THE RELATIONSHIP BETWEEN CHILDHOOD TRAUMA AND OPIOID ADDICTION AMONG CLIENTS AT SAPTAs HARM REDUCTION PROGRAM, NAIROBI COUNTY, KENYA.

BY:

CATHERINE WANJIRU MUTHIANI

(18S03EMCP002)

A THESIS PAPER SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF ARTS IN COUNSELING PSYCHOLOGY IN THE COUNSELING PSYCHOLOGY DEPARTMENT, SCHOOL OF HUMANITIES AND SOCIAL SCIENCES OF AFRICA NAZARENE UNIVERSITY.

JULY 2024

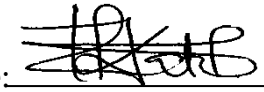
DECLARATION

Student Declaration

I declare that this document and the research it describes are my original work and that they have not been presented in any other university for academic work

Catherine Wanjiru Muthiani

18S03EMCP002

Signature:  Date: 3rd July, 2024

Supervisors' Declaration

This research was conducted under our supervision and is submitted with our approval as university supervisors

Supervisor Name: **Revd. Dr. James N. Mbugua**

University Supervisor Signature:  Date: 4th July, 2024

Supervisor Name: **Dr. Susan Wambui Gitau**

Senior Lecturer, Department of Counseling Psychology,

Africa Nazarene University.

Signature  Date 4th July 2024

DEDICATION

I dedicate this research report to my late husband Marvin who provided me with the financial resources and encouraged me to reach my academic exploits. I also dedicate this to people who use drugs as a way of numbing known and unknown pain. Lastly, to the clinicians who work with such clients help them understand their pain and help them build resilience to rise above their pain and addiction and find life more meaningful.

ACKNOWLEDGEMENT

I would like to acknowledge Africa Nazarene University for the opportunity to add a voice to the body of knowledge through research. I would like to thank Dr. Priscillah Mugambi for her guidance in developing the concept for this study and for her dedicated service as the Head of Psychology department. I am grateful to my supervisor, Rev.Dr. James Ng'ethe Mbugua and Dr. Susan Wambui Gitau for their guidance, encouragement, and support while writing this work. I would like also to acknowledge the management of SAPTA for allowing me to conduct this study in their program and to the respondents who made this study possible.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Childhood traumas have been linked to different forms of psychopathology such mood, substance use and anxiety disorders. Until recently, studies have focused on the impact of adverse childhood experiences on children and adolescents without a focus on their adult addictive behaviours. In consequence, most addiction treatment protocols do not explicitly provide the need to provide trauma-informed interventions for persons with substance use disorders. This research was carried out to establish the relationship between childhood trauma and opioid addiction among clients at the SAPTA harm reduction program, in Nairobi County, Kenya. The specific objectives of the study were; to establish whether childhood emotional abuse, parental neglect, and parental separation and divorce result in adult opioid use disorder and to advocate for trauma-informed interventions for clients with opioid use disorders (OUD). A total of 332 clients receiving services at the SAPTA's harm reduction program participated in the study; 267 male and 63 female. A combination of stratified and purposive sampling methods was used for the study with data collected through self-reported and interviewer-guided questionnaires. SPSS software was used to analyze data which was presented using descriptive statistics and content analysis using quantitative and qualitative techniques and the use of Pearson correlation and regression analysis. 89% of the respondents presented with severe OUD, 62% were currently on methadone with 43% had been on the program for more than 3 years. The study found a strong positive correlation (+1) between the studied childhood trauma experiences and adult OUD Out of the 332 respondents, 92 % had been exposed to emotional abuse, 96% to parental neglect, and 72% to parental separation. Significant associations between childhood trauma and OUD were revealed. Emotional abuse emerged as a significant predictor of adult OUD, with individuals reporting emotional abuse during childhood being three times more likely to develop OUD. Parental neglect was also found to significantly increase the likelihood of OUD, with neglected individuals twice as likely to develop OUD. Parental separation exhibited a profound association with adult OUD, with affected individuals being eight times more likely to develop OUD. The study found that even though counselling services were available, 72% attended at least one counselling session, out of those only 51% explored adverse childhood experiences during the sessions. This study confirmed severe OUD and a high prevalence of childhood trauma among clients receiving harm reduction services. This espouses the need to screen, assess, and develop trauma-informed treatment plans for every client. The severity of OUD identified warrants the need for medication-assisted treatment complimented by well-outlined behavioural expectations when one is on methadone. Additionally, trauma-informed interventions for the clients and their families, addressing environmental risk factors, providing recovery support services, safe spaces for men to speak out, love, protection, and supervision of children and adolescents are recommended. The study provides valuable insights for clinical practice and policy development in preventing and addressing OUD among vulnerable populations.

OPERATIONAL DEFINITION OF TERMS

An adult: A person who is fully grown or developed. According to this study, an adult is any individual male or female above the age of 18 years using opioids with possible childhood trauma experiences.

Childhood trauma: Defined by the National Institute of Mental Health as the experience of an event by a child that is emotionally painful or distressful, this often results in lasting mental and physical effects. For this study, childhood trauma refers to distressing experiences undergone during the first 18 years of life, the person either experiences emotional abuse, or parental neglect, or the parents have separated or divorced which further predisposes them to the possibility of substance use

Emotional abuse: A behaviour which one deliberately uses to demean. The operational definition of emotional abuse is growing up in a non-caring environment which saw one as a child belittled, shamed and their behavior criticized as faulty and undeserving of love and affection.

Opioid addiction: The psychological and physiological dependency of opioids with cravings to use opioids despite the negative consequences; also referred to as opioid use disorder in the study.

Parental neglect: Defined as failure to provide a child's needs. In the study, parental neglect refers to the lack of provision of basic needs such as food shelter, and education, emotional needs, and lack of supervision by the parent putting the child at risk of seeking love and affection outside the parent.

Parental separation: In this study, it is defined as a situation whereby both parents discontinue their couple relationship including divorce leaving the children under the custody of one parent or a guardian mostly without parental involvement of the other parent in the child's upbringing.

Trauma-informed care (TIC): These are treatment approaches whose aim is to increase practitioners' awareness of how trauma negatively impacts children and adults and reduce practices that might inadvertently re-traumatize clients. TIC aims to increase service providers' sensitivity so that users perceive them as trustworthy and feel safe to disclose traumatic experiences.

Trauma: An emotional response to an event or situation that one finds overwhelming. In the study, trauma is referred to as an event, series of events, or set of circumstances that are experienced by an individual putting them at risk of developing depression, anxiety, and posttraumatic stress disorder resulting in the use of drugs as a means of coping.

LIST OF ABBREVIATIONS

ACES	Adverse Childhood Experiences
APA	American Psychological Association
ASAM	American Society of Addiction Medicine
CTIPP	Centre for Trauma-Informed Policy and Practice
HIV	Human Immunodeficiency Virus
MAT	Medication Assisted Treatment
NACADA	National Authority for Campaign Against Drug Abuse
NOSET	The Nairobi Outreach Services Trust
OUD	Opioid Use Disorder
PWID	People Who Inject Drugs
SAMHSA	Substance Abuse and Mental Health Services Administration
SAPTA	Support for Addiction Prevention and Treatment in Africa
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNODC	United Nations Office of Drugs and Crime
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

This study was carried out to establish the relationship between childhood trauma and opioid addiction among clients at the SAPTA harm reduction program, in Nairobi County, Kenya. Childhood trauma, defined as adverse experiences that occur during childhood and overwhelm a child's ability to cope, has been extensively studied in relation to various psychopathologies and maladaptive behaviors in adulthood (Sheffler et al., 2019). The impact of childhood trauma extends to multiple domains of an individual's life, including mental health, social relationships, and physical health (McLaughlin et al., 2013). Substance use disorders, particularly opioid use disorder (OUD), have been identified as one of the outcomes associated with childhood trauma (Salihu, et al., 2019).

The prevalence of childhood trauma and its association with substance use disorders have been documented in various countries, including the United States, the United Kingdom, Canada, and now, Kenya. Despite the differences in cultural contexts, socioeconomic factors, and healthcare systems, the common thread remains: childhood trauma significantly increases the risk of developing substance use disorders later in life (NACADA, 2019).

Understanding the relationship between childhood trauma and opioid addiction is crucial for developing effective interventions and treatment strategies. By addressing underlying trauma issues, treatment programs can provide more holistic and personalized care to individuals with OUD, leading to better outcomes and reduced rates of relapse (American Psychiatric Association, 2022) (Goodman, 2017).

This chapter highlights the background of the study, statement of the problem, the purpose of the study, objectives of the study, research questions, hypothesis, significance of the study, assumptions of the study, scope of the study, limitations, and delimitations of the study, and the conceptual framework.

1.2 Background of the Study

Trauma can be described as negative events that are emotionally painful to the extent of overwhelming a person's ability to cope. The World Health Organization refers to traumas in childhood as childhood maltreatment which includes physical/emotional/sexual abuse, neglect, and exploitation that occurs before the age of 18 years (World Health Organization, 2022). Exposure to such traumas is a risk factor for the development of various forms of psychopathology such as post-traumatic stress disorder, depression, anxiety, conduct disorders, and substance abuse (McLaughlin et al., 2013). In America, about 11% of children in the population experience child abuse or trauma (Schilling & Christian, 2014). Statistically, in the United Kingdom, Canada, and the United States most of the people who experience childhood traumas do not receive the attention they need to process the trauma putting them at risk of homelessness, suicidal behaviors, substance misuse, major depressive disorder, and victimization (Graf et al., 2021).

Traumatic experiences are known to present with various forms of psychopathology, findings from a South African study found 60 to 70% of children exposed to traumatic experiences presented with dissociation with those with early exposure being at a higher risk (Van, 2023). Dissociation though not directly linked to addiction is an indication that a traumatic experience has an impact on a person which can cause maladjustment in day-to-day functioning. A traumatized person is likely to engage in self-destructive behaviours such as using drugs or projecting their pain onto

others. A study in South Africa on child abuse and domestic violence showed that the majority of the perpetrators had experienced one or more forms of childhood abuse with correlated problems being binge drinking, post-traumatic stress disorder, and depression (Machisa et al., 2017).

In Kenya, a report released by the National Campaign Against Drug Abuse (NACADA) indicated that the average age of onset of substance use among school-going children was eleven years with an early onset of four years (NACADA, 2019). According to the report, some of the identified risk factors for drug use were childhood abuse and neglect. The findings agree with a report released by ChildLine Kenya (2016) indicating that child neglect is the number one form of child abuse in Kenya which creates opportunities for other forms of abuse (Tuikong, 2020). In 2019 a national survey conducted by the Ministry of Labour and Social Protection on violence against children established that nearly half of Kenyans suffer abuse (sexual, physical, and emotional) (UNICEF, 2020) and in most cases, the perpetrators were people well known to the victim. Most of those violated did not report the abuse; consequently, this increased the vulnerability to engaging in risky behavior. Those children who experienced the three forms of violence; sexual violence, physical violence, or emotional violence in childhood were found to be significantly more at risk of experiencing mental distress and suicidal ideations than those who did not (UNICEF, 2020). These vulnerabilities can serve as predisposing factors to substance use disorders including opioid use disorder (OUD).

To establish the connection between childhood trauma and opioid use disorders, it is essential to look at what is an opioid use disorder (OUD). OUD is the problematic pattern of opioid use leading to clinically significant impairment or distress (American Psychiatric Association, 2022). Opioids are a class of drugs that

can be used for medical reasons in the management of pain or recreational purposes. Heroin is one of the most abused opioids; it can be injected, smoked, or snorted. Methadone, a synthetic opioid is administered orally as replacement therapy for people dependent on other opioids. Opioid use disorder can arise from prescription opioids (such as morphine, pethidine, codeine, and vicodin) or illicit opioids such as heroin.

Opioid use disorder (OUD) is a progressive condition with different sources giving different stages with most sources identifying addiction starting from experimentation and progressively developing to dependence and compulsive stage. At the experimental stage, one is driven by curiosity and the desire to seek pleasure, if at this stage one experiences positive reinforcement, they progress to the circumstantial stage whereby the motivation for using is influenced by circumstances and events; for instance, someone may use because the peers are using, or use opioids as a coping mechanism to deal with life's difficulties such as loss or stress. With time, someone becomes a regular user and opioids become an important part of their life; it is at this stage that one develops tolerance and dependence symptoms. The last stage in the process of opioid addiction and any other addiction is the compulsive stage or the disease stage, here the person does not have control over the use of opioids and is considered to have severe opioid use disorder. Much of their daily activities are planned around obtaining the drug, using it or recovering from its effects making them unable to work, take care of themselves or even maintain healthy relationships which provide the clinical significance for diagnosis of the condition. OUD therefore is characterized by signs and symptoms of compulsive chronic administration of opioid substances for the purpose of getting high (American Psychiatric Association, 2022). Tolerance and withdrawal symptoms arise if the drug is abruptly withdrawn, a

reason that pushes users to engage in criminal activities and other vices to maintain their supply.

Opioids continue to be the group of substances with the highest contribution to severe drug-related harm, including fatal overdoses. According to the World Drug Report (UNODC, 2022), the use of opioids accounted for over 70% of 18 million "healthy" years of life lost due to disability and premature death (DALYs) attributed to drug use disorders in 2019 (UNODC, 2022). In the same year, 62 million, people were estimated to have used opioids for non-medical reasons globally. More than 58% of the global estimate of opioid use is said to reside in Asia. The drug problem in Southeast and Southwest Asia was a serious problem particularly in the production of opium and heroin (Kulsudjarit, 2004), with injecting drugs leading to rapid spread of HIV/AIDS in Southeast and Southwest Asia. North America leads with prevalence of 3.6% with non-medical use of pharmaceutical opioids as a major concern in West and North Africa (UNODC, 2022). There were no particular statistics that were provided for Kenya in the report.

A rapid situational assessment of people who inject drugs (PWID) in Nairobi and coastal regions of Kenya in 2021 showed that opioid use is more common among males than it was for females, with males(91%) accounting for the users in the study (Oguya et al., 2021). The study also established that most PWIDs initiated injecting drug use between the ages of 20–29 years, with the youngest age of initiation being 11 years and oldest age being 53 years. Just like in the NACADA study discussed above, the pre-teen period is identified as a vulnerable stage in development of drug use problems, and therefore targeted prevention and treatment efforts should consider developmental transitions.

For years, the coastal part of Kenya has been associated with heroin use; a phenomenon that is different now, studies showed that the current prevalence of opioid use ranged from 0.1% in the general population in 2017 (NACADA, 2017). Another study found that an estimated 18,000 to 30,000 people in Kenya who were injecting drugs had a higher HIV prevalence than that of the general population (Mbogo et al., 2022). Such a high HIV prevalence rate is what prompted the government and other stakeholders to start harm reduction programs (Rhodes et al., 2015). SAPTA is one such program which according to its website, it has served close to 4000 people who inject drugs mainly heroin in Nairobi County alone as at 2018 (SAPTA, 2023). The socioeconomic burden of OUD is profound, lost productivity, lost lives, the cost of care, and family disruption (Degenhardt et al., 2019), necessitates the need to look at the underlying causes in order to provide targeted interventions.

1.2.1 SAPTAs Harm Reduction Program

This study was carried out in SAPTAs four drop-in centers. SAPTA is an acronym for Support for Addictions Prevention and Treatment in Africa, a non-profit organization that was registered in 2004. The objective of the organization is to provide addiction prevention and treatment services using community-based interventions (SAPTA, 2023). The organization highlights an expanded vision of addressing mental health and a trauma informed approach to service provision (SAPTA, 2023), even with the harm reduction program. The harm reduction program uses the WHO guidelines of working with people who inject drugs (PWIDs). Implementation of the program is through the outreach model across four out-patient drop-in centers namely Pangani, Githurai, Kayole, and Kawangware which are funded by Global Fund through the Kenya Red Cross. Agreeing with findings by the

(UNODC, 2020) on persons found to use heroin and phenobarbital, most of the clients served by the organization are from informal settlements which are characterized by limited social amenities, crime, and domestic violence, conditions that serve as risk factors for childhood trauma development.

Other demographic characteristics for the clients receiving services at the drop-in centers have no jobs, others are school dropouts, others are homeless or living with acquaintances, and some are involved in sex work with others living with Human Immunodeficiency Virus (HIV). Interventions provided are behavioural, structural, and biomedical. According to the organization, provision of educational materials, issuing condoms, outreach and education, risk assessment, prevention and addiction counselling, evidence-based interventions, and support groups (SAPTA, 2023). The biomedical interventions include; HIV, hepatitis, and tuberculosis testing and treatment services, needle and syringe program, medically assisted therapy referral and follow-up and comprehensive sexual and reproductive health services. Structural interventions include nutritional support, hygiene services, and a safe space and entertainment (SAPTA, 2023).

