the summary of findings was discussed.

##### **5.2.1 Adherence to treatment**

Data analysis on adherence to treatment showed that 43.1% of the respondents indicated moderate adherence to treatment. Some of the common adherence to treatment activities included participating in the class program, making the bed daily, participating in group therapy sessions and taking meals frequently. This is supported by previous studies. Timlin found that 24% of the adolescents attended activities at the facility, 71% agreed to follow the treatment regimen and 15% participated in sessions with a nurse.

In terms of adherence to treatment and sex, females scored a mean of 2.22 while males recorded a mean of 1.76; although they were fewer in numbers as compared

to the males which may be an indication of the stigma associated with female SUD treatment. McHugh et al. (2018) conducted an analysis of sex and gender differences in SUD among adolescents and adults. They found that generally, females were less likely to seek SUD treatment when compared to males but there was no difference concerning treatment retention or outcome. ASU females are more likely to receive treatment than males.

On living arrangements, adolescents living with a mother only scored a mean of 1.96, while those living with both parents scored a mean of 1.76. It is worth noting that adherence to treatment would have been expected to be higher for respondents with both parents since there will be more monitoring and offering of support. Dikec (2020) did a study on adherence to prescribed treatment by adolescents with mental disorders with a sample of 142 participants (79 females, 63 males). 100 adolescents lived in nuclear families, 23 with extended family, 13 with fragmented family and 1 was raised in an orphanage. 69% of the adolescents used medication regularly while 23.9% used generally regularly. When they had a doctor's appointment; 61.3% attended regularly while 5.6% made it occasionally. This reviewed study was conducted in an outpatient psychiatric clinic and covered a number of mental disorders such as SUD, anxiety disorder and ADHD among adolescents while the current study focused on SUD treatment in rehabilitation centers. The study findings only stated the composition of the adolescents' living arrangements but did not provide details on how it affects their adherence to treatment.

### **5.2.2 Perceived Parental Involvement**

Data analysis on perceived parental involvement showed that the respondents presented low maternal involvement and low paternal involvement at 36.1% and 38.9% respectively.

On perceived parental involvement by sex, females had a mean score of 2.0 and 1.76 on perceived parental involvement and perceived maternal involvement respectively as compared to the males with a mean of 2.0 respectively. However, females have a slightly higher mean score of 2 on perceived paternal involvement while males had 1.92.

On living arrangements, perceived paternal involvement had a higher mean of 2.37 as compared to perceived maternal involvement with a mean score of 2.14. Perceived parental involvement had a mean of 2.39. The finding of a higher mean on perceived paternal involvement was unexpected given that fathers only seemed present when the respondents were living with both parents although it would imply that an adolescent draws more value when a father is involved in their treatment.

Trang et al. (2021) did a study on family-based intervention for ASU in Vietnam with 8 male adolescents and their caregivers. 4 lived with both parents, one with a mother only while 3 lived with other relatives. Attending therapy sessions together brought a sense of liberation, and improved their communication thus improving their relationship and family functioning. It also led to retention in treatment and more disclosure from the adolescents. The study was conducted both in an outpatient clinic and an inpatient centre and used interviews for data collection while

the current study only focused on inpatient rehabilitation centres and used questionnaires. The findings are consistent with the current study about having more males living with both parents however they did not give an analysis of perceived parental involvement.

### **5.3 Conclusions**

These conclusions arose from the study;

The study found that females, although fewer in number, recorded a higher score on adherence to treatment than males. However, there are no significant differences in adherence to treatment by sex

Adolescents living with a mother only scored higher on adherence to treatment than those living with both parents. However, this was an interesting finding given that the presence of both parents is expected to yield better support and monitoring. It could also mean that mothers are nurturing and thus are more present in the lives of their adolescents.

Perceived parental involvement had an equal mean score in both females and males. Perceived maternal involvement had a slightly higher mean score in males than in females. This may mean that males perceive their mothers as more involved in their treatment than their father

On living arrangements, perceived paternal involvement had a higher mean than perceived maternal involvement. This is an unexpected finding given that

adolescents with single mothers had a higher mean of adherence to treatment. It could imply that adolescent derive more benefits when their fathers are involved.

The study found a slightly weak negative relationship between perceived parental involvement and adherence to treatment. This may mean that adolescents have a low perception of their parent's involvement in their treatment because majority are either tricked or coerced into treatment or they are trying to gain independence from their parents as they try to fit into society. However, there is a slightly weak positive relationship between perceived maternal involvement and adherence to treatment. This needs further in-depth analysis.

### **5.3 Recommendations**

A number of recommendations were suggested following this study.

