

**THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOR  
AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA  
NATIONAL HOSPITAL**

**(A Mixed Methods Study)**



A Dissertation Submitted in Partial Fulfillment of the Requirements for the Award of the Degree  
in Master of Medicine in Psychiatry, University of Nairobi.

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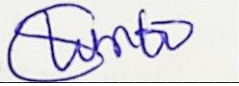
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## DECLARATION

I hereby declare that this proposal is my original work and, to the best of my knowledge, has not been presented elsewhere for the award of a degree.

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## **LIST OF ABBREVIATIONS**

DSM-5	Diagnostic and Statistical Manual of Mental Disorders, 5 <sup>th</sup> Edition
KNH	Kenyatta National Hospital
LMIC	Low and Middle Income Countries
MOH	Ministry of Health
ISH	Intentional self-harm
WHO	World Health Organization

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## OPERATIONAL DEFINITIONS

**Suicidal behaviour:** This study included deliberate self-harm, suicidal ideation (frequent thoughts of ending one's life), suicidal communication (telling people you want to end your life), and suicide attempts (the actual event of trying to kill one's self). Suicidal behaviour is most often accompanied by intense feelings of hopelessness, depression, or self-destructive behaviours (parasuicidal behaviours)

**Deliberate self-harm (DSH):** Any type of self-injurious behaviour, including suicidal attempts and self-harm. This definition pays respect to the high comorbidity, shared diathesis, and the fact that self-harm is a strong predictor of eventual suicidal attempts. Not all events classified as suicidal attempts are motivated by a true desire “to die,” but rather by desires to attract attention, escape, and communicate hostility. However, when only DSH is reported, SA and self-harm cannot be subsequently disaggregated.

**Suicidal ideation (SI):** Thoughts about wanting one’s own death, especially thoughts of taking action to end one’s life.

**Self-harm/Nonsuicidal self-injury (NSSI):** preoccupation with deliberate and intentional injury to body tissue that occurs without conscious suicidal intent, often resulting in damage to body tissue. NSSI and suicidal attempts are highly co-morbid, usually have shared diathesis, and NSSI is a strong predictor of suicidality.

**Parasuicide:** Suicide attempts and deliberate self-harm inflicted with no intent to die.

**Youth:** Persons between the ages of 13 and 24 years based on the definition by the World Health Organization.

**Mental disorders:** a clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. The disorder must cause significant distress or impairment in social, occupational, or other important areas of functioning (American Psychiatric Association, 2020)

**Prevalence Rate:** The proportion of persons in a population who have a particular attribute at a specified point in time over a specified period of time. (CDC)

**Knowledge:** Familiarity or awareness of someone or something, often contributing to understanding.

**Attitude:** opinion, feelings or emotions about something or someone

**Perception:** how an individual recognizes and interprets information/environment

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## **ABSTRACT**

**Background:** Suicidal behaviour, a spectrum of self-destructive behaviour ranging from temporary wishes of one's death to completed suicide and is one of the major global sources of recurrent distress, especially among adolescents and young adults. Adolescent suicides are prevalent in low- and middle-income countries, accounting for 90% of all cases. A study of children and adolescents found high rates of suicidal behavior, including attempts (6% and 4.5%), plans (9.9% and 7.5%), thoughts (18% and 14.2%), and self-harm (13.7% and 14.2%), over their lifetime and the past year. Suicide is a complex and individualized phenomenon that is influenced by a variety of demographic, clinical, and psychosocial factors. These factors significantly increase the likelihood of experiencing suicidal behaviors, including suicidal thoughts and self-harm. There is a lack of research on the prevalence and contributing factors of suicidal behavior among young people in Kenya, particularly among those aged 13-24 who attend the youth center at KNH in Nairobi. This study aimed to examine the prevalence, experiences, risk factors, and perceptions of suicidal behavior in this population.

**Study Objective:** The purpose of this study was to investigate the prevalence and factors associated with suicidal behavior, including suicidal ideation and self-harm, among young patients aged 13-24 years attending the youth center at KNH in Nairobi, Kenya.

**Study Design:** A convergent parallel mixed methods study utilizing exploratory qualitative semi-structured interviews and an analytical cross-sectional quantitative design. Where 121 study subjects were handed questionnaires and interviewed for the quantitative and qualitative aspects of the research respectively. Consecutive sampling and purposive sampling techniques were used respectively to derive the study population for the quantitative and qualitative aspects of the research respectively for a period of four weeks.

**Study Setting:** Youth Center, Kenyatta National Hospital in Nairobi, Kenya.

**Research tools:** A semi-structured interview guide was utilized to interview each participant on their perspectives and experiences of suicidal behavior. Data will then be stored via audio recordings. Furthermore, a combined socio-demographic and psychosocial questionnaire was used to note the socio-demographic characteristics and psychosocial factors associated with the study participants. The SBQ-R (suicidal behavior questionnaire-revised) questionnaire was used to assess suicidal behaviors in the participants.

**Data analysis and management:** This study used a thematic analysis approach to analyze the data collected from interviews. The transcripts were coded according to the questions in the interview guide and grouped into categories based on similarities. The analysis was largely inductive, allowing for the exploration of how participants make sense of and navigate their surroundings. One member of the research team coded the interviews and cross-checked the results with two other team members. The data was organized using Nvivo 12 software and the number of interviews referring to each theme was calculated. In addition to the thematic analysis, the data was analyzed quantitatively using SPSS software. Chi square tests and bivariate and multivariate logistic regression analyses were used to examine the differences between groups in terms of sociodemographic and psychosocial factors. The results were presented in tables with p-values.

**Study utility:** The study can improve clinicians' understanding of patients at risk of suicide and enable more holistic management. Caregivers can learn about supporting those who have experienced suicidal behavior. Findings can inform advocacy for young people and impact future service design, reducing the burden on healthcare and affected individuals.

**Results:** This study identified the prevalence of suicidal behavior and suicide risk among the youth attending the youth clinic at the Kenyatta National Hospital was established to be 34.7%. The average SBQ-R score of the 121 respondents in the current study was  $6.68 \pm 5.23$ . An association was noted between gender and suicidal behavior with the females being at greater risk to engage in suicidal behavior ( $p = 0.05$ ). In addition, higher levels of education were associated with a greater suicide risk ( $p = 0.034$ ). A family history of psychiatric illness ( $p = 0.001$ ) and history of abuse ( $p = 0.006$ ) were also implicated in suicidal behavior. After adjusting for all the covariates in the study, it was established that only higher education levels, having children and a positive family history of psychiatric illness were significantly associated with increased suicide risk. Several themes and sub themes related to knowledge, attitude and perceptions towards suicidal behavior both among the patients and the caregivers. The caregivers used words such as 'self-harm behavior, mode of escape from pain, self-hatred, inability to accept self' to describe their understanding of suicidal behavior. Most caregivers had an empathetic and compassionate outlook towards suicidal patients. There was a recurring theme of uncertainty and lack of experience when dealing with and taking care of suicidal patients. Caregivers reported psychosocial factors like loneliness, psychiatric disorders e.g., depression, family stresses, marital infidelity, being an orphan, substance use as some of the factors that may predispose one to contemplating suicide. Environmental factors like bullying, cyberbullying, unhealthy comparison on social media, domestic violence were reported to cause some youth to consider suicide. Socioeconomic factors like poverty, loss of a job, failure in business were mentioned to cause suicide among the youth

**Conclusion:** The prevalence of suicidal behavior and suicide risk among the youth attending the youth clinic at the Kenyatta National Hospital was established to be 34.7%. The study established

that higher educational attainment and levels, a family history of psychiatric illness, a history of abuse and having children were associated with increased suicide risk. It was also noted that a greater number of females displayed increased suicide risk when compared to the males. In addition, study participants with increased suicide risk reported increased suicidal thoughts and that social media had an impact on their social behavior. These areas are essential in developing effective prevention and intervention strategies in order to curb the high rate of suicidal behavior in the local setting.

# CHAPTER 1: INTRODUCTION AND BACKGROUND INFORMATION

## 1.1. INTRODUCTION

Globally, mental health conditions are on the rise, with significant detrimental consequences for people's well-being as well as economic, psychological, and social repercussions. One of the main ongoing causes of global concern is suicidal behavior, especially in teenagers and young adults (World Health Organisation, 2019). Suicidal behaviour covers a wide range of self-injurious conduct, from passing suicidal thoughts to actual suicide. Self-harm, also known as non-suicidal self-injury (NSSI), is the willful, premeditated, and direct damage of a person's bodily tissues carried out without the explicit desire to die or for non-socially acceptable motives, most frequently manifesting as self-cutting (Nock et al., 2010). Self-harm is becoming more and more of a health concern because it is linked to potential suicidal conduct (Guan et al., 2012; Whitlock et al., 2013). Suicidal ideations (SI), also known as suicidal thoughts or ideas, is a general term for a wide range of thoughts, desires, and obsessions with death and suicide (Harmer et al., 2022). An unsuccessful self-directed, possibly harmful act with the intention to die is referred to as a suicide attempt. There hasn't been any terminology in this area whose meaning is standardised and widely accepted (Devries, 1968; Goodfellow et al., 2020). There also exists the grouping of self-injurious behaviour into suicidal behaviour (intent to die) and non-suicidal self-injurious behaviour where there is no intent to die (Hooley et al., 2020). Suicide among youth is a silent mental illness since it remains largely undiagnosed and undermanaged (World Health Organization, 2019).

The World Health Organization (WHO) approximates that close to one million people lose their lives to suicide yearly, translating to a suicidal death every 40 seconds or thereabouts (Lin et al., 2019). Moreover, it is estimated that for each suicidal fatality, there are proportionately more

than 20 attempted (Ati et al., 2021). An average of 135 persons experience significant bereavement or are negatively touched by every suicide, which equates to 108 million people annually who are adversely affected by suicidal conduct (Ministry of Health Kenya, 2022). Self-harm, which is the second-most frequent cause of death for people between the age of 15 and 24, is well recognized as a major indicator of a future suicidal behavior. Therefore, there is a relationship between self-harm and suicide. Patients who report self-harm to medical facilities have a nearly 50-fold higher chance of dying by suicide than the overall population (Lin et al., 2019).

Young people, especially teenagers, are predisposed to mental health problems by design. Individual attempts to predict outcomes and formulate strategies frequently fail as suicidal behaviour is the result of a dynamic, intricate, and distinctive interactions between a number of contributory factors (Fonseca-Pedrero et al., 2022). The main risk factors for teen and youth suicidality are mental health conditions, previous suicide attempts, certain personal attributes, genetically inherited predispositions, and family dynamics combined with inducing psychosocial stressors, and the accessibility of means of suicide (Bilsen, 2018). Stressful life experiences (e.g., family conflicts and interpersonal struggles), personality traits (such as negative affectivity and impulsivity), and psychological factors (anxiety, depression, substance use and alcohol dependence, and other co - morbidities) appear to raise the likelihood of suicidality (Carballo et al., 2020).

Suicidal behaviour has been studied extensively in industrialized western societies, but regional assessments have shown that lower-income countries are likewise concerned about it. Very little is understood as to what suicidality and self-harm signify in the context of Africa, in addition to the ongoing discussion about the true prevalence of these behaviours (Quarshie et al., 2020).



Therefore, first-hand accounts of the subjective experiences and viewpoints of the youth are crucial to fully comprehending this regional public health issue that is on the rise (Aborisade, 2021; Mars et al., 2014). In this study, young patients aged 15 to 24 at a youth facility in Nairobi, Kenya, will be asked about their experiences with suicidal behaviour, including suicidal ideation and self-harm, to determine its prevalence and associated factors. This study will also focus on the viewpoints and experiences of young people in this age range in an attempt to address the scholarly gap in the literature concerning the perspectives and experiences of suicide behaviour among the youth.

## **1.2. BACKGROUND**

Mental illnesses are on the rise globally and have significant negative impacts on both public health and the economy. Suicide is the 14th leading cause of death globally, accounting for 1.5% of all deaths (World Health Organisation, 2021). Most adolescent suicides (90%) occur in low- and middle-income countries (LMICs), where the majority of the world's adolescents live (World Health Organisation, 2019). A global analysis of data on children and adolescents found that the overall prevalence of attempted suicides was 6% and 4.5%, while the prevalence of suicidal plans was 9.9% and 7.5% (over the lifetime and in the past 12 months, respectively). Suicidal thoughts were reported by 18% and 14.2% of participants, and self-harm behavior was reported by 13.7% and 14.2%, respectively (Lim et al., 2019). Approximately one in three young people with suicidal thoughts will develop a suicidal plan, and about 60% of young people with suicidal plans will eventually attempt suicide (Ndetei et al., 2022). Suicidality varies by gender, age, geographic region, and socioeconomic context and is associated with different risk factors, suggesting that there are multiple underlying causes. Female suicide attempters are more likely to experience suicidal thoughts and behaviors at younger ages and are more likely to be victims

of sexual abuse and anxiety disorders, while male suicide attempters are more likely to use alcohol and experience financial difficulties (Campisi et al., 2020; Miranda-Mendizabal et al., 2019; Wunderlich et al., 2001).

Upon experiencing an act of self-harm, many people lie about having suicidal tendencies because they feel awful and ashamed. They may not wish to be honest, or their motives may very well have occasionally been unclear (Diekstra and Gulbinat, 1993). Intent, therefore cannot be used as a firm criterion to define suicidality since the person's motives may be too ambiguous or complex to be easily ascertained, as Kreitman has noted (Kreitman et al., 1969). The term "parasuicide," which is connected to the phrases "attempted suicide," "self-harm," and "self-injurious conduct," may be used to describe actions ranging from deceptive attempts to kill oneself to severe but unsuccessful attempts.

Although there is no reliable method for predicting suicide in clinical settings, increased awareness and comprehension of clinical, behavioural, sociocultural, and biological aspects may aid in identifying high-risk persons and aid in therapeutic decision-making (Turecki and Brent, 2016). For instance, it is believed that suicidal thoughts are a manifestation of the pain brought on by internal conflict, sadness, and anxiety as a result of significant physical, mental, and social restructuring (Misigo, 2021). The established risk factors for suicide include hopelessness, social isolation, coexisting mental conditions (particularly depression and alcohol use disorders), prior attempts, financial trouble, interpersonal conflict, impulsivity, and child abuse (Van Orden et al., 2010).

Several studies have highlighted the high prevalence of non-fatal suicide behaviour on campuses and among students in secondary school (Liu et al., 2005). The psychosocial sources of stress that frequently accompany this developmental stage, such as difficulty adjusting to greater

academic workload, drug use, bullying, a lack of interpersonal conflict resolution skills, as well as stigma surrounding seeking mental health care, are frequently blamed for the high levels of suicidality among high school students and undergrads (Czyz et al., 2013; Mo et al., 2018).

A critical public health priority is minimizing suicide behaviour among teenagers and young adults, which necessitates knowledge of protective and risk factors as well as the body of research supporting successful interventions (Fleischmann and De Leo, 2014). According to O'Connor and Nock (2014), the majority of persons who struggle with suicide thoughts and behaviours do not obtain therapy. Making an attempt at suicide in the past is the single biggest suicide-related risk factor in the general population.

Because of the dearth of adequate local data on suicidality, physicians are ignorant of the full scope and burden of suicidality in the local context. It is crucial to talk about the experiences and perceptions of not only the persons affected by suicidal behaviours but also of their caregivers and health care personnel in order to devise effective policies to help curb the global increase in self-harm behaviour cases and suicide rates.

### **1.3. PROBLEM STATEMENT**

Self-harm and other suicidal behaviours are prevalent in East Africa and Sub-Saharan Africa overall, according to the corpus of scholarly literature on the subject. Suicide is a major public health concern in LMICs, where it is estimated that nearly three quarters of all suicides occur (WHO, 2014). It is particularly prevalent among young people and those with comorbid mental health conditions such anxiety, bipolar disorder, PTSD, and depression. (Brådvik, 2018; Lecrubier, 2001; Quevedo et al., 2020). The fact that many teenagers report having attempted suicide, suicidal thoughts, and self-harming behaviours has sparked an expanding body of research in this area of interest. Suicidal behaviour happens when psychological suffering is

deemed intolerable by the person who is experiencing it; as a result, suicidal people have dichotomous reasoning, wanting either specific pain relief or an end to their suffering (suicide) (Shneidman, 1996). The synergism among all the different variables is of significant importance because suicide is an intricate process that involves many risk factors like childhood trauma and feelings of defeat and entrapment (Díaz-Oliván et al., 2021).

Additionally, it has been found that suicidal behaviour is strongly correlated with demographic characteristics like age and sex, with a gender bias toward women. Suicidal behaviour is a risky and dangerous behaviour which is inextricably tied to future suicidal conduct, which can be extremely dangerous for the teenager (Whitlock et al., 2013). Given the impact of suicide cases each year, the reality that self-harm is a significant predictor for a future suicide-related death and the comparatively high rates of suicide in adolescents and young adults, public health researchers must look into the risk and protective factors for suicidal behaviour within those age groups. This research can aid in developing intervention programs and preventive strategies that could reduce suicide rates. The latest studies on suicidal behaviour have a mostly quantitative focus. According to Shea (2002), the drive to attempt suicide is induced by psychological suffering, not by statistical analyses. Clinicians must, therefore, assess the patient holistically because each individual is unique and analytical power is greatest if implemented to a large population (Misigo, 2021). A qualitative comprehension of the psyche is a fundamental pre-requisite for psychology itself since, in the words of Brinkmann (2007), a person is not a static entity that is simply impacted by isolated causative, explanatory, or even quantifiable elements (Brinkmann, 2007). The same goes for comprehending those who display suicidal behaviour. In his study of suicidal acts, Shneidman advised emphasising the phenomenology of suicide (Shneidman, 1996). Pompili (2010) contends that a meaningful understanding of the

suicidal person's innermost thoughts and feelings is necessary for developing a meaningful phenomenology of suicide. He emphasised that rather than exploring the causes of suicide or its phenomenology, studies on suicide typically concentrate on small cohorts of suicidal people (Pompili, 2010). This study aims to explore the prevalence, experiences, risk factors, and perceptions of suicidal behavior, including suicidal ideation and self-harm, among young patients aged 13-24 at a youth center in Nairobi, Kenya. There is a lack of research on the views and experiences of young people regarding suicide behavior, and this study seeks to fill this gap by focusing on the perspectives and experiences of this age group.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1. INTRODUCTION**

A substantive and comprehensive literature review is an important prerequisite for conducting thorough and sophisticated scientific research. The literature review also helps summarize the existing knowledge in a particular field of interest and involves the interpretation of existing literature in light of recent developments in the field of interest (Pubrica, 2019). For the purposes of this chapter, key arguments from varying literature sources will be analyzed to draw out and synthesize different authors' perspectives pertaining to the experiences and perspectives associated with suicidal behaviour. This will be done by giving an overview of studies that have been done on the prevalence, experience and impact of suicidal behaviour on the youth on the global, continental and regional scale.

### **2.2. GLOBAL PERSPECTIVE**

Numerous research studies have been conducted worldwide to evaluate the incidence, experience, and impact of suicidality in the youth, as it is a growing public health concern.

Although prevalence estimates vary greatly from country to country, once measurement methods are standardised, their features are rather consistent from one nation to the next. A third of those who consider suicide will eventually attempt it, and about two - thirds of these transitions occur within a year of the beginning of suicidal ideation (Miché et al., 2018; Nock et al., 2008).

The World Health Organization estimates that in developed countries, the prevalence of suicide thoughts, intentions, and attempts is 2.0%, 0.6%, and 0.3% over the course of a year, versus developing nations' figures of 2.1%, 0.7%, and 0.4%. Female sex, younger age, lower education levels and income, single relationship status, joblessness, parental psychiatric disorders, early life stressors, and various psychological illnesses are predictors for suicidal behaviours (Borges et

al., 2010). According to a review, the Philippines had a life-time suicidal-ideation prevalence of 40.9% among the youth, Norway had 17% (Strandheim et al., 2014), Germany had 10.7% (Voss et al., 2019), Belgium had 65%, Nepal 13.59% (Pandey et al., 2019), Portugal 12.6% (Mortier et al., 2017), and Turkey 17.9% (Canbaz and Terzi, 2018).