1.3 Statement of the Problem

Trauma and addiction are widespread costly public health problems. Co-occurring causes of trauma and addiction could among other factors be caused by neglect, abuse, losses, and other emotionally injurious experiences (Substance Abuse and Mental Health Services Administration, 2014). The impact of neglect, trauma, or emotional loss is not the immediate pain they inflict but the long-term distortions they induce in the way a developing child will continue to interpret the world and their situations, (Maté, 2011). This therefore means that, there is a need to explore traumatic experiences in clients for effective behavioural health service delivery for

programs such as harm reduction programs. A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices (Substance Abuse and Mental Health Services Administration, 2014).

The National Protocol for Treatment of Substance Use Disorders (SUD) in Kenya by the Ministry of Health in 2017 recommends the use of both pharmacological and psychological interventions for SUD clients, the protocol outlines that the therapist should assess drug use history, motivation and readiness, family, vocational and treatment histories. Such guidelines do not explicitly emphasize the need to assess traumatic childhood experiences or provide interventions that are trauma-focused. As given in the background, most clients with opioid use disorders come from dysfunctional families, are unemployed, homeless, living, or have grown up in informal settlements. Such circumstances are predisposing factors to various forms of trauma either as a child or an adult.

Harm reduction programs such as the one in which the study was conducted seek to improve the quality of life of drug users, reduce harm caused by illicit drugs, and reduce criminal activities. One of the key pillars of the harm reduction program is a referral for medication-assisted therapy (MAT) where clients are given methadone. A 2004 WHO/UNODC/UNAIDs position paper on replacement therapy suggested that among other guidelines, the maximum length of treatment should be left to the practitioners' clinical call depended on assessing the patient. The same paper recommends that programs should monitor treatment quality and outcome to ensure that they align with good medical practice and clinical guidelines in place. Currently,

some clients are reaching out for harm reduction services not because they want to improve their lives, stop using drugs or benefit from the psychosocial interventions provided but because they are looking for a cheaper way to get intoxicated. They achieve this by '*kuchakachua'* which means using other drugs while still receiving methadone, Heroin is more expensive than alcohol and cannabis, so with methadone in their system, small amounts of alcohol, marijuana, or even in some cases glue make them high. Nevertheless, such persons are still engaged in criminal behaviours with little to show in terms of improved quality of life.

The Nairobi County proposed the Harm Reduction Bill 2022 which among other things, the bill seeks to promote and provide for psychosocial support, treatment and rehabilitation of persons with drug use, their families and the community in general. In practice, most harm reduction programs advocate adherence to methadone than psychotherapy, clients fall through the cracks between the methadone clinics and the drop in facilities where counsellors are domiciled. The renowned addiction and trauma expert, (Maté, 2010), posits that, "It is impossible to understand addiction without asking what relief the addict finds, or hopes to find, in the drug or the addictive behaviour" (p.33). Psychotherapy and trauma-responsive interventions provide the framework to understand the pain and the relief that clients with substance use disorders are looking for. Such understanding makes it possible to provide effective targeted comprehensive services with the necessary stakeholders involved.

In most cases, clients receiving harm reduction services have been involved in criminal activities, experienced discrimination and stigma, used defensive and aggressive behaviours as defense mechanisms. When they act as such at the facilities, they are in return met with indifference with little interest in understanding what makes them behave the way they do. If service providers understand how prevalent

childhood trauma and receive training in trauma-informed care, it will be possible to screen for trauma before induction to methadone, create safe spaces where clients can feel accepted, understood and empowered. This kind of approach to their drug use problems may lessen their need to seek validation and acceptance among other drug-using peers, the need to make other people pay for their pain by engaging in criminality, aggressive behaviours, and continued drug use. When such is achieved, the society will be healthier through reduced crimes, fewer dysfunctional families, less dependence on drugs; fewer years spent on methadone maintenance programs, increased self-awareness, better identification of needs and empowerment on how to meet them and less burden on the health care system among other benefits.

This study therefore sought to establish the relationship between childhood trauma and opioid use disorders, and provide evidence that trauma is a common human experience and the long term impact of such experiences if they happen in childhood. The research hopes that, beyond showing cause to have explicitly trauma-informed approaches stated in the treatment protocols for rehabilitation and treatment of persons SUDs, that addressing trauma and drug use is not the preserve of the health care system, everyone in the community has a role to play in prevention, treatment and recovery support.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of this study is to establish the relationship between childhood trauma and opioid use disorder among clients at the SAPTA harm reduction program in Nairobi County, Kenya.

1.4.2 Specific Objectives

The specific objectives of the study will be to;

1. Establish whether childhood emotional abuse contributes to adult opioid use disorder among clients at SAPTA's harm reduction program in Nairobi County, Kenya**.**
2. Assess the relationship between parental neglect and adult opioid use disorder among clients at SAPTAs harm reduction program in Nairobi County, Kenya
3. Evaluate the relationship between parental separation and divorce and adult opioid use disorder among clients at SAPTAs harm reduction program in Nairobi County, Kenya.
4. Recommend trauma-informed interventions for clients with opioid use disorders at SAPTA harm reduction program in Nairobi County, Kenya

1.5 Research Questions

The study will attempt to answer the following research questions:

1. Does childhood emotional abuse relate with adult opioid use disorder among clients at SAPTA harm reduction program in Nairobi County, Kenya?
2. To what extent does parental neglect impact adult opioid use disorder among clients at SAPTA's harm reduction program in Nairobi County, Kenya?
3. How do parental separation and divorce influence adult opioid use disorder among clients at SAPTA's harm reduction program in Nairobi County, Kenya?
4. How trauma can trauma-informed interventions be applied when working with adult clients with opioid use disorder at SAPTA's harm reduction program in Nairobi County, Kenya?

1.6 Significance of the Study

According to the World Drug Report, the use of opioids accounted for over 70% of 18 million “healthy” years of life lost due to disability and premature death (DALYs) attributed to drug use disorders in 2019 (UNODC, 2022). A national survey conducted by the Ministry of Labour and Social Protection on violence against children established that nearly half of Kenyans suffer abuse (sexual, physical, and emotional) (UNICEF, 2020). Globally, significant efforts have been made in providing evidence-based interventions for substance use and related problems. Despite the statistics showing the impact of OUD and the prevalence of childhood traumas, treatment protocols have not emphasized the need to offer trauma responsive interventions as a foundation for offering evidence based interventions. The study to establish the relationship between childhood trauma and addiction among people with opioid addiction in order to raise ideas and issues in the hope that treatment providers and other stakeholders who work with clients with opioid use disorders can learn from. The stakeholders who can benefit from the study include; the government of Kenya, NACADA, Global Fund, the Kenya Red Cross, SAPTA, addiction treatment centers, and professionals working with patients with opioid use disorders.

The study's findings offer valuable insights for policymakers and government agencies involved in public health initiatives and substance abuse prevention efforts. It underscores the importance of trauma-informed care within addiction treatment programs, advocating for appreciation of the high prevalence of childhood trauma and the need to integrate trauma screening treatment and client empowerment in collaboration with multiple stakeholders within the existing health care system.

In clinical practice, healthcare professionals working with individuals suffering from opioid use disorder (OUD) can benefit from understanding the role of

childhood trauma in assessment, diagnosis, and treatment planning. Trauma-informed care emphasizes creating safe and supportive environments that acknowledge trauma's impact and foster empowerment and recovery. The researcher hopes incorporating trauma-informed principles into clinical practice will enhance and promote improved treatment outcomes.

Lastly, the findings of this study lay the foundation for criticism and future research and exploration of additional factors influencing the relationship between childhood trauma and substance use disorders, including environmental, cultural, and socio-economic factors, to inform more targeted interventions.

1.7 Scope of the Study

The general objective of this study was to establish the relationship between childhood trauma and opioid use disorder among clients at SAPTA's harm reduction program in Nairobi County, Kenya. Experiences which happen in our early years of life significantly influence human behaviour, either consciously or unconsciously. When such experiences are traumatic, people find different ways of soothing the pain resulting from it, use of drugs is considerably one of the ways people choose to numb the pain. The study subjects were persons with opioid use disorders who were receiving services at SAPTAs harm reduction program. Most of the participants live in informal settlements while others are homeless; circumstances which may likely predispose them to neglect, emotional abuse and dysfunctional home environment.

SAPTAs harm reduction program was selected as the study site as it is one of the largest harm reduction programs in Africa serving in locations where the risk of exposure to traumatic experiences is high. The study carried out between February and April 2024 covered SAPTAs 4 drop-in centers namely, Kayole, Pangani, Githurai

and Kawangware all of which are in informal settlement areas and mapped out to have high prevalence of heroin use.

1.8. Delimitations

The estimated population of clients receiving harm reduction services is 4000 (SAPTA, 2023), the study reached 332 responses out of the anticipated sample size of 385 respondents between the month of February 2024 and April 2024. The researcher could not cover the whole population due to time and resource constraints. Addiction can be caused by various factors such as peer pressure, lack of employment, and genetic and environmental factors with associated social, physical, and mental problems; this study only focused on childhood trauma, related mental problems, and interventions for addressing the same. There are many variables that are identified as adverse childhood experiences, this study however explored emotional abuse, parental neglect and parental separation, and divorce and their relationship with opioid addiction.

1.9 Limitations of the Study

This research coincided with another program research at the study sites which delayed the process. Participants also expected incentives from the researcher since they were receiving incentives from the program researcher. Other limitations included non- response, fear of victimization, lack of space to meet participants in one location where they could not cause chaos, illiteracy and bureaucracy. To overcome these limitations, the researcher used the introduction letter from the university to facilitate approval by the management to carry out the study; to maintain privacy and confidentiality the respondents did not provide their names in the questionnaires. The researcher had to provide a small incentive and explain that the study was for academic purpose and not program activities. Those who were not able to read and

write were be helped in filling the questionnaires by the researcher and research assistants with the purpose of the study explained to help in alleviating fears of victimization.

1.10 Assumptions

The researcher assumed that the respondents were available in the drop-in centers which were studied, cooperative and truthful in their responses.

1.11 Theoretical Framework

This is the structure describing the theories that guided the research process. The researcher used the Self-Medication Hypothesis theory (SMH) and the Contemporary Trauma Theory (CTT).

1.11.1 Self-Medication Hypothesis (SMH) Theory

This theory posits that pain and suffering are the causes of addictive disorders. Drug-dependent individuals are said to be predisposed to addiction because they suffer painful emotional states and psychiatric conditions. Painful experiences and subjective states of distress are important psychological determinants in using, becoming dependent upon, and relapsing to addictive substances (Khantzian, 1997). This study therefore sought to establish whether traumatic experiences during childhood were correlated with opioid use disorder.

1.11.2 Contemporary Trauma Theory

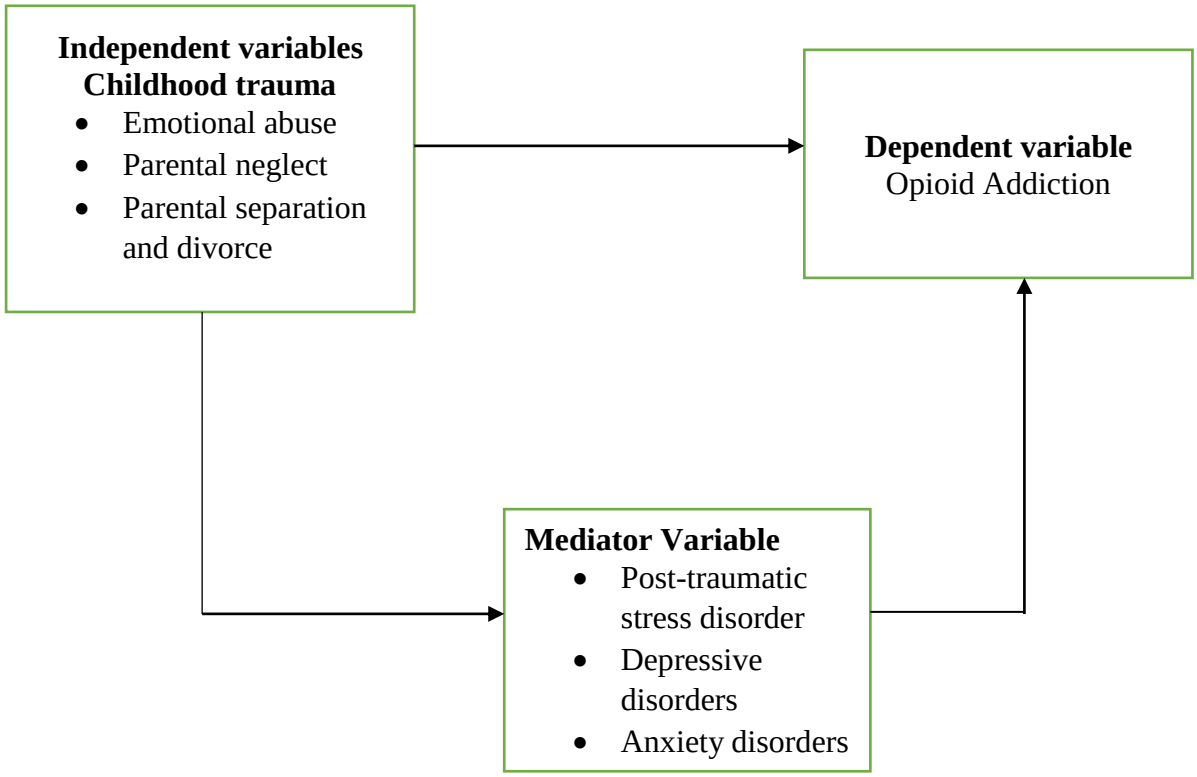
Contemporary Trauma Theory argues that dysfunctionality in a person is a manifestation of unresolved trauma and impaired emotional regulatory skills (Goodman, 2017). CTT provides the foundation of trauma-informed approaches providing a shift from the question," What is wrong with you? to "What happened to you?" (Moxley & Garrison, 2023). This study sought to understand the underlying

cause of opioid addiction by studying its relationship with childhood traumas and how people affected can be empowered through increased self-awareness and better-coping mechanisms by integrating trauma-informed care in clinical practice.

1.12 Conceptual Framework

The basis as to why a certain project should be conducted in a particular way is explained by a conceptual framework (Kothari, 1990). Factors that affect, influence, or cause effects on outcomes are referred to as independent variables while factors that depend on the independent variables are referred to as dependent variables.

Figure 1: Conceptual framework.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature related to the relationship between childhood trauma and adult opioid use disorders. Relevant literature related to emotional abuse, parental neglect, parental separation, divorce, and trauma-informed interventions are reviewed to empirically connect with the study objectives with a summary of gaps identified provided at the end of the chapter.

2.2 Review of the Literature

2.2.1 Theoretical Review of Literature

The theoretical review provides the philosophical basis explaining why a research problem exists. Further to that, it provides the link between theoretical aspects and the practical components under study. The theoretical review helps to make logical sense of the relationship of the variables and factors that have been deemed important to the problem and provides definitions of the relationships between all the variables so that the theorized relationship between them can be understood. For the purpose of this study, two theories are reviewed, the Self-medication hypothesis theory and the contemporary trauma theory.

2.2.1.1 Self-Medication Hypothesis (SMH) Theory

The Self Medication Hypothesis theory was derived from clinical evaluation and treatment of thousands of patients with the focus being on how and why persons are attracted to develop a dependence on heroin and cocaine (Khantzian, 1985) (Khantzian, 1997). This theory posits that pain and suffering are the causes of addictive disorders. Drug-dependent individuals are said to be predisposed to addiction because they suffer painful emotional states and psychiatric conditions.

Drugs and addictive behaviors are said to provide short-term relief to painful and psychological problems. Through experimentation, a person discovers that certain drugs can manipulate emotions that are most painful and unwanted. People with opioid disorders prefer opiates because of their powerful numbing on the disorganizing and distressing effects of rage and aggression (Khantzian, 1985) (Khantzian, 1997). Painful effects experiences and subjective states of distress are important psychological determinants in using, becoming dependent upon, and relapsing to addictive substances (Khantzian, 1997). The researcher in this study aimed at showing that persons with opioid use disorders are medicating painful experiences from childhood by the use of drugs.

2.2.1.2 Contemporary Trauma Theory

To investigate the relationship between trauma, addiction, and recommended treatment interventions, this study utilizes contemporary trauma theory (CTT). CTT defines traumatic events as those involving threats to life or bodily integrity, or close encounters with violence and death (Herman, 2015). According to this theory, dysfunctionality arises from unresolved trauma and impaired emotional regulation skills (Goodman, 2017). Experiences such as parental separation and divorce, parental neglect and emotional abuse can be factors which can contribute to dysfunctionality. It presupposes a cause for a traumatized individual symptom but also concludes that "the cause is not a person's character flaw, moral weakness or inborn malevolence but as a result of pain (Bloom & Farragher, 2013). CTT provides the foundation of trauma-informed approaches providing a shift from the question," What is wrong with you? to "what happened to you?" (Moxley & Garrison, 2023).