#### **5.3.1 Recommendations for counselors**

1. The study recommended that counsellors and psychologists working in in-patient treatment facilities make considerations for the nature and form of maternal involvement to ensure that mother-child dynamics do not dilute the effectiveness of treatment programs.
2. The study also recommended that counsellors and psychologists the use of instruments to assess the nature of parent-child relationship when adolescent clients are admitted for treatment.

### **5.3.2 Recommendations for adolescents receiving treatment**

The study recommended that adolescents in treatment regularly show up for appointments, continue to work on their recovery, and maintain positive relationships and interactions with their parents.

### **5.3.3 Recommendations for Parents of the adolescents**

The study recommended that parents create time to attend sessions with their adolescents in rehabilitation centres. This would help in working on unresolved issues, improving communication and strengthen the relationship between the parents and the adolescents.

### **5.3.4 Recommendations for further study**

1. The author recommended more research into the current forms of parental involvement that facilities have adopted while treating in-patient adolescent SUD clients.
2. The author also recommended that future research investigate the relationship between mother or fathers (separately) and adherence to treatment of adolescent SUD clients
3. A follow-up study on perceived parental involvement in post-discharge was recommended

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## APPENDICES

### APPENDIX 1: INFORMED CONSENT

I am Sharon Kabogo, a student from Kenyatta University. I am undertaking a study named: Relationship between Perceived Parental Involvement and Adherence to Treatment among adolescent substance use disorder patients in rehabilitation centres in Kiambu County, Kenya. The data will only be utilized for academic purposes. I am humbly requesting your participation by completing these questionnaires.

#### **Guidelines to be followed**

You will be requested to complete two questionnaires. Participation will be voluntary. You have a right to withdraw or decline to participate. You won't receive any payment or anything if you take part.

Your responses will remain anonymous and private. If you agree to participate, kindly sign in the space below

Contact information: in case you have any questions about the study call 072420830 or email: [sharonkabog@gmail.com](mailto:sharonkabog@gmail.com) or [karega.muchiri@ku.ac.ke](mailto:karega.muchiri@ku.ac.ke)

Kind regards,

Sharon Kabogo

**Signature:** -----

**APPENDIX 2: QUESTIONNAIRE**

**Section A: Demographic information**

**Please answer the following questions:**

1. Sex: .....

2. Age: .....

3. Indicate your current level of education: (tick where appropriate)

No education	Primary	Secondary	College	TVET	University

4. Indicate your mother's/female guardian's marital status: (tick where appropriate)

Single	Married	Separated	Divorced	Widowed

5. State your father's/ male guardian's marital status: (tick where appropriate)

Single	Married	Separated	Divorced	Widowed

6. Specify your mother's/female guardian's highest education level: (tick where appropriate)

No education	Primary	Secondary	College	TVET	University

7. State your father's/ male guardian's highest education level: (tick where appropriate)

No education	Primary	Secondary	College	TVET	University

8. How long have you been in the rehabilitation centre?.....

9. What is your primary drug of choice?.....

10. Is this your 1<sup>st</sup> admission for rehabilitation? Yes/No (Circle where appropriate)

**Section B**

This section contains three tables, kindly answer where appropriate

**Subsection1: Please rate the following statements according to the scale:**

<b>To what degree do you agree with these statements, while going through treatment:</b>	<b>Not at all</b>	<b>Sometimes</b>	<b>Not sure</b>	<b>Most times</b>	<b>All the time</b>
1. I take medication given to me by the doctor/nurse					
2. I participate in the class program					
3. I never do my assigned duty in the dormitory/compound					
4. I take all the meals as proposed by the nutritionist					
5. I make my bed daily					
6. I attend my psychiatric review					
7. I never participate in family therapy sessions together with the counselor					
8. I rarely participate in individual counselling sessions with my counsellor					
9. I participate in games in the evening					
10. I rarely do my laundry weekly					
11. I participate in group therapy/sessions					

**Subsection 2: Please rate the following statements**

<b>To what degree do you agree with these statements;</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Moderate</b>	<b>Agree</b>	<b>Strongly agree</b>
1. My mother enjoys spending time with me in rehabilitation					
2. My mother never supports my decisions about treatment					
3. My mother shows me love and affection					
4. My mother makes sure I have what I need while in rehabilitation					
5. My mother encourages me to continue with the program					
6. My mother never celebrates with me when I've done something well while in rehabilitation					
7. My mother gives me sound and appropriate advice while in rehabilitation					
8. My mother doesn't care about my feelings and emotions while in rehabilitation					
9. My mother listens when I want to talk while in rehabilitation					
10. My mother rarely helps me cope with my problems and issues while in rehabilitation					
11. My mother attends programs such as Family Day					
12. My mother attends family therapy sessions					
13. My mother knows and interacts with management and staff in the rehabilitation					
14. My mother participates in decision-making processes about my treatment					
15. My mother rarely talks to a counsellor about my progress					
16. My mother talks to a nurse/psychiatrist about my progress					
17. My mother considers my point of view when making decisions concerning me while in rehabilitation					
18. My mother hardly listens to my opinion and point of view even when I disagree with her while in rehabilitation					
19. My mother is open to my thoughts and feelings even when hers is different while in rehabilitation					
20. My mother uses guilt to control me while in rehabilitation					
21. My mother makes me feel ashamed so that I can change while in rehabilitation					