According to an internet self-reported questionnaire study of university students over eight countries, the frequency of suicidal ideation, planning, and attempt was 32.7%, 17.5%, and 4.3% over the course of a lifetime, while it was 17.2%, 8.8%, and 1.0% over the past year (Mortier et al., 2018). About 75% of the cases of suicidal behaviour began before the age of 16, and persistence rates ranged from 41% to 53%. In addition, Mortier et al. (2018) found that 22.1% of lifetime planners and 53.4% of lifetime ideators eventually made attempted suicide.

In a cross-sectional epidemiological study, 10.7%, 5.0%, and 3.4% of participants from a population sample of 1180 young people in Germany reported having ever considered suicide or attempted suicide. The crossover from thought to action generally took place within the same year, and the overall incidence of suicide behaviour rose after ten years of age more significantly among female participants than male ones (Voss et al., 2019). Over ten million adults (about 5% of the adult population) in the US reported experiencing suicidal thoughts within the prior year; of those, an estimated 3.1 million (1.3% of the adult population) went on to devise a suicide plan, and an additional 1.4 million (0.6% of the adult population) attempted suicide (Ivey-Stephenson et al., 2022).

In a survey of Chinese teenagers, it was discovered that 4.8% of those tested had made suicide attempts in the past six months, and 13.3% had suicidal thoughts (Yan and Gai, 2022). Suicide attempts and thoughts in this cohort were associated with females, advancing age, boarders in school, stressful events, depression, outward locus of control, low academic performance and

violence (Liu et al., 2005). In contrast, self-injurers were identified to be psychologically distraught, demonstrate substance use, have a psychiatric diagnosis, and have suffered suicide ideas and attempts, according to an Australian study (Martin et al., 2010). Monto et al. (2018) reported that teenagers in nonclinical groups have a significant risk of harming themselves. Depression has been widely highlighted as a co-occurring medical illness that has a connection to self-harm (Lan et al., 2019; Wang et al., 2021).

In eleven European countries, the Saving and Empowering Young Lives in Europe study posits that the overall prevalence of direct self-harming behaviour among adolescents was 27.6%, while the European School Survey Project on Alcohol and Other Drugs found that lifetime attempted suicides were 10.5% and frequent thoughts of self-harm (at least five instances) were reported to be 7.4% in 17 participating countries (Brunner et al., 2014; Kokkevi et al., 2012). Lower socioeconomic status raises the risk of suicide or attempted suicide in LMICs in South and South East Asia, according to a recent meta-analysis conducted in South Asia (Knipe et al., 2015). The average prevalence rate of suicide attempts differs widely amongst nations, from 6.7% in Malaysia to 61.2% in Samoa (Liu et al., 2018). Suicide attempts are associated with low socioeconomic backgrounds, a history of harassment and bullying, isolation, stress, the consumption of alcohol and/or drugs, and unstable social and family ties (Liu et al., 2018).

Young people use suicidal conduct as a first-line crisis management strategy and a more frantic call for aid, according to Schlegel et al. (2009). This, he says, is consistent with global data showing that a significant fraction of suicide committers and attempters express a need for assistance. The suicide risk among adolescents also increases due to a lack of conflict-resolving



abilities. He continues by saying that a wise teacher would endeavour to understand the reasons behind a student's suicidal behaviour rather than dismissing it as indiscipline.

Self-harmers describe their behaviour as a covert, inwardly focused expression of distress that is frequently accompanied by a reluctance to admit their behaviour and seek help (Klineberg et al., 2013). However, the majority of self-harmers claim that being around people who accepted, tolerated, or understood them helped to lessen their urges to harm themselves (Miller et al., 2021).

Family and friends serve as caregivers for suicidal patients (Coker et al., 2019). Caregivers frequently state that they would like to be more educated and involved in the field of professional suicidality care (Lavers et al., 2022). Most parents of suicidal youth regard their perception of societal assistance as being inadequate (Morgan et al., 2013). As per care givers, social variables that may contribute to suicides include undue stress, incapacity to finish a task, difficulties managing relationships, abuse, and abandonment. The atmosphere at work, persistent physical and psychological disease, financial struggles, and economic uncertainty are other variables (Thapa et al., 2021). The experience of being a caregiver is mostly characterised by stress, anxiety, worry, and hypervigilance (Lavers et al., 2022). According to Fogarty and colleagues, conflicts mostly result from the challenge of reducing suicide risk while maintaining a cooperative relationship with the care recipient (Fogarty et al., 2018). The stress that caregivers go through can also be referred to as a "double trauma" because of the additional harm that providing care causes to families and relationships (Buus et al., 2014). Despite the fact that suicidal behaviour is commonplace in the world, this population is still not well studied.

People frequently display behaviours or experience sentiments that are indicative of suicidality as a result of poor social influences in their lives. Suicidality is impacted by a wide range of

factors, therefore understanding these factors and how they interact with one another is crucial for treatment and prevention strategies (Nurtanti et al., 2020). Three large, interrelated classifications can be used to group the growing body of exploratory studies on suicidality and suicide awareness practises: individual experiences of suicidal behavior and recovery; practises and preconceptions of care and intervention for suicidal individuals; and conceptualizations of suicidality and its prevention (White, 2016). Exploring how society views suicide is essential, and being able to contrast these beliefs with, say, the actual experiences of suicidal youth can help us understand the problem better (Grimmond et al., 2019). Suicide can essentially be divided into two categories: attempts to end one's life to escape painful circumstances like sadness, shame, or notoriety; and attempts to end one's life to force a change in circumstances (Keyvanara et al., 2020).

The discussion of suicidal behaviours often touches on healthcare systems and the experiences of healthcare professionals. According to McLaughlin and colleagues, perceived stigma frequently discourages family caregivers from seeking healthcare services, and a clinician's warmth and empathy are crucial in promoting help-seeking (McLaughlin et al., 2014). According to some studies, caregivers believe that access is hampered by the varied and fragmented nature of care providers (Dempsey et al., 2019). Health practitioners recognise difficulties in treating suicidal individuals clinically, such as an inadequate knowledge about the disorder and effective therapies (I. A. Rothes et al., 2014). Although the majority of health professionals' practises on suicidality are evidence-based, a sizable portion of them could benefit from training to advance their understanding and methods (I. Rothes & Henriques, 2018). Although it is the responsibility of health practitioners to alleviate suffering, suicidal patients are viewed as more challenging

because of practitioners' general lack of understanding and engagement with suicidal behaviour (Norheim et al., 2016).

### **2.3. AFRICAN PERSPECTIVE**

Lack of systematic data collection places restrictions on suicide research in Africa. Only 15% of the continent's total population has actual statistics available due because few African countries disclose mortality data to WHO (Fleischmann and De Leo, 2014). A large portion of the published suicide data that is available today is largely based on limited investigations carried out in various populations and regions. Furthermore, statistics on reported suicide mortality are likely to understate the true scope of the issue because suicide may be downplayed, misclassified, or purposefully concealed due to religious and cultural sanctions (World Health Organisation, 2019). Even less is known regarding attempted suicides throughout the continent of Africa. In addition, the inaccessibility of medical facilities, especially in rural Africa, makes it unlikely that many suicide attempters will go to hospitals. Sociocultural factors can play a role in underreporting, as they did with suicide (Mars et al., 2014).

When compared to other regions of the world, the African continent has been discovered to have a increased rate of suicidal thoughts and eventual attempts. The average incidence of reported suicide thoughts among teenagers in 49 developing countries was 15.3%, with Africa reporting the highest levels at 19.8%, according to the results of a cross-national comparison including multiple countries (Page et al., 2013). While the poor socioeconomic situation is highlighted as a significant factor in sub-Saharan Africa, substance use is substantially linked to suicidal behaviour in Europe (Ongeri et al., 2022). Additionally, whereas killing oneself with a gun is frequent in the United States, in Africa, people usually hang themselves or are poisoned by agricultural pesticides (Mars et al., 2014). In forty LMICs, a study of over a hundred

thousand high school pupils (12 to 18 years old) indicated that the rate of attempted suicides was 17.2% over the span of a year (Liu et al., 2018). However according Bantjes et al. (2020), men are more likely than women to seek professional care for suicidality, which increases the likelihood that they would consider suicide. In several African studies, rates of suicide behaviour among boys and girls are comparable (Dzamalala et al., 2006; Ikealumba and Couper, 2006).

Suicidal conduct in Africa was previously believed to be uncommon, but current research indicates that it poses a significant public health burden (Ovuga et al., 2005). Suicidal behaviour is comparatively prevalent, but it also differs among nations, according to studies from South Africa (Joe et al., 2008), Nigeria (Omigbodun et al., 2008), Uganda (Ovuga et al., 2005), and Zambia (Muula et al., 2007; Swahn et al., 2012). For instance, the percentage of students who self-report having thoughts of suicide varies from 19.6% in Uganda to 27.9% in Kenya to 31.9% in Zambia (Swahn et al., 2012). Alcohol consumption and bullying victimisation appear to be important risk factors for suicidal thoughts (Swahn et al., 2012). However, the high levels of psychological trauma, adverse health impacts from HIV/AIDS, and other distressing situations in sub-Saharan Africa have probably made the region's high rates of suicide thought and behaviour among young people worse. Additionally, stigma, discrimination, loneliness, a lack of familial and social support, and the loss of parents or other loved ones due to HIV/AIDS enhance the likelihood of suicidal behaviour (Schlebusch et al., 2009). Abuse, whether physical, sexual, or in other ways, poses a significant risk for suicide. Other risk factors include parental substance usage, juvenile substance use, societal stigma, sadness, low self-esteem, and a sense of helplessness (Kidd and Carroll, 2007; Yoder, 1999).

Up to 11% of suicides reported in Africa are thought to be caused by mental health issues (Keugoung et al., 2013; Ndosu et al., 2004). One study found that alcohol was directly or

indirectly implicated in as many as 80% of suicides (through the drinking habits of significant others), indicating that alcohol and/or drug usage is a substantial risk factor (Kizza et al., 2012). Additionally, research in South Africa discovered that blood tests for alcohol were positive in about 40% of people who died by suicide (Scribante et al., 2004). According to the findings of a study conducted in Ghana, male, young, and disadvantaged people had the highest risk of engaging in suicide behaviour (Adinkrah, 2011). The taboo and illegal components of the phenomenon may contribute to the relatively low rate of recorded suicidal conduct in African societies, but these factors may also contribute to its underreporting (Adinkrah, 2011).

About 26% of homeless teenagers in Ghana who participated in Opong Asante and Meyer-cross-sectional Weitz's survey in 2017 reported having tried suicide or having suicidal thoughts. Smoking, current and prior use of alcohol, marijuana, prostitution, physical abuse, being robbed, and being assaulted with a weapon were all associated with this behaviour. In a South African study, the prevalence of suicidal thinking, intentions, and attempts over the course of one's lifetime was 46.4%, 26.5%, and 8.6%, respectively, among first-year university students (Bantjes et al., 2022).

In their study conducted in Nigeria, Omigbodun et al. (2008) found that 20% of young people had suicidal thoughts and that 12% had tried suicide in the previous year. Suicidal behaviour was significantly predicted by a number of variables, including urban life, polygamous or unstable homes, sexual abuse, and engagement in physical conflicts. In a related study conducted in South Africa, Joe et al. (2008) found that the frequency of lifetime suicidal ideation was 9.1%, as well as that suicidal plans were 3.8%, and attempts were 2.9%. In 2004, the Zambia Global School-Based Health Survey found that 31.3% of students had suicidal thoughts in the previous 12

months. In the study, suicidal thoughts were positively correlated with male gender, age 14, marijuana or alcohol use, worry, unhappiness, and hopelessness.

A South African study looked into the psychosocial factors that influence adolescent suicide attempts. It was shown that the risk factors for suicidal tendencies included poor living conditions, interpersonal problems, perceived accusations of bad behaviour, a lack of awareness about counsellors who were available, and previous suicide attempts by family members and peers. The study also stated that access to counselling is crucial for teenage suicidal behaviour prevention (Shilubane et al., 2012). Moreover, Thornton et al. (2019) found that about 22% of South African adolescent participants reported having suicide thoughts. They found a link between juvenile social stress and atypicality and suicidality. South African researchers found that among first-year students there, 46.4% reported suicide ideation, 26.5% had suicidal planning, and 8.6% had actually attempted suicide (Bantjes et al., 2022). Risk factors included a stressful college lifestyle that is constantly made worse by strained relationships, losing loved ones, a familial history of psychiatric conditions, and experiencing a sense of failure that frequently lead to depression and other associated mental illnesses among students (Mortier et al., 2018).

Particularly when it comes to their social relationships and sexual activity, most African families completely manage their young children and women, which may, in the long run, lead to emotions of helplessness (Nukunya, 2016). Although adolescent participants in Ghana perceived self-injurious behaviour as a way to cope with their own anguish, they overwhelmingly believed that it was wrong to do so in front of others and that it was bad for their personal relationships (Emmanuel N-B Quarshie et al., 2020). As adolescents are frequently pushed to adopt non-confrontational and avoidant behaviours that are centred on the creation of a peaceful and

interdependent social environment, Magaya et al. (2005) discovered that cultural influences have a substantial impact on adolescents' choice of coping mechanisms. This could lead to suppressed rage, uncontrolled rage, and suicidal thoughts (Magaya et al., 2006).

Suicide is a widespread issue, and research has shown that HCP attitudes and suicide literacy have an impact on how they approach, care for, and treat patients who exhibit suicidality (Jandial et al., 2021). Although primary healthcare providers frequently meet suicidality in Africa, there is still difficulty in assessing and managing it (Rukundo et al., 2022). Health professionals' attitudes regarding suicide and suicide prevention must change from one that prioritises morality to one that prioritises mental health (Osafo et al., 2012). Primary care doctors acknowledged a dire need for better access to and cooperation with mental health services in a study, as the absence of such cooperation was a frequent impediment to suicide prevention strategies within health-care systems (Elzinga et al., 2020). In order to lessen the stigma and stress associated with suicidal patients, it would be beneficial to foster a compassionate and understanding attitude among family members, healthcare providers, and society as a whole (Thapa et al., 2021).

Suicide ideation is much more common in African countries than it is in the United States and other industrialised nations, highlighting the urgent need to increase measures to prevent suicide in this area (Swahn et al., 2012). When compared to the rest of the world, it should be highlighted that less research exists in the African continent about self-harm, suicidal thinking, and behaviour.

#### **2.4. REGIONAL PERSPECTIVE**

The majority of suicides occur in LMICs, where health systems and facilities are grossly underfunded, making it difficult to identify and help those who require assistance early on (World Health Organization, 2010). Suicidal ideation and behaviours are quite widespread

among adolescents in Africa, according to earlier research in the area that sought to determine their prevalence and associated risk factors. In 2016, the African region had rate of suicides higher than other areas around the world (10.5 per 100 000) (World Health Organisation, 2019).

According to a study done in Uganda, the lifetime suicidal behavior among young people and teenagers in rural areas of the nation was as high as 6.1%. This was significantly correlated with unspecified psychiatric disorders, poorer socioeconomic status, the neighbourhood of residence, and, last but not least, negative childhood experiences (Kinyanda et al., 2011). In addition, a research study in the slums of Uganda found a connection between parental neglect brought on by alcohol misuse, poverty and poor socioeconomic position, loneliness, and sorrow (Swahn et al., 2012). This suggests that a number of risk factors present in the area contribute significantly to suicidal thoughts and self-harm and that appropriate steps must be taken to reduce the risk this illness poses.

According to a study, a growing youngster may experience confusion, conflict, and frustration as a result of a lack of parent-child connection. They contend that this acts as a precursor to psychopathology and suicidality in adolescents (Khasakhala et al., 2013). Additionally, suicidal behaviour is a reaction to excruciating emotional distress, as reported by Linehan et al. in 2015. Problem drinking and a variety of poor childhood events, including physical abuse, being an orphan, being homeless, and being raped, were linked to suicide thoughts in Uganda (Culbreth et al., 2021).

Additionally, it is believed that 20% and 28%, respectively, of teenagers in Uganda and Kenya, have suicidal thoughts (Swahn, Bossarte, Eliman, Gaylor, & Jayaraman, 2010). Youth who live in locations that are severely economically disadvantaged may be more prone to commit suicide (Cheng et al., 2014)



Additionally, a study by C. Ng and Harerimana (2015) conducted among Rwandese children found that those who also have a co-infection with HIV have increased rates of suicidality than others, possibly as a result of the stigma and distress caused by the condition as especially in comparison to their uninfected counterparts. Additionally, they noted a higher risk for individuals who had depression, bad parenting, or caregivers who had a mental health issues. Previous findings in Ethiopia that showed that 22.5% of adolescents experienced suicidal thoughts and that this behaviour was connected to a weak social support system and school absences are also in agreement with the prior literature (Amare et al., 2018). According to a Tanzanian study, there is a connection between food insecurity and the fact that the majority of teenagers who have attempted or had suicidal thoughts were also food insecure (Shayo and Lawala, 2019).

Despite the fact that suicide occurs in every nation, among every religion, and among all age groups, it is "differently defined and has different connotations in various cultures." However, despite the strong connection between culture and suicidal behaviour, clinicians frequently ignore it (Goldston et al., 2008; Molock et al., 2007). According to Hjelmeland and Knizek (2010), it's critical to comprehend suicide behaviour in various cultural situations. Focusing on qualitative research is more methodologically sound, according to Hjelmeland et al., especially in situations when we know little to nothing about suicide conduct (Hjelmeland & Knizek, 2010). Most information on suicidality is based on data from industrialised countries and is therefore not applicable to other cultural settings, such as those found in developing countries.

In LMICs, sexual and physical abuse, mental diseases, depressive symptoms, drug and alcohol abuse, and insufficient familial and social bonds are all risk factors for teen suicide (McKinnon et al., 2016). All cultural groups have some risk factors for depression, worry, and mental illness.

Black people, however, do not discuss suicide openly. Suicide is considered a sin, and religious and cultural norms are frequently viewed as safeguarding. But because even having suicidal thoughts is frowned upon, the same conventions could also keep people from seeking assistance.

## **2.5. LOCAL PERSPECTIVE**

Information on suicides in low- and middle-income nations, including Kenya, is scarce. The disjointed nature of the reporting process for suicide mortality is a major factor in this. It also is challenging to separate intentional self-harm data from accident or homicide cases in Kenya (Ministry of Health Kenya, 2022). Information on the suicide method, for instance, is frequently overlooked even when only partial information is available. This supports the urgent requirement for developing standardised reporting procedures for suicide. According to WHO statistics, the country of Kenya has a crude suicide rate of 6.1 per 100,000 people and an age-standardized suicide rate of 11.0 per 100,000 people, which equals approximately four suicides per day (World Health Organisation, 2019).

In a study of young Meru men, it was discovered that over the course of two days, about 12% of the men had experienced severe suicidal ideation, which includes those who had planned to end their lives and had thought about suicide with unsettling frequency or intensity. Young men who said that none of their friends had committed suicide had a contemplation rate of 5%, which was significantly lower than the percentage of respondents who had severe suicidal thoughts if they knew one person who had committed suicide (17%) and even higher if they knew two or more people who had committed suicide (32%). (Goodman, 2018).

Suicidal behaviour was found to be 10.4% more common in female sex workers in Kenya, and it was linked to recent non-intimate partner violence and recent hunger (Beksinska et al., 2022). A similar study on young medical students found that the participants' average levels of suicidality

were low for suicide attempts but moderate for both suicidal ideation and suicidal behaviour (Kaleli, 2022). Another study conducted in Kenya found that 23% of participants had had suicidal thoughts in the previous two weeks, with females and high school students being more likely to experience such thoughts than males (Ndetei et al., 2022). According to a study by Othieno et al. (2015), 20% of the rural population they looked at had expressed a desire to die at some point in their lives, 7.9% of the population had suicidal thoughts, and 24.1% had felt that life really wasn't worth living at some point. The study also revealed that women and people who had gone through a life event were more likely to consider suicide.