CCT provides a framework for understanding the impact of trauma on an individual functioning based on; dissociation, attachment, re-enactment, long-term effects on later adulthood, and impaired emotional capacities (Herman, 2015)

(Shapiro, 2010) (Wilkinson, 2016). It also focuses on how caregivers and service providers understand and respond to the impact of such traumas. Treatment goals in CCT are to increase a person's awareness of the trauma's influence on them and build their resilience to decrease the likelihood of issues associated with the trauma later on. Contemporary Trauma Theory therefore provides a unique lens through which the researcher hopes clients with opioid use disorders should be viewed as individuals who have experienced traumatic experiences and the need to offer them treatment services which are trauma responsive for sustained recovery.

2.2.2 Empirical Review of Literature

This section focuses on a review of emotional abuse, parental neglect, and parental separation and divorce and how they could be linked to adult opioid use disorder. Also reviewed are trauma-informed interventions.

2.2.2.1 Emotional Abuse

Childhood psychological or emotional abuse is characterized by the failure to provide an environment that is developmentally supportive and appropriate for a child, potentially leading to psychological harm (Rees, 2010). This type of abuse can include behaviors such as isolation, insults, humiliation, deprivation of emotional connection, and excessive punishment, among other harmful actions (Norman et al., 2012). With emotional abuse, there is the likelihood of increased risk of psychological distress resulting to reduced ability to cope with stressful situations, poor mental health outcomes, and a negative impact on family relationships (Prangnell et al., 2019). Generally, persons with substance use including opioid use disorders

experience various difficulties such as emotional regulation, lack of impulse control and continuing to use despite the negative consequences. Similar studies found out that emotional abuse can erode individuals' sense of self-worth, increase feelings of shame and guilt, and impair their ability to regulate emotions effectively (Teicher & Samson, 2016) which can be precursors of substance use.

Establishing the prevalence of childhood emotional abuse is challenging due to the absence of physical evidence. However, research indicates that childhood emotional abuse is one of the strongest predictors of adverse health outcomes among the categories of Adverse Childhood Experiences (ACEs) (Prangnell et al., 2019). For individuals who use drugs, the incidence of childhood emotional abuse is significantly higher compared to non-drug users, with estimates ranging from 44% to 46% (Lake et al., 2015) (Taplin et al., 2014). This study aims to determine if this correlation is also present in individuals with opioid use disorders.

While previous research has predominantly focused on the impact of childhood sexual abuse, recent studies have begun to examine the effects of childhood emotional abuse on adult health conditions (Eriksen et al., 2016); (Hu et al., 2007). For instance, a study investigating the link between childhood emotional abuse and chronic pain in indigenous and non-indigenous Norwegian adults found a potential connection between emotional abuse and adult chronic pain, influenced by both psychological and physiological factors (Eriksen et al., 2016). These factors can negatively affect brain development, leading to over-activation of the hypothalamus-pituitary-adrenal axis, improper cortisol release, and adverse effects on the immune system (Burke et al., 2017). Consequently, to cope with the psychological distress caused by emotional abuse, individuals may resort to injection drug use (Prangnell et al., 2019). Given that opioids are known for their analgesic properties, it is important

to explore the relationship between emotional neglect and opioid use disorders, as emotional abuse can manifest as physical somatic pain.

A study to examine the relationship between adverse childhood experiences and problematic substance use established that emotional abuse significantly predicted the use of tobacco and sedatives in adulthood (Kiburi et al., 2018). Those who had more than five ACE scores were associated with a high risk of sedatives. Even though the study is done in Kenya, it does not specifically identify the correlation of ACEs with opioid use. Related studies on emotional neglect found that there exists a correlation between emotional neglect and mental health. Emotional neglect associated with depression, anxiety, and stress in young adulthood (L. R. Grummitt et al., 2022). Their study however concluded that there is no direct relationship between emotional neglect and substance use in young adults. This study aims to establish whether emotional abuse is related to opioid use disorder mediated by depressive disorders, anxiety, or PTSD.

2.2.2.2 Parental Neglect

Neglect is considered to be the most common form of child abuse (U. S. Department of Health and Human Services, 2019), in the United States child neglect is four times more common than physical abuse and almost nine times more common than sexual abuse. Child neglect can either be physical or emotional and by definition it involves failure to meet a child's needs such as leaving the child hungry, unsupervised or not emotionally validated, without shelter, missing school among other forms of neglect. Child neglect leaves the child vulnerable to other forms of abuse. Globally, the prevalence of child neglect is approximately 16% for physical neglect and 18% neglect for emotional neglect which places child neglect as a major world health and social problem (Rokach & M. Ohayon-Inger, 2022).

Parental neglect is caused by various factors among them marital problems, poor parenting skills, and mental illness or substance use by the parent or the caregiver. According to WHO (2022), children of alcoholic parents (COAs) tend to experience abuse and neglect and subsequent mental health and behavioral problems that continue to remain a critical public health concern the world over (World Health Organization, 2022). Parental neglect can deprive children of essential care, support, and supervision, leading to feelings of loneliness, abandonment, and vulnerability (Haworth et al., 2024).

The impact of childhood maltreatment on adult emotional and physical health and behaviors showed that there was a moderate correlation between smoking and heavy alcohol use and a strong sense of sexual risk-taking, mental ill health, and problematic alcohol use with the relationship being strongest for problematic drug use and interpersonal and self-directed violence (Hughes et al., 2017). The above study agrees with a 22-year longitudinal study on the impact of adverse childhood experiences whereby parental neglect was considered; the results showed that adults who had been maltreated as children are at a significantly higher risk of substance use disorders than adults who have not been maltreated (LeTendre & Reed, 2017) (Choi et al., 2017). From the studies reviewed, it is evident that there is a relationship between parental neglect and adult maladaptive behaviours such as drug use. However, each of the studies was not specific on the particular drugs that were being used by those exposed to parental neglect as children. This study therefore aims at establishing the extent to which parental neglect would result in adult opioid addiction.

2.2.2.3 Parental Separation and Divorce

Problematic interactions and emotional and physical abuse are examples of characteristics that make up a dysfunctional family. Such issues can lead to separation and divorce which if it happens early, leave children destabilized as a consequence. A study by Lee & McLanahan (2015) showed that parental separation and divorce presents a high risk of children and adolescents experiencing adjustment problem such as a drop in academic performance, dropping out of school, conduct issues, substance use problems, and depressed mood. More findings show that children of divorced or separated parents are likely to engage in risky sexual behaviors, live in poverty or/and experience their own family instability (Lee & McLanahan, 2015) conditions which can predispose one to development of substance use disorders.

The impact of parental separation and divorce may happen long before the separation actually happens (D'Onofrio & Emery, 2019), with mediating factors including things such as ineffective parenting, conflict between the parents, economic struggles, and limited contact with the parent. This means that even if the actual separation happens when the child is a bit older, they may have been affected by the behaviours of the parents or the environment at home. If separation happens, the legal concerns such as who takes custody of the children may be biased as the determination of the best interests of the child may not necessarily be good for the child's mental wellbeing. Consequently, the mental health of children is affected by broken and dysfunctional family relationships and the dreadful out-turn of divorce disruption (D'Onofrio & Emery, 2019).

A study on the association between parental divorce and mental health among adolescents showed that teenagers with divorced parents had higher social fear, avoidance, depression, and suicidal ideation (Obeid et al., 2021). Even though these

findings are significant, they were done on adolescents and not adults, it does not also show the relationship between separation and substance use problems. The researcher agrees with the findings on the impact of parental separation but would wish to establish if there is a relationship between parental separation and substance use among adults whose parents separated when they were children.

In the last two decades, couples parting ways has become a common phenomenon in Kenya. As indicated by Lee D. & McLanahan (2015), the effects of such separation have an immediate impact on the child or teenagers (Lee & McLanahan, 2015). In Kenya, the effect of parental separation and divorce on the psychological well-being of an adolescent confirmed that divorce and separation affect the well-being of a teenager. Other studies established that experiencing parental divorce and separation during childhood is a strong predictor of lifetime alcohol dependence (Jackson et al., 2016) in comparison to a parental risk factor alone.

The studies reviewed above confirm that there is a relationship between parental separation and divorce and mental well-being. All the studies reviewed had either children or adolescents as the target population and none focused on adults or teenagers with opioid use disorders. This study therefore hopes to establish the impact of parental separation and divorce during childhood and how it may impact the use of opioids as an adult.

2.2.2.4 Treatment Interventions

The 1998 Adverse Childhood Experience (ACE) study conducted by Kaiser Permanente in collaboration with the Centers for Disease Control revealed a significant correlation between various adverse childhood experiences—such as sexual, physical, and emotional abuse, neglect, spousal abuse, and parental

incarceration—and substance abuse in adulthood (Tzouvara et al., 2023). Further, studies have shown that persons struggling with opioid use disorders experience multiple negative consequences such as poor physical and mental health, suicidal behaviors, loss of employment, homelessness, and disrupted family and social relationships among others (Lander et al., 2013). Considering the role that ACES plays in one's mental and physical health, it is necessary to explore interventions that are used for better treatment outcomes.

According to the Centre for Trauma-Informed Policy and Practice (CTIPP) (2017), the knowledge of the correlation between ACEs and treatment can be put into practice by preventing exposure to trauma and promoting resilience in groups put at risk by exposure to adversities (Marris, 2023). The second intervention is for those who have already developed opioid use disorder to receive trauma-informed treatment approaches to help them recover and live meaningful lives. CTIPP recommends that both prevention and treatment should be integral in addressing opioid addiction. The premise of this paper is to establish available ways of addressing opioid use disorder with the recognition of the role that trauma and ACES play in addiction.

2.2.2.4.1 Prevention Programs

Implementing evidence-based intervention is necessary to reduce the number of lives lost due to opioid use disorders. The target of evidence-based interventions in preventing substance use and addiction is to enhance protective factors and reduce the risk factors. Science supports that such interventions should be started early in life to prevent initiation of substance use and continue throughout one's life span evidence-based interventions to prevent substance use, misuse, and addiction target risk factors and enhance protective factors. Such interventions need to begin early in life to delay or prevent initiation of substance use and continue throughout the lifespan (Substance

Abuse and Mental Health Services Administration, 2014). Therefore, minimizing exposure to adverse childhood experiences could significantly lower the risk of addiction and numerous other health and mental health issues (He et al., 2022). There are programs designed to reduce exposure to such adversities and to build resilience against them. According to SAMHSA (2014), the knowledge of the link between ACEs and opioid addiction can be applied in two primary ways: primary prevention and secondary prevention (Substance Abuse and Mental Health Services Administration, 2014). Primary prevention aims to prevent exposure to trauma, whereas secondary prevention focuses on enhancing resilience in those at risk due to adverse experiences (Substance Abuse and Mental Health Services Administration, 2014). Moreover, these prevention programs are crucial for ensuring that future generations avoid substance abuse, which is especially vital in communities heavily affected by addiction.

2.2.2.4.2 Treatment Programs

Studies support the destructive effect of accumulative childhood trauma or adverse childhood experiences (ACEs) on future life outcomes including mental and physical health, social problems, sexually offensive behaviors, and death (Goodman, 2017). There exists a strong correlation between ACEs and substance use disorders (SUDs) (Banducci et al., 2014) which signifies an essential need to integrate trauma-informed care into the treatment of SUDs. According to the Centers for Disease Control (CDC), the use of medication in treating opioid use disorders is one of the highly recommended interventions for OUD (Centers for Disease Control and Prevention, 2023). These medications are used to manage withdrawal symptoms, manage overdose, and as long-term replacement therapy.

The American Society of Addiction Medicine (ASAM) (2020) recommends that treatment of OUD should be informed by assessment of the patient's psychological needs and appropriate psychosocial treatment by qualified behavioral healthcare providers based on individual patient needs be provided (American Society of Addiction Medicine, 2020). Since pharmacotherapy is central in OUD management, the ASAM (2020) emphasizes that the patient's decision to decline psychosocial treatment or the absence of available psychosocial treatment should not preclude or delay medications for OUD. As provided in the correlation between ACES and SUDs (Banducci et al., 2014), these guidelines generally recommend the need to address psychological needs but do not specify trauma-informed interventions. This study therefore seeks to establish the specific psychological needs addressed including the interventions aimed at addressing childhood trauma as part of the comprehensive plan for addressing opioid addiction.

2.3 Summary and Research Gap

A study to examine the relationship between adverse childhood experiences and problematic substance use established that emotional abuse significantly predicted the use of tobacco and sedatives in adulthood (Kiburi et al., 2018). Moreover, emotional neglect associated with depression, anxiety, and stress in young adulthood (L. R. Grummitt et al., 2022). Their study however concluded that there is no direct relationship between emotional neglect and substance use in young adults. This study aims to establish whether such a relationship exists among adult clients with substance use disorders and if it does what is the relationship with the abusers.

A 22-year longitudinal study on the impact of adverse childhood experiences whereby parental neglect was considered showed that adults who had been maltreated as children are at a significantly higher risk of substance use disorders than adults who

have not been maltreated (LeTendre & Reed, 2017) (Choi et al., 2017). The study only identifies a risk for substance use disorders without the specific substance being identified.

Studies on the impact of parental divorce on mental well-being concluded that the mental health of children is affected by broken and dysfunctional family relationships and the dreadful out-turn of divorce disruption (D'Onofrio & Emery, 2019). While the researcher agrees with these findings, the target populations used in most of the studies were adolescents hence the same could not be concluded for adult populations. The proposed study therefore seeks to use adult populations with opioid disorders.

In summary, out of the reviewed literature, most of the studies were carried out outside the Kenyan and African contexts with most of the research using children and teenagers as the target population. This study hopes to meet this knowledge by studying the relationship between childhood trauma and opioid use disorder among clients at the SAPTAs harm reduction program in Nairobi County, Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology that was used to determine the relationship between childhood trauma and adult opioid use disorders. It consists of the research design, target population, sampling procedure and data collection, reliability of the research instruments, data analysis procedure, and techniques.

3.2 Research Design

Research design is the blueprint for conducting a study with maximum control over factors that may interfere with the validity of the findings (Gray & Grove, 2021). The study adopted a correlational cross-sectional research design, a type of non- research design that helps describes the features of a population at a single time-point. A cross-sectional research design is appropriate in this study as the researcher sought to establish the relationship between childhood trauma variables and opioid addiction using data collected at a single time-point. Combinations of qualitative and quantitative methods were used for purposes of answering the research questions.

3.3 Location of the Study

The study was conducted in Nairobi County in the four SAPTA drop-in centers (Kayole, Kawangware, Pangani, and Githurai) which are among locations identified to be characterized by, crime, domestic violence, substance use and limited social amenities, circumstances which increase the risk of traumatic experiences.

3.4 Target Population

The target population represents all cases of people who possess certain characteristics; it is the larger group from which a sample is taken (Mugenda & Mugenda, 2003). An eligibility criterion is defined as a "list of characteristics that are required for the membership in the target population" (Gray & Grove, 2021). The target population for this study was as an estimated 4000 clients with opioid and related conditions who continue to receive harm reduction services at SAPTA.

3.5 Sampling Techniques

The sampling frame was a listing of clients from SAPTA 4 drop-in facilities namely, Pangani, Githurai, Kayole, and Kawangware all which serve clients who use opioid use disorders. A stratified sampling procedure was used. Stratified sampling involves dividing the population into subgroups that may differ in different ways allowing the researcher to draw more precise conclusions by ensuring that each subgroup is represented (McCombes, 2019). The strata were based on program location. Because not all participants were willing to participate in the study, the researcher identified days when there were activities in the 4 drop in centers when most clients would be present and used purposive sampling method to recruit participants willing to participate in the study.

3.6 Sample Frame and Sample Size

Cochran's (1997) devised a formula for calculating a sample which can be used when the population is large or infinite. According to him, for a 95% confidence level and p=0.05, the size of the sample should be:

S = sample size for infinite population

Z = Z score 1.96, 95% Confidence Interval

P = population proportion (assume 50% or 0.5)

M = Margin of error = 5%

$$S = Z^2 \times P \times (\frac{1-P}{M^2})$$

S= $(1.96^2) \times 0.5 \times (\frac{1-0.5}{0.05^2})$ =385

3.7 Data Collection Procedures

With the help of research assistants, the researcher visited the four drop in centers during nutritional support days when most clients were expected in the centers. This study was based on quantitative and qualitative approaches to enable the researcher get information from the target group and present the information in a measurable and verifiable manner as required for academic purposes. The researcher used a combination of open and closed ended questions in the questionnaires. The questionnaires were coded to help in tracking responses. Once the respondents who consented to participate in the study were identified, the researcher and the research assistants would put them in groups of 10, give the respondents questionnaires and then stand by to clarify any questions from the participants. Respondents who are not able to read and write and were willing to participate in the study were helped in filling out the questionnaire by the researcher and the trained research assistants.