**Table 3: Please rate the following statements:**

<b>To what degree do you agree with these statements;</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Moderate</b>	<b>Agree</b>	<b>Strongly agree</b>
1. My father enjoys spending time with me in rehabilitation					
2. My father never supports my decisions about treatment					
3. My father shows me love and affection					
4. My father makes sure I have what I need while in rehabilitation					
5. My father encourages me to continue with the program					
6. My father never celebrates with me when I've done something well while in rehabilitation					
7. My father gives me sound and appropriate advice while in rehabilitation					
8. My father doesn't care about my feelings and emotions while in rehabilitation					
9. My father listens when I want to talk while in rehabilitation					
10. My father rarely helps me cope with my problems and issues while in rehabilitation					
11. My father attends programs such as Family Day					
12. My father attends family therapy sessions					
13. My father knows and interacts with management and staff in the rehabilitation					
14. My father participates in the decision-making processes about my treatment					
15. My father rarely talks to a counsellor about my progress					
16. My father talks to a nurse/psychiatrist about my progress					
17. My father considers my point of view when making decisions concerning me while in rehabilitation					
18. My father hardly listens to my opinion and point of view even when I disagree with her while in rehabilitation					
19. My father is open to my thoughts and feelings even when hers is different while in rehabilitation					
20. My father uses guilt to control me while in rehabilitation					
21. My father makes me feel ashamed so that I can change while in rehabilitation					

### APPENDIX 3: NACOSTI LICENCE

  
**REPUBLIC OF KENYA**

  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION**

RefNo: **576541** Date of Issue: **25/March/2023**

**RESEARCH LICENSE**



**This is to Certify that Ms. Sharon Kabogo of Kenyatta University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Kiambu on the topic: RELATIONSHIP BETWEEN PERCEIVED PARENTAL INVOLVEMENT AND ADHERENCE TO TREATMENT AMONG ADOLESCENTS SUBSTANCE USE DISORDER CLIENTS IN REHABILITATION IN KIAMBU COUNTY, KENYA for the period ending : 25/March/2024.**

License No: **NACOSTI/P/23/24414**

**576541**  
Applicant Identification Number

  
Director General  
**NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION**

Verification QR Code



**NOTE: This is a computer generated License. To verify the authenticity of this document,  
Scan the QR Code using QR scanner application.**

**See overleaf for conditions**

## APPENDIX 4: ETHICAL RESEARCH APPROVAL



KENYATTA UNIVERSITY  
GRADUATE SCHOOL

E-mail: [dean-graduate@ku.ac.ke](mailto:dean-graduate@ku.ac.ke)

Website: [www.ku.ac.ke](http://www.ku.ac.ke)

P.O. Box 43844, 00100  
NAIROBI, KENYA  
Tel. 810901 Ext. 4150

Internal Memo

FROM: Executive Dean, Graduate School

DATE: 24<sup>th</sup> February, 2023

TO: Kabogo Sharon  
C/o Psychology Dept.

REF: C50/CTY/PT/37204/2017

**SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL**

This is to inform you that Graduate School Board at its meeting of 15<sup>th</sup> February, 2023 approved your Research Project Proposal for the M.A Degree Entitled, "Relationship between Perceived Parental Involvement and Adherence to Treatment among Adolescent Substance Use Disorder Clients in Rehabilitation in Kiambu County, Kenya".

You may now proceed with your Data Collection, Subject to Clearance with Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed supervision tracking and progress report forms per semester. The forms are available at the university's website under Graduate School webpage downloads.

Also, please ensure that you publish article(s) from your project before submitting it to Graduate School for examination as per the Commission for University Education and Kenyatta University guidelines.

Thank you.

  
ELIJAH MUTUA  
FOR: EXECUTIVE DEAN, GRADUATE SCHOOL

c.c. Chairman, Psychology Department.

Supervisors:

1. Dr. Muchiri Karega  
C/o Department of Psychology  
Kenyatta University

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### APPENDIX 5: WORK PLAN

Month	May 2019- August 2022	Sept-Dec 2022	January-March 2023	April-Dec 2023	Jan 2024	Feb-April 2024	May 2024	June 2024	July 2024
Activity									
Proposal formulation, Amendments & defense									
Approval from Graduate school									
Research permits and letters of Authorization									
Collection of data									
Entry of data									
Data Analysis									
Report Writing									
Amendments									
Final submission for grading									