Another study found that adolescents in rural areas with high HIV prevalence had a 16% prevalence of suicidal ideation. According to this study's findings, females and sexually active teenagers were more likely to have suicidal ideation, which can serve as a precursor to self-harm (Zietz et al., 2020). A study by Mengech and Dhadphale (1984) noted that parasuicide was more common in females and that the vast majority of participants had formal psychiatric diagnoses like an intense response to stress, hysteria, personality disorders, and manic expressive psychosis. Attempted suicide is also not well understood in the local context.

A similar local study that involved numerous medical facilities found that the prevalence of symptoms associated with suicidal behaviour was 10.5%. 9% of them had thoughts of "killing oneself but had not carried them out." Suicidal symptoms were most prevalent in younger age groups. Greater depression in patients was associated with higher overall BDI-II scores (Ndetei, Khasakhala et al., 2010). According to Mugambi et al. 2020's 'Psychosocial Risk Factors for Suicidal Behavior Among Adolescents in Nairobi's Informal Settlements', females are more susceptible to suicidal behaviour because of their younger age, low socioeconomic level, and mental illnesses like depression and PTSD. It was found that feeling hopeless and unworthy was

the most profound contributor to suicidal behaviour, and that relationship problems, traumatic experiences, psychiatric conditions, family problems, alcohol and drug abuse, medical problems, academic stress, financial struggles, and finally the loss of a close family member came in second and third. The majority of the school-age participants in a comparable exploratory qualitative study conducted in Kenya also blamed their suicidal ideas and actions on their strained relationships with their parents and teachers (Misigo, 2021)

In a study on the risk factors for suicidal behaviour in secondary school students in Nyandarua, Kenya, Macharia (2013) discovered that poor parent-child communication, family dysfunction, negligent parenting, parental absence, and parental pressure for their children to achieve academically were possible causes that fueled teenage suicide ideation (Macharia, 2013). The teenagers also observed family members engaging in suicide behaviour. Experts in mental health claim that the rising number of suicide attempts amongst younger generations in Kenya is a result of their poor ability to reason logically while under extreme stress, pressure, or when using drugs or alcohol. Suicidal behaviour is a significant issue among young people in Kenya who have been diagnosed with neuropsychiatric or substance misuse disorders (Khasakhala et al., 2013). Health system and social factors, such as barriers to care, availability of suicide methods, inappropriate media coverage, use of social media, and the stigma attached to seeking help, all increase the risk of suicidality (Ministry of Health Kenya, 2022).

Despite the fact that suicidal behaviour is a significant public health issue, research on the experiences and perspectives of young people in Kenya in comparison to developed countries is still lacking. As a result, the current study aims to define the viewpoints and experiences of suicide behaviour among young people in a Kenyan context.

## **2.6. THEORETICAL FRAMEWORK**

According to the the integrated motivational-volitional model of suicidal behaviour (O'Connor et al., 2011; O'Connor and Kirtley, 2018), suicidal behaviour is the result of the complicated interactions between variables that influence motivation and volition. The model's motivation phase explains why some people will have thoughts of suicide while others will not.

Determinants like loss, entrapment, and an absence of social support have an impact on the motivational phase. The elements of the volitional phase, in contrast, are the factors that govern the transition from suicidal thinking or purpose to suicidality; these include impulsivity, suicide sensitization, and an absence of fear of death. Entrapment is the main component that affects suicidal thoughts, according to the IMV model, and empirical evidence support the model's continuous development (Rory C. O'Connor and Portzky, 2018). According to studies, internal entrapment, which is defined as being imprisoned by misery brought on by one's own thoughts and feelings, is more strongly associated with suicide thoughts than outward entrapment, which pertains to the inability to escape outward events or experiences. The IMV model also incorporates pre-motivational phase elements that assess environmental factors, triggering events, and background factors.

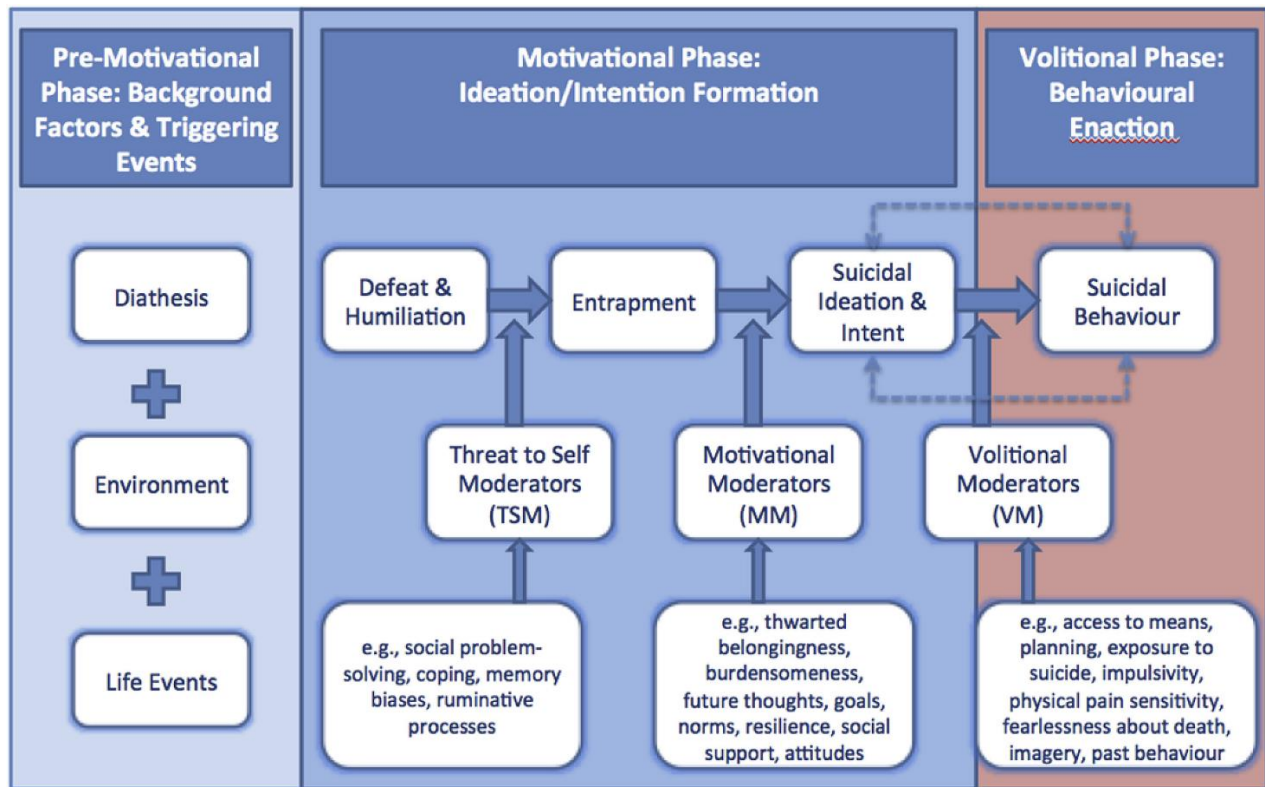


Figure 1: Integrated motivational-volitional model of suicidal behaviour (O'Connor, 2011; O'Connor & Kirtley, 2018). Diagram reproduced with credit to the aforementioned authors.

This focused theoretical framework integrates findings from a wide range of literature on suicidal behaviours to try and explain why people commit suicide. The study not only aims to describe the prevalence of suicidal behaviour in the local setting but also elucidate an association to some of the factors that function to drive young people to self-harm. The framework therefore provides a good suitable platform for the current study to build on. The focus of the framework on both distal and more specific factors and how these affect the progression of suicidal behaviour and also on the functions of suicidal behaviour grounds the current study as it intends to discuss these factors

## 2.7. CONCEPTUAL FRAMEWORK

A proposed conceptual framework was applied to the current study to describe the relationship and associations between the variables and the hypothesized study outcome. The confounding variables have also been highlighted below to ensure that the study appreciates their existence and their effect on the overall findings and that measures are put into place to mitigate these effects. The variables are summarized below. Independent variable – Youth in distress

Moderating variables-Demographic factors & Psychosocial factors. Youth suicide behavior is influenced by both demographic and psychosocial factors. Demographic variables such as age, gender, ethnicity, and socioeconomic status have been found to moderate the risk of suicidal behavior in youths. Psychosocial factors such as depression, anxiety, substance abuse, and social isolation have also been linked to an increased risk of suicide in young people. Protective factors such as social support and coping skills may mitigate the negative effects of psychosocial risk factors (Gould et al., 2003; Nock et al., 2008). It is important for clinicians and researchers to consider both demographic and psychosocial factors when assessing and intervening with at-risk youths.

Dependent variable – Suicidal behaviour. In this study, suicidal behavior is the dependent variable, encompassing ideation, attempts, and completion. The objective is to estimate the prevalence of suicidal behavior in the youth. By understanding these factors, we aim to develop effective prevention and intervention strategies to reduce suicidal behavior in the youth.

Therefore, suicidal behavior is the focus of research as the desired outcome to comprehend and mitigate.

Confounders- Clinical factors, e.g. current psychiatric conditions, impulsivity, etc. Clinical factors, including psychiatric disorders, substance abuse, and trauma history, can serve as

confounders in researching suicidal behavior in youth, making it challenging to establish a causal relationship between risk/protective factors and suicidal behavior. Controlling for these confounding variables is essential to accurately identify the association between the variables of interest and suicidal behavior in young people.



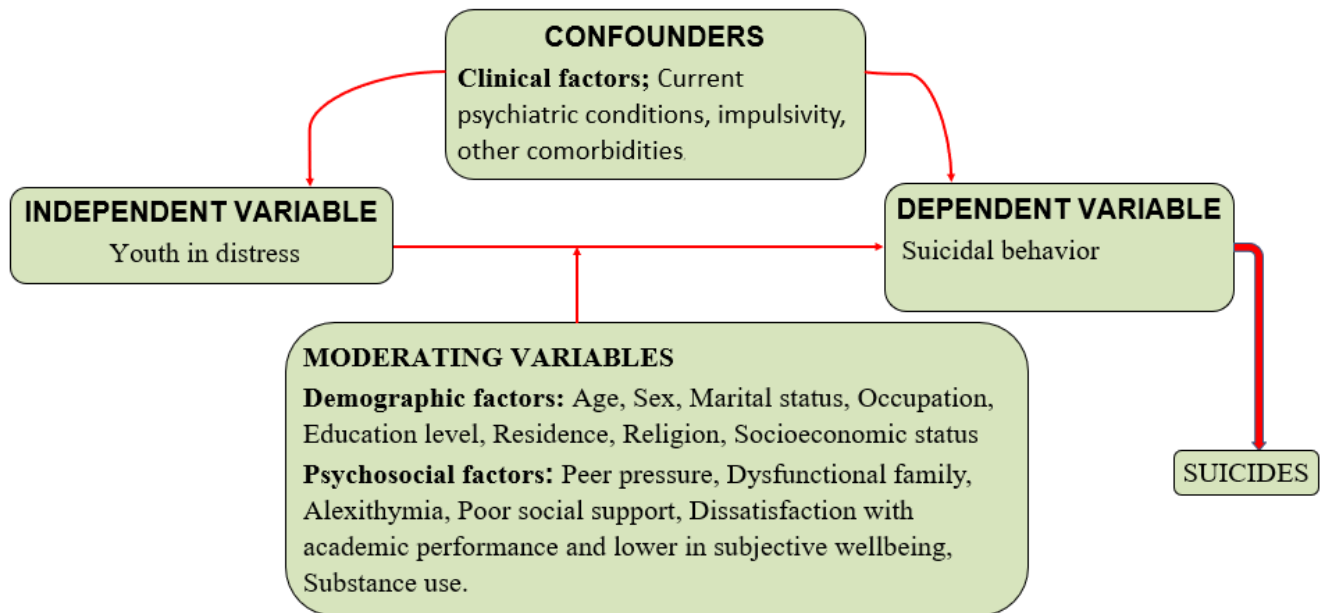


Figure 2: Conceptual Framework of Study

## **2.8. STUDY JUSTIFICATION AND SIGNIFICANCE**

Suicidal behaviour in the youthful population is an important emerging public health issue. It may prove to be fatal to the patient and is also associated with future suicide attempts (Guan et al., 2012; Whitlock et al., 2013). Suicidal behaviour also represents a high economic burden for society (Shepard et al., 2016). Suicide among young people (15–29 years) accounts for one-third of all suicides globally and is the second leading cause of death in this age group (World Health Organization, 2018). However, literature remains minimal on the magnitude and burden of this issue on young people in Sub-Saharan Africa. Furthermore, the personal first-hand accounts and experiences of young people who are affected and their perspectives on suicidal behaviour have been underreported and overlooked, especially in the context of most African countries.

The study will help clinicians understand the complexities and sensitivity involved with patients at risk for suicidal behaviours and suicides, enabling more focused but holistic management. The study will also enlighten caregivers on the experiences and support they can offer to those they care for who have experienced suicidal behaviour. In addition, study findings will help in advocacy for young people affected by suicidal behaviour, thus decreasing the burden of these disorders on the healthcare system and those affected. Understanding these experiences also could influence how future services are designed. Additional knowledge on this behaviour, which still remains understudied in the African context, can help public health policy-makers choose the best ways to prevent and manage adolescent suicidal behaviour in the context of local communities. This would significantly facilitate the development of policy and strategies by the appropriate authorities and other stakeholders that can help mitigate the number of young adults experiencing suicidal behaviour locally. The study will also add to the scarce literature on suicidal behaviour in Africa as well as possibly provide recommendations for future studies. The

completion of the research will also be a necessary prerequisite for the successful completion of a master's program.

## **2.9. RESEARCH QUESTIONS**

- What is the prevalence and associated factors (sociodemographic and psychosocial) of suicidal behavior among young patients attending the youth centre at KNH?
- What are the subjective experiences of suicidal behavior among young patients attending the youth centre at KNH?
- What is the social and community perception of suicidal behavior from caregivers and youth peers?

## **2.10. RESEARCH OBJECTIVES**

### **2.10.1. General Objective**

To investigate the prevalence and factors associated with suicidal behavior among young patients attending the youth center at KNH

### **2.10.2. Specific Objectives**

Among patients attending the youth center at KNH, the study's objectives were:

- to determine the prevalence of suicidal behaviour in the youth
- to determine sociodemographic factors associated with suicidal behaviour in the youth
- to determine psychosocial factors associated with suicidal behaviour in the youth
- to explore the subjective experiences of suicidal behaviour among the youth
- to explore social and community perceptions of suicidal behaviour from caregivers and youth peers

## **CHAPTER 3: METHODS AND METHODOLOGY**

### **3.1 Introduction**

The procedures that were utilised to gather and analyse the study's data are described in this chapter. The study population, sampling techniques, and instruments that were employed to collect data are also described in the chapter, along with rationale for why they are thought to be acceptable. Additionally, a description of the study's design is provided to support its suitability for the study.

### **3.2 Study Design**

The study employed a convergent parallel mixed methods study design, a style of mixed-methods investigation in which qualitative and quantitative data are concurrently collected and analysed separately, to address the research issue. The results were then pooled and compared following the analysis to arrive at a conclusion. In order to juxtapose the statistical findings with the qualitative data and thoroughly grasp the study problem, a convergent design was therefore adopted. Given that self-harm is a highly subjective experience, the qualitative portion of the study took a phenomenological approach using in-person, semi-structured interviews. This is the optimal approach for learning about people's unique perspectives, viewpoints, and subjective experiences (Farr, 2008). There was an opportunity to explore and research a diverse range of information from the perspective of the respondents via their own descriptions (Bhandari, 2020).

### **3.3 Study area**

The Kenyatta National Hospital is a public, tertiary referral hospital for the Ministry of Health in Kenya. It is also the teaching hospital affiliated with the University of Nairobi, College of Health Sciences, for the training of undergraduate and postgraduate health workers in diverse fields. It is

the largest and oldest hospital in Kenya and East Africa as well. It serves the large cosmopolitan area of Nairobi County, and by virtue of being the largest referral hospital in the region, it also receives referrals from health facilities across the country.

The data collection was carried out at the Youth Centre at the Kenyatta National Hospital. The hospital receives patients from a wide range of socioeconomic backgrounds and ethnicities from the larger cosmopolitan Nairobi area. Kenyatta National hospital provides mental health services in child, adult, and youth outpatient clinics. The Youth Centre at the hospital is an outpatient centre receiving roughly 35 patients per day, coming to about 2400 patients annually. The wait time for outpatient services at the clinic is about an hour before receiving sought services. The centre receives mostly school-going teenagers and young adults from nearby high schools and universities for psychological consultations for a wide range of issues, including discipline concerns, misconduct, truancy and school refusal, impulsive disorders, and substance use. Occasionally, clients may also report psychiatric symptoms like psychosis and mood disorders.

### **3.5 Study Population**

The study population consisted of youth who are in distress. The qualitative study involved young people who have suffered from suicidal behaviour. Adolescents who have not suffered from suicidal behaviour but who, by their own admission, have close friends who have were also interviewed to better understand peer perspectives on suicidal behaviour. The caregivers, either parents or guardians, of the young persons who had practised deliberate self-harm and suicidal behaviour were also interviewed. This was done in order to guarantee representation across varied experiences and perspectives of suicidal behaviour. Both males and females were representatively included in the sample. The quantitative study involved randomly picked youth who qualify to be included in the study.

## **3.7 Eligibility criteria**

### **3.7.1 Inclusion Criteria for the youth**

To be eligible, young people had to

- Be an outpatient at the Youth Centre, KNH
- Be aged between 13 and 24 years
- Consent to participate in the study (parents/guardians will consent if they will not have attained the age of consent) and assent (if a minor)
- Have demonstrated deliberate self-harm and/or suicidal behaviour or had a friend who had experienced demonstrated deliberate self-harm and/or suicidal behaviour (only for the qualitative study portion)

### **3.7.2 Exclusion Criteria for the youth**

- Young people who are in obvious physical or emotional distress
- Young people who suffer psychosis or other clinically diagnosed cognitive deficits

### **3.7.3 Inclusion Criteria for the caregivers**

- Be a parent or guardian to an outpatient at the Youth Centre, KNH
- Consent to participate in the study

### **3.7.4 Exclusion Criteria for the caregivers**

- Caregivers who do not have any knowledge or awareness of the suicidal behaviours of the young persons under their care
- Study subjects who are in obvious physical or emotional distress

### 3.6 Sampling and recruitment procedure

#### 3.8.1 Sample Size Calculation

This calculation was used to yield a sample size for the quantitative study on the prevalence and risk factors associated with suicidal behaviour among the young outpatients attending the KNH Youth Clinic.

The sample size was calculated using Cochran's formula (Cochran 1977), and it is as follows:

$$n = \frac{Z^2 p(1 - p)}{e^2}$$

n<sub>0</sub>= sample size

Number of participants	Description
6	caregivers
6	Affected males
6	Affected females
<b>TOTAL:</b>	<b>18{adjustable upon saturation}</b>

z= normal standard deviation 95%

p= hypothesised prevalence of suicidal thoughts in adolescents of 7.9%, which was obtained in a report by Othieno et al. (2015). This is a local similar study applicable to the current settings.

e= the desired level of precision is set at 0.05 (5%)

$$n_0 = (1.96^2 * 0.05 * 0.95) / 0.05^2$$

n = **111 patients** ,

The centre serves about 35 patients a day; hence a set target of 10 participants gathered each day would be reasonable for the duration of the study

**Table 1: Sampling of the qualitative study**

**3.8.2 Recruitment procedures**

Youth who attend the clinic were interviewed for the study based on their willingness, convenience, and eligibility. The researcher used a consecutive sampling method to recruit every 3<sup>rd</sup> patient at the queue encountered who seeks care from the centre. For this to work efficiently, the first patient was identified, and from the order of arrival, every third patient (i.e., the 3<sup>rd</sup>, 6<sup>th</sup>, 9<sup>th</sup>, 12<sup>th</sup>, and so on) was selected based on their order of arrival. The study recruited participants until the determined sample size target is reached.