3.8 Research Instruments

To achieve the research objectives, primary data was collected and analyzed. The primary data was collected using a questionnaire which in addition to the demographic information, a section for the qualifying criteria for opioid addiction based on the DSM V-TR criteria for opioid use disorders to determine the severity of the OUD (APA, 2023). Subsequent sections of the questionnaire were based on the research questions to collect both quantitative and qualitative data using a modified Adverse Childhood Experiences (ACEs) questionnaire for testing exposure to

childhood trauma. The ACEs questionnaire was first published in 1988 by Felitti and colleagues, a 10-item scale used to correlate childhood maltreatment such as abuse, neglect, and family dysfunctions such as domestic violence with adult health outcomes. This study used three items (emotional abuse, parental neglect and parental separation and divorce) from the 10 item scale with a comment section where participants would identify if the traumatic experience contributed to drug use and if yes how. The use of questionnaires helps to collect valid and reliable data relevant to the research question and objectives (Saunders, Lewis& Thornhill, 2019).

3.8.1 Pre-testing of Research Instruments

Before conducting the actual study, the standardized questionnaires were pre-tested NOSET in Ngara. The drop in facility run under Maisha House provides services similar to the identified site of study. The questionnaires were administered on 38 randomly selected persons with OUD who received harm reduction services at the center in order test their workability in terms of structure, content, flow, and duration. Experts and colleagues helped in examining the questionnaire to check whether there are any items that need to be changed or rephrased as well as the appropriateness of the time set for completing it. After completion of the exercise, the questionnaire was adjusted with approval from the supervisor to include responded input of ways of preventing impact of childhood trauma.

3.8.2 Validity of Findings

Validity refers to the question of whether a procedure is actually measuring what it claims to measure (Gravetter & Forzano, 2018). The research instrument used was validated in terms of content and face validity with reference to the study objectives, research questions and variables.

3.8.3 Reliability of Research Instruments

According to Gravetter & Forzano (2018), the term reliability refers to the degree to which a study will yield the same results if done repeatedly under the same circumstances (Gravetter & Forzano,2018). During the pre-testing stage, questionnaires were administered to 38 randomly selected clients at NOSET, Maisha House in Ngara to ensure inter-rater and test-retest reliability.

3.9 Data Analysis

Data analysis is a mechanism for reducing and organizing data to produce findings that require interpretation by the researcher (Gray & Grove, 2021). Data processing involves translating the answers on a questionnaire into a form that can be manipulated to produce statistics. This involves coding, editing, data entry, and monitoring the whole data processing procedure (Hyndman & Booth, 2008).

Data was analyzed using content analysis and descriptive statistics using qualitative and quantitative techniques and the use of Pearson correlation coefficient. To facilitate analysis, the questionnaires were coded according to each variable of the study to ensure accuracy and minimal margin error during analysis using SPSS software.

3.10 Legal and Ethical Considerations

The research ensured that legal and ethical considerations of an empirical research were maintained. To enable the researcher to conduct the study, an introduction letter from Africa Nazarene University aided in the acquisition of research permit from the National Commission for Science, Technology and Innovation (NACOSTI) authorization from SAPTAs management to conduct the study at their drop in facilities. The researcher was guided by the National Association for Alcohol and Drug Abuse Counsellors (NAADAC) 2016 code of ethics which provides a master

code of ethics for addiction treatment professionals. Principle nine of the code of ethics on research and publication provides for among other things upholding research participants' autonomy by ensuring informed consent, protecting their right to privacy by maintaining confidentiality, protecting and ensuring the welfare of the respondents is maintained. The right to privacy and confidentiality was upheld by ensuring that no participant recorded their names in the questionnaires used. To respect their autonomy, all the respondents were explained to that the study was being conducted for academic reasons and given a chance to consent either to participate or not participate in the study. Due to the sensitive nature of the questions in the study, to maintain participants' welfare and emotional protection, debriefing sessions were offered by the researcher and the research assistants to the respondents who were triggered by the questions in the research instrument.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1. Introduction

This chapter presents the study findings which aimed at evaluating the association of opioid use disorder and emotional abuse, parental neglect and parental divorce and separation among 4000 opioid users through a correlational cross-sectional study design. The study sought to establish the relationship between childhood trauma and opioid use disorder among clients at SAPTAs harm reduction program in Nairobi County, Kenya. The expected sample was 385, but a total of 332 took part in the study due to non-response, overriding program research conducted at the time of this and reduction in patient flow in one of the centers (Kawangware) as a result of limited program activities.

4.2. Socio-Demographic Characteristics

Three hundred and thirty-two (332) respondents with 267 (80.42%) being males and 63 (18.98%) being females participated in the study as shown in figure 2 below.

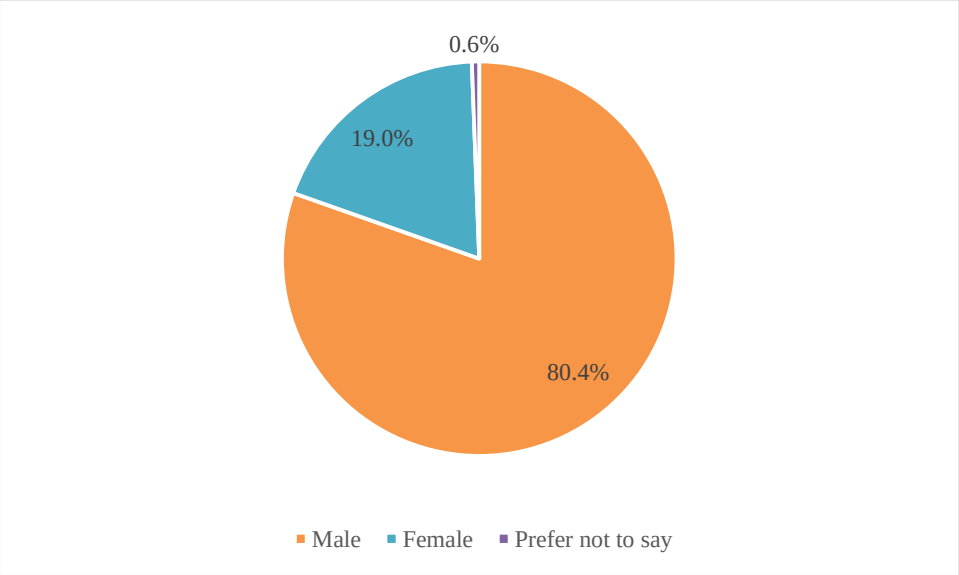


Figure 2: Study participants by gender.

Respondents between 26-35 years comprised the majority (44.88%), followed by those aged 25 years and below (29.82%), then 36-45 years (19.58%) and 46 years and above (5.72%) as depicted in figure 3 below.

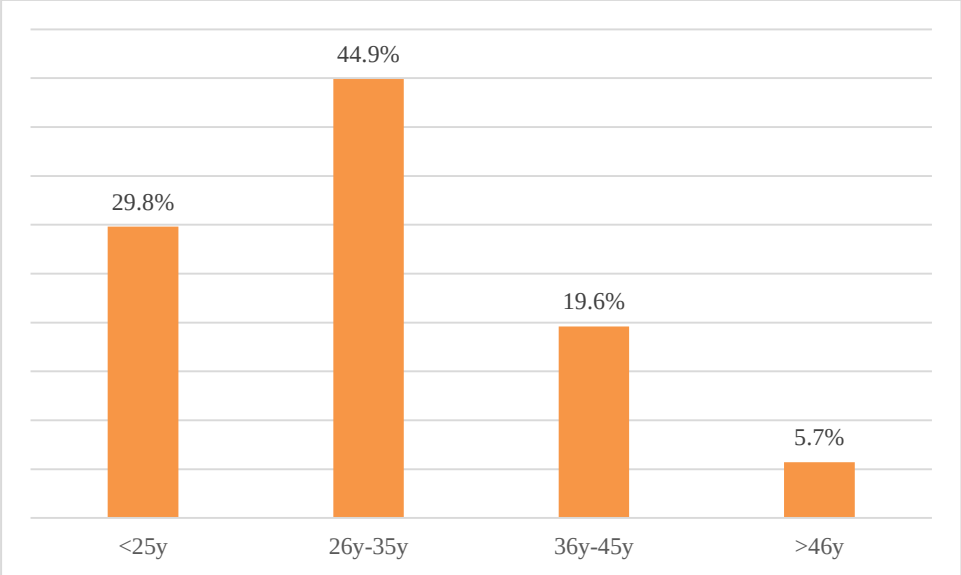


Figure 3: Study respondents by age.

Regarding educational attainment, 155 (46.69%) respondents had attained secondary education, 133 (40.06%) primary education, and 44 (13.25%) tertiary education as shown in figure 4 below.

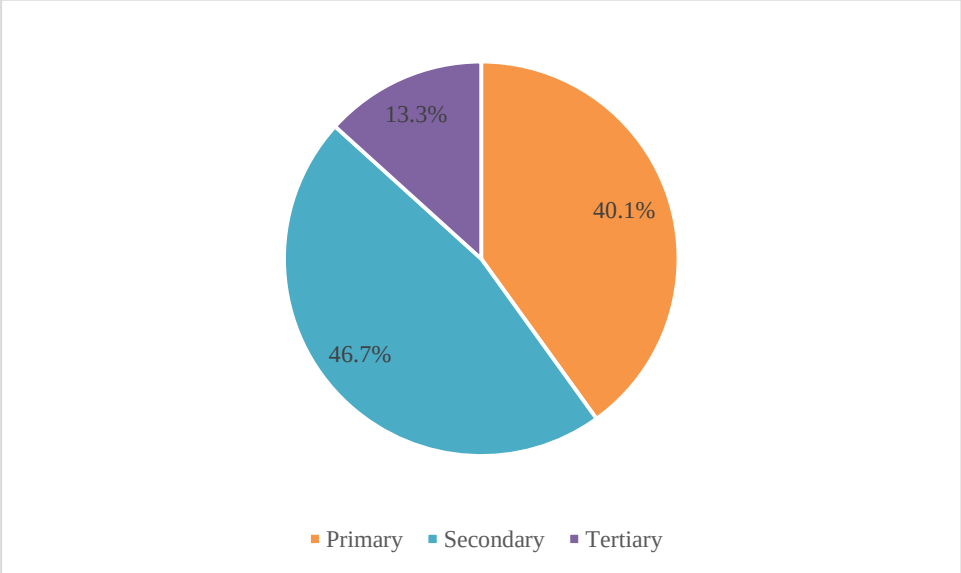


Figure 4: Educational attainment of study participants.

Almost half (47.59%) of respondents reported never being married, a quarter reported being currently married, while another 27.41% reported being divorced or widowed, as shown in figure 5 below.

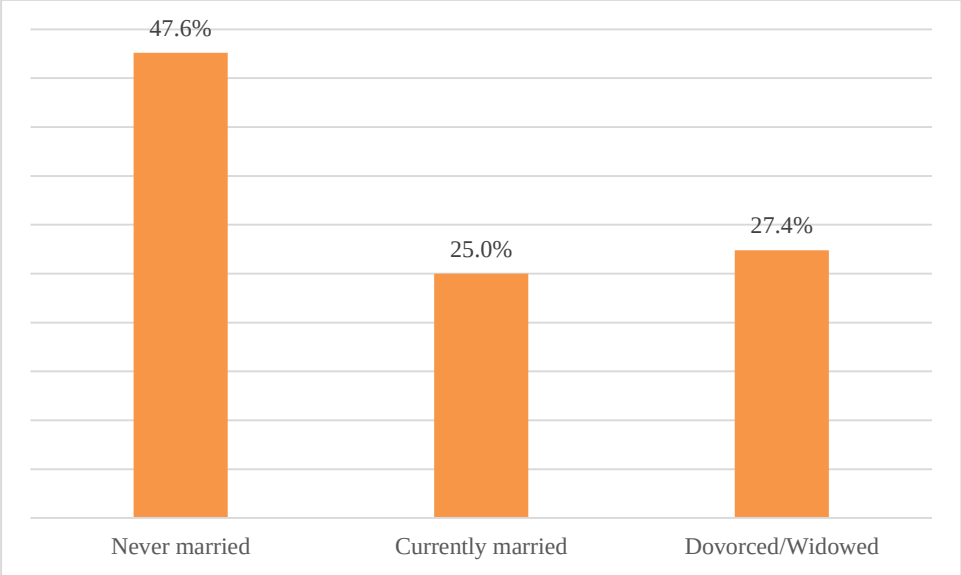


Figure 5: Marital status of study respondents.

127(38.25%) reported being self-employed, with the same proportion reporting being unemployed, 43 (12.95%) reporting being in government employment, and 35(10.54%) reporting doing other work, shown in figure 6 below.

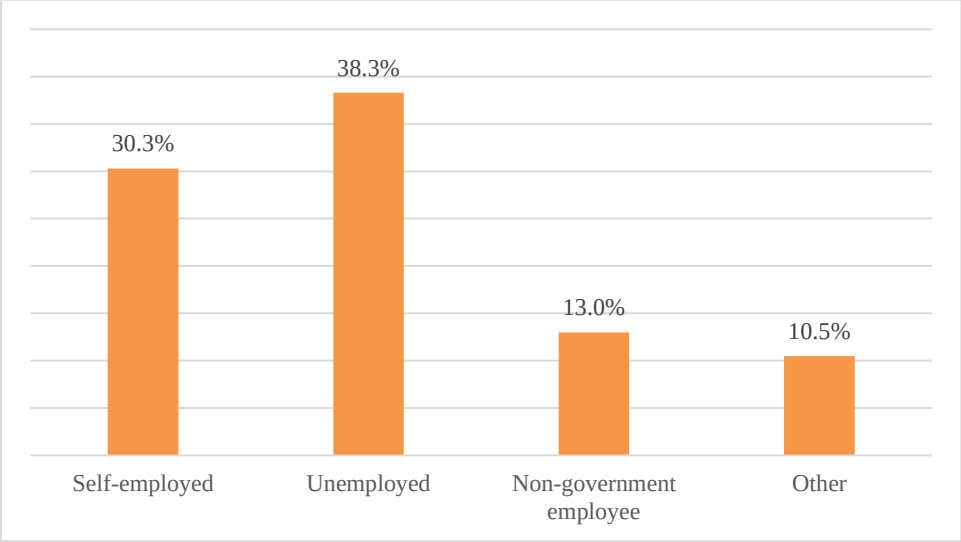


Figure 6: Main work done by respondents in the past 12 months.

Regarding duration of services received at SAPTA, majority (36.75%) reported between 1-2 years, 15.66% reported above five years, 13.86% reported 3-4 years, 13.25% reported 5 years duration, 11.75% reported 6 months, and the lowest was reported duration of services was below 6 months (8.73%) as depicted in figure 7 below.

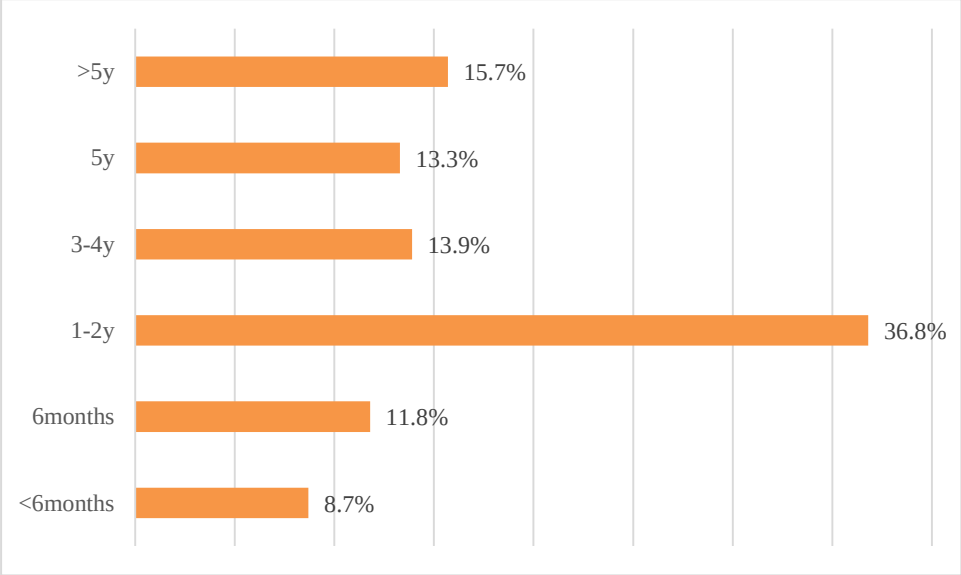


Figure 7: Duration of services received at SAPTA.

Concerning whether currently on methadone, figure 8 below shows that a majority (61.89%) said yes, 27.13% said no, 7% had defaulted, and 3.96% were awaiting induction.

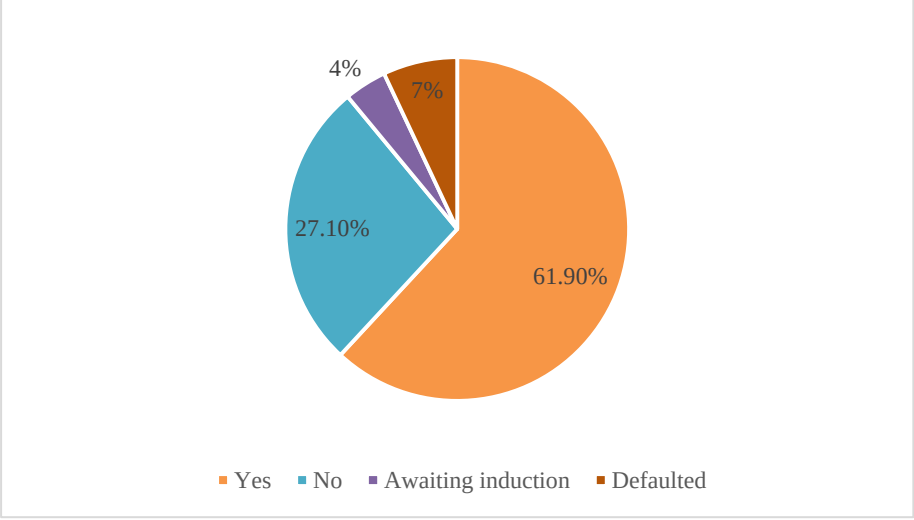


Figure 8: Are you currently on methadone?

Table 1: Table showing descriptive statistics among study respondents.

Variable	n	%
Respondent Characteristics		
Gender		
Male	267	80.42
Female	63	18.98
Prefer not to say	2	0.6
Age		
<25y	99	29.82
26y-35y	149	44.88
36y-45y	65	19.58
>46y	19	5.72
Education Level		
Primary	133	40.06
Secondary	155	46.69
Tertiary	44	13.25
Marital status		
Never married	158	47.59
Currently married	83	25
Divorced/Widowed	91	27.41
Main work (past 12 months)		
Self-employed	127	38.25
Unemployed	127	38.25
Non-government employee	43	12.95
Other	35	10.54
Duration of services received at SAPTA		
<6months	29	8.73
6months	39	11.75
1-2y	122	36.75
3-4y	46	13.86
5y	44	13.25
>5y	52	15.66
Are you currently on methadone?		
Yes	203	61.89
No	89	27.13
Awaiting induction	13	3.96
Defaulted	23	7.01

Table 1 above summarizes the socio demographic characteristics of the study participants.

4.3. Severity of Opioid Use

Of the 332 participants who completed the survey, 88.6% reported severe opioid use, 7.5% moderate, 2.4% mild and 1.5% minimal severity as summarized in figure 9 below.

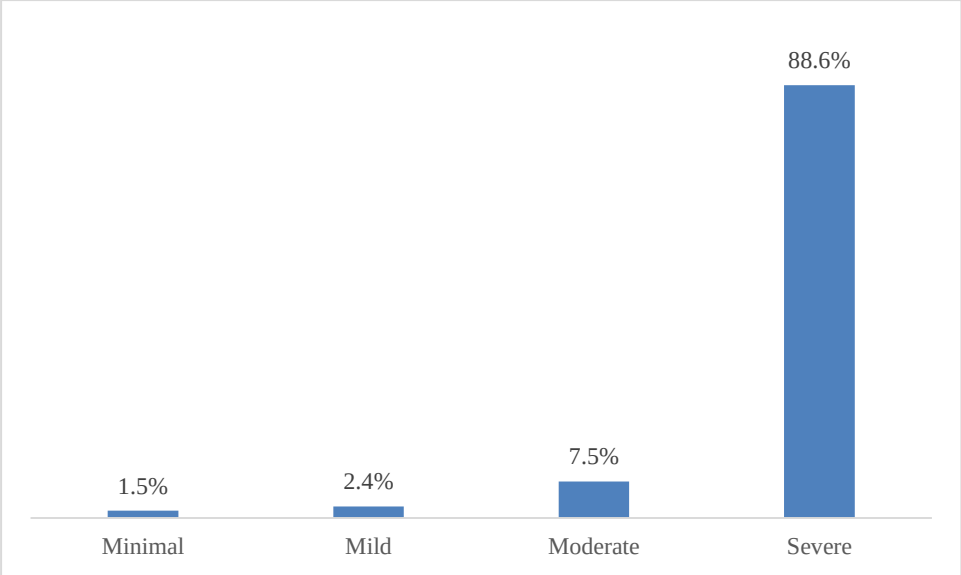


Figure 9: Graph showing severity of opioid use.

4.4. Emotional Abuse, Parental Neglect, Parental Separation and Divorce

A greater proportion of respondents (91.6%) reported having been emotionally abused, with only 8.4% reporting not experiencing emotional abuse. Most (25.6%) respondents reported their father as the person who humiliated them or made them feel inferior, 20% said mother, followed by guardian (15.4%), and lastly sibling (11.14%), while other perpetrators of emotional abuse were 5.7%. A considerable number (22.3%) chose not to disclose such relationship. In terms of parental neglect, almost all (96.4%) reported having been neglected by their parents; with only 3.6%

indicating that they were not neglected by parents. 72% of respondents reported having been affected by parental separation and divorce while 28% reported not having been affected. Table 2 below summarizes this information.

Table 2: The prevalence of emotional abuse, parental neglect, and effect of parental separation and divorce among study participants.

Variable	**Freq.**	**%**
Emotional abuse		
No	28	8.43
Yes	304	91.57
What is your relationship with who humiliated/made you feel inferior?		
Father	85	25.6
Mother	66	19.88
Sibling	37	11.14
Guardian	51	15.36
Choose not to say	74	22.29
Other	19	5.72
Parental neglect		
No	12	3.61
Yes	320	96.39
Parental separation and divorce		
No	93	28.01
Yes	239	71.99
Have you attended any of counselling sessions during the program?		
Yes	252	75.9
No	71	21.39
Choose not to say	9	2.71
If counsellor asked about childhood experiences	170	51.2
Yes		
No	162	48.8
Felt safe during counselling		
Yes	159	93.5
No	11	6.5

If given a choice to decide who to talk to during the counselling session		
Yes	178	70.6
No	74	29.4
If informed why focusing on childhood experiences is important		
Yes	157	62.3
No	95	37.7

In terms of counselling session, many respondents (76%) said they have ever attended counselling sessions during the program, 21.4% said they had not, while the rest chose not to say. Of those who attended the sessions, 51.2% revealed that the counsellor talked about childhood experiences, while the rest were not asked. A considerable number of participants (94%) felt safe during the counselling sessions. When asked if they were given a choice to decide who to speak to during the counselling session, 71% said yes, although quite a significant number (29%) said no. Also, only 62.3% of the respondents affirmed that the counsellors informed them the importance of focusing on childhood experiences, indicating that over a third of the respondents were not given information as to why focusing on childhood experiences is important while they undergone counselling.

4.5 Relationship between Opioid Use Disorder and Emotional Abuse

a) Quantitative findings

Table 3 below shows the results of logistic regression of the relationship between OUD and emotional abuse, having adjusted for socio-demographic characteristics; age, gender, marital status and education.. Although not significant, the findings indicate that participants who were emotionally abused had three times

higher chances of developing OUD compared to those not emotionally abused [aOR = 3.17, p-value = 0.243]

Table 3: Logistic regression results showing association between OUD and emotional abuse, adjusted for age, gender, marital status and education level.

Variable	Odds ratio	P>z	[95% conf.	interval]
Emotional abuse				
Yes vs. No	3.17	0.243	0.46	22.02414
Gender				
Female vs male	0.66	0.658	0.10	4.207223
Age				
>35y vs <35y	1.09	0.932	0.15	8.047644
Education				
Secondary vs. primary	0.75	0.735	0.14	3.993019
Tertiary vs. primary	1.66	0.752	0.07	38.18657
Marital status				
Currently married vs. never married	3.35	0.425	0.17	64.80741
Divorced/Widowed vs. never married	0.68	0.673	0.12	3.975398

b) Qualitative findings

Although the quantitative adjusted model did not show a significant association between emotional abuse and opioid use, some of the respondents attributed their current state of drug use to the environment they found themselves in while growing up. For instance, one respondent from Githurai station attributed their drug use to the environment they grew up in by saying; *"The environment I grew up in contributed to my drug use."* Similarly, another respondent in Kayole station started living on the streets at the age of 7 years because of being physically and verbally abused, greatly exposing them to drug use, while one respondent did not like

the way they were "handled" while young, saying; *"I wasn't pleased with the way the treated me when I was little I am their child, I felt unwanted"* Another respondent from Githurai station highlighted that emotional abuse affects a person's self-confidence and makes one feel depressed, saying; *"emotional abuse causes one to lose confidence, it made me feel sad and depressed* ,", while another respondent from Kayole station said that emotional abuse contributes to loneliness, stating, *"Being] emotionally abused leads to loneliness.".*

A respondent from Kawangware station said, *"Father was alcoholic, if the father was present there would be limited risk for something wrong happening to me,"* showing how the environment a child grows in greatly influences their opioid use. Similarly, another respondent from the same station stated; *"My mother was the sole reason 1 left home and started substance use. I was intelligent but couldn't continue with schooling."* Still, another respondent from Kawangware attributed their drug use to emotional abuse by a close family member, stating, *"It was the step father that raised me and because of his abuse I was forced to go to the streets."* Another respondent from Kawangware ended up in the streets due to abuse from the brother, *"I went through abuse because of my brother who sometimes beat me up and sometimes I ran out of home to stay or sleep in the streets."*

4.6 Relationship between Opioid Use Disorder and Parental Neglect

a) Quantitative findings

The quantitative finding of the relationship between OUD and parental neglect are as shown in Table 4 below. Respondents who had experienced parental neglect were twice as likely to develop OUD compared to those not neglected by parents.

Table 4: Table showing logistic regression results of OUD and parental neglect, adjusted for age, marital status, education level, and gender.

Variable	Odds ratio	P>z	[95% conf.	interval]
Parental Neglect				
Yes vs. No	2.26	0.60	0.11	47.60
Gender				
Female vs male	0.65	0.65	0.10	4.11
Age				
>35y vs <35y	1.19	0.87	0.16	8.81
Education				
Secondary vs. primary	0.86	0.86	0.17	4.46
Tertiary vs. primary	1.95	0.67	0.09	43.21
Marital status				
Currently married vs. never married	3.31	0.43	0.17	64.09
Divorced/Widowed vs. never married	0.63	0.60	0.11	3.65

b) Qualitative findings

The quantitative adjusted model did not show a significant association between parental neglect and opioid use; however, when asked about the contribution of parental neglect to their substance use, some respondents noted that the failure of their parents to take them to school or inability to continue schooling led to their current situation. For example, a respondent from Githurai station mentioned that lack of schooling opportunity contributed to their drug use; ***"****Not being taken to school contributed to my drug use",* while another respondent from the same station stated that *"For me leaving school and involving in bad things is what led me to drugs."*

Being abandoned by parents was a major issue for many respondents. Some respondents noted that being abandoned made them lonely, worried, being involved in bad company, or humiliated. For instance, a respondent from Githurai station said, "abandonment by my mother contributed to my current life, I missed school, *my father was drunk most of the time, I was always afraid of what he will do to us.",* while another respondent from Kayole commented that, *"Being neglected by my parents lead to loneliness, at first I was worried how my life would until I decided to go to the streets, I was traumatized by life in the streets but it was better than home where nobody cared about me."* Growing up in the streets without care from anyone also contributed to the current situation of some respondents, with one respondent from Kawangware stating, *"I grew up in the street so no resources or care from anyone, I started using drug use as a result of peer pressure and to deal with stress"*

4.7. Relationship between Opioid Use and Parental Separation and Divorce

a) Quantitative findings

Table 3 below shows the logistic regression results, adjusted for gender, age, education level and marital status. The findings show that after adjusting for the other variables, parental divorce and separation was significantly associated with opioid use disorder at 95% confidence level, with those participants who reported being affected by parental divorce and separation being 8 times more likely to develop opioid use disorder [aOR = 8.80, p-value = 0.023].

Table 3: Logistic regression showing association between opioid use disorder and parental divorce and separation, adjusted for socio-demographic characteristics.

Variable	Odds ratio	P>z	[95% conf.	interval]
Parental divorce and separation	8.80	0.023	1.35	57.37

Gender				
Female vs male	0.57	0.582	0.08	4.22
Age				
>35y vs <35y	1.56	0.664	0.21	11.51
Education				
Secondary vs. primary	0.65	0.628	0.12	3.68
Tertiary vs. primary	2.13	0.645	0.09	53.25
Marital status				
Currently married vs. never married	4.32	0.339	0.22	86.60
Divorced/Widowed vs. never married	0.67	0.651	0.11	3.88

b) Qualitative findings

The quantitative finding realized a significant relationship between parental separation and separation and opioid use. Accordingly, some respondents further confirmed this association in their qualitative responses. A respondent from Kawangware station stated,

> *"From when my parents divorced, it affected me physically and emotionally and I started using heroin.",* while another from the same station mentioned that *"I don't feel neglected, I was exposed due to my parents' divorce and necessity for my mother to handle everything single handily."*

Another respondent from Kawangware station wished that if their parents had divorced, indicating that perhaps they could have had better friends at school.

> *"If my parents were not divorced maybe my father would have taken me to a good school and I would not have ended in a day school where we have many bad groups leading to drugs."*

Ending up in the streets and eventually starting to use drugs affected most respondents. One respondent from Kayole station attributed their drug use directly to

parental divorce; *"I am an addict because my parents divorced and it made to go to streets where I found drug users and I started using heroine."*

Some respondents noted that being raised by a single parent greatly contributed to their substance abuse. For instance, a participant from Kawangware station noted that *"One parent was not able to support our lives, I to the streets and got deep into addiction."* Another respondent for Pangani station noted that "*Yes, it is parental separation which contributed to my drug use because there was no parental support."*

4.8 Trauma Informed Interventions

Over three-quarters (76%) of respondents reported having attended counselling sessions during the program as summarized in Table 2 above. Of those who attended the counselling sessions, 51% were asked about their childhood experiences by the counsellors, and 94% felt safe during the sessions. Of those who attended the counselling sessions, 71% were given a chance to decide who to talk to during the sessions, 62.3% were told why focusing on childhood experiences was necessary. Qualitatively, rrespondents from all stations proposed several ideas to counsellors working with clients who have undergone through unpleasant childhood experiences.

Most commonly, respondents highlighted the need for counsellors to actively listen to the clients and to properly understand their background. For instance, a respondent from Githurai station said, "*When clients talk to the counsellors, they should be given the opportunity and listen to their problems,",* while another respondent noted that *"They (counsellors) should learn to understand everybody by their own issues not all clients are the same."* Further, a participant from Kayole station noted that counselors, *"…should take time listening to people."*, and another participant supported the idea saying *"Counselors to be ready to listen to clients who*

have experienced unpleasant childhood experience." A participant from Kawangware added that "*Counselors should give clients time to talk about their issues and what led them to use substances.",* while another added that; *"Counselors to have a meaningful conversation by talking to the client more, to give them optimum time to heal and encourage the client through giving them hope."*

In Pangani station, one respondent said, *"counselors should understand the client"*. On the other hand, group-level therapy and non-judgmental listening were highlighted as possible improvement in the interventions. A Pangani station participant noted that clients should give moral support and perhaps group therapy for clients having the same issues for one to know that they are not the only ones."

Similarly, another respondent from Kawangware mentioned that, *counsellors should try to find out about what people went through and help them deal with it, the pain is what causes us to use drugs."*

One participant from Pangani noted that *"counselors should not be judgmental to client and they always make them feel secure and welcome when talking to them. Listen to them."*

In terms of what could have been done to better cope with unpleasant childhood experiences, most respondents across the stations wished they could have been taken to school or had a chance to continue with their education. A participant from Githurai station wished being taken to school,*"if my parents insisted I go back to school, when I refused to go, things would have been different."*

Another participant from Githurai said that having someone listen to him, be protected, provided for and guided could have prevented bad things form happening to him. Another participant from Kayole said *"I wish I had someone who could talk to me and I would be free to tell him everything that I went through."* Another response

from a respondent from Kawangware said, "*I wish I had someone to speak to, someone like a father, I also wish my mother was not a drunkard so she could focus on raising us."* A respondent from Kawangware said, *"I wish my parents were present and concerned about my wellbeing. I wish I had someone to fund my education."*

Participants who had lost their parents and those whose parents had separated also wished for counselling and an individual to talk to. A participant from Kayole mentioned *"I wish to have someone to talk to since my parents separated* and another added that *"I wish I could talk to a counselor since both my parents died when I was young."* A respondent from Pangani station mentioned that they wished they could have been taken for counseling after the death of the parents." Many clients wished they had a support figure early on in life and someone to tell them that they are important. A respondent from Githurai station wished, *"I wish I had a chance to have someone to support me when I was little, then things would have been different."*

Another participant from Kayole wished of *"having someone to tell me that I am important to give me food, they should not beat me to tell me when I am wrong, to show me right things to do."* One respondent from Kawangware mentioned that they wished *"having someone to guide and discipline, this would have helped me avoid bad company I also wish my mother would adequately support us especially in education."* Similarly, some respondents wished that their parents did not use drugs.