A subset of the young people was then selected for the qualitative study, making sure that there are enough participants after taking into account the considerable heterogeneity of experiences within the targeted population in order to offer a comprehensive view of the topic at hand.

Purposive sampling, a sort of non-probability sampling in which the researchers use their own judgement to choose individuals from the general population to participate in their surveys, was therefore used for the study's qualitative component until saturation is reached.

The researcher utilized inclusion criteria, such as age range (15-24 years), gender, or participants showing signs of self-harm, to carry out the purposive sampling. To increase the sample size and find participants who might have yet to be discovered otherwise, the researcher also used snowball sampling, in which participants are asked to suggest more people who fulfil the



inclusion criteria and are interactive. The researcher actively selected and recruited suitable interview participants until saturation. The prospective young participants were approached in the queue as they seek care from the centre. The selected patients, caregivers and healthcare workers were then called to a private room where the researcher introduced herself while creating rapport and explaining the study and its aims. *Participants who have consented to the research but are next in line to see the doctor were permitted to leave, and the study was carried out after they visit the doctor.* The duration of the study was capped at forty minutes to avoid wasting participants' time.

The patients who met the inclusion criteria and agreed to consent/assent were given consent/assent forms to sign, assured of confidentiality and recruited into the study. For study participants under the legal age of consent, consent was sought in writing from a parent/guardian.

Those who refused to give consent/assent nonetheless received the best-unbiased standard of care afforded at the centre.

The researcher ensured that all COVID-19 safety protocols during the period of study are observed. Temperature checks were made at the point of entry of the patients to the centre. Face masks were also mandatory for all the participants, and hand sanitisers were provided. Social distance of at least one metre was strictly maintained to curb the potential spread of the virus

**Table summarizing recruitment of participants for the study**

<b>Study subsection</b>	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>	<b>Sampling</b>
A qualitative study on experiences and perceptions of suicidal behaviour among the youth	Be an outpatient at the Youth Centre, KNH aged between 13 and 24 years Have demonstrated suicidal behaviour or have experienced it	Young people who are in obvious physical or emotional distress Young people who suffer psychosis or other clinically diagnosed cognitive deficits	A subset of the young people selected Heterogeneity of experiences accounted for Purposive sampling used Recruitment done until saturation of themes is reached
A qualitative study on experiences and perceptions of suicidal behaviour among the caregivers	Be a parent or guardian to an outpatient at the Youth Centre, KNH Have cared for a young person who has demonstrated suicidal behaviour in the past	Caregivers who don't have any knowledge or awareness of the suicidal behaviours of the young persons under their care	Caregivers presenting at the centre will be selected Heterogeneity of experiences accounted for Purposive sampling used Recruitment done by the researcher until saturation of themes is reached

## **3.8 Research Instruments**

### **3.8.1 Sociodemographic and Psychosocial Data Questionnaire**

A demographic and psychosocial questionnaire was utilized to capture the various demographic variables of the participants, including their sex, age, ethnicity, level of education, religion, family history of mental health, number of children in their family, position in the family and family structure whether single parent or nuclear or polygamous. The psychosocial question inquired about substance use and abuse. The questionnaire was designed to be easy to complete and gather as much relevant information as possible.

Before utilizing the questionnaire, it underwent pretesting. Pretesting the questionnaire involved administering it to a small sample of individuals to ensure that it effectively collects the necessary information. Pretesting helped identify potential issues with the questionnaire, such as confusing or ambiguous questions, and allowed for revisions before administering the questionnaire to a larger sample. Once the questionnaire has been pretested and revised as necessary, it was issued to the study subjects. The questionnaire was administered in hardcopy format.

Demographic variables were measured through self-report items on the questionnaire, which asked participants to provide basic information about themselves, such as their sex, age, ethnicity, level of education, religion, family history of mental health, number of children in their family, position in the family and family structure whether single parent or nuclear or polygamous. These questions were multiple-choice or open-ended.

Psychosocial variables were measured through standardized psychometric instruments. In our instance, the Addiction severity index was utilized. It is a comprehensive assessment tool that assesses substance use and related problems across multiple domains, including medical, psychological, legal, and social issues.

### **3.8.2 The Suicide Behaviours Questionnaire-Revised (SBQ-R)**

The Suicide Behaviors Questionnaire-Revised (SBQ-R) was created to evaluate suicide risk factors in adults and children between the ages of 13 and 18. The teen fills out the four-question test, which must be finished in within five minutes. Recent studies have shown that the questionnaire is reliable. The SBQ-R has demonstrated excellent internal consistency. One of the SBQ-biggest R's advantages is that, unlike other commonly used tools for suicidality evaluation, it asks questions about future expectations of suicidal ideation or behaviours in addition to past and present ones and includes questions about life time experience of suicidal thoughts, planning, and actual attempts.

### **3.8.3 The semi-structured interview guide**

Each interview followed the same semi-structured interview outline. Despite the presence of predetermined guide questions, responses from the participants were free to give their own perceptions, thoughts, and experiences as they wish. Measures were made to guarantee that the participants' perception of self-harm focuses on self-inflicted harm brought on intentionally, whether directly (e.g. cutting, burning, and other ways of inflicting pain directly) or indirectly (e.g. starvation) and whether suicidal or not. Caregivers and healthcare workers were also probed

on their knowledge, attitudes and perceptions on the different treatment and support options for young people displaying suicidal behaviour and deliberate self-harm and the barriers to the care provided. To measure suicide risk using the SBQ-R, the following steps were followed:

1. Administer the SBQ-R to the individual in question. The questionnaire can be completed in a self-report format
2. Score each item of the SBQ-R according to the instructions provided in the instrument. The total score will range from 0 to 20, with higher scores indicating higher levels of suicide risk.
3. Interpret the total score in the context of the individual's overall presentation and history.
4. Consider the individual's responses to each item of the SBQ-R, as these will provide additional information about specific risk factors or warning signs.

### **3.9 Data Collection Procedures**

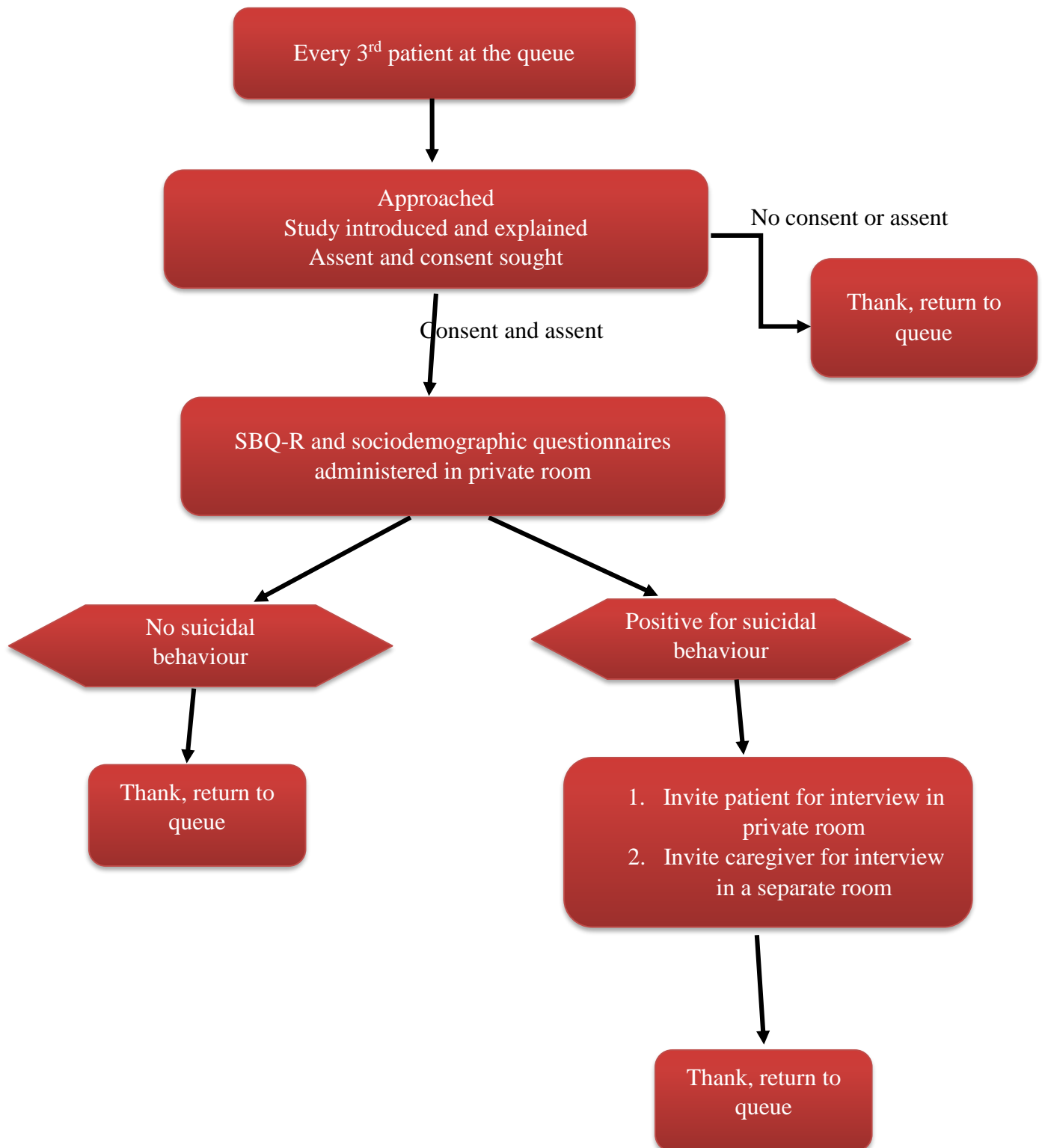
Given the themes to be covered, it is crucial that participants be at ease during the interview and that a good rapport develops between interviewers and subjects. A brief explanation of the study was given, repeating the objectives and validating individuals as experts in their own experiences. The quantitative study employed the use of two questionnaires which contain questions assessing sociodemographic and suicidal behaviour prevalence. The qualitative interviews, on the other hand, employed open-ended questions with a semi-structured framework to provide for flexibility and the opportunity to elucidate and explore responses. The questions were asked in an unthreatening, non-judgmental manner, with the ones with the lowest potential

for hazard coming first. Casual prompts and reiterating the participant's answers (without reinterpreting it) were used to demonstrate interest in responses, assure understanding, and encourage disclosure. The flow of the interview was shaped by the interviewee in certain instances, and when appropriate, participants' experiences were clarified using questions during the interview.

Depending on the participant's comfort level and preference, the interview lasted around an hour and take place in a private room. All discussions were electronically audio recorded with the participant's consent. We utilized smartphones for the audio recordings, which were then stored in a passcode-protected computer that is only accessible to the researchers and password protected. The researchers had restricted access to a lockable container where all audio recordings are kept. If a participant declines to have their voice recorded, thorough field notes will still be obtained and written up for analysis. Field notes were taken in notebooks provided to the interviewers. After that, these notebooks were stored in the department of psychiatry, university of Nairobi, where the researchers had restricted access to a lockable container where all notes are kept.

The estimated time for data collection was four weeks.

### 3.10 Flow Chart Illustrating Methodology



To maintain the highest standards of data quality, the researcher used the maximum possible sample size generated for the quantitative aspects of the study. The subjects were also selected by systematic random sampling. They were guided on how to complete the questionnaires by the researcher while assured of the confidential handling of the data. For the qualitative aspects of the study, the interviewer undertook a short online course on Qualitative Research Methods: Conversational Interviewing by the Massachusetts Institute of Technology via edX™. The interviewer also conducted a pilot study whose results helped improve the quality of the research study. The data was double-checked at the points of transcription to the Excel spreadsheet to reduce errors. The researcher also ensured that all of the interviews are transcribed verbatim before analysis. Furthermore, for the participants who prefer it, the interviews were conducted in Kiswahili but translated by consensus by two researchers to maintain consistency and ensure uniformity of information obtained.

### **3.12 Ethical Considerations**

The rules of conduct for scientists who perform research are governed by research ethics. Protecting the dignity, rights, and wellbeing of study participants requires adherence to the ethical principles of justice, beneficence, non-maleficence, and autonomy. Additionally, the legally underage adolescents that are taken into consideration for the study require special ethical attention.

#### **3.12.1 Authority to Carry Out the Research**

Permission to proceed with the data collection and subsequent phases of the study was sought from the Department of Psychiatry of the Faculty of Health Sciences at the University of Nairobi. The proposal was also presented to the UoN/KNH ethical and research committee



(UoN/KNH ERC) for ethical approval and then subsequently to NACOSTI for the same.

Permission to carry out the research was also sought from the administration of the Youth Centre at KNH.

### **3.12.2 Consent**

Informed consent was sought from the study participants after a full and detailed explanation of the study. For those participants who are below the legal age of consent in Kenya, consent was sought on their behalf from their parents, legal guardians or any person who stands in loco parentis in writing. Assent was sought from these same underage participants. The researcher made it clear that participation in the study is voluntary and that the participants can withdraw from the research at any given point in time without fear of any direct repercussions. If at any point a participant feels that they are psychologically disturbed /overwhelmed by the questions asked by the researcher, they were referred to the relevant healthcare workers for further management. Because of the high degree of sensitivity of the topic, study participants were assured of confidentiality and that their names will not be disclosed at any point during the research process. This was adhered to by making sure that data about the participants was stored in a lockable container and only accessed by the researcher.

### **3.12.3 Confidentiality**

The interviews were conducted one-on-one in a private room with no other people present because the subject is extremely sensitive. The confidentiality of the study participants was guaranteed, and their names were not shared with anybody at any point in time while the study was being conducted. This was upheld by making sure that the participant's identifying information is placed under an assigned identification number instead of their names; hence names were not used. This was done to maintain the participants' privacy and anonymity.

The participant names were kept by the researcher in a different location to which she will control access. Interviews took place in a quiet space. The researchers had restricted access to a lockable container where all audio recordings are kept. To ensure that the transcribed digital information is only available to the researcher, it was saved in a passcode-protected computer.

#### **3.12.4 Participant safeguarding**

There were measures implemented to lessen any potential suffering that study participants may experience in keeping with the principle of non-maleficence and beneficence. A clinician first assessed potential volunteers before deciding if it would be appropriate to continue with the interviews in each situation. Whether the participants can participate in the semi-structured interview was determined by in consultation psychologist or psychiatrist. Notably, interview subjects have mentioned positive outcomes from participating in these discussions, such as the cathartic importance of sharing their stories (Biddle et al., 2013).

There were procedures put in place to evaluate emotional health and make sure help is available during the interview if needed. At the beginning and end of the interview, participants were asked to rate their emotional condition. When a person expresses discomfort or provides information that prompts worry about a possible impending or future risk of suicide, protocols were followed to refer the patient to a suitable health care provider, while ensuring they maintain autonomy in the decisions that affect them. The interviews were interrupted or stopped, and appropriate counsel and emotional support offered if a participant showed signs of extreme distress. Additionally, interviewers received training on how to signpost, offer emotional support, and refer them to the right agencies for treatment or support. If needed, a qualified, experienced clinician was reached via phone.

### **3.13 Data management and analysis**

The researchers had restricted access to a lockable container where all questionnaires, audio recordings and field notes were kept. This container was located at the department of Psychiatry, University of Nairobi. To ensure that the transcribed digital information is only available to the researcher, it was saved in a passcode-protected computer.

The quantitative data was analysed by using the Statistical Package for Social Sciences (SPSS) software, version 26. The normality of the data within groups was determined using histograms and the Kolmogorov-Smirnov test. The demographic, psychosocial and prevalence data were summarised using descriptive statistics, including frequencies, proportions, means and standard deviations and presented in tables and charts. Any differences between the groups regarding predictor variables (psychosocial and sociodemographic factors) were tested using Chi square tests and bivariate and multivariate logistic regression analyses.

The audio-recordings and field notes were labelled and dated before or immediately after the interviews. The major themes covered in the semi-structured interviews include knowledge of suicidal behaviour, experiences, types, motivations and peer support, additional codes that arise were added during analysis of the qualitative data. The analysis was supported by the three parameters for reliability in qualitative research to guarantee its validity. The first rule was credibility, wherein participants were given a recap of their answers at the conclusion of the interview to verify for correctness and to provide them the opportunity for additional comments. Two researchers separately coded the data, and any differences were reviewed and settled by consensus. The second principle, dependability, required that we conduct our analysis in accordance with a predetermined process. Braun and Clarke (2006) used the following approach, which involves six stages of analysis:

- (1) Data familiarisation, including transcript transcription, reading, and rereading
- (2) Creation of first codes (based on aims rather than research questions)
- (3) Finding themes by grouping codes into probable themes
- (4) defining and identifying themes
- (5) reviewing themes
- (6) producing a report

Transferability, or how reflective the replies will be, was improved by enrolling a wide group of people and paying close attention to their backgrounds and personal traits to make sure a spectrum of perspectives was represented. Findings were continually evaluated in light of participant characteristics, recruitment procedures, and data collection methods.

Nvivo was employed to support the transcription of the interviews and thematic analysis. Cross-case theme analysis was used to review the recordings (Deterding and Waters, 2021). To enable de novo and unexpected findings, a template organisation technique was employed to code text segments in accordance with the interview guide's questions. These codes were then grouped into categories based on their similarity. Concordance between analyses was guaranteed.

The analytical strategy was predominately inductive. This makes it possible to investigate how people make decisions and how they see, evaluate, and comprehend the environment around them. A code-and-retrieve mechanism was used to thematically group interview data (Coffey and Atkinson, 1996). Through a process of reading and rereading interviews, inductive code development, and recurrent conversations, a coding frame was constructed. The interviewer/principal investigator coded each interview. The Nvivo 12 programme was used to

organise the themes. It was determined how many interviews each theme was mentioned in the qualitative data was displayed in a table with anchoring quotations that lists the primary themes (categories).

*Dummy illustrations have been given in the Appendix.*

### **3.14 Study results dissemination plan**

The plan is to publish the results of this study on one of the many available online and/or physical publishing platforms so as to ensure that the information reaches the relevant people.

The researcher also will present their findings in settings such as conferences, continued medical education meetings and many other relevant platforms to ensure that the information is well disseminated to the public. Additionally, a copy of the study will be handed over to the department of psychiatry at the University of Nairobi to be placed in their library.

### **3.15 Study Limitations and Delimitations**

There is a possibility for participants to under-report their self-harm behaviours due to self-preservation bias or social desirability, which could lead to underestimation of the prevalence of suicidal behaviour. The researcher, therefore, re-emphasised confidentiality so as for patients to be more open.

The study was carried out in only one centre, so the results might not be truly generalisable to the larger population. However, this might not affect the study outcomes as KNH is the biggest referral hospital and serves a greater number of multiculturally diverse people.

## **CHAPTER 4: RESULTS**

### **4.1 Introduction**

The findings and associations that were obtained following the data collection and analysis steps of the study are outlined in this chapter. Themes and subthemes obtained from the thematic analysis of the qualitative data in the study are also summarised in this chapter. Summaries and descriptive statistics of the study participant's sociodemographic characteristics and their clinical characteristics are also described in the chapter, along with inferential statistics to indicate significant associations between suicidal behavior and these underlying socio-demographic and clinical factors. Additionally, results from logistic regression tests that indicate odds ratios are also appended in this chapter.