A participant from Githurai station hoped for *"... parents not drinking, to be cared for and supported."* Another participant from Kayole mentioned that *"being taken to school and my parents stop drinking alcohol.",* while another participant from Pangani wished to be *"... taken to school, my parents not drinking, taking counseling after my parents' death."*

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

The discussion is organized into several sections to comprehensively analyze the findings of the study and their implications for understanding the association between childhood trauma and opioid use disorder (OUD). The chapter delves into the significance of emotional abuse, parental neglect and parental separation and divorce in shaping individuals' vulnerability to OUD. Additionally, the chapter explores the role of trauma-informed interventions in addressing substance use disorders and proposes recommendations for future research and practice.

5.1.1 Socio-Demographic Characteristics of the Respondents

Three hundred and thirty-two (332) respondents participated in the study with 267 (80.42%) being males and 63 (18.98%) being females.It can be said therefore from these statistics that more males are affected by OUD. Such findings agree with a Centers for Disease Control study carried out between 2002-2013 which showed that majority of opioid users (heroin) were male (Jones et al., 2015), compared to females.

Respondents between 26-35 years comprised the majority (44.88%), followed by those aged 25 years and below (29.82%), then 36-45 years (19.58%) and 46 years and above (5.72%). With a combined percentage of those between 26-35 years and 35- 45 years standing at 64.5% likely to have presented with severe OUD, socio-economic impact is inevitable. The ages indicated are considered to be the most productive ages of a person, a stage in which one can offer meaningful contribution the country’s economy and even start families. The likely implication is that there would be reduced work productivity and consequently affecting income earned. This somehow agrees with Lehman (1991) who posited that the peak of scientific

productivity was between 30-40 years. According to Erickson's (1968) stages of psychosocial development, most of the participants are at the stage of intimacy versus isolation stage. Erickson posits that, failure to negotiate this stage well may lead to difficulties in forming healthy intimate relationship, loneliness and isolation (Kivnick & Wells, 2014). Since this is also the age where people settle down to establish families, there is a likely possibility that the participants may not have families and if they do the elements of the family system such communication, roles, rules and boundaries, rituals and hierarchy may be dysfunctional .This is reflected in the results for marital status, almost half of the participants (47.59%) reported not being married with 21.7% reporting either being divorced or widowed. Such findings agree with Erickson's theory on the intimacy versus the isolation stage as only about 25% were currently married at the point when the study was conducted.

Findings on the level of education showed that over half the participants (46.69%) had secondary education and 13.3% with tertiary education. Using the principles of trauma informed interventions which emphasize on empowerment, it can be concluded, trauma prevention programs and consequently programs working with clients OUD can seek partnerships with organizations with the aim of promoting transition to tertiary institutions and skills building programs. If people have access to education or life skills that can help them earn a living, this serves as a recovery support alternative which reduces the risk of drug use. College education is likely to improve employability skills; from the study 38.3% of the participants remained unemployed with none having a government job the participants held a government job.

The study found out that majority of the participants were currently receiving methadone 61.89% and the majority have been on it between 1-2 years at 36.75%.

Ideally from previous practice, persons are supposed to be weaned off methadone by 2 years. With 42.9% having being on methadone for more than two years, it necessary to supplement MAT psychotherapy and screening for and treatment for childhood trauma by incorporating trauma informed interventions. To Justify this conclusion, one participant said, *"methadone saved my life, I used to use a booster per day* (booster is a pack of 12 pouches of heroin which cost about Ksh 6500), *I didn't have the money, so most of the time I had to steal and I would be beaten up by people, sometimes almost to death. Now I don't need to spend that much money because methadone helps me, but lack of employment, keeps me still wanting drugs, so mimi bado* (I am still) *nachakachua"*- kuchakachua is a slang for using drugs such as marijuana and alcohol while still on methadone. Such qualitative findings show that there is the need to not only integrate trauma informed approaches but also to offer recovery support programs which include income generating activities or means to earning livelihood.

5.2 The Relationship between Emotional Abuse and Adult OUD

A study to examine the relationship between adverse childhood experiences and problematic substance use established that emotional abuse significantly predicted the use of tobacco and sedatives in adulthood (Kiburi et al., 2018). The quantitative analysis of this study showed that participants who were exposed to emotional abuse were two times likely to develop OUD. Qualitative responses highlighted the profound impact of emotional abuse on individuals' self-confidence, emotional well-being, and substance use behaviors. The study agrees with the findings by Prangnell et al. (2019) which found out that emotional abuse increases the likelihood of increased risk of psychological distress resulting to reduced ability to

cope with stressful situations, poor mental health outcomes, and a negative impact on family relationships (Prangnell et al., 2020).

The findings also agree with earlier studies by Lake et al.,(2015) and Taplin et al., (2014) which found out that the rate of emotional abuse was higher among people who use drugs that who did not (Lake et al., 2015). Quantitative finding from this study found that (91.6%) of the participants were emotionally abused with the parents of the participants being the perpetrators of emotional abuse; fathers at 25.6% and mothers at 20%. Fathers and fathers figures are known to play a critical role identity formation a child, with the fathers leading in emotional abuse, feelings of worthlessness and lose of identity may arise if this compounds with separation and divorce. Could there be a possibility that the higher number of male with OUD is attributed to fatherly wounds (abuse, neglect, fathers using drugs and poor role modeling)? In his studies, Grummit (2022) established that emotional abuse resulting to emotional neglect contributed to poor mental health by being associated with depression, anxiety and stress in young adulthood but not particularly substance use disorder (L. Grummitt et al., 2022). The qualitative findings from this study established had participants who were emotionally abused identify as feeling lonely, sad, depressed, poor sense of self-worth, worry and feelings of being unwanted which are some of the diagnostic features of depressions and anxiety.

Though quantitative results showed that people exposed to emotional abuse were twice as likely to have OUD, qualitative studies showed mediating factors such as feeling depressed, loneliness, and low self -esteem led participant to expose themselves to situations which increased their risk of substance use. Notably, in addition to experiencing the above symptoms, some participants dropped out of

school and left home and landed in the streets and other unsafe places where they were exposed to drugs use due to peer pressure and the need to numb their feelings.

This agrees with one of the theoretical framework for this study; the self-medication hypothesis theory which posits that people use drugs as a way of numbing their pain. Both quantitative and qualitative show that emotional abuse is a predictor; directly or indirectly of adult OUD and therefore underscores the importance of addressing emotional abuse by providing trauma-informed interventions for preventing and treating OUD.

5.3 Relationship between Parental Neglect and OUD

Parental neglect is caused by various factors among them marital problems, poor parenting skills, and mental illness or substance use by the parent or the caregiver. According to WHO, children of alcoholic parents (COAs) tend to experience abuse and neglect and subsequent mental health and behavioral problems that continue to remain a critical public health concern the world over (World Health Organization, 2022). The qualitative findings of this study agree with WHO as the respondents who were neglected had either drunken parents who abused them or were not there to supervise them hence ending up making poor choices or they lacked the opportunity to acquire education. Parental neglect is also mentioned to have been experienced because the parents did not have the capacity to provide the resources needed as they grew up in the streets. This is also evidenced by the demographic characteristics in terms of age, education and marital status whereby those who experienced emotional neglect only having secondary education, divorced and above the age of 35years. Lack of psychosocial and trauma informed interventions therefore would mean that such would likely be a generational cycle perpetuating parental neglect through generations.

In the previously reviewed literature, a 22-year longitudinal study on the impact of adverse childhood experiences whereby parental neglect showed that adults who had been maltreated as children are at a significantly higher risk of substance use disorders than adults who have not been maltreated (LeTendre & Reed, 2017) (Choi et al., 2017). These findings agree with this study which established that respondents who had experienced parental neglect were twice as likely to develop OUD compared to those not neglected by parents.

Although the quantitative analysis did not reveal a significant association between parental neglect and OUD, qualitative responses highlighted the detrimental impact of parental neglect on individuals' development and well-being. The qualitative findings suggest that parental neglect may contribute to adult OUD by exposing individuals to negative influences, disrupting their social and emotional development, and exacerbating feelings of hopelessness and despair. These findings underscore the importance of addressing parental neglect in trauma-informed interventions aimed at reducing the risk of OUD.

5.4 The Relationship between Parental Separation and Divorce and OUD

This study sought to establish whether there was a relationship between parental separation and divorce during ones childhood and adult OUD. The studies reviewed in the literature asserted that there is a relationship between parental separation and divorce and mental well-being including the use of drugs and substances. Since the studies reviewed had either children or adolescents as the target population and none focused on adults or teenagers with opioid use disorders, this study sought to establish whether there was a relationship between parental separation and divorce and adult OUD. The quantitative findings of the study revealed a significant association between parental separation and divorce and adult OUD, with

individuals affected by this childhood trauma being 8 times more likely to develop OUD. These findings corroborates with previous studies which identified adolescents to be at risk of substance use and other risky behaviours, the same pattern applies to adults (Lee & McLanahan, 2015). Logistic regression to show the association between opioid use disorder and parental divorce and separation, adjusted for socio-demographic characteristics showed that there was a correlation between age and marital status in influencing OUD.

The qualitative responses provided deeper insights into the mechanisms underlying this association, with respondents attributing their substance use to the stress, instability, and lack of parental support resulting from parental separation and divorce. The following excerpts from participant's responses show that parental separation and divorce did not only contribute to emotional stress and trauma, but because of the burden left on one parent to raise the children, there was an increased likelihood of emotional abuse and neglect happening too. *"One parent was not able to support the life. Moved to the street and got deep into addiction".....*"*Yes, parental separation and divorce contributed to my substance dependence because there was no parental support.*

Some participants reported experiencing identity issues in cases where the parents separated at the point of conception. Not knowing their biological fathers strongly affected their identity. A participant from Pangani said, "I always wonder how my father looked like, would I have had a different life if my father was around, when I think about it I just get depressed and use drugs to forget?" Going by previous studies which identified the emotional state of a pregnant mother affecting the unborn child's physical and emotional health (Chauhan & Potdar, 2022) (Semeia et al., 2023), from the study, it can implied that the respondents who were born of parents who

separated just after conception may have been raised by highly stressed and anxious mothers who may pass on the same emotionally dysregulation to the children predisposing to later use of drugs.

Besides highlighting the relationship between parental separation and divorce as a form of childhood trauma adult OUD, the findings from this study underscore the importance of addressing psychological challenges experienced by family members after separation and divorce with need to focus on children and adolescents whose brain is still developing and may blame themselves for the separation or divorce, factors that may leave them depressed and guilty further making self-destructive behaviours such as alcohol and drug use more pervasive.

Accordingly, creating a home environment where children feel loved protected and provided for even after separation and divorce may help mitigate future adult risk of developing OUD.

5.5 Trauma-Informed Interventions for OUD

The study findings highlight the critical need for trauma-informed interventions (treatment and prevention) in addressing OUD among individuals with a history of childhood trauma. Trauma-informed care emphasizes the recognition of the prevalence and impact of trauma, the integration of trauma-sensitive approaches into service delivery, and the promotion of resilience and recovery (Substance Abuse and Mental Health Services Administration, 2014). Counseling and psychotherapy interventions that incorporate trauma-informed principles, such as safety, trustworthiness, choice, collaboration, and empowerment, have been shown to be effective in addressing the underlying trauma and reducing substance use behaviors (Najavits, 2002).

Based on the above principles of trauma informed care, the study sought to get feedback from the respondents on how they wished the issues they went through would have been addressed to prevent them from developing OUD. Findings from the study showed that therapists at SAPTAs harm reduction program created safety, autonomy and informed consent during the counselling sessions. With 76% of the respondents having attended therapy sessions, 49% were not given a chance to talk about their childhood issues. This indicates a possible gap exploration of issues as 92% of the respondents had been exposed to emotional abuse, 96% to parental neglect and 93% exposed to parental separation and divorce as forms of childhood trauma.

Qualitative findings established that to provide trauma informed interventions; clients need to be listened to, given space and safety to talk about their issues and what led them to substance use; therapists should understand that everybody has gone through different experiences and that they should listen without judgment and give them hope as shown in some of their responses.one participant From Kawangware said, *"counsellors should try to find out about what people went through and help them deal with it, the pain is what causes us to use drugs"...*another participant from Pangani noted that *"counselors should not be judgmental to client and always make feel secure and welcome when talking to them. Listen to them"*

Such findings agree with the Self Medication Hypothesis (SMH) theory which this study is anchored on which posit that pain and suffering predispose people to addictive disorders (Khantzian, 1997) and therefore screening for the possibility of childhood trauma for all clients receiving harm reduction services will help the counsellors prepare trauma informed treatment plans.

Prevention programs encompass promoting protective factors and minimizing or mitigating the risk factors while promoting resilience and recovery. When

participants were asked what they wish could have been done to prevent them from developing OUD based on the three childhood traumatic experiences, they identified the following as ways that would have probably led to them being more resilient; having parents who were involved and ready to correct them when they were wrong, getting an opportunity to continue with school, having someone to talk to and listen to them when bad things happened to them, being validated, having someone to mentor them and parents who did not use drugs. Such is highlighted in some of the responses;

A participant from Kayole mentioned *"I wish to have someone to talk to since my parents separated;* A respondent from Githurai station wished, *"I wish I had a chance to have someone to support me when I was little, then things would have been different."*; one from Githurai station hoped for *"... parents not drinking, to be cared for and supported."*; another from Pangani center wished to be *"... taken to school, my parents not drinking, taking counseling after my parents' death.";* a respondent from Kawangware mentioned that they wished *"having someone to guide and discipline, this would have helped me avoid bad company I also wish my mother would adequately support us especially in education.".* Such highlights from the qualitative data show that prevention programs involve more than just the person the child or adolescent but the people and the system surrounding them. Moreover, peer support programs, group therapy, and holistic approaches that address the interconnectedness of emotional, social, physical and spiritual well-being can enhance the effectiveness of trauma-informed prevention programs (Fallot & Harris, 2001).

5.6 Conclusion

Previous studies have underscored the impact of childhood traumatic experiences on the functioning of an individual. Many of the studies done on the impact of childhood trauma or adverse childhood experiences focused on adolescents

and children. This study sought to establish the relationship between childhood trauma and adult substance use among persons receiving services at SAPTAs harm reduction program in Nairobi County. The findings of this study have established the complex relationship between childhood trauma (emotional abuse, parental neglect and parent separation and divorce). Majority of the participants had severe substance use and had experienced the three studied forms of childhood trauma experiences.

This means that it is necessary to screen for childhood trauma with every client in order to provide trauma informed interventions. Significant findings in the study showed that respondents who had experienced parental separation and divorce were more than 8 times likely to use drugs than those who did not, therefore making parental separation and divorce a significant predictor of OUD. This highlights the profound impact of family disruption on individuals' vulnerability to substance use. Although there was no statistical significance on emotional abuse, qualitative data indicated an indirect relationship between emotional abuse, parental neglect and OUD, respondents identified that they experienced loneliness, sadness, depression, and poor sense of self-worth among others symptoms which further led them to expose themselves to environments which made them more susceptible to drug use. Most of the respondents were emotionally abused by their fathers and thus highlight the importance of parenting skills as a protective factor for childhood trauma.

With majority of the clients with severe OUD, medication assisted therapy (MAT) component of the harm reduction program becomes necessary to step to help persons get weaned off their drugs of choice. The study established that close to half of the participants were on the MAT for more than 3 years and some confirming that they still use other drugs because after taking methadone they have no work to do. This would therefore mean that there is need to address other underlying issues rather

than just managing cravings and withdrawal symptoms by use of methadone, a combination of pharmacotherapy and psychotherapy.

In the problem statement, the researcher was concerned that the clients may not be accessing counselling sessions because drop in facilities where counsellors are based and where they receive methadone was different. However, the study established that, majority of the clients had received counselling sessions but of concern is that despite majority presenting with the studied forms of childhood traumas, close to half of the respondents never had their therapists explore their childhood experiences. The findings from this study depict how prevalent childhood trauma and confirm the self-medication hypothesis and the contemporary trauma theories which help in understanding why people use drugs and what treatment and prevention interventions should look like. The study established that trauma informed interventions should involve the affected person as well as address contextual factors to minimize or eliminated risk factors while promoting protective factors and building a person's resilience.

The study did not specifically establish how the mediating variables contributed to OUD; however, respondents identified things like, low sense of self-worth, loneliness and depression which are common symptoms for the mediating variables. Trauma interventions do not focus on the actual event but on people's responses to the actual event. By integrating trauma-sensitive approaches into service delivery and promoting resilience and recovery, healthcare professionals and policymakers can mitigate the impact of childhood trauma on OUD and promote the overall well-being of individuals affected by substance use disorders.

5.7 Recommendations

Based on the findings of this study, the following recommendations are proposed for future practice:

The study was able to establish how prevalent childhood trauma is among adults with OUD. It is therefore necessary for institutions such as NACADA to integrate trauma informed interventions in the national treatment protocol for substance use disorders. Additionally, healthcare professionals and counselors working with individuals with substance use disorders should receive training in trauma-informed care to effectively address the underlying trauma associated with childhood adversity and appreciate that when working with trauma it is not about addressing the actual events but the responses which people have as result of the events.