### **4.2 Prevalence of suicidal thoughts and Social Media Use among Participants**

71 of the 121 (58.7%) study respondents reported that they had thought of suicide at some point in their lives. Upon inquiry on their perceptions on the effects of social media on social behavior with a potential association with suicidal behavior, 47 (38.8%) indicated that social media does indeed impact social behavior. 20 (16.5%) stated that social media has no impact on social behavior while 51 (42.1%) indicated that they were not sure of the impact of social media on behavior. 3 (2.5%) reported that they were not aware of social media and thus could not comment on its impact and effects on social behavior.

### 4.3 Prevalence of Suicidal Behavior and Risk in the Youth

The suicidal risk for the respondents was quantified using the revised Suicide Behavior Questionnaire (SBQ-R). A total score of 7 and higher in the general population and a total score of 8 and higher in patients with psychiatric disorders indicates significant risk of suicidal behavior. The prevalence of suicidal behavior was quantified in the study population using this suicide risk. It was noted that 42 of the 121 participants (34.7%) were at increased risk of engaging in suicidal behavior. *Figure 3* below indicates the number of respondents at increased risk of engaging in suicidal behavior based on their scores.

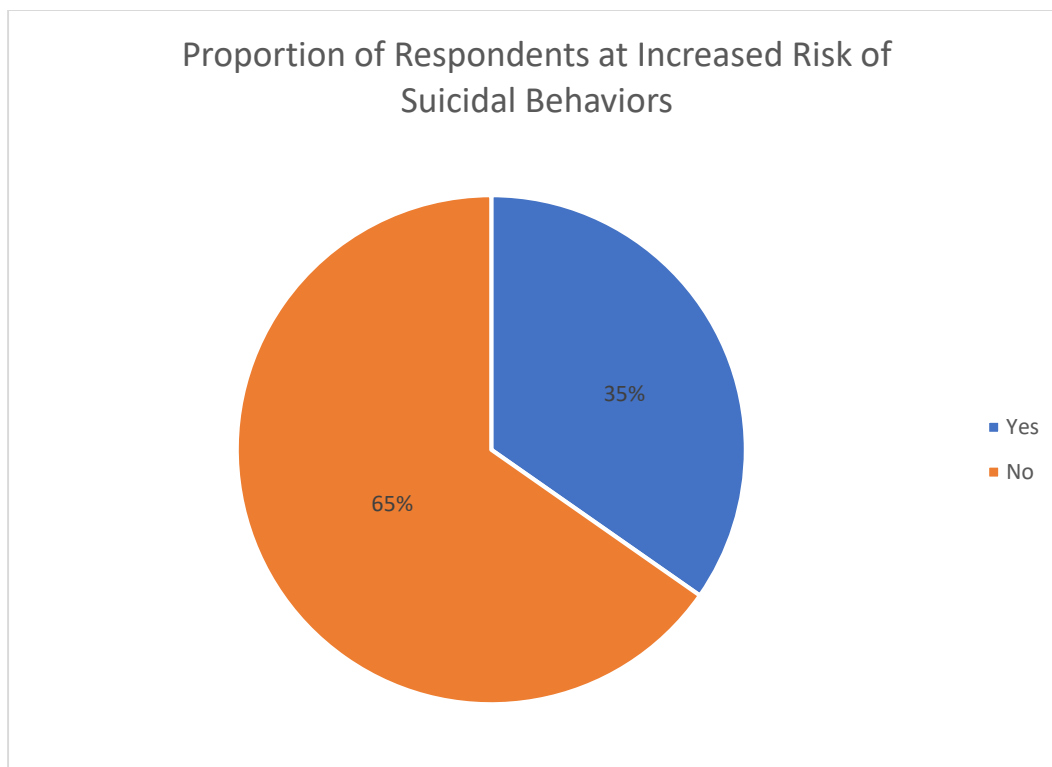


Figure 3: Pie chart displaying the proportion of study respondents at increased risk for suicidal behavior

The average SBQ-R score of the 121 respondents in the current study was  $6.68 \pm 5.23$ . The scores ranged from as low as 2 to the maximum score of 20. *Figure 4* below indicates a distribution curve for the SBQ-R scores of the participants:

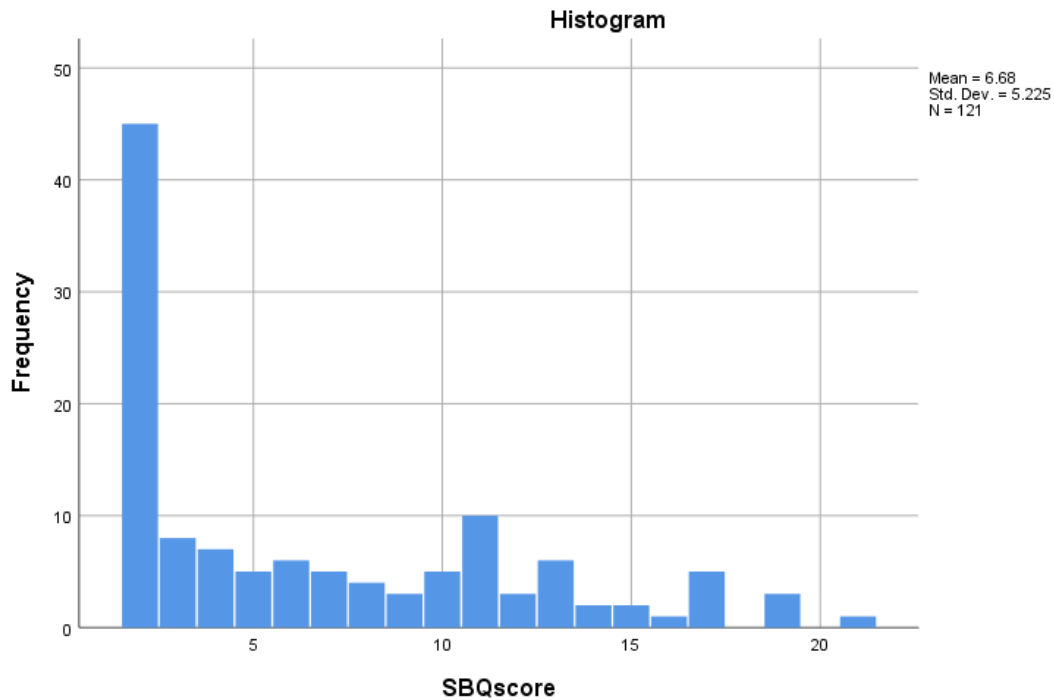


Figure 4: Histogram showing the distributions of the SBQ-R scores among the study participants

#### 4.4 Sociodemographic Characteristics of the Respondents

The respondents of the study were roughly equally distributed as regards gender and were between the ages of 13 and 24 as this study was assessing the prevalence of suicidal behavior among youth. Majority of the respondents were students by profession and had achieved secondary education level. Furthermore, majority of the study respondents were living with their parents and had no children.

The sociodemographic features of the study respondents have been summarized in *Table 1* below:



Respondent characteristic	Number (n)	Percentage (%)
Gender		
Male	58	47.9%
Female	63	52.1%
Age		
13-16	40	33.1%
17-20	51	42.1%
21-24	27	22.3%
>24	3	2.5%
Education level		
No formal education	0	0
Primary education	8	6.6%
Secondary education	69	57.0%
Tertiary education	44	36.4%
Religion		
Traditional	1	0.8%
Christianity	113	93.4%
Islam	4	3.3%
Atheist	1	0.8%
None	2	1.7%
Occupation		
Student	111	91.7%
Employed	3	2.5%
Unemployed	5	4.1%
Self-employed	2	1.7%
Living with:		
Parents	98	81.0%

Siblings	3	2.5%
Guardians	11	9.1%
Alone	8	6.6%
Other students	1	0.8%
Has children:		
Yes	6	5.0%
No	115	95.0%

Table 1: Table summarising the sociodemographic characteristics of the study respondents

#### 4.5 Clinical Characteristics of the Respondents

There were significant number of respondents, roughly half of them, that had a history of substance use and a significant proportion had a family history of psychiatric illness and a history of abuse. Almost all the study respondents had a history of the current psychiatric illness indicating a co-morbid psychiatric illness. The clinical features of the study respondents have been summarized in *Table 2* below:

Respondent characteristic	Number (n)	Percentage (%)
History of Substance Use		
Yes	55	45.5%
No	66	54.5%
Family History of Mental Illness		
Yes	38	31.4%
No	83	68.6%
History of Abuse		
Yes	46	38.0%
No	75	62.0%
History of current psychiatric illness		

Yes	117	96.7%
No	4	3.3%

Table 2: Table summarising the clinical characteristics of the study respondents

#### 4.6 Associations between Suicide Risk and Respondent Factors

The associations and correlations between suicide risk and respondents' clinical and sociodemographic characteristics were assessed using Chi square tests. The findings are summarized in *Table 3* below:

	Suicide Risk		p-value
	Yes	No	
Gender, n (%)			
Male	15 (12.4%)	43 (35.5%)	<b>0.050</b>
Female	27 (22.3%)	36 (29.8%)	
Age, n (%)			
13-16	12 (9.9%)	28 (23.1%)	0.667
17-20	17 (14.0%)	34 (28.1%)	
21-24	12 (9.9%)	15 (12.4%)	
>24	1 (0.8%)	2 (1.7%)	
Education Level, n (%)			
Primary education	0	8 (6.6%)	<b>0.034</b>
Secondary education	22 (18.2%)	47 (38.8%)	
Tertiary education	20 (16.5%)	24 (19.8%)	
History of Substance Use, n (%)			
Yes	21 (17.4%)	34 (28.1%)	0.464
No	21 (17.4%)	45 (37.2%)	
Family History of Mental Illness, n (%)			
Yes	21 (17.4%)	62 (51.2%)	<b>0.001</b>

No	21 (17.4%)	17 (14.0%)	
History of Abuse, n (%)			
Yes	23 (19.0%)	23 (19.0%)	<b>0.006</b>
No	19 (15.7%)	56 (46.3%)	
History of current psychiatric illness, n (%)			
Yes	41 (33.9%)	76 (62.8%)	0.678
No	1 (0.8%)	3 (2.5%)	

Table 3: Table summarising the associations between variables and suicide risk

A significant association was noted between gender and suicidal behavior with the females being at greater risk to engage in suicidal behavior ( $p = 0.05$ ). The prevalence of suicidal behavior among those with tertiary education was 45% while that among those with secondary education was 32%. Higher levels of education were associated with a greater risk of engaging in suicidal behavior ( $p = 0.034$ ). A family history of psychiatric illness was associated with a higher risk of engaging in suicidal behavior ( $p = 0.001$ ) and a history of abuse was also associated with an increased risk of suicidal behavior ( $p = 0.006$ ).

#### 4.7 Predictors of Suicide Risk among youth

The predictors of and the odds ratios for suicide risk and increased tendency to engage in suicidal behaviors was assessed using logistic regression. The findings of the bivariate logistic regression carried out on the sociodemographic and clinical factors following dichotomization of the variables are summarized in *Table 4* below:

Variable	Crude OR (95% CI)	p-value
Gender		
Male	Reference	0.052

Female	2.150 (0.994 – 4.648)	
Age		
13-20	Reference	0.255
>21	1.635 (0.702 – 3.810)	
Education Level		
Secondary education	Reference	0.147
Tertiary education	1.780 (0.816 – 3.884)	
Religion		
Christianity	Reference	0.554
Others (Islam, Pagan, Atheist)	0.608 (0.117 – 3.155)	
Occupation		
Employed and Self-employed	Reference	0.203
Student and Unemployed	3.986 (0.474 – 33.55)	
Living with		
Parents, Guardians, Students, Siblings	Reference	0.104
Alone	3.423 (0.776 – 15.10)	
Have Children		
No	Reference	<b>0.034</b>
Yes	10.54 (1.189 – 93.47)	
History of Substance Use		
No	Reference	0.465
Yes	1.324 (0.624 – 2.805)	
Family History of Mental Illness		
No	Reference	<b>0.002</b>
Yes	3.647 (1.625 – 8.187)	
History of Abuse		
No	Reference	<b>0.006</b>
Yes	2.947 (1.354 – 6.415)	
History of current psychiatric illness		

No	Reference	0.681
Yes	1.618 (0.163 – 16.059)	

Table 4: Table summarising the findings of the bivariate logistic regression

Bivariate logistic regression revealed that there are 10.54 times greater odds of being at risk of suicide if the respondent has children ( $p = 0.034$ ). It was also noted that there were 3.6 times greater odds of being at suicide risk when the respondent had a positive family history of psychiatric illness ( $p = 0.002$ ) and finally there were 3 times greater odds of engaging in suicidal behavior when the respondents had a history of abuse ( $p = 0.006$ ).

In order to account for the effect of covariates in the study population, multivariate logistic regression was carried out. The findings with the adjusted odds ratios of the multivariate logistic regression are summarized in *Table 5* below:

Variable	Adjusted OR (95% CI)	p-value
Gender	2.186 (0.762 – 6.266)	0.146
Age	0.959 (0.453 – 2.028)	0.912
Education Level	2.735 (1.004 – 7.453)	<b>0.049</b>
Religion	0.352 (0.106 – 1.171)	0.089
Occupation	0.662 (0.153 – 2.866)	0.582
Cohabitation	0.592 (0.303 – 1.156)	0.125
Have Children	60.47 (1.602 – 2282.7)	<b>0.027</b>
History of Substance Use	0.799 (0.294 – 2.169)	0.660
Family History of Mental Illness	3.738 (1.362 – 10.257)	<b>0.010</b>
History of Abuse	2.466 (0.918 – 6.623)	0.073
History of current psychiatric illness	1.970 (0.068 – 57.329)	0.693

Table 5: Table summarising the findings of the multivariate logistic regression

After adjusting for all the covariates in the study, it was established that only education level, having children and a family history of psychiatric illness were significantly associated with

increased suicide risk based on the SBQ-R criteria. Increased suicide risk was associated with higher education levels, having children and a positive family history of mental illness.

#### 4.8 Associations between Suicide Risk and Perceptions of the Respondents

A significant association was noted between increased suicide risk and the perception that social media influences behavior. Respondents with increased suicide risk were more likely to respond that social media influences behavior in society ( $p < 0.001$ ).

	Suicide Risk		p-value
	Yes	No	
Social media influences behavior, n (%)			
Yes	29 (24.0%)	18 (14.9%)	<b>&lt;0.001</b>
No	10 (8.3%)	10 (8.3%)	
Not sure	2 (1.7%)	49 (40.5%)	
I don't know social media	1 (0.8%)	2 (1.7%)	

Table 6: Table summarising associations between suicide risk and perceptions of social media use among the study respondents

#### 4.9 Experience and Perceptions of Caregivers Towards Suicidal Behavior

This study identified several themes and sub themes related to knowledge, attitude and challenges faced by caregivers handling patients displaying suicidal behavior. The caregivers described their understanding of the cause of suicidal behaviors, their perceptions towards suicide and suicidal behavior in general, their experiences related to suicide, the risk factors that may serve as triggers for this behavior and finally the prevention and management and their recommendations in order to curb suicidal behavior among the youth in Kenya. The themes and subthemes that were identified as regards the knowledge, attitude and perceptions of caregivers are outlined in *Table 1* below.

<b>Theme</b>	<b>Sub Theme</b>	<b>Findings</b>
Understanding	Low self esteem	Inability to accept self
	Self-harm behavior	Isolation and withdrawal, speaking of possibilities of them taking their life, dwindling academic performance
	Mode of escape from pain	Performed when severely frustrated to escape reality, suffering in silence
	Complicated	It's a very hard thing to understand among millennials
Perceptions	Disappointing	It's a sin and awful thing, it's a bad idea to try or take one's life
	Compassionate	Feeling sad and sorry for the victims and their families, painful, wanting the help the victims
	Uncertain	I wonder why people take their life
Experience	Uncertainty	Not sure of their role in helping the child, afraid the child can commit suicide anytime.
	Helplessness	She doesn't understand her suicidal child. Do not reciprocate the love you show them
Risk Factors	Psychosocial factors	Loneliness, psychiatric disorders e.g., depression, family stresses, marital infidelity, being an orphan, substance use
	Environmental factors	Bullying, cyberbullying, unhealthy comparison on social media, domestic violence
	Socioeconomic factors	Poverty, loss of a job, failure in business
Prevention and Management	Address the psychosocial issues	Offer them job opportunities if they lost their job, showing them love and affection
	Treatment of underlying mental condition.	Helping them access medical attention



	Pharmacotherapy Psychotherapy (Individual & family)	Helping them to adhere to medications
	Offering spiritual help Close observation	Counselling them Praying for them Monitoring their action and location
Recommendations	Supporting Caregivers  Creation of awareness  Improving accessibility to counselling centers	the Having facilities like suicide watch, offer them guidance and counselling.  To sensitize people against stigmatization of suicidal behavior victims, Spread information about suicide and the help that's currently available  Building more counselling centers in the interior areas e.g., in the slums and villages, making mental health care affordable

Table 7: Table summarising themes and subthemes in the knowledge and attitude and perceptions of caregivers towards suicidal behavior

#### 4.2.1 Caregivers' Understanding of Suicidal Behavior

The caregivers used different words and phrases to describe what they understand by suicidal behavior. One said that *“suicidal behavior is taking one’s life e.g., through taking overdoses, hanging, throwing oneself on the road, jumping off tall buildings, drowning etc.”*. Interview with CG\_033. Another one was of the opinion that *“suicidal behavior occurs when one is suffering in silence”* Interview with CG\_032. One other caregiver during the interview stated that, *“It’s a hard thing to fully comprehend especially in the millennials. You leave it to God. Sometimes you think you have a griping of it only to find out that you don’t”* Interview with CG\_054. There were some differences in the understanding of suicidal behavior among caregivers. Wording used by the caregivers for suicidal behavior included: Self-harm behavior, mode of escape from pain, self-

hatred, Inability to accept self. One caregiver related suicidal behavior to the actions demonstrated by people who struggle with suicidal thoughts *“Suicidal behavior is isolation and withdrawal saying you can commit suicide even if jokingly, dropping academically etc. Interview with CG\_029.*

#### **4.2.2 Caregivers’ Perceptions of Suicidal Behavior**

Majority of the responses from the caregivers were positive. Most of the caregivers were empathetic and compassionated when questioned about suicidal patients. One caregiver said *“It is a disease like any other and therefore requires treatment”.* Interview with CG\_041. Some perceptions were negative for example one male caregiver said *“It’s a sin and awful thing, it’s a bad idea to take one’s life”* Interview with CG\_033. Most caregivers were compassionate about the victims felt sorry about their families and wanted to help them, one said *“I feel so bad about it and I think solutions can be found “Interview with CG\_108.*

#### **4.2.3 Experience of Caregivers with Suicidal Behavior**

Most caregivers have not had any experience taking care of suicidal patients. For the few who had experience caring for suicidal patients, some reported that it’s a very hopeless state. *“I’m not very sure how I can help her. “I don’t know how to treat her because she doesn’t reciprocate the love that se is shown”* Interview with CG\_089. One was of the opinion that *“It’s a depressing and tiring work because a small thing changes the tide. Brings a sudden change in emotions. It also leads to intense pressure from friends and families”* Interview with CG\_041.

#### **4.2.4 Risk Factors associated with Suicidal Behavior**

Caregivers reported psychosocial factors like loneliness, psychiatric disorders e.g., depression, family stresses, marital infidelity, being an orphan, substance use as some of the factors that may predispose one to contemplating suicide. *“Being an orphan or coming from a single parent home may lead someone to contemplate suicidal behavior” Interview with CG\_42.*

Environmental factors like bullying, cyberbullying, unhealthy comparison on social media, domestic violence was reported to cause some youth to consider suicide. Social media was a common culprit among the caregivers. One said *“Social media may expose the youth to graphic examples on how to commit suicide” Interview with CG\_80.*

Socioeconomic factors like poverty, loss of a job, failure in business were mentioned to cause suicide among the youth. One caregiver was of the idea that *“frustrations in life and not making it in life lead some youth to consider suicide” Interview with CG\_033.*

#### **4.2.5 Prevention and Management of Suicidal Behavior**

Caregivers reported that helping of patients struggling with suicidal thoughts begins with addressing the psychosocial issues that may have triggered the suicidal thoughts. One caregiver stated that *“Offering spiritual guidance, listening to them and enrolling them for counselling helps those struggling with suicidal behavior.” Interview with CG\_029.*

### 4.3 Subjective experience and Perceptions of Youth with Suicidal Behavior Towards Suicidal Behavior

This study identified several themes and sub themes related to knowledge, attitude and challenges faced by the patients displaying suicidal behavior. The informants described their perceived triggers for the suicidal behavior, their perceptions towards the risk factors for suicide and suicidal behavior in their case, their thoughts on the best modalities for preventing future suicidal behavior and their recommendations to curb suicidal behavior among the youth in Kenya. The themes and subthemes that were identified as regards the knowledge, attitude and perceptions of patients are outlined in *Table 2* below.

<b>Theme</b>	<b>Sub Theme</b>	<b>Findings</b>
Presentation	Onset of suicidal thoughts	Variety of responses on duration of behavior ranging from a few weeks to several years.
	Triggers	Experiencing bullying in school, workplace stressors, broken relationships, financial problems, parental strife and separation, academic failure, losing a loved one, academic stressors, sexual and emotional abuse, anxiety, depression, long hospitalization, severe disappointments, chronic disease diagnosis
Risk factors	Social Media use	Cyberbullying, depressive content, negative comparisons, neglect loneliness, psychiatric

	Psychosocial	disorders e.g., depression, substance use, depression, social stressors, extremely demanding responsibilities, low self-esteem, being sexually assaulted.
	Socioeconomic factors	Loss of employment, poverty, financial loss
Prevention and Management	Address the psychosocial issues.	Showing them love and affection,
	Treatment of underlying mental condition.	Rehabilitation for those addicted to substances,
	Pharmacotherapy	Adherence to antidepressant medications
	Psychotherapy (Individual & family)	Attending counselling sessions
	Offering spiritual help	Going to church
Recommendations	Creating awareness	Spreading information on suicide and the help available through e.g., through media
	Making mental health services affordable	Availing free avenues for the people struggling to get help.
	Making mental health services more accessible	Providing counselling services in schools

Table 8: Table summarising themes and subthemes in the knowledge and attitude and perceptions of caregivers towards suicidal behavior

### 4.3.1 Presentation of Suicidal Behavior

When asked on the onset of the suicidal thoughts the informants gave a variety of responses on duration of behavior ranging from a few weeks to several years. All of them were linked with a trigger or several triggers working together. One female informant said that *“The suicidal thoughts for me started after I experienced very bad kind of bullying in my high school”* Interview with P\_038. The same respondent also cited family problems as a compounding factor to her suicidal thoughts she said, *“constant quarrels between my parents and finding it hard to get along with my siblings made me become suicidal”*. Academic stressors were a trigger in some of the youths one said, *“Having a hard time adjusting to boarding school and not fitting in with other students together with feeling homesick made me start having suicidal thoughts”* Interview with p\_120. Abuse was a common trigger that came up one respondent commented that, *“my suicidal thoughts started after my KCPE exams. I went upcountry and someone attempted to rape me.”* Interview with P\_101. One male informant said *“constant hospital admissions for my sickle cell disease has brought about a lot of devastating feelings of being abandoned when my parents leave and not being liked by others hence making me suicidal”*. Interview with P\_020. The most common triggers included, experiencing bullying in school, workplace stressors, broken or toxic relationships, financial problems, parental strife and separation, academic failure, losing a loved one, academic stressors, sexual and emotional abuse, anxiety, depression, long hospitalization, severe disappointments, chronic disease diagnosis e.g getting a positive diagnosis for HIV.

### **4.3.2 Risk Factors associated with Suicidal Behavior**

When the informants were interviewed about potential factors that may lead one to committing suicide psychosocial disorders e.g., substance use, psychiatric conditions like depression, social media, chronic medical conditions, and economic stressors were the common factors highlighted. One female respondent said, *“most people become suicidal after losing someone they really loved through death”* Interview with P\_017. Another female respondent said that *“being raped and failure to achieve the goals one has set in life lead people to consider suicide.”* Interview with P\_016. One said, *“being depressed, facing immense abuse either physical, emotional or sexual and even knowing someone who committed suicide in the past can lead to suicidal behaviour”* Interview with P\_015. One also said that *“excess pressure from demanding responsibilities e.g. academics or family may bring about a feeling of numbness in a person and they may opt to attempt to suicidal and self harm habits as a way of getting a sensation.”* Interview with P\_066. With regards to social media, one said that *“social media leads to suicidal behavior because it normalizes suicidal thoughts by the content they display”* Interview with P\_066. Other negative effects of social media that lead to suicide mentioned by the respondents included: cyberbullying, exhibition of depressive content and negative pressure due to unhealthy comparison. Economic stressors were mentioned by some of the respondents to lead to suicidal behavior. One said, *“poverty and lack of employment is a great cause of suicidal behavior”*. Interview with P\_021.

### **4.3.3 Prevention and Management of Suicidal Behavior**

The study participants reported that helping of patients struggling with suicidal thoughts begins with addressing the psychosocial issues that may have triggered the suicidal thoughts. One

respondent said, *“Not feeling loved drives some of the youth towards thinking about suicide hence loving them, listening to them unjudgementally and making them feel understood helps them to recover” Interview with P\_090.* After addressing the psychosocial triggers, one should be referred to professionals for medical and psychiatric treatment. One respondent said that *“Finding someone for them to speak to and finding a rehab center for those addicted to substances is an important way of helping these victims” Interview with P\_040* Another respondent stated that *“Keeping oneself busy distracts one from the suicidal thoughts” Interview with P\_029.*

## **CHAPTER 5: DISCUSSION**

### **5.1 Introduction**

Suicidal behavior among youth is a pressing public health concern with potentially devastating consequences. Understanding the prevalence, associated sociodemographic and psychosocial factors, subjective experiences, and social and community perceptions of suicidal behavior is essential for developing effective prevention and intervention strategies. Thus, the study aimed to address these objectives by examining the prevalence of suicidal behavior among youth attending the youth center at Kenyatta National Hospital and exploring the various factors contributing to this behavior.

### **5.2 Prevalence of Suicidal Behavior and Risk in the Youth**

The current study noted that 42 of the 121 participants (34.7%) were at increased risk of engaging in suicidal behavior. This was roughly close to the prevalence seen in the youth in the Phillipines which was around 40%. However, it was greater than the prevalence noted by Strandheim et al.



(2014) in Norway, Voss et al. (2019) in Germany, Pandey et al. (2019) in Nepal, Mortier et al. (2017) in Turkey and Canbaz and Terzi (2018) in Turkey which were 17%, 10.7%, 13.6%, 12.6% and 17.9% respectively. These differences in prevalence may be due to difference in study design, study setting and environmental conditions, tools used to assess the suicide risk and the sociodemographics factors of the participants. This is in line with the existing literature given that Kenya is a developing country and it has been noted by the World Health Organization that developing nations have greater prevalence (World Health Organization, 1968).

The figures observed in the current study are closer to the figures observed previously in Zambia which were around 31.9% (Swahn et al., 2012) and Kenya which was 27.9% (Ndetei et al., 2022). These higher figures are linked possibly to the poorer socioeconomic status and living conditions as it has been shown that youth living in economically disadvantaged locations are more prone to commit suicide (Cheng et al., 2014). The current study, however, reported a lower prevalence of suicidal behavior as compared to a similar study that was carried out across numerous facilities that reported a prevalence of 10.5% (Ndetei et al., 2022). These discrepancies in figures may have been observed due to differences in research tools used to assess suicide risk and differences in the backgrounds of the study participants as the previous study used the Psychiatric Diagnostic Screening Questionnaire (PDSQ) tool to assess suicide risk. Furthermore, the current study is in contrast with another carried out in Kenya that reported a prevalence of 82% in the same clinic and this large discrepancy may have been noted due to differences in study design as the previous study specifically recruited individuals with substance use disorder and with axis 1 psychiatric disorders. This inclusion criteria may have attributed to the higher prevalence being noted as compared to the current study despite similar study setting (Khasakhala et al., 2013).

Suicidal behavior is a growing public health concern and thus numerous research studies have been conducted worldwide to evaluate the incidence, experience, and impact of suicidality in the youth (World Health Organisation, 2019). Understanding the prevalence of suicidal behavior is essential for developing effective prevention and intervention strategies by identifying populations that are in greatest need of these interventions in order to curb the high rates of suicidal behavior noted. The African continent has been discovered to have an increased rate of suicidal thoughts and eventual attempts (Page et al., 2013) and this study indicates that the prevalence of suicidal behavior among the youth attending the youth clinic in KNH is high.

### **5.3 Associations between Suicide Risk and Respondent Factors**

A significant association was noted between the female gender and increased suicide risk in the current study. This is in line with what was observed previously by Mugambi et al. (2020) who noted that females are more susceptible to suicidal behaviour because of their younger age, low socioeconomic level, and comorbid mental illnesses like depression and PTSD. It is also in line with previous Kenyan studies that established that females and high school students being more likely to experience suicidal thoughts than males (Zietz et al., 2020, Ndetei et al., 2022). It has also been noted that parasuicide is commoner among females as compared to their male counterparts (Mengech and Dhadphale, 1984). This is also seen at the global level as female sex has been reported to be a predictor of suicidal behavior (Borges et al., 2010). Voss et al. (2019) and Liu et al. (2005) had similar findings that indicated that female participants were at a greater risk of engaging in suicidal behaviors as compared to their male counterparts. However, this is in contrast with what was seen in the Ghanaian setting whereby males were reported as being more likely to take part in suicidal behavior possibly due to substance abuse (Adinkrah, 2011).

It was also noted that higher education levels were significantly associated with an increased risk of suicide. This is in contrast with what was reported by Borges et al. (2010) who reported that a lower education level is associated with increased tendency to engage in suicidal behavior. These differences may have been noted due to differences in sample sizes as the current study was restricted to one facility and may not have included adequate number of participants with a lower education level as those individuals may not even seek treatment at a mental healthcare facility as education level determines utilization of mental healthcare services (Bachmann, 2018). The association between increased suicide risk and education level was also noted by Mortier et al. (2018) in a South African population where it was reported that the stressful college lifestyle and experiencing a sense of failure were risk factors. The higher rates of suicide risk among individuals may be explained by virtues of increased stressors in form of low academic performance as that has been noted as a risk factor for suicides in a study by Liu et al. (2005).

Family history of psychiatric illness was noted to be correlated with an increased risk of engaging in suicidal behavior. Borges et al. (2015) reported parental psychiatric illness and various psychological illnesses as predictors of suicidal behavior. This indicates that a family history of mental illnesses may also predispose an individual to a higher risks of suicide. Morteir et al. (2018) also reported that a family history of psychiatric conditions was linked with a higher rate of suicide and suicidal behavior. Therefore, the current findings are in line with what has been established within the existing literature.

It was noted that study participants that had experienced abuse had greater odds of having increased suicide risk. This in line with the existing scientific literature that shows a clear link between abuse, both physical and sexual, and increased suicide risk. It has previously been shown that stressful events and a history of harassment and bullying is associated with suicidal thoughts

and suicidal attempts (Liu et al., 2005, Liu et al., 2018). Borges et al. (2015) reported that early life stressors such as abuse may serve as predictors for suicidal behavior and suicidal thoughts. According to Thapa and colleagues, abuse is a social variable that contributes to suicide (Thapa et al., 2021). This was corroborated by Kidd and Carroll (2007) who noted that physical and sexual abuse was a significant contributor of suicide in patients. Sexual abuse was linked with increased suicide in a Nigerian study population (Omigbodun et al., 2008). Regionally, Culberth et al. (2021) indicated that physical abuse was a significant contributor to suicidal behavior and suicidal attempts. It is, therefore, plausible that current study population follows suit with people reporting a history of abuse reporting a higher suicide risk.

Study participants that reported having children were more likely to be at higher risk of suicide. The youth having children would be at greater risk of having a poorer socioeconomic status and would thus be predisposed to a greater risk of suicide and engaging in suicidal behavior. This is in line with a previous study by Kinyanda et al. (2011) who determined that poorer socioeconomic status was linked with a higher rate of suicidal attempts and suicidal behavior among Ugandan youth and teenagers. This was also similar to reports by Cheng et al. (2014) who reported that youth who live in locations that are severely economically disadvantaged may be more prone to commit suicide.

#### **5.4 Experience and Perceptions towards Suicidal Behavior**

During the thematic analysis, it was noted that most caregivers had an empathetic and compassionate outlook towards suicidal patients. There was a recurring theme of uncertainty and lack of experience when dealing with and taking care of suicidal patients. Caregivers reported psychosocial factors like loneliness, psychiatric disorders e.g., depression, family stresses, marital

infidelity, being an orphan, substance use as some of the factors that may predispose one to contemplating suicide. Environmental factors like bullying, cyberbullying, unhealthy comparison on social media, domestic violence were reported to cause some youth to consider suicide. Socioeconomic factors like poverty, loss of a job, failure in business were mentioned to cause suicide among the youth. This was similar to the reports in the literature that indicate that most parents of suicidal youth regard their perception of societal assistance as being inadequate (Morgan et al., 2013). Thapa et al. (2021) reported that as per care-givers, social variables that may contribute to suicides include undue stress, incapacity to finish a task, difficulties managing relationships, abuse, and abandonment. The atmosphere at work, persistent physical and psychological disease, financial struggles, and economic uncertainty are other variables. Several recurring themes can be identified in the current study when compared to existing literature on the knowledge and perceptions towards suicidal behavior (Thapa et al., 2021).

A significant association was noted between increased suicide risk and the perception that social media influences behavior. This in agreement with previous findings that there is increasing evidence of social media influencing suicide-related behavior and suicide (Luxton et al., 2012). Social media has been shown to influence social behavior by allowing individuals to share suicide stories with greater ease (Dunlop et al., 2011). It, therefore, follows that study participants reporting with increased suicide risk are aware of social media and its effects on behavior.

Limitations of the current research study include the cross-sectional design, which limits the ability to draw causal inferences, as well as the use of self-reported measures via the use of questionnaires, which may be subject to recall bias. Another limitation is the limited generalizability of the results of this study as it was carried out in a single psychiatric facility. Future research on suicidal

behavior should employ longitudinal designs, explore more psychosocial factors that may predispose the youth to suicidal behavior and incorporate more objective measures to further explore the complexities of suicidal behavior among the Kenyan youth.

## **CONCLUSION**

The prevalence of suicidal behavior and suicide risk among the youth attending the youth clinic at the Kenyatta National Hospital was established to be 34.7%. The study established that several factors were associated with increased risk of engaging in suicidal behaviors including higher educational attainment and levels, a family history of psychiatric illness, a history of abuse and having children. It was also noted that a greater number of females displayed increased suicide risk when compared to the males. In addition, study participants with increased suicide risk reported increased suicidal thoughts and that social media had an impact on their social behavior. These areas are essential in developing effective prevention and intervention strategies in order to curb the high rate of suicidal behavior in the local setting.

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# APPENDICES

## 1. PROJECT TIMELINE

ACTIVITY	JANUARY – JUNE 2022	JULY-SEPT 2022	SEPT-NOV 2022	DECEMBER 2022-FEBRUARY 2023	FEBRUARY-MARCH 2023	MARCH-APRIL 2023
compile information and draft proposal						
submit proposal draft to supervisors for corrections						
Corrections done and prepare presentation for departmental approval						
ethics clearance and approval						
data collection and analysis						
Report writing and presentation						

### 3. PROJECT BUDGET

	<b>Item description</b>	<b>Quantity</b>	<b>Cost in KES</b>	<b>Subtotal in KES</b>
<b>Proposal development</b>	Proposal copies	6	602	3,612
<b>Data collection</b>	Stationary, printing& photocopy	200	217	43,400
	Transport to research site	30days	210	6,300
<b>Data entry</b>	Data entry clerk	1	6000	6000
<b>Data analysis</b>	statistician	1	25000	25000
<b>Thesis write up</b>	Printing Thesis			20000
<b>Miscellaneous</b>			5000	5000
			Grand Total	109,312



#### 4. DUMMY TABLES FOR STATISTICAL ANALYSIS

##### 4.1 Demographic

Respondent characteristic	Number (n)	Percentage (%)
Gender <ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> </ul>		
Age <ul style="list-style-type: none"> <li>• 15-17</li> <li>• 18-20</li> <li>• 21-24</li> </ul>		
Education level <ul style="list-style-type: none"> <li>• No formal education</li> <li>• Primary education</li> <li>• Secondary education</li> <li>• Tertiary education</li> </ul>		
Occupation <ul style="list-style-type: none"> <li>• Student</li> <li>• Employed</li> <li>• Unemployed</li> <li>• Self employed</li> </ul>		

##### 4.2 Average score on SBQ questionnaire

	Gender		Age		
	Male	Female	15-17	18-20	21-24
Average score					
Standard Deviation					

### 4.3 Bivariate analysis of socio-demographic factors associated with suicidal behaviour

Variable	suicidal behaviour, n (%)		Crude OR (95%CI)	p-value
	Yes	No		
<b>Gender</b>				
Male				
Female				
<b>Age in years</b>				
18-20				
21-30				
31-40				
41-50				
51-60				
<b>Marital status</b>				
Single				
Married and others				
<b>Education level</b>				
Primary and				
Secondary				
Tertiary				
<b>Occupation status</b>				
Employed and				
Self-employed				
Unemployed and student				
<b>Religion</b>				

Christian				
Others				
<b>Family history of substance use</b>				
Yes				
No				
<b>Family history of mental illness</b>				
Yes				
No				

**4.4 Logistic regression of socio-demographic factors associated with suicidal behaviour**

Variable	Adjusted OR (95% CI)	p-value

**4.5 Comparison of mean and standard deviation of S B Q scores among gender by Independent T-test/Mann-Whitney**

Gender	Mean score	Standard deviation	Independent T-test	Mann-Whitney Test
Male				
Female				

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## SOCIO-DEMOGRAPHIC AND PSYCHOSOCIAL QUESTIONNAIRE

Patient study identification no:

Place of residence \_\_\_\_\_

1. Gender: Male  Female

2. Age: 13-16  17-20  21-24

3. Education level:

No formal education  Primary education  Secondary education  Tertiary education

4. Religion: Christianity  Islam  Hindu  Others specify \_\_\_\_\_

5. Occupation: Student  Employed  Unemployed  Self employed

6. Living with: Parents  Guardians  Siblings  Others specify \_\_\_\_\_

7. *Has child/children ?* No--- Yes \_\_\_\_\_

8. Number of children -----

9. Position in the family (specify order of birth) \_\_\_\_\_

10. History of substance use: No  Yes  (specify substances abused) \_\_\_\_\_

11. Family history of mental illness: No  Yes  (specify) \_\_\_\_\_

12. History of abuse: No  Yes  (specify if physical/sexual/emotional) \_\_\_\_\_

13. *History of/ current illness:* No  Yes  (specify) \_\_\_\_\_

---

## **SBQ-R QUESTIONNAIRE**

**INSTRUCTIONS:** Please circle the number beside the statement or phrase that best applies to you.

**CIRCLE ONLY ONE ANSWER** for each question.

**1. Have you ever thought about or attempted to kill yourself?**

- (1) Never
- (2) It was just a brief passing thought
- (3a) I have had a plan at least once to kill myself but did not try to do it
- (3b) I have had a plan at least once to kill myself and really wanted to die
- (4a) I have attempted to kill myself, but did not want to die
- (4b) I have attempted to kill myself, and really hoped to die

**2. How often have you thought about killing yourself in the past year?**

- (0) Never
- (1) Rarely (1 time)
- (2) Sometimes (2 times)
- (3) Often (3-4 times)
- (4) Very Often (5 or more times)

**3. Have you ever told someone that you were going to commit suicide, or that you might do it?**

- (1) No
- (2a) Yes, at one time, but did not really want to die
- (2b) Yes, at one time, and really wanted to do it

(3a) Yes, more than once, but did not want to do it

(3b) Yes, more than once, and really wanted to do it

**4. How likely is it that you will attempt suicide someday?**

**(0) Never**

(1) No chance at all

(2) Rather Unlikely

(3) Unlikely

(4) Likely

(5) Rather Likely

(6) Very Likely

**SBQ-R SCORING**

**Clinical Utility**

Due to the wording of the four SBQ-R items, a broad range of information is obtained in a very brief administration. Responses can be used to identify at-risk Individuals and specific behaviors.