With the significant correlation between the childhood traumatic experiences and opioid use disorders, it is important to intervene early to ensure that such experiences do not mutate into other problems like SUD. Early identification and intervention programs targeting children and adolescents exposed to adverse childhood experiences should be developed and implemented by stakeholders working with such population so as to mitigate the risk of developing substance use disorders later in life.

For harm reduction and other treatment programs, efforts should be made to strengthen family support systems and provide resources for parents to mitigate the impact of family disruption and parental neglect on children's well-being.

People with opioid use disorders are in most cases homeless and with few or no ties to their communities and families, this identified the need to develop or strengthen existing community-based programs focusing on prevention, education,

and support for individuals affected by substance use disorders and childhood trauma. Such programs would enhance connection which is a critical protective factor in trauma healing and transcend stigma and discrimination experienced by persons with

The study found out that over 40% of the respondents had been on methadone for more than three years and some were still in active use of other drugs. To minimize abuse and dependency on methadone, it is essential to review policies and regulations governing continued enrollment in methadone program with specific practical timelines when someone should be weaned off the medication and positive behavioural expectations stated.

In addition, this study recommends having a well-structured case management program to ensure linkage and monitoring of services especially psychotherapy to minimize the possibility of clients falling through the cracks between methadone clinics and drop in centers. Interventions should also target clients significant others to address relationship and identity issues which could be contributing to continuing drug use.

Lastly, qualitative data established that in addition to exposure to childhood adversity, lack of employment or income generating activities and homelessness were identified as other reasons why some people continued to use drugs. It is therefore recommendable that harm reduction programs should incorporate income generating activities and other economic empowerment programs to support clients along the continuum of care.

By implementing these recommendations, stakeholders can work towards mitigating the impact of childhood trauma on OUD and promoting the overall well-being of clients receiving harm reduction services and individuals affected by substance use disorders in Nairobi County and beyond.

5.8 Recommendations for Further Research

The researcher recommends the use of qualitative methods of data collection such as focused group discussions and interview schedules for data collection to gain more insights on childhood trauma and addiction. Future research should explore the relationship between other ACES besides emotional abuse, parental neglect and parental separation and divorce and other factors such as environmental, cultural and socio-economic factors and how they related with OUD in order to inform more targeted interventions. A study on the effectiveness of the methadone program in reducing drug use and related harms in Kenya and whether there is need to have limited time duration for methadone use as a replacement therapy.

REFERENCES

American Psychiatric Association. (2022). *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5-TR). American Psychiatric Association Publishing. https://doi.org/10.1176/appi.books.9780890425787

American Society of Addiction Medicine. (2020). The ASAM National Practice Guideline for the Treatment of Opioid Use Disorder: 2020 Focused Update. *Journal of Addiction Medicine*, *14*(2S), 1–91. https://doi.org/10.1097/ADM.0000000000000633

Banducci, A. N., Hoffman, E. M., Lejuez, C. W., & Koenen, K. C. (2014). The impact of childhood abuse on inpatient substance users: Specific links with risky sex, aggression, and emotion dysregulation. *Child Abuse & Neglect*, *38*(5), 928–938. https://doi.org/10.1016/j.chiabu.2013.12.007

Bloom, S. L., & Farragher, B. (2013). *Restoring Sanctuary: A New Operating System for Trauma-Informed Systems of Care*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199796366.001.0001

Burke, N. N., Finn, D. P., McGuire, B. E., & Roche, M. (2017). Psychological stress in early life as a predisposing factor for the development of chronic pain: Clinical and preclinical evidence and neurobiological mechanisms. *Journal of Neuroscience Research*, *95*(6), 1257–1270. https://doi.org/10.1002/jnr.23802

Centers for Disease Control and Prevention. (2023, February 1). *Opioid Use Disorder: Preventing and Treating*. Centers for Disease Control and Prevention. https://www.cdc.gov/opioids/healthcare-professionals/prescribing/opioid-use-disorder.html

Chauhan, A., & Potdar, J. (2022). Maternal Mental Health During Pregnancy: A Critical Review. *Cureus*. https://doi.org/10.7759/cureus.30656

Choi, N. G., DiNitto, D. M., Marti, C. N., & Choi, B. Y. (2017). Association of adverse childhood experiences with lifetime mental and substance use disorders among men and women aged 50+ years. *International Psychogeriatrics*, *29*(3), 359–372. https://doi.org/10.1017/S1041610216001800

Degenhardt, L., Grebely, J., Stone, J., Hickman, M., Vickerman, P., Marshall, B. D. L., Bruneau, J., Altice, F. L., Henderson, G., Rahimi-Movaghar, A., & Larney, S. (2019). Global patterns of opioid use and dependence: Harms to populations, interventions, and future action. *The Lancet*, *394*(10208), 1560–1579. https://doi.org/10.1016/S0140-6736(19)32229-9

D'Onofrio, B., & Emery, R. (2019). Parental divorce or separation and children's mental health. *World Psychiatry*, *18*(1), 100–101. https://doi.org/10.1002/wps.20590

Eriksen, A. M. A., Schei, B., Hansen, K. L., Sørlie, T., Fleten, N., & Javo, C. (2016). Childhood violence and adult chronic pain among indigenous Sami and non-Sami populations in Norway: A SAMINOR 2 questionnaire study. *International Journal of Circumpolar Health*, *75*(1), 32798. https://doi.org/10.3402/ijch.v75.32798

Fallot, R. D., & Harris, M. (2001). A trauma-informed approach to screening and assessment. *New Directions for Mental Health Services*, *2001*(89), 23–31. https://doi.org/10.1002/yd.23320018904

Goodman, R. (2017). Contemporary Trauma Theory and Trauma-Informed Care in Substance Use Disorders: A Conceptual Model for Integrating Coping and Resilience. *Advances in Social Work*, *18*(1), 186–201. https://doi.org/10.18060/21312

Graf, G. H.-J., Chihuri, S., Blow, M., & Li, G. (2021). Adverse Childhood Experiences and Justice System Contact: A Systematic Review. *Pediatrics, 147*(1), e2020021030. https://doi.org/10.1542/peds.2020-021030

Gravetter, F. J., & Forzano, L.-A. B. (2018). *Research methods for the behavioral sciences* (6th edition). Cengage.

Gray, J., & Grove, S. K. (2021). *Burns and Grove's the practice of nursing: Appraisal, synthesis, and generation of evidence* (9th edition). Elsevier.

Grummitt, L., Barrett, E., Kelly, E., & Newton, N. (2022). An Umbrella Review of the Links Between Adverse Childhood Experiences and Substance Misuse: What, Why, and Where Do We Go from Here? *Substance Abuse and Rehabilitation*, *13*, 83–100. https://doi.org/10.2147/SAR.S341818

Grummitt, L. R., Kelly, E. V., Barrett, E. L., Lawler, S., Prior, K., Stapinski, L. A., & Newton, N. C. (2022). Associations of childhood emotional and physical neglect with mental health and substance use in young adults. *Australian & New Zealand Journal of Psychiatry*, *56*(4), 365–375. https://doi.org/10.1177/00048674211025691

Haworth, S., Schaub, J., Kidney, E., & Montgomery, P. (2024). A Systematic Review of Measures of Child Neglect. *Research on Social Work Practice*, *34*(1), 17–40. https://doi.org/10.1177/10497315221138066

He, J., Yan, X., Wang, R., Zhao, J., Liu, J., Zhou, C., & Zeng, Y. (2022). Does Childhood Adversity Lead to Drug Addiction in Adulthood? A Study of Serial Mediators Based on Resilience and Depression. *Frontiers in Psychiatry*, *13*, 871459. https://doi.org/10.3389/fpsyt.2022.871459

Herman, J. L. (2015). *Trauma and recovery: The aftermath of violence ; from domestic abuse to political terror* (2015 edition). Basic Books.

Hu, J. C., Link, C. L., McNaughton-Collins, M., Barry, M. J., & McKinlay, J. B. (2007). The Association of Abuse and Symptoms Suggestive of Chronic Prostatitis/Chronic Pelvic Pain Syndrome: Results from the Boston Area Community Health Survey. *Journal of General Internal Medicine*, *22*(11), 1532–1537. https://doi.org/10.1007/s11606-007-0341-y

Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet Public Health*, *2*(8), e356–e366. https://doi.org/10.1016/S2468-2667(17)30118-4

Hyndman, R. J., & Booth, H. (2008). Stochastic population forecasts using functional data models for mortality, fertility and migration. *International Journal of Forecasting*, *24*(3), 323–342. https://doi.org/10.1016/j.ijforecast.2008.02.009

Jackson, K. M., Rogers, M. L., & Sartor, C. E. (2016). Parental divorce and initiation of alcohol use in early adolescence. *Psychology of Addictive Behaviors*, *30*(4), 450–461. https://doi.org/10.1037/adb0000164

Jones, C. M., Logan, J., Gladden, R. M., & Bohm, M. K. (2015). Vital Signs: Demographic and Substance Use Trends Among Heroin Users - United States, 2002-2013. *MMWR. Morbidity and Mortality Weekly Report*, *64*(26), 719–725.

Khantzian. (1985). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. *American Journal of Psychiatry*, *142*(11), 1259–1264. https://doi.org/10.1176/ajp.142.11.1259

Khantzian, E. J. (1997). The Self-Medication Hypothesis of Substance Use Disorders: A Reconsideration and Recent Applications. *Harvard Review of Psychiatry, 4*(5), 231–244. https://doi.org/10.3109/10673229709030550

Kiburi, S. K., Molebatsi, K., Obondo, A., & Kuria, M. W. (2018). Adverse childhood experiences among patients with substance use disorders at a referral psychiatric hospital in Kenya. *BMC Psychiatry, 18*(1), 197. https://doi.org/10.1186/s12888-018-1780-1

Kivnick, H. Q., & Wells, C. K. (2014). Untapped Richness in Erik H. Erikson's Rootstock. *The Gerontologist*, *54*(1), 40–50. https://doi.org/10.1093/geront/gnt123

Kothari, C. R. (1990). *Research methodology: Methods and techniques* (2nd ed). Wiley Eastern : New Age International.

Kulsudjarit, K. (2004). Drug Problem in Southeast and Southwest Asia. *Annals of the New York Academy of Sciences*, *1025*(1), 446–457. https://doi.org/10.1196/annals.1316.055

Lake, S., Wood, E., Dong, H., Dobrer, S., Montaner, J., & Kerr, T. (2015). The impact of childhood emotional abuse on violence among people who inject drugs. *Drug and Alcohol Review*, *34*(1), 4–9. https://doi.org/10.1111/dar.12133

Lander, L., Howsare, J., & Byrne, M. (2013). The Impact of Substance Use Disorders on Families and Children: From Theory to Practice. *Social Work in Public Health*, *28*(3–4), 194–205. https://doi.org/10.1080/19371918.2013.759005

Lee, D., & McLanahan, S. (2015). Family Structure Transitions and Child Development: Instability, Selection, and Population Heterogeneity. *American*

Sociological Review, *80*(4), 738–763. https://doi.org/10.1177/0003122415592129

LeTendre, M. L., & Reed, M. B. (2017). The Effect of Adverse Childhood Experience on Clinical Diagnosis of a Substance Use Disorder: Results of a Nationally Representative Study. *Substance Use & Misuse*, *52*(6), 689–697. https://doi.org/10.1080/10826084.2016.1253746

Machisa, M. T., Christofides, N., & Jewkes, R. (2017). Mental ill health in structural pathways to women's experiences of intimate partner violence. *PLOS ONE*, *12*(4), e0175240. https://doi.org/10.1371/journal.pone.0175240

Marris, W. (2023, March 14). *The Campaign on Trauma-Informed Policy and Practice 2022*. Trauma-Informed Policy Development Highlights. www.pacesconnection.com

Maté, G. (2010). *In the realm of hungry ghosts: Close encounters with addiction*. North Atlantic Books.

Maté, G. (2011). *When the body says no: Exploring the stress-disease connection*. J. Wiley.

Mbogo, L. W., Sambai, B., Monroe-Wise, A., Ludwig-Barron, N. T., Guthrie, B. L., Bukusi, D., Chohan, B., Macharia, P., Dunbar, M., Juma, E., Sinkele, W., Gitau, E., Tseng, A. S., Bosire, R., Masyuko, S., Musyoki, H., Temu, T. M., Herbeck, J., & Farquhar, C. (2022). Participation in methadone programs improves antiretroviral uptake and HIV viral suppression among people who inject drugs in Kenya. *Journal of Substance Abuse Treatment*, *134*, 108587. https://doi.org/10.1016/j.jsat.2021.108587

McCombes. (2019). *Understanding Different Sampling Methods*. Scientific Research. https://www.scribbr.com/methodology/sampling-methods/

McLaughlin, K. A., Koenen, K. C., Hill, E. D., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2013). Trauma Exposure and Posttraumatic Stress Disorder in a National Sample of Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, *52*(8), 815-830.e14. https://doi.org/10.1016/j.jaac.2013.05.011

Moxley, S., & Garrison, M. E. B. (2023). Perry, B. D. and Winfrey, O. (2021). What happened to you? Conversations on trauma, resilience, and healing. Flatiron Books. ISBN 978-1-250-22318-0 (hardcover). 302 pages. *Family and Consumer Sciences Research Journal*, *51*(3), 231–233. https://doi.org/10.1111/fcsr.12465

Mugenda, & Mugenda. (2003). Scientific Research. https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1917785

NACADA. (2017). *Rapid situation assessment of drugs and substance abuse in Kenya* (pp. 1–119).

NACADA. (2019). *Status of Drugs and Substance Abuse among Primary School Pupils in Kenya.* National Authority for the Campaign against Alcohol and Drug Abuse (NACADA). https://nacada.go.ke/sites/default/files/2019-10/Report%20on%20the%20Status%20of%20Drugs%20and%20Substance%20Abuse%20among%20Primary%20School%20

Najavits, L. (2002). *Seeking safety: A treatment manual for PTSD and substance abuse*. Guilford Press.

Norman, R. E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The Long-Term Health Consequences of Child Physical Abuse, Emotional Abuse,

and Neglect: A Systematic Review and Meta-Analysis. *PLoS Medicine*, *9*(11), e1001349. https://doi.org/10.1371/journal.pmed.1001349

Obeid, S., Al Karaki, G., Haddad, C., Sacre, H., Soufia, M., Hallit, R., Salameh, P., & Hallit, S. (2021). Association between parental divorce and mental health outcomes among Lebanese adolescents: Results of a national study. *BMC Pediatrics*, *21*(1), 455. https://doi.org/10.1186/s12887-021-02926-3

Oguya, F. O., Kenya, P. R., Ongecha, F., Mureithi, P., Musyoka, H., Muraguri, N., Mundia, B., Angira, C., Shose, M., Basheeb, T. A., Mohamed, A. A., Oyore, J. P., Ochieng, O. G., Dida, G. O., Abdalla, S., & Abdool, R. (2021). Rapid situational assessment of people who inject drugs (PWID) in Nairobi and coastal regions of Kenya: A respondent driven sampling survey. *BMC Public Health*, *21*(1), 1549. https://doi.org/10.1186/s12889-021-11373-9

Prangnell, A., Shoveller, J., Voon, P., Shulha, H., Grant, C., Milloy, M.-J., Kerr, T., & Hayashi, K. (2020). The Impact of Childhood Emotional Abuse on Pain Interference Among People with Chronic Pain who Inject Drugs in Vancouver, Canada. *Pain Medicine (Malden, Mass.)*, *21*(4), 704–713. https://doi.org/10.1093/pm/pnz233

Prangnell, A., Voon, P., Shulha, H., Nosova, E., Shoveller, J., Milloy, M.-J., Kerr, T., & Hayashi, K. (2019). The relationship between childhood emotional abuse and chronic pain among people who inject drugs in Vancouver, Canada. *Child Abuse & Neglect*, *93*, 119–127. https://doi.org/10.1016/j.chiabu.2019.05.006

Rees, C. A. (2010). Understanding emotional abuse. *Archives of Disease in Childhood*, *95*(1), 59–67. https://doi.org/10.1136/adc.2008.143156

Rhodes, T., Guise, A., Ndimbii, J., Strathdee, S., Ngugi, E., Platt, L., Kurth, A., Cleland, C., & Vickerman, P. (2015). Is the promise of methadone Kenya's

solution to managing HIV and addiction? A mixed-method mathematical modelling and qualitative study. *BMJ Open*, *5*(3), e007198. https://doi.org/10.1136/bmjopen-2014-007198

Rokach, A., & M. Ohayon-Inger, K. (2022). Child Neglect: What Is It, What Causes It and How We Can Minimize It? *International Journal of Clinical Case Reports and Reviews*, *10*(1), 01–07. https://doi.org/10.31579/2690-4861/175

Salihu, Md, PhD, H. M., Salinas, Md, PhD, A., Medina, Md, Mph, I., Krishnaswami, Md, Mph, J., & Aliyu, Md, DrPH, M. H. (2019). Biopsychosocial determinants of opioid use disorder (OUD) and implications for maternal and child health research: A scoping review. *Journal of Opioid Management*, *15*(1), 77–91. https://doi.org/10.5055/jom.2019.0488

SAPTA. (2023). *Harm Reduction Programs with Those Who Inject Heroin: Global Fund/Red Cross Kenya*. Support for Addiction Prevention and Treatment in Africa. https://www.sapta.or.ke: https://www.sapta.or.ke/harm-reduction-programs-with-those-who-inject-heroin-global-fund-red-cross-kenya/

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (Eighth edition). Pearson.