**Scoring**

The SBQ-R has 4-items, each tapping a different dimension of suicidality

- Item 1 taps into lifetime suicide ideation and/or suicide attempt.
- Item 2 assess the frequency of suicidal ideation over the past twelve months.
- Item 3 assess the threat of suicide attempt.
- Item 4 assesses the self-reported likelihood of suicidal behavior in the future.

**Item 1 Scoring:**

If 1 is selected (Non-Suicidal subgroup) = 1 point

If 2 is selected (Suicide Risk Ideation subgroup) = 2 points

If 3 or 4 is selected (Suicide Plan subgroup) = 3 points

If 5 or 6 is selected (Suicide Attempt subgroup) = 4 points

**Item 2 Scoring:**

If 0 is selected = 1 points

If 1 is selected = 2 points

If 2 is selected = 3 points

If 3 is selected = 4 points

If 4 is selected = 5 points

**Item 3 Scoring:**

If 1 is selected = 1 point

If 2 or 3 is selected = 2 points

If 4 or 5 is selected = 3 points

**Item 4 Scoring:**

If 0 is selected = 0 points

If 1 is selected = 1 points

If 2 is selected = 2 points

If 3 is selected = 3 points

If 4 is selected = 4 points

If 5 is selected = 5 points

If 6 is selected = 6 points

Total Score = Sum of items 1 through 4.

Possible scores 3-18



## Psychometric Properties

AUC = Area Under the Receiver Operating characteristic Curve; the area measures discrimination. that is, the ability of the test to correctly classify those with and without the risk.

[.90-1.0 = Excellent; .80-.90 = Good; .70-.80 = Fair; .60-.70= Poor)

	Cutoff score	Sensitivity	Specificity
Adult General Population	$\geq 7$	93%	95%
Adult Psychiatric Inpatients	$\geq 8$	80%	91%

Osman A, Bagge Cl, Guitierrez PM, Kooper BA, Barrios FX., The Suicidal Behaviors

Questionnaire- Revised (SBQ-R): Validation with clinical and nonclinical samples, Assessment, 2001, (5), 443-454

## SEMI-STRUCTURED INTERVIEW GUIDE

	Sensitivity	Specificity	PPV	AUC
Item 1: a cutoff score of $\geq 2$				
• Validation Reference: Adult Inpatient	0.8	0.97	.95	0.92
• Validation Reference: Undergraduate	1.00	1.00	1.00	1.00
Total SBQ-R : a cutoff score of $\geq 7$				
• Validation Reference Undergraduate	0.93	0.95	0.70	0
Total SBQ-R: a cutoff score of $\geq 8$				
• Validation Reference: Adult Inpatient	0.80	0.91	0.87	0.89

1. Have you ever thought about suicide?

Prompts: When did it start? What feelings/circumstances prompted those thoughts?

2. What do you think may drive one resort to thoughts or actions of self-harm?
3. How do you think you can prevent someone from considering suicidal behavior?
4. How do you think someone with thoughts or actions indicating self-harm can get help?
5. Do you think social media influences suicidal behavior?
6. How much help do you think is available for those who perform suicidal behavior?

Elaborate

7. What do you think should be improved in order to help those with suicidal behavior?

## **SEMI-STRUCTURED INTERVIEW GUIDE (CAREGIVERS)**

1. In your own words, how do you understand suicidal behavior?
2. How do you feel about suicidal behavior and people who practice it?
3. Could you tell me your experience caring for someone who has experienced suicidal behavior?
4. Why do you think one may resort to it?
5. How do you think one can prevent someone from considering and practicing it?
6. How do you think someone who practices suicidal behavior can get help?
7. Do you think media (including social media) influences suicidal behavior? How?
8. How much help do you think is available for those affected? Elaborate
9. What do you think should be improved in order to help them?





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## **PARTICIPANT INFORMATION AND CONSENT FORM**

### **FOR ENROLLMENT IN THE STUDY**

(To be administered in English or any other appropriate language e.g Kiswahili translation)

**Title of Study: THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOR AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA NATIONAL HOSPITAL**

**Principal Investigator\and institutional affiliation: CHARLENE GUMBO  
DEPARTMENT OF PYSCHIATRY, UNIVERSITY OF NAIROBI**

**Co-Investigators and institutional affiliation:**

1. John Mburu, MBChB,  
Mmed Psych,  
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3. Prof Muthoni Mathai

Associate Professor, Department of psychiatry  
Faculty of Health Sciences, University of  
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Introduction:

I would like to tell you about a study being conducted by the above listed researchers. The purpose of this consent form is to give you the information you will need to help you decide whether or not to be a participant in the study. Feel free to ask any questions about the purpose of the research, what happens if you participate in the study, the possible risks and benefits, your rights as a volunteer, and anything else about the research or this form that is not clear. When we have answered all your questions to your satisfaction, you may decide to be in the study or not. This process is called 'informed consent'. Once you understand and agree to be in the study, I will request you to sign your name on this form. You should understand the general principles which apply to all participants in medical research: i) Your decision to participate is entirely voluntary ii) You may withdraw from the study at any time without necessarily giving a reason for your withdrawal

iii) Refusal to participate in the research will not affect the services you are entitled to in this health facility or other facilities. We will give you a copy of this form for your records.

May I continue? YES / NO

This study has approval by The Kenyatta National Hospital-University of Nairobi Ethics and Research Committee protocol No. \_\_\_\_\_

### **WHAT IS THIS STUDY ABOUT?**

The researchers listed above are interviewing individuals who are victims of suicidal behaviour, their caregivers who grant them care. The purpose of the interview is to find out their knowledge, attitudes, perspectives and insight into suicidal behaviour among the youth. Participants in this research study will be asked questions about these issues. There will be approximately 100 participants in this study randomly chosen. We are asking for your consent to consider participating in this study.

### **WHAT WILL HAPPEN IF YOU DECIDE TO BE IN THIS RESEARCH STUDY?**

If you agree to participate in this study, the following things will happen:

You will be interviewed by a trained interviewer in a private area where you feel comfortable

answering questions. The interview will last approximately 30 minutes and will cover topics such as suicidal behaviour and self-harm.

We will ask for a telephone number where we can contact you if necessary. If you agree to provide your contact information, it will be used only by people working for this study and will never be shared with others. The reasons why we may need to contact you include: following up on your responses to clarify them.

### **ARE THERE ANY RISKS, HARMS DISCOMFORTS ASSOCIATED WITH THIS STUDY?**

Medical research has the potential to introduce psychological, social, emotional and physical risks. Effort should always be put in place to minimize the risks. One potential risk of being in the study is loss of privacy. We will keep everything you tell us as confidential as possible. We will use a code number to identify you in a password-protected computer database and will keep all of our paper records in a locked file cabinet. However, no system of protecting your confidentiality can be absolutely secure, so it is still possible that someone could find out you were in this study and could find out information about you.

Also, answering questions in the interview may be uncomfortable for you. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any questions asked during the interview.

It may be embarrassing for you to have to give a stranger personal experience of suicidal behaviour. We will do everything we can to ensure that this is done in private. Furthermore, all study staff and the interviewer are professionals with special training in these examinations/interviews. Also, recalling suicidal events may be stressful.

### **ARE THERE ANY BENEFITS BEING IN THIS STUDY?**



You may benefit by receiving free health information. We will refer you to a hospital for care and support where necessary. Also, the information you provide will help us better understand suicidal behaviour in the youth. This information is a contribution to science and patient care.

### **WHAT IF YOU HAVE QUESTIONS IN FUTURE?**

If you have further questions or concerns about participating in this study, please call or send a text message to the study staff at the number provided at the bottom of this page.

For more information about your rights as a research participant you may contact the Secretary/Chairperson, Kenyatta National Hospital- University of Nairobi Ethics and Research Committee Telephone No. 2726300 Ext. 44102 email [uonknh\\_erc@uonbi.ac.ke](mailto:uonknh_erc@uonbi.ac.ke).

The study staff will pay you back for your charges to these numbers if the call is for study-related communication.

### **WHAT ARE YOUR OTHER CHOICES?**

Your decision to participate in research is voluntary. You are free to decline participation in the study and you can withdraw from the study at any time without injustice or loss of any benefits.

### **CONSENT FORM (STATEMENT OF CONSENT)**

#### **Participant's statement**

I have read this consent form or had the information read to me. I have had the chance to discuss this research study with a study counselor. I have had my questions answered in a language that I understand. The risks and benefits have been explained to me. I understand that my participation in this study is voluntary and that I may choose to withdraw any time. I freely agree to participate in this research study.





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## **PARTICIPANT INFORMATION AND ASSENT FORM (for children)**

Project Title: THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOR AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA NATIONAL HOSPITAL\_\_\_\_\_

Investigator(s): CHARLENE GUMBO\_\_\_\_\_

We are doing a research study about (*purpose in simple language*).

Permission has been granted to undertake this study by the Kenyatta National Hospital- University of Nairobi Ethics and Research Committee (KNH-UoN ERC Protocol No. \_\_\_\_\_)

This research study is a way to learn more about people. At least 100 children will be participating in this research study with you.

If you decide that you want to be part of this study, you will be asked to be interviewed by a trained interviewer in a private area where you feel comfortable answering questions. The interview will last approximately 30 minutes and will cover topics such as suicidal behaviour and self-harm.

We will ask for a telephone number where we can contact you if necessary. If you agree to provide your contact information, it will be used only by people working for this study and will never be shared with others. The reasons why we may need to contact you include: following up on your responses to clarify them.

There are some things about this study you should know. **ARE THERE ANY RISKS, HARMS DISCOMFORTS ASSOCIATED WITH THIS STUDY?**

Medical research has the potential to introduce psychological, social, emotional and physical risks. Effort should always be put in place to minimize the risks. One potential risk of being in the study is loss of privacy. We will keep everything you tell us as confidential as possible. We will use a code number to identify you in a password-protected computer database and will keep all of our paper records in a locked file cabinet. However, no system of protecting your confidentiality can be absolutely secure, so it is still possible that someone could find out you were in this study and could find out information about you.

Also, answering questions in the interview may be uncomfortable for you. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any questions asked during the interview.

It may be embarrassing for you to have to give a stranger personal experience of suicidal behaviour. We will do everything we can to ensure that this is done in private. Furthermore, all study staff and the interviewer are professionals with special training in these examinations/interviews. Also, recalling suicidal events may be stressful.

Not everyone who takes part in this study will benefit. A benefit means that something good happens to you. You may benefit by receiving free health information. We will refer you for care and support where necessary. Also, the information you provide will help us better understand suicidal behaviour in young people.

This information is a contribution to science and patient care .

If you do not want to be in this research study, treatment will still be available for you as usual .

When we are finished with this study we will write a report about what was learned. This report will not include your name or that you were in the study.

You do not have to be in this study if you do not want to be. If you decide to stop after we begin, that's okay too. Your parents know about the study too.

If you decide you want to be in this study, please sign your name.

I, \_\_\_\_\_, want to be in this research study.

\_\_\_\_\_

(Signature/Thumb stamp)

\_\_\_\_\_

(Date)



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**INFORMATION AND CONSENT FORM (for parents/guardians of participating children)**

*(To be administered in English or any other appropriate language e.g Kiswahili translation)*

**Title of Study: \_\_\_\_\_ THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOR AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA NATIONAL HOSPITAL\_\_\_\_\_**

**Principal Investigator and institutional affiliation: \_\_\_\_\_ CHARLENE GUMBO, \_\_\_\_\_ MMED PSYCHIATRY, UNIVERSITY OF NAIROBI \_\_\_\_\_**

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### **Introduction:**

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

name on this form. You should understand the general principles which apply to all participants in a medical research: i) Your child decision to participate is entirely voluntary ii) You child may withdraw from the study at any time without necessarily giving a reason for his/her withdrawal iii) Refusal to participate in the research will not affect the services your child is entitled to in this health facility or other facilities.

May I continue? YES / NO

For children below 18 years of age we give information about the study to parents or guardians. We will go over this information with you and you need to give permission in order for your child to participate in this study. We will give you a copy of this form for your records.

**WHAT IS THE PURPOSE OF THE STUDY?**

The researchers listed above are interviewing individuals who are willing to take part in the study. The purpose of the interview is to find out their knowledge, attitudes, perspectives and insight into suicidal behaviour among the youth. Participants in this research study will be asked questions about these issues. There will be approximately 100 participants in this study randomly chosen. We are asking for your consent to consider participating in this study.

**WHAT WILL HAPPEN IF YOU DECIDE YOU WANT YOUR CHILD TO BE IN THIS STUDY?**

If you agree for your child to participate in this study, the following things will happen: You will be interviewed by a trained interviewer in a private area where you feel comfortable answering questions. The interview will last approximately 30 minutes. The interview will cover topics on suicidal behavior.



We will ask for a telephone number where we can contact you if necessary. If you agree to provide your contact information, it will be used only by people working for this study and will never be shared with others. The reasons why we may need to contact you include follow up and clarity on your responses.

### **ARE THERE ANY RISKS, HARMS, DISCOMFORTS ASSOCIATED WITH THIS STUDY?**

Medical research has the potential to introduce psychological, social, emotional and physical risks. Effort should always be put in place to minimize the risks. One potential risk of being in the study is loss of privacy. We will keep everything you tell us as confidential as possible. We will use a code number to identify your child in a password-protected computer database and will keep all of our paper records in a locked file cabinet. However, no system of protecting confidentiality can be absolutely secure so it is still possible that someone could find out your child was in this study and could find out information about your child.

Also, answering questions in the interview may be uncomfortable for you. If there are any questions you do not want to answer, you can skip them. You have the right to refuse the interview or any questions asked during the interview.

It may be embarrassing for you to have this interview in public. We will do everything we can to ensure that this is done in private. Furthermore, all study staff and interviewers are professionals with special training in these examinations/interviews. Also, recalling past traumatic may be stressful.

### **ARE THERE ANY BENEFITS BEING IN THIS STUDY?**

Your child may benefit by receiving free screening on suicidal behavior and health information. We will refer for care and support where necessary. Also, the information provided

will help us better understand suicidal behaviour in young people.

This information is a contribution to science and patient care

### **WHAT IF YOU HAVE QUESTIONS IN FUTURE?**

If you have further questions or concerns about your child participating in this study, please call or send a text message to the study staff at the number provided at the bottom of this page.

For more information about your child's rights as a research participant you may contact the Secretary/Chairperson, Kenyatta National Hospital-University of Nairobi Ethics and Research Committee Telephone No. 2726300 Ext. 44102 email uonknh\_erc@uonbi.ac.ke.

The study staff will pay you back for your charges to these numbers if the call is for study-related communication.

### **WHAT ARE YOUR OTHER CHOICES?**

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

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

For more information contact \_\_\_\_\_ at \_\_\_\_\_ from  
\_\_\_\_\_ to \_\_\_\_\_



**Researcher's statement**

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

**Name:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Role in the study:** PRINCIPAL INVESTIGATOR

*TAARIFA KWA MWANASAYANSI NA FOMU YA IDHINI*

*KWA USAJILI KATIKA UTAFITI*

*(Kutolewa kwa Kiingereza au lugha nyingine yoyote inayofaa kama vile tafsiri ya Kiswahili)*

*Jina la utafiti: \_\_\_\_\_ THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL  
BEHAVIOR AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA  
NATIONAL HOSPITAL \_\_\_\_\_*

*Mpelelezi Mkuu\ na taasisi ya uhusiano: \_CHARLENE GUMBO,MMED UNIVERSITY OF  
NAIROBI\_\_\_\_\_*

*Washiriki na taasisi zao:*

7. John Mburu, MBChB, Mmed

Psych,

Senior Lecturer, Department of Psychiatry Faculty of  
Health Sciences, University of Nairobi

[jmaina@uonbi.ac.ke](mailto:jmaina@uonbi.ac.ke)

8. Roselyn Okoth

B. Psychol, MSc CL Psychol, PhD CL Psychol (candidate) Senior  
Lecturer, Department of psychiatry

Faculty of Health Sciences, University of Nairobi.

[raokoth@uonbi.ac.ke](mailto:raokoth@uonbi.ac.ke)

9. Prof Muthoni Mathai

Associate Professor, Department of psychiatry Faculty  
of Health Sciences, University of Nairobi.

[Muthonimathai@gmail.com](mailto:Muthonimathai@gmail.com)

*Utangulizi:*

*Ningependa kukuambia kuhusu utafiti unaofanywa na watafiti walioorodheshwa hapo juu. Lengo la fomu hii ya idhini ni kukupa habari utakayohitaji ili kukusaidia kuamua ikiwa utakuwa mshiriki katika utafiti au la. Huna tatizo kwa kuuliza maswali yoyote kuhusu lengo la utafiti, kinachotokea ikiwa utashiriki katika utafiti, hatari na faida zinazowezekana, haki zako kama mchangiaji wa hiari, na kitu kingine chochote kuhusu utafiti au fomu hii ambayo si wazi. Tunapojibu maswali yako yote kwa kuridhika kwako, unaweza kuamua kushiriki katika utafiti au la. Mchakato huu unaitwa 'idhini ya habari'. Mara tu unapoelewa na kukubaliana kushiriki katika utafiti, nitakuomba usaini jina lako kwenye fomu hii. Unapaswa kuelewa kanuni za jumla zinazotumika kwa washiriki wote katika utafiti wa matibabu: i) Uamuzi wako wa kushiriki ni wa hiari kabisa ii) Unaweza kujiondoa katika utafiti wakati wowote bila kulazimika kutoa sababu ya kujiondoa iii) Kukataa kushiriki katika utafiti hautaathiri huduma unazostahili katika kituo hiki cha afya au vituo vingine. Tutakupa nakala ya fomu hii kwa ajili ya rekodi yako.*

*Naweza kuendelea? NDIO / HAPANA*

*Utafiti huu umepata idhini kutoka kwa Kamati ya Maadili na Utafiti ya Hospitali ya Kenyatta National - Chuo Kikuu cha Nairobi, itifaki namba \_\_\_\_\_.*

*HUU NI UTAFITI WA NINI?*

*Watafiti walioorodheshwa hapo juu wanawahoji watu ambao ni waathirika wa tabia ya kujiua, walezi wao ambao hutoa huduma kwao. Lengo la mahojiano ni kujua maarifa yao, mitazamo, maoni na ufahamu wao kuhusu tabia ya kujiua miongoni mwa vijana. Washiriki katika utafiti huu wataulizwa*

*maswali kuhusu masuala haya. Kuna washiriki takriban 100 katika utafiti huu watakaochaguliwa kwa nasibu. Tunawaomba idhini yako ya kuzingatia ku-shiriki katika utafiti huu.*

### ***NINI KITAFANYIKA IKIWA UTAFITI HUU UTAKUKUZA KUSHIRIKI?***

*Ikiwa utakubali kushiriki katika utafiti huu, mambo yafuatayo yatatokea:*

*Utaulizwa maswali na mwulizaji mwenye mafunzo katika eneo binafsi ambapo utajisikia vizuri*

*Kujibu maswali. Mahojiano yatachukua takriban dakika 30 na yatajumuisha mada kama vile tabia ya kujiua na kujidhuru.*

*Tutauliza namba ya simu ambayo tunaweza kuwasiliana nawe ikiwa ni lazima. Ikiwa utakubali kutoa maelezo yako ya mawasiliano, itatumika tu na watu wanaofanya kazi katika utafiti huu na kamwe haitashirikishwa na wengine. Sababu za kuwasiliana nawe zinaweza kujumuisha: kufuatilia majibu yako ili kuyaelewa vizuri.*