Schilling, S., & Christian, C. W. (2014). Child Physical Abuse and Neglect. *Child and Adolescent Psychiatric Clinics of North America*, *23*(2), 309–319. https://doi.org/10.1016/j.chc.2014.01.001

Semeia, L., Bauer, I., Sippel, K., Hartkopf, J., Schaal, N. K., & Preissl, H. (2023). Impact of maternal emotional state during pregnancy on fetal heart rate variability. *Comprehensive Psychoneuroendocrinology*, *14*, 100181. https://doi.org/10.1016/j.cpnec.2023.100181

Shapiro, R. (2010). *The trauma treatment handbook: Protocols across the spectrum* (1st ed). W.W. Norton.

Sheffler, J. L., Piazza, J. R., Quinn, J. M., Sachs-Ericsson, N. J., & Stanley, I. H. (2019). Adverse childhood experiences and coping strategies: Identifying pathways to resiliency in adulthood. *Anxiety, Stress, & Coping*, *32*(5), 594–609. https://doi.org/10.1080/10615806.2019.1638699

Substance Abuse and Mental Health Services Administration. (2014). *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach.* HHS Publication. https://ncsacw.acf.hhs.gov/userfiles/files/SAMHSA_Trauma.pdf

Szalavitz, M. (2012). Abusive Treatment Common in the USA , Not Just A sia. *Addiction*, *107*(10), 1884–1885. https://doi.org/10.1111/j.1360-0443.2012.03996.x

Taplin, C., Saddichha, S., Li, K., & Krausz, M. R. (2014). Family History of Alcohol and Drug Abuse, Childhood Trauma, and Age of First Drug Injection. *Substance Use & Misuse*, *49*(10), 1311–1316. https://doi.org/10.3109/10826084.2014.901383

Teicher, M. H., & Samson, J. A. (2016). Annual Research Review: Enduring neurobiological effects of childhood abuse and neglect. *Journal of Child Psychology and Psychiatry*, *57*(3), 241–266. https://doi.org/10.1111/jcpp.12507

Tuikong, S. J. (2020). Prevalence, Challenges, and Interventions for Child Neglect: Cases Reported through Childline Kenya Helpline (2016-2018). *Open Journal of Social Sciences*, *08*(07), 181–195. https://doi.org/10.4236/jss.2020.87015

Tzouvara, V., Kupdere, P., Wilson, K., Matthews, L., Simpson, A., & Foye, U. (2023). Adverse childhood experiences, mental health, and social functioning:

A scoping review of the literature. *Child Abuse & Neglect, 139*, 106092. https://doi.org/10.1016/j.chiabu.2023.106092

U. S. Department of Health and Human Services. (2019). *2019 Annual Report*. United States Department of Health and Human Services. https://www.hhs.gov/sites/default/files/2019-annual-report.pdf

UNICEF. (2020, July 16). *Action urged as national survey finds half of Kenyan children suffer violence*. United Nations Children's Fund (UNICEF). https://www.unicef.org/kenya/press-releases/Action-urged-as-national-survey-finds-half-of-Kenyan-children-suffer-violence

UNODC. (2020). *Report on the Urban Safety Governance Assessment in Mathare, Nairobi City*. United Nations Office on Drugs and Crime / Regional Office for Eastern-Africa. https://www.unodc.org/pdf/criminal_justice/UrbanSafety/Report/USGA_UNODCity_Nairobi_Final_Report.pdf

UNODC. (2022). *World Drug Report 2022*. United Nations Office on Drugs and Crime. https://www.unodc.org/res/wdr2022/MS/WDR22_Booklet_2.pdf

Van, D.W.R. (2023). *A phenomenology study of clinicians' perspectives on dissociation while working with traumatised children in the South African context*. Faculty of Humanities ,Department of Social Development. http://hdl.handle.net/11427/38196

Wilkinson, M. (2016). Van Der Kolk, Bessel. The Body Keeps The Score: Mind, Brain and Body in the Transformation of Trauma. New York & London: Allen Lane, Penguin Books. 2014. Pp. 443. Hbk. £25. *Journal of Analytical Psychology*, *61*(2), 239–244. https://doi.org/10.1111/1468-5922.12213_1

World Health Organization. (2022, May 9). *Alcohol*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/alcohol

APPENDICES

APPENDIX 1: RESEARCH QUESTIONNAIRE

My name is Catherine Wanjiru Muthiani, a MA Counselling Psychology student at Africa Nazarene University. I am carrying out a study on the relationship between childhood trauma and opioid use disorders for my academic work and kindly requesting you to provide responses to the questions given in this tool. The findings of the study will strictly be used for academic purposes. Participation in the study is voluntary and information gathered is CONFIDENTIAL and will be used for academic purposes only.

If you volunteer to participate, please sign the left part and separate this page from the rest. If you do not want to participate, please sign the right part, hand in the form to the researcher or research assistants.

I am informed about the survey and I VOLUNTEER TO PARTICIPATE.	I am informed about the survey and DO NOT WANT TO PARTICIPATE.
Sign here:_____	Sign here:_____
Please separate this consent form from the questionnaire and wait until the research assistant says you can start with the questionnaire. Thank You!	Please give this consent form to the research assistant and leave the room. Thank You!

Confidential **Serial no: _____**

This questionnaire is made up of six sections, sections **A, B, C, D E &F**. Please answer each question by ticking against the appropriate box. The information will be used for the purpose of this research only. Do not write your name on the answer sheet. All your responses will be kept anonymous and strictly confidential as part of ethical considerations for this survey. The findings will strictly be used for academic purposes.

Section A: Demographic Characteristics

(Please tick where applicable).

1. Which gender do you identify with?
   - [1] Male
   - [2] Female
   - [3] Choose not to say

2. What is your age group?
   - [1] 25 years and below
   - [2] 26-35 years
   - [3] 36-45 years
   - [4] 46 years and above

3. What is the highest level of education you have completed?
   - [1] Primary level
   - [2] Secondary level
   - [3] College level
   - [4] Bachelor's degree level
   - [5] Post-graduate level

4. What is your marital status?
   - [1] Single (never married)
   - [2] Currently married
   - [3] Separated/ divorced/ widowed

5. Which of the following best describes your main work status over the last 12 months?
   - [1] Government employee
   - [2] Non-government employee
   - [3] Self-employed
   - [4] Student
   - [5] Retired
   - [6] Homemaker
   - [7] Unemployed (able to work)
   - [8] Unemployed (unable to work)

6. How long have you received services at SAPTA?
   - [1] Less than 6 months
   - [2] 6months
   - [3] 1-2 years
   - [4] 3-4 years
   - [5] 5 years
   - [6] Over 5 years

7. Are you currently on methadone?
   - [1] Yes
   - [2] No
   - [3] Awaiting induction
   - [4] Defaulted

Section B: Severity of Opioid Use Disorder

Check the box that applies on the right	**Yes**	**No**
Did (do) you take opioid (heroin) in larger amounts than intended?		
Did (have) you tried to stop your opioid (heroin) use unsuccessfully?		
Did (do) you spent a lot of time in activities necessary to get, use or recover from the effects heroin?		

Did (have) you experienced craving, or a strong desire to use opioids (heroin)?		
Did (has) your recurrent opioid (heroin) use resulted in failure to fulfill major role obligations at work, school, or home?		
Did (do) you continue to use opioids (heroin) despite having constant issues in relationships and social problems caused by or worsened by the effects of heroin?		
Did you or have you given up or reduced important social, occupational, or recreational activities because of opioid (heroin) use?		
Did (do) you recurrently use opioids (heroin) in situations in which you can get harmed?		
Did (have) you continued to use despite knowing that your health, your family relationships or ability to work is worsened by (heroin) use?		
Did (have) you needed to take more (opioids) heroin in order to get the desired high?		
Did (have) you experienced withdrawal symptoms or taken opioids (heroin) to relieve the discomfort of not using?		

Section C: Emotional Abuse *(tick where applicable)*

Please provide your responses based on experiences before the age of 18 years

1. Did a parent, guardian, or other household member yell, scream, or swear at you, insult or humiliate you?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not say
2. Did a parent, guardian, or other household member belittle you or make you feel inferior?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not say
3. Did a parent, guardian, or other household member make you feel unwanted and their life was better off without you?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
4. What is your relation with that person who humiliated, made you feel unwanted, belittled you or made you feel inferior?
    a. Father
    b. Mother
    c. Sibling
    d. Guardian
    e. Choose not to say

5. Do you think the experiences you went through in childhood have contributed to your current substance use?
    a. Yes
    b. No
    c. Unsure
    d. Choose not to say

Is there anything else you would like to say about being emotionally abused?

_____

_____

_____

Section D: Parental Neglect *(tick where applicable)*

Please provide your responses based on experiences before the age of 18 years

1. Did a parent, guardian, or other household member threaten to, or actually, abandon you or throw you out of the house?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
2. Were you locked up in the house alone or left outside when your parents were away?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
3. Did you have days when you would go without food because your parents were away or seemed unbothered about your well-being?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
4. Did you miss attending school because your parents did not provide the needed school requirements (such as paying school fees, buying books, parents failing to attend school meetings)?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
5. Did you get injured or exposed to dangerous situations because a parent or guardian or a member of the household was not there to supervise you?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say

6. Did you feel alone and isolated because there was no one to talk to you or encourage you when you were not ok?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
7. Were you exposed to negative activities (such as criminal gangs, sex trade, drug use, etc.) because a parent or guardian was not there to provide guidance and protection?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
8. Do you think being neglected by your parent/guardian has contributed to your current substance use?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
9. Other comments

    _____
    _____
    _____

Section E: Parental separation and divorce *(tick where applicable)*

Please provide your responses based on experiences before the age of 18 years

1. Do you know both your parents?
    a. Yes
    b. No
    c. Choose not to say
2. If NOT, which parent did you not know?
    a. Mother
    b. Father
    c. Not applicable

3. What are the circumstances that led to you not knowing your parent(s)?
    a. Death
    b. Did not find him/her when I was born
    c. Choose not to say
4. If you had both parents, did you hear your parents constantly fighting that you were worried they will separate?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
5. Did your parents separate or divorce?**(*Jump to qstn 9 if the answer is no*)**

a. Yes
b. No
c. Choose not to say

6. If your parents are separated or divorced, were you able to see and spend time with the other parent?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
7. Did your parental separation and divorce affect your identity and sense of self-worth?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
8. Do you think that your parents' separation/divorce has contributed to your current substance use?
    a. Many times
    b. A few times
    c. Once
    d. Never
    e. Choose not to say
9. Other comments

_____
_____
_____

Section F: Trauma-informed Interventions

1. Have you attended any of counselling sessions during the program?
    a. Yes
    b. No
    c. Choose not to say

2. If you have attended counselling, did your counsellor ask you about your childhood experiences? ***(Jump to qstn 3 if the answer is no to this qstn)***
    a. Yes
    b. No
    c. Not sure

If yes;

i. Did you feel safe?
    a. Yes
    b. No
    c. Not applicable

ii. Were you given the choice to decide what to talk about during the counselling session?
    a. Yes

b. No

iii. Were you informed why focusing on childhood experiences was necessary, did you feel empowered?

a. Yes
b. No
c. The counsellor did not ask me about my childhood

3. Based on the questions asked in this questionnaire, so you think it is important for counsellors to help clients address unpleasant childhood issues?

a. Yes
b. No
c. Not sure

4. What advice would you give to counselors working with clients who have gone through unpleasant childhood experiences?

_____
_____
_____

5. What do you wish could have been done to help you cope better with unpleasant childhood experiences? *(e.g having someone to listen to me, having someone to tell me that I am important, being taken to school, may parents not drinking, taking to counselling after my parents death, protected from bad things happening to me etc)*

_____
_____
_____
_____
_____

****Thank you for your responses****

APPENDIX 2: ANU RESEARCH PERMISSION LETTER

AFRICA NAZARENE
UNIVERSITY

P.O.Box: 53067 – 00200
Nairobi, Kenya.
Tel: 020 252 7170/1 – 5
Email: vc@anu.ac.ke
www.anu.ac.ke

29th January 2024

RE: TO WHOM IT MAY CONCERN

Catherine Wanjiru Muthiani (18S03EMCP002) is a bonafide student at Africa Nazarene University. She has finished her course work and has defended her thesis proposal entitled: -

"The Relationship between Childhood Trauma and Opioid Addiction among Clients at SAPTAS Harm Reduction Program, Nairobi County Kenya."

Any assistance accorded to her to facilitate data collection and finish her thesis is highly welcomed.

Prof. Rodney Reed
Deputy Vice Chancellor, Academic & Student Affairs

APPENDIX 3: NACOSTI RESEARCH LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **604400**

Date of Issue: **07/February/2024**

RESEARCH LICENSE

This is to Certify that Miss.. CATHERINE WANJIRU MUTHIANI of Africa Nazarene University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in on the topic: The Relationship between Childhood Trauma and Opioid Addiction among Clients at SAPTAs Harm Reduction Program, Nairobi County Kenya for the period ending : 07/February/2025.

License No: **NACOSTI/P/24/32963**

604400

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: PLAGIARISM REPORT

Catherine Muth k).docx

ORIGINALITY REPORT

16%	13%	5%	9%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

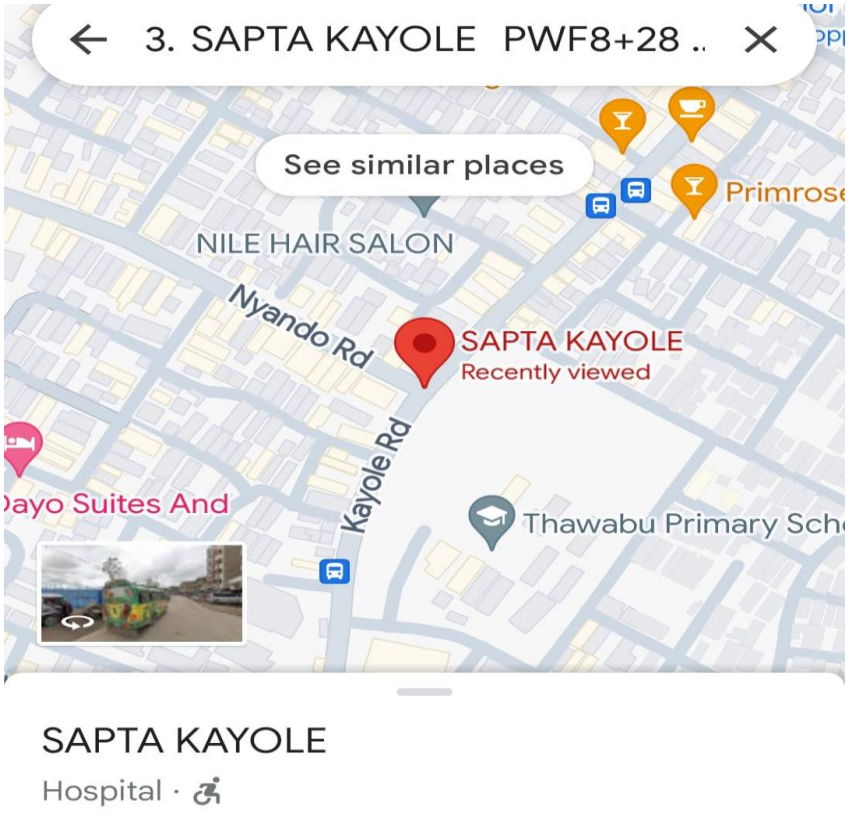
1	stephaniecovington.com Internet Source	1%
2	Submitted to Southeast Community College Student Paper	1%
3	Submitted to CSU Northridge Student Paper	1%
4	www.coursehero.com Internet Source	1%
5	Amy Prangnell, Pauline Voon, Hennady Shulha, Ekaterina Nosova, Jean Shoveller, M.-J. Milloy, Thomas Kerr, Kanna Hayashi. "The relationship between childhood emotional abuse and chronic pain among people who inject drugs in Vancouver, Canada", Child Abuse & Neglect, 2019 Publication	<1%
6	ir-library.ku.ac.ke Internet Source	<1%
7	ir.mu.ac.ke:8080 Internet Source	<1%

APPENDIX 5: STUDY LOCATION MAPS

Google Earth Coordinates for the study areas

1. PRHR+XQP SAPTA PANGANI CENTRE, Nairobi

2. SAPTA KAYOLE PWF8+28 Nairobi



3. SAPTA KAWANGWARE PP6Q+JF5 Nairobi

4. SAPTA GITHURAI PR8C+2M Nairobi