### ***JE KUNA HATARI, MADHARA AU KUTOKOFAHA KUHUSIANA NA UTAFITI HUU?***

*Utafiti wa matibabu una uwezo wa kuleta hatari za kisaikolojia, kijamii, kihisia na kimwili. Jitihada zinapaswa kuwekwa ili kupunguza hatari hizo. Hatari moja inayowezekana ya kushiriki katika utafiti huu ni kupoteza faragha. Tutahifadhi kila kitu utakachotuambia kwa uwezo wetu wote wa kudumisha siri. Tutatumia nambari ya kanuni kuwakilisha utambulisho wako katika kompyuta iliyolindwa kwa nenosiri na tutahifadhi rekodi zetu za karatasi katika kabati lililofungwa kwa ufunguo. Walakini, hakuna mfumo wa kulinda faragha yako ambao unaweza kuwa kamili kabisa, kwa hivyo bado*

*inawezekana kwamba mtu anaweza kugundua kuwa ulikuwa katika utafiti huu na kugundua habari juu yako.*

*Pia, kujibu maswali katika mahojiano inaweza kuwa na kutokofahisha kwako. Ikiwa kuna maswali yoyote ambayo hautaki kuyajibu, unaweza kuyaacha. Una haki ya kukataa mahojiano au maswali yoyote yaliyoulizwa wakati wa mahojiano.*

*Inaweza kuwa aibu kwako kutoa uzoefu wa kibinafsi wa tabia ya kujiua kwa mgeni. Tutafanya kila tuwezalo kuhakikisha kuwa hii inafanyika kwa faragha. Zaidi ya hayo, wafanyakazi wote wa utafiti na mwulizaji ni wataalam wenye mafunzo maalum katika uchunguzi / mahojiano haya. Pia, kumbuka matukio ya kujiua inaweza kuwa na mkazo.*

#### ***JE KUNA FAIDA KUHUSU KUSHIRIKI KATIKA UTAFITI HUU?***

*Unaweza kunufaika kwa kupata habari za afya bila malipo. Tutakuelekeza kwa hospitali kwa huduma na msaada inapobidi. Pia, habari utakazotoa itatusaidia kuelewa vizuri zaidi tabia ya kujiua kwa vijana. Habari hii ni mchango kwa sayansi na huduma kwa wagonjwa.*

#### ***KAMA UNA MASWALI BAADAYE?***

*Ikiwa una maswali au wasiwasi zaidi kuhusu kushiriki katika utafiti huu, tafadhali piga simu au tuma ujumbe wa maandishi kwa wafanyakazi wa utafiti kwa nambari iliyotolewa chini ya ukurasa huu.*



*Kwa habari zaidi kuhusu haki zako kama mshiriki wa utafiti, unaweza kuwasiliana na Katibu/Mwenyekiti, Kamati ya Maadili na Utafiti ya Hospitali ya Kitaifa ya Kenyatta-Chuo Kikuu cha Nairobi kwa simu 2726300, Uz. 44102, barua-pepe uonknh\_erc@uonbi.ac.ke.*

*Wafanyakazi wa utafiti watagharamia gharama zako kwa simu hizi ikiwa simu ni kwa ajili ya mawasiliano yanayohusiana na utafiti.*

### **CHAGUO LAKO LINGINE NI LIPI?**

*Uamuzi wako wa kushiriki katika utafiti ni wa hiari. Una uhuru wa kukataa kushiriki katika utafiti na unaweza kujiondoa wakati wowote bila kusababisha madhara yoyote au kupoteza faida yoyote.*

### **FOMU YA IDHINI (TAARIFA YA IDHINI)**

*Taarifa ya mshiriki*

*Nimekisoma fomu hii ya idhini au nimepewa habari zilizosomwa kwangu. Nimepata fursa ya kujadili utafiti huu na mshauri wa utafiti. Nimepata majibu ya maswali yangu kwa lugha ninayoelewa. Hatari na faida zimeelezwa kwangu. Ninaelewa kwamba ushiriki wangu katika utafiti huu ni wa hiari na ninaweza kuamua kujiondoa wakati wowote. Ninaridhia kushiriki kwa hiari katika utafiti huu wa utafiti.*

*Ninaelewa kuwa kila juhudi itafanywa kuweka taarifa kuhusu utambulisho wangu binafsi kuwa za siri. Kwa kusaini fomu hii ya idhini, sijatoa haki yoyote ya kisheria kama mshiriki wa utafiti.*

*Ninaridhia kushiriki katika utafiti huu: Ndio/Hapana*

*Ninaridhia kutoa maelezo ya mawasiliano kwa ajili ya ufuatiliaji: Ndio/Hapana*

*Jina lililotiwa chapa la mshiriki:*

*Sahihi / Alama ya kidole ya mshiriki \_\_\_\_\_ Tarehe \_\_\_\_\_*

*Taarifa ya Mtafiti*

*Mimi, mwenye sahihi hapa chini, nimetoa maelezo kamili kuhusu utafiti huu kwa mshiriki aliyetajwa hapo juu na naamini kuwa mshiriki ameelewa na kutoa ridhaa yake kwa hiari na kwa hiari.*

*Jina la Mtafiti: \_\_\_\_\_ Tarehe: \_\_\_\_\_*

*Sahihi: \_\_\_\_\_*

*UNIVERSITY OF NAIROBI (UoN)*

*COLLEGE OF HEALTH SCIENCES*

*P O BOX 19676 Code 00202*

*Telegrams: varsity*

*(254-020) 2726300 Ext 44355*

*KNH-UoN ERC*

*Email: [uonknh\\_erc@uonbi.ac.ke](mailto:uonknh_erc@uonbi.ac.ke) Website: <http://www.erc.uonbi.ac.ke>*

*Facebook: <https://www.facebook.com/uonknh.erc>*

*Twitter: @UONKNH\_ERC*

*KENYATTA NATIONAL HOSPITAL (KNH)*

*P O BOX 20723 Code 00202*

*Tel: 726300-9*

*Fax: 725272*

*Telegrams: MEDSUP, Nairobi*

*FOMU YA MAELEZO NA KIBALI KWA MWANAFUNZI (kwa watoto)*

*Jina la Mradi:*

*Mtafiti (s):*

*Tunafanya utafiti kuhusu wanawahoji watu ambao ni waathirika wa tabia ya kujiua, walezi wao ambao hutoa huduma kwao. Lengo la mahojiano ni kujua maarifa yao, mitazamo, maoni na ufahamu wao kuhusu tabia ya kujiua miongoni mwa vijana. Washiriki katika utafiti huu wataulizwa maswali kuhusu masuala haya.*

*Ruhusa imepewa kufanya utafiti huu na Kamati ya Maadili na Utafiti wa Kenyatta National Hospital-University of Nairobi (KNH-UoN ERC Protocol No. ).*

*Utafiti huu ni njia ya kujifunza zaidi juu ya watu. Angalau watoto 100 watakuwa wanashiriki katika utafiti huu pamoja na wewe.*

*Ikiwa utaamua kuwa unataka kuwa sehemu ya utafiti huu, utaulizwa maswali na mwulizaji mwenye mafunzo katika eneo binafsi ambapo utajisikia vizuri .*

*Kuna mambo kadhaa kuhusu utafiti huu unapaswa kujua. Mambo haya ni (taratibu, mambo yanayochukua muda mrefu, hatari nyingine, madhara, usumbufu, n.k.).*

*Sio kila mtu anayeshiriki katika utafiti huu atapata faida. Faida inamaanisha kwamba jambo zuri limetokea kwako. Tunafikiria faida hizi zinaweza kuwa kupata kipimo cha bure.*

*Ikiwa hautaki kuwa sehemu ya utafiti huu, tutakwambia matibabu mengine ya aina gani yanapatikana kwako. (Kauli hii inatumika kwa miradi ya utafiti inayotoa matibabu au hatua).*

*Tulipokamilisha utafiti huu, tutakuandikia ripoti kuhusu yale yaliyojifunzwa. Ripoti hii haitajumuisha jina lako au kwamba ulikuwa katika utafiti.*

*Hakuna wajibu wako kuwa sehemu ya utafiti huu ikiwa hutaki. Ikiwa utaamua kuacha baada ya kuanza, hiyo ni sawa pia. Wazazi wako wanajua pia kuhusu utafiti huu.*

*Ikiwa utaamua kuwa sehemu ya utafiti huu, tafadhali saini jina lako.*

*Mimi, , ninataka kuwa sehemu ya utafiti huu.*

*(Sahihi/ Muhuri wa kidole) (Tarehe)*

*UNIVERSITY OF NAIROBI (UoN)*

*COLLEGE OF HEALTH SCIENCES*

*P O BOX 19676 Code 00202*

*Telegrams: varsity*

*(254-020) 2726300 Ext 44355*

*KNH-UoN ERC*

*Email: uonknh\_erc@uonbi.ac.ke Website: <http://www.erc.uonbi.ac.ke>*

*Facebook: <https://www.facebook.com/uonknh.erc>*

*Twitter: @UONKNH\_ERC [https://twitter.com/UONKNH\\_ERC](https://twitter.com/UONKNH_ERC) KENYATTA NATIONAL HOSPITAL  
(KNH)*

*P O BOX 20723 Code 00202*

*Tel: 726300-9*

*Fax: 725272*

*Telegrams: MEDSUP, Nairobi*

*FOMU YA MAELEZO NA RUHUSA (kwa wazazi/walezi wa watoto wanaoshiriki)*

*(Kutolewa kwa Kiingereza au lugha nyingine inayofaa kama vile tafsiri ya Kiswahili)*

*Jina la Utafiti: THE PREVALENCE AND FACTORS ASSOCIATED WITH SUICIDAL BEHAVIOR  
AMONG YOUNG PATIENTS ATTENDING THE YOUTH CENTER AT KENYATTA NATIONAL  
HOSPITAL*

*Mwendeshaji Mkuu wa Utafiti na taasisi anayohusika: CHARLENE GUMBO,MMED  
PSYCHIATRY,UNIVERSITY OF NAIROBI*

*Washiriki wa pili wa utafiti na taasisi wanazohusika:*

John Mburu, MBChB, Mmed

Psych,

Senior Lecturer, Department of Psychiatry Faculty of  
Health Sciences, University of Nairobi

[jmaina@uonbi.ac.ke](mailto:jmaina@uonbi.ac.ke)

Roselyn Okoth

B. Psychol, MSc CL Psychol, PhD CL Psychol (candidate) Senior

Lecturer, Department of psychiatry

Faculty of Health Sciences, University of Nairobi.

[raokoth@uonbi.ac.ke](mailto:raokoth@uonbi.ac.ke)

Prof Muthoni Mathai

Associate Professor, Department of psychiatry Faculty  
of Health Sciences, University of Nairobi.

[Muthonimathai@gmail.com](mailto:Muthonimathai@gmail.com)

*Utangulizi:*

*Napenda kukueleza kuhusu utafiti unaofanywa na watafiti walioorodheshwa hapo juu. Madhumuni ya fomu hii ya ruhusa ni kukupa habari unazohitaji ili uamue ikiwa mtoto wako anapaswa kushiriki katika utafiti au la. Hujambo kuuliza maswali yoyote kuhusu madhumuni ya utafiti, kile kinachotokea*

*ikiwa mtoto wako atashiriki katika utafiti, hatari na faida zinazowezekana, haki za mtoto wako kama mwanafunzi wa kujitolea, na chochote kingine kuhusu utafiti au fomu hii ambayo haieleweki.*

*Tunapojibu maswali yako yote kwa kuridhisha, unaweza kuamua ikiwa unataka mtoto wako kushiriki katika utafiti au la. Mchakato huu unaitwa 'ruhusa iliyo informed'. Mara tu utakapoelewa na kukubali mtoto wako kushiriki katika utafiti, nitakutaka uandike jina lako kwenye fomu hii. Unapaswa kuelewa kanuni za jumla ambazo zinatumiwa kwa washiriki wote katika utafiti wa matibabu: i) Uamuzi wa mtoto wako kushiriki ni kwa hiari kabisa ii) Mtoto wako anaweza kujiondoa kutoka kwa utafiti wakati wowote bila kutoa sababu ya kujiondoa iii) Kukataa kushiriki katika utafiti haitaathiri huduma ambazo mtoto wako anastahili kupata katika kituo hiki cha afya au vituo vingine.*

*Naweza kuendelea? NDIYO / HAPANA*

*Kwa watoto walio chini ya umri wa miaka 18, tunatoa habari za utafiti kwa wazazi au walezi.*

*Tutapitia habari hizi na wewe na unahitaji kutoa idhini ili mtoto wako ashiriki katika utafiti huu.*

*Tutakupa nakala ya fomu hii kwa rekodi yako.*

*Lengo la utafiti ni nini?*

*Watafiti walioorodheshwa hapo juu wanafanya mahojiano na watu binafsi ambao... Lengo la mahojiano ni kufahamu... Washiriki katika utafiti huu wataulizwa maswali kuhusu...*

*Kuna takribani washiriki katika utafiti huu watachoaguliwa kwa nasibu. Tunakutafuta idhini yako ya kuzingatia mtoto wako kushiriki katika utafiti huu.*



*IKIWA UTAAMUA KUWA UNATAKA MTOTO WAKO KUSHIRIKI KATIKA UTAFITI HUU,  
MAMBO YAFUATAYO YATAJIRI:*

*Utahojewa na mahojiano na mwandishi mahiri katika eneo la faragha ambapo utajisikia vizuri kujibu maswali. Mahojiano yatachukua takriban dakika thelathini . Mahojiano yatajumuisha mada kama vile .*

*Tutakuuliza nambari ya simu ambapo tunaweza kuwasiliana nawe ikiwa ni lazima. Ikiwa unakubali kutoa maelezo yako ya mawasiliano, yatumika tu na watu wanaofanya kazi katika utafiti huu na kamwe hazitashirikishwa na wengine. Sababu za kwanini tunaweza kuwasiliana nawe ni pamoja na:*

—

*JE, KUNA HATARI, MADHARA, AU KUTOKUKUBALIANA YOYOTE YANAYOHUSIANA NA  
UTAFITI HUU?*

*Utafiti wa matibabu una uwezo wa kuleta hatari za kisaikolojia, kijamii, kiakili, na kimwili. Juhudi zinapaswa kila wakati kuwekwa ili kupunguza hatari. Hatari moja inayowezekana ya kuwa katika utafiti huu ni kupoteza faragha. Tutahifadhi kila kitu unachotuambia kwa kiwango kikubwa cha siri iwezekanavyo. Tutatumia nambari ya nambari ya kitambulisho ili kumtambua mtoto wako katika kumbukumbu za kompyuta zilizolindwa na nywila na tutahifadhi rekodi zetu zote za karatasi kwenye kabati la faili lililofungwa kwa ufunguo. Walakini, hakuna mfumo wa kulinda usiri unaoaminika kabisa kwa hivyo bado inawezekana mtu akagundua kwamba mtoto wako alikuwa kwenye utafiti huu na akapata habari kuhusu mtoto wako. Pia, kujibu maswali katika mahojiano inaweza kuwa ya kuchosha kwako. Ikiwa kuna maswali yoyote usiyotaka kujibu, unaweza kuyasitisha. Una haki ya kukataa mahojiano au maswali yoyote yaliyoulizwa wakati wa mahojiano. Inaweza kuwa aibu kwako*

*na tutafanya kila tuwezalo kuhakikisha hii inafanyika kwa faragha. Zaidi ya hayo, wafanyikazi wote wa utafiti na wahojaji ni wataalam wenye mafunzo maalum katika uchunguzi / mahojiano haya. Pia, inaweza kuwa ya kusumbua.*

#### ***JE KUNA FAIDA ZOZOTE ZA KUSHIRIKI KATIKA UTAFITI HUU?***

*Mtoto wako anaweza kunufaika kwa kupata vipimo bure.*

#### ***JE IPI KAMA UNA MASWALI BAADAYE?***

*Ikiwa una maswali zaidi au wasiwasi kuhusu mtoto wako kushiriki katika utafiti huu, tafadhali piga simu au tuma ujumbe wa maandishi kwa wafanyikazi wa utafiti kwa nambari iliyo chini ya ukurasa huu.*

*Ili kupata habari zaidi kuhusu haki za mtoto wako kama mshiriki wa utafiti, unaweza kuwasiliana na Katibu / Mwenyekiti wa Kamati ya Maadili na Utafiti wa Kenyatta National Hospital-University of Nairobi kupitia nambari ya simu 2726300 Ext. 44102 barua pepe [uonknh\\_erc@uonbi.ac.ke](mailto:uonknh_erc@uonbi.ac.ke).*

*Wafanyakazi wa utafiti watakulipa gharama za simu hizo ikiwa simu ni kwa ajili ya mawasiliano yanayohusiana na utafiti.*

#### ***CHAGUO ZAKO ZINGINE NI ZIPI?***

*Uamuzi wako wa kumruhusu mtoto wako kushiriki katika utafiti huu ni wa hiari. Una uhuru wa kukataa au kujiondoa kwa mtoto wako katika utafiti wakati wowote bila kusababisha dhuluma au upotezaji wa faida.*

*Tuambie tu wafanyikazi wa utafiti na ushiriki wa mtoto wako katika utafiti utasimamishwa. Hauhitaji kutoa sababu za kujiondoa mtoto wako ikiwa hautaki kufanya hivyo. Kujiondoa kwa mtoto wako kutoka kwenye utafiti hautaathiri huduma ambazo mtoto wako anastahiki kupata katika kituo hiki cha afya au vituo vingine vya afya.*

*Kwa habari zaidi wasiliana kutoka kwa:*

*kwa*

*hadi*

#### *FOMU YA IDHINI (TAARIFA YA IDHINI)*

*Mtu anayetarajiwa kushiriki katika utafiti huu hana uwezo wa kutoa idhini yake kwa sababu yeye ni mdogo (mtu aliye chini ya miaka 18). Unaulizwa kutoa idhini yako ili mtoto wako aweze kushiriki katika utafiti huu.*

#### *Taarifa ya Mzazi/Mlezi*

*Nimemsoma fomu hii ya idhini au nimepewa maelezo kuhusu utafiti huu. Nimepata nafasi ya kujadili utafiti huu na mshauri wa utafiti. Nimepata majibu ya maswali yangu kutoka kwake au kwake kwa lugha ninayoielewa. Hatari na faida zimeelezewa kwangu. Naomba kupewa nakala ya fomu hii ya idhini baada ya kuipitia na kuisaini. Nauelewa vizuri kuwa ushiriki wangu na ule wa mtoto wangu katika utafiti huu ni wa hiari na naweza kujiondoa wakati wowote.*

*Naelewa kuwa kila juhudi itafanywa kuhakikisha kuwa taarifa kuhusu utambulisho wangu na wa mtoto wangu zinabaki kuwa siri.*

*Kwa kusaini fomu hii ya idhini, sijapoteza haki za kisheria za mtoto wangu kama mshiriki katika utafiti huu.*

*Ninakubali kwa hiari ushiriki wa mtoto wangu katika utafiti huu: Ndiyo Hapana*

*Ninakubali mtoto wangu kufanyiwa vipimo: Ndiyo Hapana*

*Ninakubali kutoa taarifa za mawasiliano kwa ajili ya ufuatiliaji: Ndiyo Hapana*

*Sahihi ya Mlezi/Mtunza:*

*Tarehe:*

*Jina la Mlezi/Mtunza:*

*Tamko la Mtafiti*

*Mimi, mwenye saina hapa chini, nimetoa maelezo kamili ya maelezo muhimu ya utafiti huu kwa mshiriki aliyetajwa hapo juu na ninaamini kuwa mshiriki huyo ameelewa na ametoa idhini yake kwa ufahamu kamili.*

*Jina:* \_\_\_\_\_

Date:

