

**IMPACT OF TEENAGE PREGNANCIES ON ADOLESCENTS' MENTAL HEALTH
AFTER COVID-19:A CASE OF KAKUMA TURKANA WEST SUB-COUNTY,KENYA**

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MASTER OF ARTS

(COUNSELLING PSYCHOLOGY)

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
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COUNSELLING PSYCHOLOGY IN THE SCHOOL OF EDUCATION ARTS AND
SOCIAL SCIENCES AT KCA UNIVERSITY**

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DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

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I/we do hereby confirm that I/we have examined the master’s dissertation of

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And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed.

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Dr. Ignatius Nyaga Munyiri

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ABSTRACT

This research studied the impact of teenage pregnancies on adolescents' mental health after COVID-19: a case study of Kakuma Turkana West Sub-County, Kenya. The purpose of the study was to identify the impact of teenage pregnancies on adolescents' mental health after COVID-19 in Turkana West Sub-County to provide evidence to guide preventive and targeted mental health services for adolescent mothers in similar settings. Teenage pregnancy was already a public health crisis, but the COVID-19 pandemic aggravated the issue and also mental health issues among adolescents, especially in marginalized regions. Minimized access to education, healthcare, and social support systems precluded during lockdown increased psychological distress and placed adolescents who were pregnant at higher risk of anxiety, depression, and intimate partner violence. The study aimed to achieve four objectives: to find out the socio-demographic factors associated with teenage pregnancies, to evaluate the impact of the COVID-19 pandemic on mental health, to establish the role of social support systems in mitigating mental health issues, and to find out the prevalence of common mental health disorders among adolescent mothers. The study was guided by two theories: the Social Cognitive Theory by Albert Bandura and the Theory of Planned Behavior by Icek Ajzen. The study purposefully selected a target population of 62 teenage mothers who re-enrolled in twelve schools in Kakuma Town, using a mixed methodology and a descriptive survey design. A purposive sampling technique was used to select study participants. A pilot study was conducted to test the reliability and validity of the tools before the actual study, and items were adjusted to address this study's objectives. The researcher obtained ethical clearance from the Scientific and Research Ethics Committee from KCA University, an introduction letter from the Postgraduate School, and a NACOSTI license. To ensure no harm the researcher obtained consent from the study participants. The quantitative and qualitative data were collected through questionnaires and focus groups were filled out by 54 teenage mothers and 15 informants from the local ministry of education, healthcare providers, and community structures, with a return rate of 93%. Data was analyzed using descriptive, inferential, and thematic analysis and was presented through tables showing sample characteristics and variable-wise data, including means, standard deviations, frequencies, and percentages. The findings informed that 77.8% of the adolescent mothers were aged between 18-19 years, which aligned with common trends in teenage pregnancies. The COVID-19 pandemic had a considerable negative impact on mental health, with a mean score of 4.3 for difficulty accessing mental health services and 4.5 for increased feelings of isolation. This informed that the pandemic exacerbated pre-existing mental health challenges among the participants. Though it showed that family and peer support reduced stress levels, the study recommends the formulation of policies that will integrate adolescent mental health care into reproductive health and maternal health services to assist in mental health being prioritized. The findings will benefit school managers, parents, teenage mothers, and education and health policymakers, as the statistical data collected through the study identified the prevalence of common mental issues and risk factors experienced by adolescent mothers, which may lead to the development of psychological interventions and policies.

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My warmest appreciation goes to my supervisors, Dr. Priscillah Njoki and Dr. Ignatius Nyaga for their valuable guidance, encouragement, constructive criticism and constant support. Their expertise and encouragement were instrumental in the development of this research study. Also, I would like to appreciate the Department of Education Arts and Social Science at KCA University, because of the support in resources and academic surrounding that were provided to make this dissertation complete. And finally, I would like to thank all the great people who played their parts, directly or indirectly, in this great journey. Thank you for the work that you do.

Asante Sana!

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DEDICATION

I dedicate this research work to my incredible mother Emily Murgor, whose unwavering support and love have been the backbone to my achievement .To my beloved siblings Ian Misoi, Sandra Misoi ,Babra Misoi and son Miles Kilel who have stood by me through all the chapters.

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ACRONYMS AND ABBREVIATIONS

| | |
|-----------------|--|
| CMD | Common Mental Health Disorders |
| COVID 19 | Coronavirus Disease 2019 |
| IASC | Inter-Agency Standing Committee |
| MMHPSS | Mental Health and Psychosocial Support |
| MOE | Ministry of Education |
| NACOSTI | National Commission for Science, Technology and Innovation |
| PFA | Psychological First Aid |
| SRH | Sexual Reproductive Health |
| TSC | Teacher Service Commission |
| WHO | World Health Organization |

TERMS AND DEFINITIONS

The terms below will be defined within the confines of this study as shown:

Teenage girls experiencing pregnancies.....This refers to female teenagers between the ages of 11 and 19, who became adolescent mothers following the COVID-19 pandemic.

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter covers the background, statement of the problem, purpose, objectives, justification and significance, scope, limitations and delimitations, and assumptions of the study, and operational definitions of terms.

1.2 Background of the study

The COVID-19 epidemic aggravated a number of social and health issues around the world, including teenage pregnancies, which also have an impact on adolescent mental health. Since the abrupt upheaval of our social and economic institutions in reaction to coronavirus prevention efforts, one of the most surprising effects has been on adolescents worldwide.

Globally, teenage pregnancies were a public health crisis before the COVID-19 pandemic. Projections that 100 million girls would become teen mothers was made on teenage pregnancies before the COVID-19 pandemic through child brides over the next decade (Okeke et al., 2022). The project is a far cry from Global Sustainable Development Goal 3; Target 3.7, which states “to ensure universal access to sexual and reproductive healthcare services, including family planning, information, and education, and the integration of reproductive health into national strategies and programs of this is being achieved, especially on adolescent pregnancies” (Fund, S. 2015). Concerningly, projections of teenage pregnancies have increased due to the COVID-19 pandemic. The research paper also states that over the isolations, disruptions of services such as education and health care, and economic hardships intensified stress, anxiety, and depression among pregnant teens, compounding existing mental health challenges among adolescents experiencing pregnancies (Okeke et al., 2022).

The COVID-19 pandemic exacerbated the vulnerabilities of adolescent girls in sub-Saharan Africa, leading to increased rates of teenage pregnancies and adverse mental health outcomes. (Musa et al., 2021). Twenty African countries are ranked highest in child marriages that indicates 40% of girls marry before the age of 18, and 15 years in the Sub-Saharan Africa. (Smaak & Varia, 2015) or (Smaak & Varia, 2024). The pandemic adversely affected the lives of teenage people in terms of their mental and physical health, education, and future aspirations with their families and communities. (Musa et al., 2021). As a way of curbing the spread of COVID-19, lockdowns were introduced, leading to disruption of social services such as education and healthcare services, which heightened the risk of teenage pregnancies (Meherali et al., 2021). Redirections of medical resources resulted in limited access to contraception and safe abortion services, thereby increasing psychological distress among pregnant adolescents. This scenario echoes the adverse impacts observed during previous epidemics, such as the Ebola outbreak in West Africa, where girls experienced increased gender-based violence, early marriages, and poor mental health due to the breakdown of essential services (Kons et al., 2022). Thus, the information highlights the importance of implementing interventions and developing policies to prevent teenage pregnancies and improve adolescent mental health during pandemics.

In Uganda, there was a 55% increase of teenage pregnancies that were reported during the COVID 19. The increase was from 354,736 to 551,235 teenage pregnancies that occurred in the first six months of 2021, making it highest in East Africa (Musinguzi et al., 2022) Also, in some districts of Uganda during the pandemic, there was an increase of 30% to 50% in teenage pregnancies (Musinguzi et al., 2022). In Uganda during the COVID-19 lockdown period resulted in an 8% increase in teenage pregnancies; this was mostly attributed to the inactive schools' periods and interruptions to the health care services available to adolescents (Alunyo et al., 2023).

Also, during the lockdowns, the adolescents were at risk and easily influenced to risky behaviors such as drug use, alcohol consumption, and their associated sexual risky behaviors, among others (Musinguzi et al., 2022).

In Kenya, 152,000 teenage girls were reported to be pregnant in the three months of COVID-19 lockdown, which was a 40% increase from 380,000 to 532,000 cases (Citizen Global, 2021). 55% of pregnant adolescents experienced common mental health issues influenced by intimate partner violence, lack of social support, and abuse in a study conducted in Korogocho slum, Nairobi County (Miriti et al., 2023). Teenage pregnancies often lead to severe health complications due to the physical immaturity of adolescent girls, making them vulnerable to pregnancy and childbirth complications. These health issues can further exacerbate mental health disorders among teenage mothers. The COVID-19 pandemic has further strained health care resources, leaving pregnant adolescents without adequate mental health care (Okech & Choge, 2020; Ombati & Njoroge, 2021).

Prior and after the COVID-19 epidemic, mental health services were inadequate in middle and low income countries. There is minimal access to quality mental health services at all levels of healthcare in Kenya. A Mental Health Action Plan 2021-2025 was developed with the aim of improving mental health services to support teenage mothers both during and after COVID-19. Only 14 county hospitals have functional mental health units compared to the 47 county hospitals in Kenya. Additionally, the of mental health struggles for adolescents experiencing teenage pregnancies is unknown given the lack of national data on mental health. In the studies that have been conducted in developed countries and each showing the impacts of COVID-19 on adolescent's mental health experiencing teenage pregnancies, there is a lack of localized data on this topic in Kenya and, furthermore, marginalized areas like Kakuma in Turkana West Sub-

county. In Kenya, from the 13th of March to the 31st July of 2020, production of the National Disaster Response Plan and National Readiness and Early Response Plan to Mental Health Education was developed to address mental health during the pandemic.(Gichangi et al., 2024). In some national priorities some of mental health struggles of adolescents is addressed, but not all aspects of mental health were covered, especially at special groups as adolescents experiencing teenage pregnancies. Also, most of the implementation was not conducted due to short resources allocated to mental health. The study aims to collect localized data on the impact of teenage pregnancies and adolescents' mental health after COVID-19, a case study of Kakuma, Turkana West Sub-County, Kenya, so as to provide evidence to guide preventive and targeted mental health services for adolescent mothers.

1.2 Statement of the problem

In Kakuma Refugee Camp, there were 62 reported cases of teenage pregnancies in the month of June 2020, as compared with eight cases in the same month in 2019. This could be attributed to the country not having a proper coping mechanism in place for adolescents in times of a pandemic, leaving the adolescents to have their own coping mechanism during COVID-19(Smith, E. 2020, August 14). The COVID-19 pandemic exacerbated the issue of the rise of teenage pregnancies globally, with particularly severe consequences for adolescent mental health based on increased social isolation and limited access to education and healthcare services. In 2021, a study was conducted in Boston, United States of America, and it states that all the study participants who were interviewed reported adverse mental health experiences that included increased loneliness, anxiety, and depression (Merriman B. et al,2023). In a review of the COVID-19 epidemic and well-being and adolescent health in sub-Saharan Africa, it concludes that from the evidence from Nigeria, Kenya and Ghana, during the COVID-19 pandemic, there was a possible long and short-

term impact of COVID-19 on adolescents, widening the gap of inequality in adolescents' educational, reproductive health and mental health (Addae, E. A. 2021). A recommendation was to have interventions that support sexual and reproductive health, mental health, and psychosocial support through public health. (Addae, E. A. 2021). In Kenya, a study on the impact of COVID-19 lockdowns on adolescent pregnancy and school dropout among secondary school girls reported that COVID-19 affected the rate of teenage pregnancies that led to school dropouts and transfers and questioned the impact of mental health status on adolescents who experienced teenage pregnancies. It recommends programs and interventions on how to curb teenage pregnancies during emergencies (Zulaika et al., 2022).

The research study focuses on Kakuma, Turkana West Sub-county, a marginalized area with economic and social difficulties; during the COVID-19 pandemic, their situation was more critical. Teenage pregnancies were experienced by adolescents in Kakuma, and the prevalence of common mental health issues, socio-demographic factors, role of social support systems, and impact of COVID-19 on adolescents experiencing teenage pregnancies is unknown. The lack of targeted research creates a major vacuum in understanding how these young girls coped mentally, especially given the added difficulties of social stigma, school dropouts, and limited future options. The study aims to address this gap by examining the impact of teenage pregnancies on adolescent mental health after the COVID-19 pandemic in Kakuma. As a result, we can have a better understanding of the broader ramifications in similar circumstances globally for policy development and intervention on mental health among teenage mothers.

1.3 Purpose of the study

The purpose of the study is to identify the impact of teenage pregnancies on adolescents' mental health after COVID-19 in Turkana West Sub-County to provide evidence to guide preventive and targeted mental health services for adolescent mothers in similar settings.

1.4 Objectives of the study;

1. To find out the socio-demographic factors associated with teenage pregnancies among adolescents in Kakuma, Turkana West Sub-County.
2. To evaluate the impact of the COVID-19 pandemic on the mental health of adolescent mothers in Kakuma, Turkana West Sub-County
3. To find out the prevalence of common mental health issues among adolescents experiencing teenage pregnancies in Kakuma, Turkana West Sub-County.
4. To establish the role of social support systems in mitigating mental health issues among teenage mothers in Kakuma, Turkana West Sub-County.

1.6 Justification and significance

The COVID-19 pandemic highlighted the fragility of social systems through which adolescents are supported, especially in disadvantaged environments such as Kakuma, Turkana West Sub-County, Kenya. Long school closures and a failure to have plans for distance learning hit less privileged girls most significantly, making them vulnerable to teenage pregnancies. These pregnancies not only interrupt the educational and economic opportunities of young girls, they are a significant driver of mental health problems, including anxiety, depression and social isolation. Social stigma, economic strain, and inadequate support networks further exacerbate mental health vulnerabilities among teenage mothers. Given the well-known increase in mental health problems among adolescents, it is essential to explore the impact of teenage pregnancies on mental health

after the pandemic. This research will deliver key insights to the development of tailored support services and policies that enhance the mental health and psychosocial well-being of adolescent girls.

This study aims to determine the impact of teenage pregnancies on adolescents' mental health after the COVID-19 pandemic in Kakuma, Turkana West Sub-County. The research findings will be beneficial to several stakeholders, especially the teenage mothers who will be able to gain more targeted and accessible mental health and psychosocial support systems even in primary health care facilities. Teachers and school managers will have the capacity to create more equitable and inclusive school environments for teenage mothers. Enhanced emotional and social support from the caregivers and parents who will have awareness of the psychological challenges that the adolescent mother experiences and will implement on positive parenting. Health care providers will be better positioned to provide targeted and responsive mental health and psychosocial support (MHPSS) services. The findings will assist policymakers in the health and education sectors to create informed and adolescent-centered policies. Community leaders' chiefs and nyumba kumi wazee will use the findings to strengthen community-based networks, while researchers and academics will use the new data to improve future research on adolescent mental health in post-crisis areas.

The study may find out the socio-demographic factors associated with teenage pregnancies, evaluate the impact of the COVID-19 pandemic on mental health, establish the role of social support systems in mitigating mental health issues, and find out the prevalence of common mental health issues among adolescent mothers. This may lead to the development of psychological interventions suited for them to have a stable mental health and psychosocial well-being. Moreover, the study will guide the design of policies and programs targeting the prevention of

teenage pregnancies, thus, promoting the psychosocial well-being of adolescents and implementing more effective intervention strategies that can support this vulnerable population.

1.7 Scope and limitation of the study

1.7.1 Scope of the study

The scope of this study includes the content, geographical setting, and time frame. The study aims to find out socio-demographic factors associated with teenage pregnancy among adolescents, to evaluate the impact of the COVID-19 pandemic on the mental health of adolescent mothers, to establish the role of social support systems in mitigating mental health issues among teenage mothers and to find out the prevalence of common mental health issues among adolescents experiencing teenage pregnancies in Kakuma, Turkana West Sub-County. This study will focus on primary schools within Kakuma and will cover after the COVID-19 pandemic and the writing of the proposal period from March 2022 to July 2025. The 12 targeted schools are in close proximity to Kakuma town and can be accessed easily. The study focuses on teenage mothers aged between 13 and 19 years who have re-enrolled back after COVID-19 in the twelve primary schools.

1.7.2 Limitations of the study

The study faced certain limitations;

The study research participants were 13 to 19 years old teenage mothers who required parental consent and their own assent to participate in the study. This is according to the Kenyan Constitution of 2010 and the United Nations Convention on the Rights of the Child (UNCRC), a child is someone under the age of 18 years and cannot legally consent to participate in the research study. Language barriers impeded the research study because the Turkana is a minority and marginalized community in Kenya. Due to their pastoralist's nature they tend to have low education levels thus their local dialect is widely spoken.

1.8 Assumptions of the study

The study will assume that:

The number of teenage pregnancies might have increased during the COVID-19 pandemic due to school closure, constrained social interactions, and economic strain in Kakuma, Turkana West Sub-County. Teenage mothers in Kakuma, Turkana West Sub-County, Kenya, were likely to experience common mental health issues. It was commonly assumed that mental health care services were available in Turkana West Sub-County for adolescents experiencing teenage pregnancies, but the actual availability, accessibility and inclusivity of these services is unknown.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a theoretical framework for the study on the impact of teenage pregnancies on adolescent mental health after the COVID-19 pandemic, specifically focusing on Kakuma, Turkana West sub-county. It reviews related studies and ends with a summary and a conceptual framework.

2.2 Theoretical Framework

A theoretical framework involves definitions, interrelated concepts, and propositions that systematically explain phenomena by discussing relationships among variables (Kothari, 2004). This study will be guided by both the Theory of Planned Behavior and Social Cognitive Theory. The theories offer insights into the psychological mechanisms influencing attitudes, intentions, behaviors, and social perspectives on teenage pregnancies and adolescent mental health.

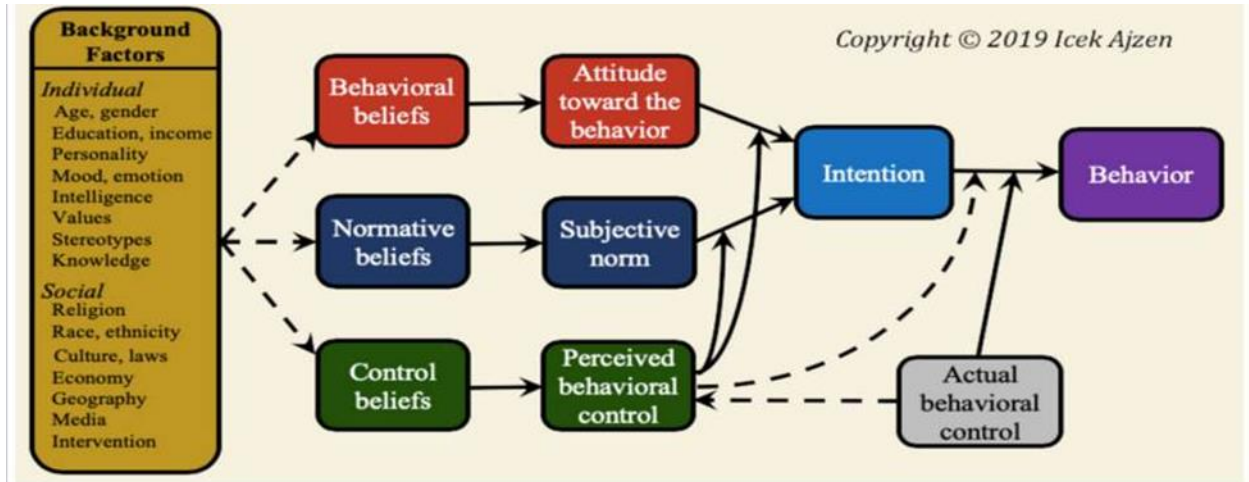
2.2.1 Theory of planned behavior

The theory of planned behavior was developed by Icek Ajzen in 1985 (Ajzen, 1991). The theory is an extension of the Theory of Reasoned Action by Ajzen and Fishbein 1980 due to the theory's limitation in dealing with behaviors of individuals who have incomplete violation control. The theory suggests that an individual's intention to engage in a specific behavior is influenced by three key factors: their attitude toward the behavior. This refers to the degree to which an individual has approval and disapproval of the behavior in question through evaluation and research. The second factor, subjective norms, is described in the theory as the social networks and cultural standards that influence an individual to perform or not perform the behavior. Perceived behavioral control is defined as the belief in their ability to perform or not perform the behavior based on reflecting

on past experiences as well as expected assumed to reflect experience as well as anticipated barriers and difficulties (Ajzen, I. (1991). This theory is often used to understand and predict a wide range of behaviors, particularly those related to health and social issues.

FIGURE 1

Representation of the Theory of Planned Behaviour and Background Factors



Source : Icek Ajzen 2019

Application of the Theory of Planned Behavior

In the context of this study, the Theory of Planned Behavior is relevant for understanding how adolescents' attitudes toward sexual activity, societal influences, and perceived control over preventing pregnancies affect their behaviors. Specifically, it can help explain how teenage mothers' mental health and psychosocial well-being are shaped by their attitudes toward pregnancy and the influence of family and community norms. Their perceived ability to manage their situations after the COVID-19 pandemic. The theory provides a framework for examining how these factors contribute to the mental health challenges faced by adolescent mothers and highlights the importance of targeted interventions that address not only the behavior but also the underlying attitudes and perceptions.

Limitation of Theory of Planned Behavior

Despite the wide use of the Theory of Planned Behavior, different scholars have disputed that the theory ignores that a person's needs before they perform a behavior can affect their actions regardless of expressed attitudes. For example, an individual might have a positive attitude regarding consuming “nyama choma” and will not order “nyama choma” because they are not hungry at that particular time. (Alhamad, H., & Donyai, P. (2021). This theory does not integrate the role a person’s emotions play in the development of intentions and decision-making before an individual execute or does not execute a certain behavior (Sniehotta, F. (2009). In the study by Sussman et al. 2019, findings on the theory imply that the relationships among the attitudes, social norms, and perceived behavioral control may be bidirectional. This challenges the theory's assumption that intentions and behaviors are a result of the three key theory elements.

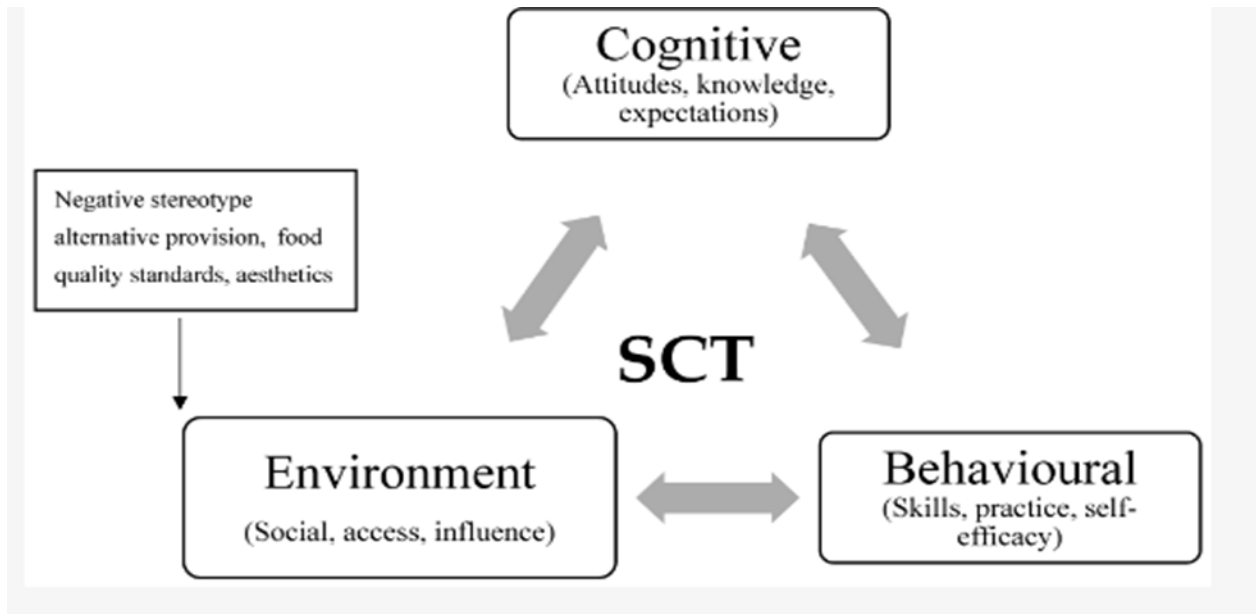
2.2.2 Social Cognitive Theory

Social Cognitive Theory was developed by Albert Bandura (1986). The theory emphasizes the relationship between people, their behaviors, and their environments. Reciprocal determinism is a contrast that demonstrates the relationship of the interaction. It shows how personal factors, environments, and behaviors interact and influence each aspect. The schema shows how behaviors are defined in the theory as the actions a person receives after they executes a behavior, i.e., provide a chance for a child to perform a task as a result of doing the behavior correctly. A person's environment is described as the component that gives an individual the ability to complete the behavior. For example, the environmental conditions conducive to improving self-efficacy by providing materials for the task and appropriate support. The last aspect is the personal factors elaborated as the internal aspects that can influence their behavior through their beliefs, attitudes, and self-efficacy (Luszczynska & Schwarzer, 2015). Self-efficacy is defined as a person’s belief

about their capabilities to perform to their best abilities the behavior. This is pertinent in the theory as it influences their learnings of different behaviors (Bandura, A., & Wessels, S. 1997).

FIGURE 2

Graphical Presentation of the Social Cognitive Theory and Reciprocal Determinism



Source: Harris, J. L., Carins, J. E., & Rundle-Thiele, S. R. (2021).

Application of Social Cognitive Theory

This theory is relevant for understanding how adolescents learn sexual behaviors from peers and media and how their self-efficacy influences safe sex practices and use of contraceptives in the study. During and after the COVID-19 pandemic, adolescent risk sexual behaviors and teenage pregnancy may have been caused by elevated exposure to media influence online. This risk was then amplified because of deficient school accessibility and lacking proper positive role models. The pandemic also hurt self-efficacy by limiting the access of youth to sexual health services, heightening the risk for adolescent pregnancies. Combined with the stress and isolation from their peers due to the lockdown during the pandemic, these pregnancies resulted in worsening mental

health symptoms such as anxiety or depression that then fed into additional negative self-efficacy for protection against future risky behaviors. Thus, the theory helps in understanding how observational learning, self-efficacy, and reciprocal determinism affect an adolescent experiencing pregnancy and its impact on their mental health.

Limitation of Social Cognitive Theory

Despite the wide use of the social cognitive theory, different researchers have critiques on television programs: the awarded behaviors of liked characters are to be observed and emulated, whereas punished characters are supposed to be avoided by media consumers. On the contrary, due to its short term effects, it could potentially undermine the punishment conveyed by the media, leading to modeling of the risky behavior (Nabi, R. L., & Clark, S. (2008). An example would be Lawrence Waruge, who killed his family in Kenya after watching the Netflix series “Killing Eve” (The standard media accessed on 14th October 2024).

In summary, the Theory of Planned Behavior and Social Cognitive Theory provide a comprehensive framework for understanding the psychological and social factors affecting teenage pregnancies and their impact on adolescent mental health.

2.3 Empirical Literature Review of Related Studies

This section reviews studies based on the objectives stated in chapter one on the impact of teenage pregnancies on adolescent mental health, emphasizing the relevance to Kakuma, Turkana West Sub-county in Kenya.

2.3.1 Socio-demographic Factors Associated with Teenage Pregnancy

Asmamaw, Tafere, and Negash (2023) conducted a study to determine the prevalence and factors associated with teenage pregnancy in high fertility countries in sub-Saharan Africa. Using data

from the most recent Demographic and Health Surveys, the study included a weighted sample of 33,391 adolescent girls who had ever had sexual contact. A multilevel mixed-effect binary logistic regression model was employed to identify significant factors associated with teenage pregnancy. The findings revealed that the overall teenage pregnancy rate was 24.88%. Key factors associated with teenage pregnancy included lack of formal education, not working, marital status, poverty, knowledge about contraceptives, and unmet need for family planning. The study highlighted the importance of policy implementation and stakeholder engagement in addressing adolescent sexual and reproductive health to achieve sustainable development goals (Asmamaw, Tafere, & Negash, 2023). This study underscores the complex interplay of socio-demographic factors in teenage pregnancy, suggesting that interventions must be multifaceted and context-specific.

Drewry and Garcés-Palacio (2020) In rural Colombia, determinants of adolescent pregnancy was examined , focusing on female empowerment and socio-demographic characteristics. Utilizing data from the 2015 Demographic Health Survey, the study analyzed 16,251 females, with 27% reporting pregnancy during adolescence. The analysis identified significant determinants such as low education, low wealth index, low female empowerment, and older sexual partners. The findings underscore the need for a sexual health paradigm that emphasizes young female empowerment, particularly in rural areas (Drewry & Garcés-Palacio, 2020). This study highlights the critical role of female empowerment and socio-economic factors in adolescent pregnancy, suggesting targeted interventions to address these determinants.

Moshi and Tilisho (2023) explored the magnitude and factors associated with teenage pregnancy in Dodoma, Tanzania. The community-based analytical cross-sectional study included 539 adolescent girls aged 15 to 19 years. Data were collected using a structured questionnaire and analyzed with SPSS v23. The results showed that the magnitude of teenage pregnancy was 29%.

Factors associated with teenage pregnancy included urban residence, low maternal education, poor knowledge of sexual and reproductive health, low family economic status, peer influence, early marriage, and sexual abuse. The study recommends innovative intervention strategies to address teenage pregnancy in Dodoma (Moshi & Tilisho, 2023). This research emphasizes the need for comprehensive and context-specific strategies to tackle teenage pregnancy, considering various socio-demographic factors.

Mutea et al. (2022) analyzed trends and determinants of adolescent pregnancy in Kenya using data from the 2003, 2008/2009, and 2014 Demographic Health Surveys. Focusing on women aged 20 to 24 years, the study found that the prevalence of adolescent pregnancy decreased from 42% in 2003 to 38.9% in 2014. Factors associated with adolescent pregnancy included education status, marital status, religion, and wealth quintile. Despite the overall decrease in prevalence, the study concluded that significant efforts are still needed to reduce the burden of adolescent pregnancy in Kenya (Mutea et al., 2022). This study recommends the importance of continuous efforts in education and socio-economic development to address adolescent pregnancy.

Nang-Bayi et al. (2021) investigated the factors contributing to the rising trend in teenage pregnancy in the West Gonja municipality of the Savannah region of Ghana. Using a cross-sectional study design with a quasi-structured questionnaire, the study included 60 pregnant teenagers. Factors associated with teenage pregnancy were identified as low socio-economic status, poor sexual and reproductive communication with parents, low education levels, and unsafe sexual behaviors. The study also highlighted the health and social consequences of teenage pregnancy, such as truncation of education, psychological trauma, and family relationship issues (Nang-Bayi et al., 2021). This research points to the need for comprehensive education and communication strategies to address teenage pregnancy and its associated challenges.

These studies collectively underscore the multifaceted nature of teenage pregnancy, influenced by socio-demographic factors such as education, socio-economic status, female empowerment, and family dynamics. Addressing these issues requires targeted, culturally sensitive interventions that consider the unique contexts of different regions.

2.3.2 Impact of the COVID-19 Pandemic on the Mental Health of Adolescent Mothers

Babore et al. (2023) conducted a cross-sectional study in Italy involving 206 mothers and their children during the first peak of COVID-19. Using online surveys, the study employed self-report questionnaires for mothers and standardized measures for children to analyze mediating and moderating effects. The findings revealed higher levels of distress and depression in both mothers and children compared to normative samples, with parenting stress mediating the relationship between maternal distress and children's depression. Notably, children's biological sex or age did not significantly moderate this relationship. This study underscores the intricate interplay between parental stress and children's mental health during crises, suggesting that for adolescent mothers, the implications could be even more pronounced, thereby promoting targeted mental health interventions, for implementation.

Sangsawang and Sangsawang (2023) conducted a comparative cross-sectional study involving 126 mothers (63 adolescents and 63 adults) in an unspecified location, following STROBE guidelines. Data collected via the Edinburgh Postnatal Depression Scale (EPDS), Postpartum Support Questionnaire (PSQ), and Parenting Sense of Competence (PSOC) for postpartum at 8 weeks were analyzed using MANOVA. The results showed that both adolescent and adult mothers experienced negative mental health impacts during the epidemic, with adolescent mothers exhibiting increased rates of depressive symptoms and maternal self-efficacy and lower scores in social support. This comparative analysis highlights the unique vulnerabilities

of adolescent mothers during the pandemic and calls for tailored support systems to mitigate the heightened risk of postpartum depression.

Wright et al. (2021) performed a longitudinal cohort study in the UK involving 202 mothers and their children, examining mental health data pre- and post-COVID-19 onset using self and maternal reports. The analysis indicated significant increases in depression, PTSD, and disruptive behavior among adolescents and depression among mothers, with no change in anxiety levels. The longitudinal design of this study provides robust evidence of the pandemic's exacerbating effect on pre-existing mental health vulnerabilities. For adolescent mothers, these findings suggest a compounded risk warranting continuous monitoring and support.

Vardi et al. (2022) conducted a literature review focusing on pregnant women and new mothers globally, synthesizing findings from various studies on the impact of maternal stress on infant development. The review highlighted that maternal stress during pregnancy and postpartum periods negatively impacts infant development and discussed recommendations for enhancing perinatal mental health. This review emphasizes the critical period of pregnancy and early motherhood, where stress can have long-lasting effects on child development. Adolescent mothers, already at a developmental disadvantage, may face amplified challenges, emphasizing the need for targeted mental health interventions during and post-pandemic.

Taylor et al. (2022) conducted a longitudinal study in the USA with 200 single mothers, utilizing both qualitative and quantitative data to examine stressors, gratitude, and mental health outcomes over time. The study found that high stress levels were linked to poor mental health, but gratitude was associated with lower internalizing problems. This study suggests that positive psychological interventions, like fostering gratitude, could be beneficial for adolescent mothers

facing high stress levels during the pandemic. Such strengths-based approaches could be integrated into support programs to enhance resilience among young mothers.

The reviewed studies collectively reveal important challenges in mental health for mothers during the COVID-19 pandemic, with adolescent mothers being particularly vulnerable. These studies span diverse geographical contexts and employ various research designs, yet consistently highlight increased levels of distress, depression, and anxiety among mothers and their children. The findings emphasize the importance of mental health support targeted intervention; especially for adolescent mothers who may lack the social support and coping mechanisms available to older mothers. Incorporating positive psychological strategies, such as fostering gratitude, and addressing parenting stress can mitigate these adverse impacts, ultimately supporting the well-being of both mothers and their children.

2.3.3 Prevalence of common mental health disorders among adolescents experiencing teenage pregnancy

Dillon (2014) conducted a comprehensive review of the literature on adolescent pregnancy and mental health, encompassing diverse adolescent populations from various countries and cultures. The study used a survey and literature review design with a qualitative synthesis of existing literature and studies. Findings indicated that adolescent pregnancy significantly influences mental health, with high rates of depression, anxiety, and other disorders. The study emphasized the bidirectional relationship between mental health and adolescent pregnancy, highlighting critical periods such as prenatal and postpartum for the mother's mental health and its impact on the child. Dillon's comprehensive review underscores the importance of addressing mental health issues among pregnant adolescents, suggesting that interventions should be culturally sensitive and targeted to mitigate risks.

Jörns-Presentati et al. (2021) conducted a systematic review to determine the prevalence of mental health problems among adolescents in sub-Saharan Africa. The sample comprised 97,616 adolescents aged 10-19 from 16 sub-Saharan African countries. The review included a qualitative synthesis of 37 epidemiological studies. Findings indicated high prevalence rates of depression, anxiety disorders, and behavioral difficulties among adolescents. The study highlighted the need for more localized research to better understand and address mental health issues in low- and middle-income countries. This study's findings are crucial for contextualizing mental health issues in Turkana West Sub-County, suggesting that similar prevalence rates might be expected and underscoring the need for local mental health resources and interventions.

Silva et al. (2020) conducted a systematic review and meta-analyses to estimate the prevalence of common mental disorders (CMD) among adolescents globally. The sample included adolescents aged 10-19 from various countries. Data analysis involved meta-analyses using the General Health Questionnaire (GHQ-12) to estimate CMD prevalence. Findings revealed that the global prevalence of CMD among adolescents was 25-31%, with higher rates among girls. The study stressed the importance of including mental health assessments in adolescent health care. The high prevalence of CMD found in this study aligns with the expected mental health challenges among pregnant adolescents in Turkana West, highlighting the urgent need for mental health screening and support in this demographic.

Mezmur, Assefa, and Alemayehu (2021) conducted a community-based cross-sectional study to assess the prevalence and factors associated with teenage pregnancy in eastern Ethiopia. The sample consisted of 2,258 female teenagers, and data analysis involved the Poisson regression model with robust variance estimation. Findings indicated a prevalence of teenage pregnancy at 30.2%, with significant associations with age, lack of education, marital status, and family

dynamics. This study's findings on the high prevalence and associated factors of teenage pregnancy in Ethiopia can provide valuable insights for similar research in Turkana West, highlighting the need for targeted interventions addressing education and family support.

Duby et al. (2021) explored the intersection between mental health and sexual and reproductive health (SRH) among adolescent girls and young women in South Africa through in-depth interviews and focus group discussions. The sample included 237 adolescent girls and young women aged 15-24. Qualitative analysis of narratives revealed significant mental health stressors, including depression and suicidal ideation, often exacerbated by pregnancy, HIV, and relationship violence. The study called for integrated mental health and SRH interventions. The interconnected mental health and SRH challenges faced by adolescent girls and young women in South Africa reflect similar vulnerabilities likely present in Turkana West. Integrated intervention approaches are essential to address these complex issues effectively.

2.3.4 The Role of Social Support Systems in Mitigating Mental Health Issues Among Teenage Mothers

The study conducted by De Sousa Machado, Chur-Hansen, and Due (2020) involved a comprehensive literature search focusing on postpartum social support. This research emphasized the importance of social support for postpartum well-being, particularly highlighting first-time mothers' perceptions of its effectiveness and barriers to accessing it. Through the identification and synthesis of major themes, the study critiqued the existing literature and provided recommendations for best practices in supporting postpartum women. The findings underscored that while much research has been done, it often fails to distinguish specific types of support, thus potentially missing targeted interventions that could be more effective. For teenage mothers, who

may have different support needs, this research suggests the necessity of tailored support solutions to address their unique challenges.

Qi et al. (2020) explored the association between social support levels and mental health among Chinese adolescents during the COVID-19 outbreak. The study involved 7,202 adolescents aged 14-18 who completed online surveys assessing depression and anxiety symptoms, as well as social support levels. The results indicated that exposure to COVID-19 was linked to higher prevalence of depression and anxiety symptoms. Notably, only a small percentage of adolescents reported high levels of social support, while the majority had medium or low support. The study found that lower levels of social support were significantly associated with a higher prevalence of mental health issues. This research highlights the critical role of social support in mitigating mental health problems among adolescents, suggesting that teenage mothers with insufficient social support may face increased risks of depression and anxiety.

Racine et al. (2020) conducted a longitudinal study to examine the relationship between adverse childhood experiences (ACEs), social support, and perinatal depression. The sample included 1,994 women who completed questionnaires on ACEs and social support during pregnancy and at four months postpartum. The findings revealed that both ACEs and low social support were significant predictors of depressive symptoms during pregnancy and the postpartum period. Notably, social support did not moderate the relationship between ACEs and depression, indicating that low social support independently contributed to higher odds of depression. This study underscores the importance of social support for pregnant and postpartum women, particularly for those with a history of childhood adversity. For teenage mothers, who may already face significant stressors, enhancing social support could be crucial in mitigating the risk of depression.

McLeish et al. (2021) A qualitative study conducted on postnatal social support from England health professionals on first-time mothers. Thirty 32 mothers were taken through a semi-structured interview, the study explored topics related to emotional, appraisal, informational, and practical support. The findings highlighted the pivotal role of health professionals in providing tailored and effective support during the postnatal period. Positive experiences of social support were linked to improved coping, confidence, and emotional well-being. However, the study also identified gaps in support, with some mothers feeling criticized or ignored. The research suggests that health professionals should be trained to offer comprehensive and personalized support. For teenage mothers, who may be more vulnerable, such support from health professionals could be vital in ensuring their mental health and well-being during the transition to motherhood.

Yamada, Isumi, and Fujiwara (2020) investigated the association between lack of social support and postpartum depression (PPD) among Japanese mothers. The study involved 6,590 mothers who completed questionnaires assessing social support from partners and others, as well as PPD using the Edinburgh Postnatal Depression Scale. The results showed that mothers without social support from either partners or others had significantly higher odds of experiencing PPD. Even those with support from only one source (either partner or others) were at increased risk compared to those with support from both. This research emphasizes the crucial role of comprehensive social support in preventing PPD. For teenage mothers, who might have limited social support networks, interventions aimed at enhancing support from both partners and other sources could be essential in reducing the risk of PPD.

Friedman et al. (2020) conducted a study in Peru on the association between antepartum depression and social support among pregnant women. The sample included 2,062 pregnant women who were involved in structured interviews assessing depression and social support. The

findings indicated that higher levels of social support were associated with lower odds of antepartum depression. Both the number of supportive individuals and satisfaction with received support were important factors. Women with higher social support scores had significantly lower odds of experiencing depression. This study highlights the protective effect of social support during pregnancy. For teenage mothers, ensuring adequate social support could be a critical strategy in preventing antepartum depression and promoting overall mental health.

These studies collectively underscore the significant role of social support in mitigating mental health issues among mothers, with a particular emphasis on teenage mothers. The consistent finding across diverse geographical contexts and populations is that higher levels of social support are associated with a lower prevalence of depression, anxiety, and other mental health problems. For teenage mothers, who often face unique stressors and challenges, targeted interventions that enhance social support from partners, family, health professionals, and the community are essential. Tailored support solutions, informed by the specific needs and experiences of teenage mothers, can help address their vulnerabilities and promote their mental health and well-being during and after the postpartum period.

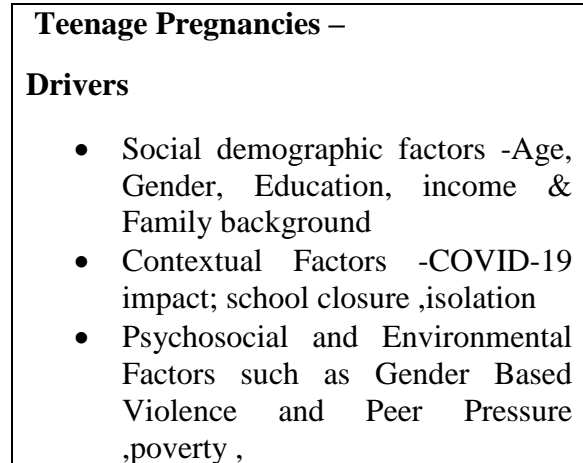
2.4 Conceptual Framework

This study sought to assess the impact of teenage pregnancies on adolescent mental health after COVID-19. Teenage pregnancies is the independent variable and adolescent mental health is the dependent variable as shown in figure 2.4

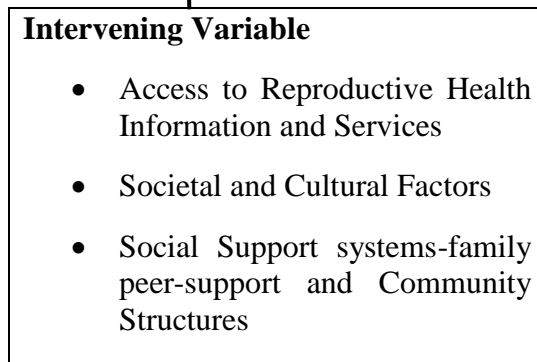
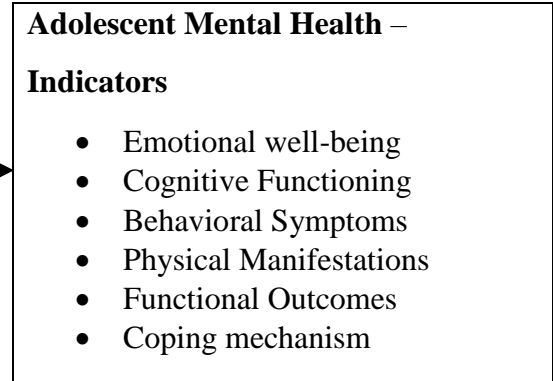
FIGURE 3

Conceptual Framework

Independent Variable



Dependent Variable



Source: *Misoi (2024) (The Researcher)*

In the study, the independent variable is teenage pregnancies that impact adolescent mental health negatively due to factors like social stigma and demographic factors, educational disruption, financial implications, the impact of COVID-19, pregnancy-related stressors, and health risks. These stressors commonly induce mental health disorders that could be affective, psychological, and social, which affect the general well-being and social functioning of the adolescents. That could lead to a different coping mechanism. These consequences can range from mild to severe

depending on mediators like socioeconomic status, societal and cultural factors, the level of health care access, and the support systems available. Recognizing this relationship emphasizes the necessity for prevention strategies, mental health assistance, and policies that ensure youth-friendly services in order to remediate the negative impacts on young mothers.

However, the relationship between the independent variable, teenage pregnancies, and the dependent variable, adolescent mental health, may be affected by three intervening variables.

These include societal and cultural factors and social support systems and access to mental health resources.

- Societal and cultural factors like stigma and rigid norms can aggravate mental health challenges via discrimination or normalize early pregnancies, thus perpetuating cycles of poverty and limiting possibilities.
- Social support systems, such as family members, peer support, and community structures, provide social and emotional support that could mitigate the negative impact of teenage pregnancies on adolescent mental health.
- Access to mental health services, including counseling and youth-friendly clinics, helps adolescents cope with stress, depression, and anxiety, while reproductive health services such as prenatal care and family planning education help avoid complications and repeat pregnancies.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter gives a systematic description of the research methodology adopted to answer the objectives described in Chapter One. It provides an overview of the research design, study variables, site of the study, target population, sampling techniques, sample size, research instruments, data collection procedures, data analysis and presentation, and data management and ethical considerations.

3.2 Research Design

Descriptive research design was employed to examine the impact of teenage pregnancies on adolescents' mental health after COVID-19. The design applied to this study was suitable for gathering information on the events of the phenomena and aspects of the situations based on the study variables (Shields & Rangarajan, 2013). The design had a cross-sectional aspect that allowed the research studies to be carried out over a short period and meet the criteria of the study being undertaken.

3.3 Research Methodology

The study adopted a mixed-methodology approach in collecting the quantitative and qualitative data, giving a better understanding of the research problem (Creswell & Clark, 2018). The quantitative and qualitative data were collected through questionnaires and a focus group discussion. The tools that were used in the study were placed on a safe online platform, Google Forms, that the trained enumerators used during the data collection process in Kakuma, Turkana West Sub-county.

3.4 Study Location

The research study was conducted within Kakuma, which is situated in Turkana West Sub-county and Turkana County. This is a marginalized area with an arid and semi-arid climate. The community residing in Kakuma is the Turkana community, who are pastoralists. Kakuma Refugee Camp also borders Kakuma Town, which is the third-largest refugee camp in the world, with a population of 90,000 people (Filipenco, 2024)). The selection of Kakuma as the study location for the research study was strategic and deliberate, which was prompted by the lack of targeted data on mental health issues among adolescent mothers post-COVID-19 and the availability of adolescent-friendly mental health services.

3.5 Target population

According to the American Psychological Association Dictionary of Psychology (October 2023), the target population was defined as the group of individuals who met the criteria for participation in the study and from whom generalizations were made based on the data collected. For this study, the target population was 62 reported cases of teenage pregnancies in 2020 in Kakuma Refugee Camp (Smith, E., 2020, August 14). The inclusion criteria to participate in the study included teenage girls who experienced pregnancies during the COVID-19 pandemic (March 2020 to January 2022) and who have since re-enrolled in primary schools in Kakuma, Turkana West Sub-County. The study's independent variable was teenage pregnancies, defined as pregnancies occurring in females aged 13 to 19, focusing on age as the primary characteristic (WHO, 2004). The dependent variable is adolescent mental health, which encompasses emotional, psychological, and social well-being (Xu, Y., 2022).

Healthcare Providers, Education Officials, and Community Structures:

Criteria: These included healthcare providers, sub-county education officials, and community leaders such as 'nyumba kumi wazee' and the chief, who provided insights into the availability and accessibility of mental health care services for adolescents experiencing teenage pregnancies.

TABLE 1

Target Population Statistics

| Group | Description | Number |
|--|--|---------------|
| Healthcare providers, Education Officials and Community Structures | Provided insights into the availability and accessibility of mental health care services for adolescents experiencing teenage pregnancies. | 15 |
| Teenage mothers in Kakuma | Re-Enrolled in primary after experiencing pregnancy during the Covid-19 | 54 |
| Teenage mothers in Kakuma in Turkana West Sub-county | Total recorded teenage pregnancies between March and June 2020.(Smith, E. 2020, August 14) | 62 |

Source : Misoi (2024) The researcher

3.6 Sampling techniques and sample size

3.6.1 Sampling technique

Sampling involved selecting participants from a larger population to estimate or predict characteristics and outcomes related to the broader group (Adeoye, M.A. (2023). This study employed a multistage sampling technique to ensure a systematic and comprehensive approach.

Stage 1: Purposive Sampling

Primary schools in Kakuma, Turkana West Sub-County, were 33 in number (Business List Kenya, n.d.). The exclusion criteria for the study were not to include schools in the refugee camps, which were 21 primary schools. (Lutheran World Federation, 2023) Thus, included in the study were 12 schools outside of the refugee camps.

Stage 2: Snowball Sampling

Initial participants were teenage mothers identified through the purposive sampling of schools. These participants were approached respectfully and invited to refer other adolescents with similar experiences. This approach leveraged community networks to gather diverse perspectives, given the sensitivity and potential stigma surrounding teenage pregnancies in the Turkana community (Alvin, M., 2016).

TABLE 2
Sampling Matrix:

| Category | Sampling Method | Target Population | sampling size | Percentage (%) | Total |
|---|--------------------|-------------------|---------------|----------------|-------|
| Primary Schools with re-enrolled teenage mothers | Purposive Sampling | 33 | 12 | 36.36363636 | 12 |
| Teenage Mothers (Initial Participants) | Snowball Sampling | 62 | 54 | 87.09677419 | 54 |
| Healthcare Providers, Education Officials, and Community Structures | Purposive Sampling | 15 | 15 | 100% | 15 |

Source: *Misoi (2024) (The Researcher)*

This grid outlines the categories of the target population, the sampling method, sample size, the percentage of the sampling size, and the total expected number of participants at each stage, providing a structured approach to achieving a representative sample.

3.6.2 Sample size

The study used Cochran's formula (1977) (Ahmad, H. & Halim, H. 2017, Pg. 20-34) to calculate the study's sample size of teenage mothers. The targeted population was reported cases of teenage

pregnancies from March 2020 to June 2022 in Kakuma were at 62. The target population is 62, the study purposively selected all cases to ensure comprehensive coverage of teenage mothers who experienced pregnancies during the COVID-19 pandemic. The formula used in the study was as follows: where z represents the z -score, the margin of error, N is the target population size, which is 62, and the population proportion through this calculation of a confidence level of 95%, a margin of error of 5%, a population proportion of 50%, and a target population size of 62. The calculated sample size was 54 based on the Cochran formula. teenage mothers who experienced pregnancies during the COVID-19 pandemic

FIGURE 4

The Cochran's formula

Unlimited population:
$$n = \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2}$$

Finite population:
$$n' = \frac{n}{1 + \frac{z^2 \times \hat{p}(1-\hat{p})}{\epsilon^2 N}}$$

3.7 Research instruments

The study utilized both questionnaires and a focus group discussion to gather data, and the data was placed on an online platform, Google Forms.

1. Questionnaires

Questionnaires were employed to gather quantitative data efficiently and quickly, which was crucial given the constraints of the graduate study timeline. The trained enumerators used their mobile phones to administer the questionnaires on the online platform Google Forms so as to ensure ease of access, data collection, and data analysis. The online format also allowed for rapid

data entry and analysis, reducing potential delays in the research process. The data collection was implemented on the sampled participants who took part in the study.

The questionnaire included:

- **Structured Questions:** Teenage mothers are the study participants who submitted structured questionnaires. These covered risk factors associated with teenage pregnancies, such as socioeconomic status, education, social support, and the availability of mental health care services.
- **Social Emotional Well-being Tool :**The tool was administered to teenage mothers to collect qualitative data through assessing the mental health state of the participants in the research.
- **Informant Questionnaire:** This open-ended questionnaire was submitted to healthcare providers, education officials, and community structures such as chief and nyumba kumi wazee to get insights on the study's objectives, socio-demographic factors, the impact of COVID-19, social support systems, and the prevalence of mental health issues among adolescent mothers after the COVID-19 pandemic.

2. Focus Group Discussion(FGD)

Focus group discussions were conducted to collect qualitative data; this provided in-depth insights into the experiences of teenage mothers. The focus group discussions used open-ended questions to explore:

- **Experiences and Perspectives:** Teenage mothers' experiences with common mental health risk factors and mental health care services during pregnancy and the COVID-19 pandemic.

Justification and Considerations

The online platform Google Forms was chosen for its efficiency and ability to reach many respondents quickly. However, potential disadvantages included limited access to a reliable internet connection for the enumerators. To mitigate these issues, a hybrid approach was employed that combined an online platform, Google Forms, and printed questionnaires and focused group discussion for the enumerators when the internet was slow or had an interruption so that it could be keyed on the Google Forms by the trained enumerators at a later time when the internet was stable.

The focus group discussions used moderator guidelines to ensure consistency while allowing flexibility to explore participants' responses in detail. This approach provided comprehensive qualitative data while addressing the study's aim to understand the nuanced impact of teenage pregnancies on mental health after COVID-19.

3.8 Validity and Reliability of the Instrument

3.8.1 Pilot study

A pilot study was conducted in one of the primary schools in Kakuma, Turkana West Sub-county. The school was excluded from the final analysis. Creswell (2014) states that a good pilot study has participants usually at 10 % of the target population. Since the sample size of this study was 54 teenage mothers, it implied 10% as 5.4. Thus, the researcher selected 5 teenage mothers who experienced pregnancies during COVID-19 and re-enrolled back at the targeted schools. Once the pilot study was complete, the data collected through the use of the Google Forms platform was analyzed to test its credibility, and it was validated that the research instruments were capable of measuring the research objectives.

This was done with the assurance that early detection of irregularities was easily rectified and steered the study back to the intended research objectives.

3.8.2 Validity of the Instruments

A research instrument's validity refers to its correctness and suitability for assessing the specified construct or concept. It ensures that the tool adequately reflects the objectives it seeks to measure and the appropriateness of the study. (Ahmed, I., & Ishtar, S. 2021). For this study, validity was established through expert consultation, in this case, the mental health practitioners in the Mental Health and Psychosocial Support Technical Working Group in Turkana and members of the Kenya Psychologist Counselling Association (KCPA). They provided their input on whether the instruments could measure the research variables. Furthermore, the university supervisors examined the instruments and evaluated their suitability of the content and identified any areas that required modifications to align with the objectives. The expertise of the university supervisors guaranteed that the research instruments were relevant and suitable for the study's purposes.

3.8.3 Reliability of the Instruments

Reliability was measured by the degree to which an instrument yielded consistent results when utilized on different occasions or with different samples. The dependability of the instruments was evaluated using Cronbach's alpha, which had a normal range of values between 0.00 and +1.00. A correlation score of 0.70 or above on Cronbach's alpha indicates that the instrument is dependable (Ahmad, H., & Halim, H. 2017). Internal consistency was reflected by the higher values.

3.9 Data collection procedures

The questionnaires and focus group discussion were designed to answer the objectives of the study: assess socio-demographic factors, the impact of COVID-19, social support systems, and the prevalence of mental health issues among adolescent mothers after the COVID-19 pandemic. The

research instruments were placed in a secure online survey on Google Forms that would include consent form information at the beginning. The enumerators were brought on board on the basis that they are from Kakuma, Turkana West Sub-County, and also, they can speak the local dialect of Turkana. Training was conducted virtually for the enumerators through Google Meet on how they would input the data through Google Forms using their own mobile phones, as they are portable and available to them; how to conduct the interviews; and the ethics of data collection. The participants were selected through the assistance of the community structures and education officials who were also part of the study participants. The adolescent who experienced pregnancy during the COVID-19 pandemic would refer a study participant for the data collection process through the snowball sampling technique. An enumerator must have obtained informed consent before scheduling data collection.

4.0 Data analysis and presentations

4.0.1 Data analysis

Quantitative data on teenage pregnancies and common mental health issues outcomes was analyzed using descriptive and inferential statistical analysis methods. The study applied the Statistical Package for Social Sciences (SPSS) and a spreadsheet for visualization in MS Excel to analyze the data and produce descriptive statistics. This was presented through tables showing sample characteristics and variable-wise data; it included means, standard deviations, frequencies, and percentages. The inferential statistical analysis was analyzed using R studio ,where p-value and the Odds Ratios (OR) was evaluated. This indicated that odds ration above 1 indicated increased risk ,while values below 1 suggest a protective effect.

For qualitative data thematic analysis ,was utilized to identify ,examine and record themes within the data. This method involved coding, which helped to recognize significant patterns and

moments in the data. The analysis focused on identifying theme co-occurrences ,comparing theme frequencies , and graphically displaying relationships between themes. Additionally, NVivo was employed to enhance the analysis of descriptive data and assist in organizing and interpreting qualitative findings.

4.0.2 Data presentations

The quantitative data statistics were presented in charts, tables, and graphs. For clarity, the graphs, charts, and tables were clearly labeled. The qualitative data was also presented in thematic areas and narrative format. Direct quotations from the study participants were also included to support the key thematic areas identified.

4.2 Ethical Considerations and Data Management

The KCA University Scientific and Research Ethics Committee (KCAU SERC) provided an ethical permit to conduct the data collection on the research study. The researcher obtained a letter of introduction from KCA University's School of Postgraduate Studies. The National Commission for Science, Technology, and Innovations (NACOSTI) provided a research permit to collect data in Kakuma Turkana West Sub-County. The researcher ensured that no harm was caused among the study participants. Informed consent to participate in the study was obtained from the study participants and their legal guardians for study participants who were under the age of 18 years. The latter was accomplished through the use of consent forms for legal guardians and assent forms for study participants under the age of 18. Participants were provided with adequate information about the study, such as its objective, potential risks and benefits, and their right to withdraw at any point during the study.

The study participants were informed that confidentiality and anonymity would be observed throughout the entire research study during the data collection. Their names and personal identification numbers were used in the data collection, except for the encoding of data

for the purpose of data recognition during data analysis. The data was placed on a password-protected laptop and accessed only by the researcher and the supervisors. The research was conducted in compliance with the Kenya Data Protection Act, thereby respecting Article 31(c) of the Constitution of Kenya [6], which provided for the right to privacy: “Every person has the right to privacy, which includes the right not to have... information relating to their family or private affairs unnecessarily required or revealed” (Constitution of Kenya, 2010, Art. 31(c)). The findings would be beneficial to school managers, parents, teenage mothers, and education and health policymakers, as the statistical data that was collected through the study identified the common mental issues experienced by teenage mothers, which may lead to the development of psychological interventions and policies suited for them to have a stable mental health and psychosocial well-being.

CHAPTER FOUR

DATA ANALYSIS ,PRESENTATION, INTERPRETATIONS AND DISCUSSIONS

4.1 Introduction

The purpose of this is to assess the impact of teenage pregnancies on adolescents after COVID-19: a case of Kakuma, Turkana West Sub-County. The findings are based on data collected from 54 adolescent mothers and 15 healthcare providers, education officials, child protection officers and social workers who participated in the study. The chapter presents the study's data results and analysis findings that address the four primary objectives of the study. The findings are presented using both quantitative and qualitative data, supported by tables, figures, and statistical analyses. Each section provides a brief summary to highlight key observations and to provide further insights into the study's significance.

4.2 Demographic and Response Rate

4.2.1 Response Rate

The study sought to collect data from 54 adolescent mothers and 15 informants from education and health providers ,child protection and social workers. The returned questionnaire is presented in table 3.

TABLE 3

Response Rate

| Participants category | Administered questionnaires | Returned questionnaire | Return Rate |
|-----------------------|-----------------------------|------------------------|-------------|
| Adolescent mothers | 54 | 54 | 100% |
| Stakeholders | 20 | 15 | 75% |
| Total | 74 | 69 | 93% |

Source (Survey Data 2025)

The table provided presents the response rates from the questionnaire administered to adolescent mothers and stakeholders in Kakuma, Turkana West Sub-county, Kenya. For the category of adolescent mothers, 54 questionnaires were returned, thus giving a 100% return rate. Stakeholders, 20 questionnaires were submitted, 15 were returned, and 5 were not returned, thus giving 15/20, a 75% return rate. In total there were 74 questionnaires submitted, and 69 questionnaires were returned, while 5 were not returned. The overall response rate for all participant categories was 93% (69/74), and the non-response rate was 7% (5/74). According to Mugenda (2009), a response rate of 70% and above is great for analysis purposes. The overall response rate for this study is at 93%; thus, the result is representative and allows for data analysis and reporting.

4.2 Demographic Information

In this section, the demographic profile of the adolescent mothers and informant responses surveyed in Kakuma is outlined. The sample consists of 54 adolescent mothers aged 15–19 years. The demographic characteristics presented include age, gender, level of education and financial status. The table below summarizes the key socio-demographic aspects.

TABLE 4

Distribution of adolescent mothers by age

| Age -group | Frequency | Percentage (%) |
|---------------|-----------|----------------|
| 15 - 17 years | 18 | 33.3% |
| 18 - 19 years | 36 | 66.7% |

Note n=54

Source :survey data (2025)

FIGURE 5

Distribution of adolescent mothers by age

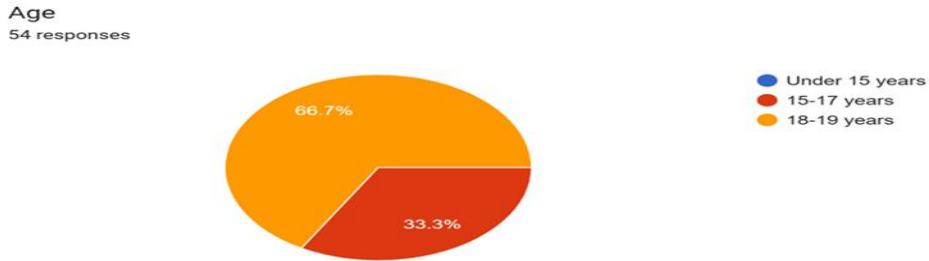


TABLE 5

Distribution of adolescent mother by Gender

| Gender | Frequency | Percentage (%) |
|--------|-----------|----------------|
| Female | 54 | 100% |
| Male | 0 | 0 |

Note n=54

Source :survey data (2025)

FIGURE 6

Distribution of adolescent mother by Gender



TABLE 6

Distribution of adolescent mothers based on Education level

| Educational Level | Frequency | Percentage (%) |
|-------------------|-----------|----------------|
| Not in school | 35 | 64.8% |
| Secondary School | 19 | 35.2% |

Note n=54

Source :survey data (2025)

FIGURE 7

Distribution of adolescent mothers based on Education level

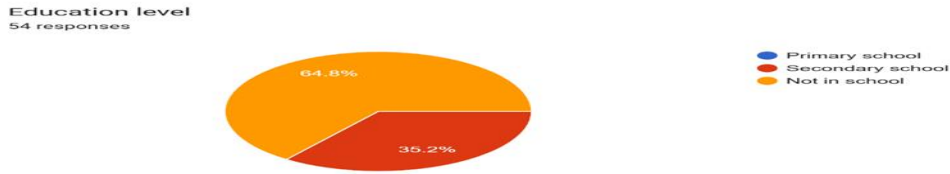


TABLE 7

Distribution of adolescent mothers based on financial status

Financial difficulties in my household led to my early pregnancy

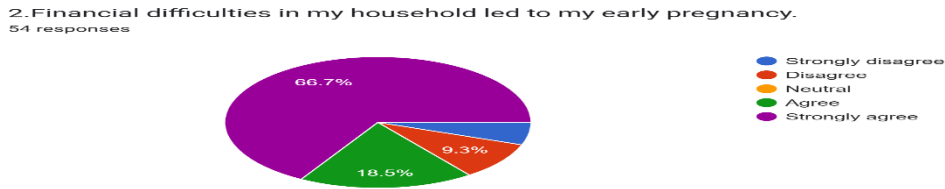
| Financial Status | Frequency | Percentage (%) |
|-------------------|-----------|----------------|
| Strongly Disagree | 1 | 1.9% |
| Disagree | 5 | 9.3% |
| Neutral | 0 | 0.0% |
| Agree | 10 | 18.5% |
| Strongly agree | 36 | 66.7% |

Note n=54

Source :survey data (2025)

FIGURE 8

Distribution of adolescent mothers based on financial status



A significant proportion (77.8%) of the adolescent mothers were aged between 17–19 years, which aligns with common trends in teenage pregnancies. This is in line with findings from other studies that suggest older adolescent mothers may face a variety of challenges during and after pregnancy. The majority of the participants (64.8%) had not completed school education, with a smaller proportion (35.2%) having no formal education at all. This indicates that limited access to education plays a role in increasing the likelihood of adolescent pregnancies. Financial difficulties were widespread, with over two-thirds 66.7% of participants reporting that responded that financial difficulties played an important role in their teenage pregnancies. This is consistent with the understanding that financial instability and lack of resources often correlate with higher rates of adolescent pregnancies.

Socio-demographic Characteristics of informant interviews

The sample consists of 15 informants. The demographic characteristics presented include gender, and the types of profession they under take in Kakuma ,Turkana West -Sub-county. The table below summarizes the key socio-demographic aspects.

TABLE 8

Distribution of informants by Gender

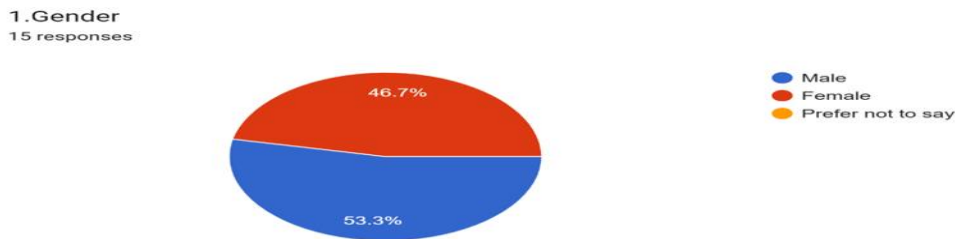
| Demographic Factor | Frequency (n=15) | Percentage (%) |
|--------------------|------------------|----------------|
| Gender | | |
| Male | 8 | 53.3% |
| Female | 7 | 46.7% |

Note n=54

Source :survey data (2025)

FIGURE 9

Distribution of informants by Gender



The male informant responses were slightly higher at 53.3%, and the female informants at 46.7%.

TABLE 9

Distribution of informants by professions

| Category | Frequency | Percentage (%) |
|--|-----------|----------------|
| Educational Sector | 4 | 26.7% |
| Child Protection & Social Worker | 3 | 20.0% |
| Mental Health and Psychosocial Support | 4 | 26.7% |
| Health Sector | 4 | 26.7% |
| Total | 15 | 100% |

Note n=15

Source :survey data (2025)

This sample consisted of a multidisciplinary team of professionals that included child protection, social workers, mental health and health care providers, and educational services. Their integrated services through various collaborations create a backbone of the social support services that are available to pregnant teenagers in Kakuma, Turkana West Sub-county.

4.3 Quantitative Data Analysis

This section presents the analysis of the data collected from the questionnaire responses, examining the relationships between socio-demographic factors, the impact of COVID-19, symptoms of common mental health issues and mental health outcomes. The results are presented using both descriptive and inferential statistical methods, allowing for an in-depth understanding of the dynamics between the variables studied.

4.3.1 Descriptive Statistical Analysis

The descriptive statistics of the responses to questions regarding mental health, family support, and the impact of COVID-19 are summarized in the following table 10. The tables represent an analysis to answer objective 1: to find out the socio-demographic factors associated with teenage pregnancies among adolescents.

TABLE 10
Descriptive Statistics of Mental Health and Socio-demographic Variables

| Question | Mean | Standard Deviation |
|--|------|-----------------------|
| My level of education influenced my pregnancy experience | 3.00 | 1.82 |
| Financial difficulties led to early pregnancy | 4.30 | 1.21 |
| Single -parent family increased pregnancy likelihood | 2.98 | 1.6 |
| COVID-19 increased my stress and worry | 4.28 | 0.8 |
| Difficulty accessing mental health care services during COVID-19 | 2.61 | 1.42 |
| Felt isolated more during COVID-19 | 3.36 | 1.29 |
| Supported by family during pregnancy and motherhood | 3.44 | 1.40 |
| Peer support groups improved mental health | 3.70 | 1.14 |
| Frequency of feeling sad or helpless | 4.25 | 0.9 |
| Frequency of feeling nervous or anxious | 3.90 | 1.0 |

Note n=54

Response was based on a 5 point Likert scale ranging from 1 strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree (Higher scores indicated stronger agreement)

Source :survey data (2025)

Financial difficulty is the dominant factor influencing early pregnancy according to the analysis of adolescent mothers' responses with a mean score of 4.3. Also, being in a single-parent household was significant factors in early pregnancy, as shown by mean scores 2.98. These findings indicate that socio-economic factors are closely linked to adolescent pregnancies. The COVID-19 pandemic had a considerable negative impact on mental health, with a mean score of 3.7 for difficulty accessing mental health services and 4.25 for increased feelings of isolation. This suggests that the pandemic exacerbated pre-existing mental health challenges among the participants. Family support during pregnancy and motherhood (mean = 3.44) appears to have been helpful, though the influence of peer support was rated lower, indicating that while peer groups can provide emotional relief, they may not be as effective as familial support in improving mental health well-being during such challenging times.

The descriptive statistics of the responses to questions reflecting symptoms of common mental health issues and their social-emotional well-being. The responses ranged on a scale from "never to all the time," which was quantified to assess the prevalence of common mental health issues among adolescent mothers. The scale was converted into numerical values where never was represented by 0, rarely was represented by 1, sometimes was represented by 2, and all the time was represented by 3. Interpretation of severity was based on a scale of 0-9, which was low to no distress; 10-14, which was mild symptoms; 15-19, which was moderate symptoms; and 20-30,

which was severe symptoms . Table 11 represent an analysis to answer objective 3: to find out the prevalence of common mental health issues among adolescents experiencing teenage pregnancies.

TABLE 11

Descriptive Statistics of Questions on Symptoms of Common Mental Health Issues

| Questions | Mean | Standard Deviation |
|---|-------------|---------------------------|
| 1. Do you easily become annoyed or angry? | 2.82 | 0.79 |
| 2. Do you feel that there is no hope for you in the future? | 1.96 | 1.01 |
| 3. Do you think about bad things that happened in the past? | 2.55 | 0.85 |
| 4. Do you think about your current problems? | 3.25 | 0.69 |
| 5. Do you have difficulties with sleeping? | 2.30 | 0.81 |
| 6. Do you spend time alone away from others? | 2.02 | 0.67 |
| 7. Do you feel afraid? | 2.05 | 0.88 |
| 8. Do you feel sad? | 2.20 | 0.70 |
| 9. Do you feel lonely? | 1.86 | 0.77 |
| 10. Do you have trouble making decisions? | 1.82 | 0.86 |
| 11. Do you have trouble remembering things? | 1.48 | 0.85 |
| 12. Do you feel guilty? | 2.02 | 0.88 |

Note: n=54

Source :survey data (2025)

The findings from the descriptive analysis suggests that psychological and emotional stressors are prevalent among the adolescent mothers. The highest mean score was recorded for the question, “ Do you think about your current problems ?” The mean was recorded at 3.25, demonstrating that continuing personal issues are a major concern for the adolescents assessed. This exhibits a particularly alarming trend of participants being stuck with problems related to family, school, or socio-economic issues of the adolescent stage.

Moderate levels of emotional distress were noted in the adolescent mothers concerning prior events, along with irritability . The question “Do you think about bad things that happened in the past?” The mean was 2.55, and “ Do you easily become annoyed or angry?” The mean was 2.82. These illustrated difficulties in emotional regulation are often associated with chronic stress

or trauma, highlighting persistent negative affect due to past experiences, which is common among participants.

In contrast, experiences of isolation or loneliness paired with cognitive challenges were shown to be less prevalent among the adolescent mothers. This is evidenced by the lower means on the following questions, “Do you have trouble remembering things ?” which has a mean of 1.48 .” Do you have trouble making decisions ?” which had a mean of 1.82, and Do you feel lonely ?” which had a mean of 1.86. This informs that while adolescent mothers in the study do experience some psychological and emotional distress, their social connectedness and their cognitive functioning are relatively preserved.

Emotions like sadness had a mean of 2.20, guilt had a mean of 2.02, and fear had a mean of 2.05 had a moderate range, though not overwhelming; it shows the presence of the emotions. These emotions may be affected based on circumstantial peer dynamics, individual temperaments, and stressors such as financial difficulties or stigma from the community.

In summary, from the standard deviations, there was a range from 0.67 to 1.01 , which suggests there are significant individual differences among the participants in experiences based on emotions. Thus, through this, it points out the importance of an inclusive and targeted support system for mental health services for adolescent mothers. The findings emphasize the significance of focusing on problem-solving skills, emotional regulation, and coping mechanisms in adolescent mental health programs. This could be achieved through trained counselors who could play a vital role in improving the emotional well-being of young individuals.

4.3.2 Inferential Statistic Analysis

To examine the relationships between mental health outcomes and socio-demographic variables, the study conducted a statistical analysis using R. The analysis focused on key independent

variables such as family support, age of the child, and the year of birth (specifically during the COVID-19 pandemic). The results of the analysis are summarized in the table 12. Table 11 represent an analysis to answer objective 2:to evaluate the impact of the COVID-19 pandemic on the mental health of adolescent mothers.

TABLE 12

Inferential Analysis Results for Mental Health Outcomes and Independent Variables

| Variable | p- value | Odds Ratio | Interpretation |
|--------------------------|----------|------------|--|
| Year of Birth (COVID-19) | 0.15 | 3.0 | Children born during COVID-19 are 3 times more likely to experience stress |
| Age of the child | 0.05 | 1.2 | Younger children are associated with higher levels of stress in mothers |
| Family support | 0.02 | 2.5 | Strong family support reduces mental health issues. |

Note n-54

Odds Ratios(OR) indicates above 1 indicates increased risk ,while values below 1 suggest a protective effect.

Source :survey data (2025)

The p-value for children born during the COVID-19 pandemic (0.15) indicates a strong trend, although it is slightly above the conventional threshold of 0.05 for statistical significance. Nonetheless, the odds ratio suggests that children born during this period are three times more likely to cause stress in their mothers, highlighting the profound impact the pandemic has had on the mental well-being of adolescent mothers. Family support was found to significantly mitigate mental health challenges, with an odds ratio of 2.5 indicating a substantial protective effect. This underscores the importance of strong family networks in promoting positive mental health outcomes for adolescent mothers, especially during times of increased stress such as during the COVID-19 pandemic.

4.4 Qualitative Analysis

The qualitative analysis of focus group discussions and questionnaires to the informants' responses revealed key themes regarding the mental health struggles faced by adolescent mothers and analysis of the study's objectives. The key themes that were identified included the impact on daily life when experiencing teenage pregnancies, mental health issues, the social support from family and peers, and the availability of health care services.

Teenage pregnancies impacted the daily life of adolescent mothers; this was stated during the focus group discussion. The responses from the adolescent mothers included that due to the COVID-19 pandemic, restrictions led to loss of income for the family, and having an added member in the family led to more financial constraints. One participant responded, "At home, it was also hard because there was less money and food, and I felt like a burden to my family; the whole experience made the pregnancy even more difficult emotionally and physically."

Mental health issues was a thematic area in the data analysis. The participants responded to having experienced symptoms of mental health issues such as feeling worried, unhappy, and lacking sleep and appetite. The coping strategies included indulging in house chores, participating in church activities and prayers, and also listening to music over the radio.

Several participants emphasized the importance of peer support groups and family, which were reported to provide emotional and psychological relief. One participant shared, "During the pandemic, I felt like the world was against me. But when I joined a peer group, I felt less alone. We could talk about our struggles and share advice. These responses highlight the crucial role that peer support groups play in helping adolescent mothers cope with the mental health challenges exacerbated by the pandemic. They also reflect the emotional strain caused by isolation, a theme that emerged consistently across the qualitative data.

Availability of health care services The participants responded that it was available though limited due to the pandemic. They also appreciated when there was a door-to-door visit by the community health volunteers. Though they were present, the lack of mental health services was noted. Also, the fact that they didn't have school and were at home most of the time led to feelings of isolation and stigmatization. One of the respondents stated, "Being at home all the time made it easier for people to notice my pregnancy, and I felt judged by some neighbors and even family members."

The recommendation from the focus group discussion stated that awareness sensitization be conducted for the community and family members on adolescent pregnancies and the impact they have on their mental health. Also, integration of mental health services in primary health care services. Advocacy on adolescent mental health is to be conducted through local radio stations, as this would be easily available to them in remote areas out of Kakuma Town.

Objective one, which is to examines the socio-demographic factors associated with adolescent pregnancy in Kakuma, Turkana West Sub-County: Information collected identified financial struggles, and low education attainment, are the primary drivers of early pregnancy. It is noted that many adolescent mothers are limited to access to school, leading to dropping out due to financial constrains among others.

Objective two, to evaluate the impact of the COVID-19 pandemic on the mental health of adolescent mothers in Kakuma, Turkana West Sub-County: According to the data collected, there was a consensus that mental health issues intensified during the COVID-19 and even post COVID. Increase in depression, anxiety, and emotional withdrawal contributed to adolescent mothers feeling more vulnerable.

Objective three was to find out the prevalence of common mental health issues among adolescents experiencing teenage pregnancies in Kakuma, Turkana West Sub-County. The informant’s stakeholder’s response on the common mental health issues that adolescent mothers experience ranged from depression, anxiety, low self-esteem, social isolation, suicidal ideation, and self-harm. This is illustrated in Table 13.

TABLE 13

Distribution of the top 5 reported mental health issues among pregnant teenagers

| Mental Health Issue | Frequency | Percentage (%) |
|-------------------------------|-----------|----------------|
| Depression | 10 | 22.7% |
| Anxiety | 6 | 13.6% |
| Low self-esteem | 6 | 13.6% |
| Social isolation | 4 | 9.1% |
| Suicidal ideation & Self harm | 3 | 6.8% |

Note n=44

The question had multiple option for the responses

Source :survey data (2025)

Objective four, to establish the role of social support systems in mitigating mental health issues among teenage mothers in Kakuma, Turkana West Sub-County: Family and peer group support is critical in managing post-pregnancy mental health. However, due to stigma and structural barriers, most of the adolescent mothers were isolated from these groups. More inclusive community-led interventions are needed to support adolescent mothers. The informants revealed that there were gaps in mental health infrastructure; accessing professional mental health services was limited. The graph below shows the responses from the informants that the available services in Kakuma, Turkana West Sub-county, are accessible and adolescent-friendly. 40% of the responses were not accessible, 33.3% were maybe accessible, and 26.7% said they were accessible and adolescent-friendly.

TABLE 14

Distribution of response on accessibility of social services for adolescent mothers

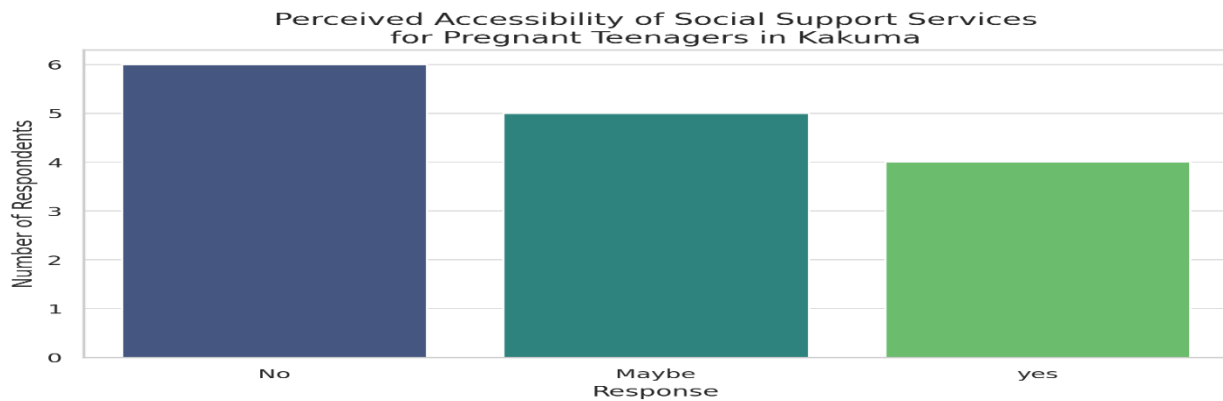
| Response | Frequency | Percentage |
|----------|-----------|------------|
| Yes | 4 | 26.7% |
| Maybe | 5 | 33.3% |
| No | 6 | 40.0% |

Note n=15

Source :survey data (2025)

FIGURE 10

Distribution of response on accessibility of social services for adolescent mothers



The key themes revealed by findings from the informant questionnaire on mental health status and support systems availability to the adolescent mother’s post COVID -19 pandemic in Kakuma Turkana West Sub-county. The informants included the health care providers, child protection officers ,social workers and education officers reported a noticeable increase in cases of depression, anxiety and emotional withdrawn among adolescent mothers. Socio-demographic factors including school drop-out ,poverty, early exposure to Gender Based Violence (GBV) and lack of parental guidance, emerged as prevalent factors influencing teenage pregnancy and its associated mental health issues.

COVID-19 pandemic was described as worsening the situation, with extended school closures and limited access to services leaving adolescent girls at greater risk of being exploited. Some psychosocial support was recognized peer counseling groups, child protection officers, religious institutions and child protection programs though the services provided is insufficient. There is a lot of gaps relating to adolescent-friendly support for mental health, stigma related to teen pregnancies and poor referral system were reported by the informants. Collectively these findings point to the critical need for integrated, community-based mental health interventions that are responsive to the specific needs of adolescent mothers.

4.5 Discussion of the findings;

This section provides a detailed discussion of the findings based in the study's four objectives;

To find out the socio-demographic factors associated with teenage pregnancies among adolescents

The study found that (77.8%) of the adolescent mothers were aged between 17 and 19 years of age, 64.8% of the participants had not been enrolled in school and 66.7% had reported on financial difficulties. These findings are consistent with the previous studies, which suggest that single-parent upbringing, poverty and low family economic status are socio-demographic contributors to early pregnancies. Study conducted in Dodoma, Tanzania stated that, factors associated with teenage pregnancy included urban residence, low maternal education, poor knowledge of sexual and reproductive health, low family economic status, peer influence, early marriage, and sexual abuse.(Moshi & Tilisho, 2023).Mutea et al. (2022) analyzed trends and determinants of adolescent pregnancy in Kenya using data from the 2003, 2008/2009, and 2014 Demographic Health Surveys. The factors associated with adolescent pregnancy included education status, marital status, religion, and wealth quintile. The results also fit the theory of planned behavior (TPB), which holds

in the framework of the research area Kakuma that attitudes, subjective norms, and perceived behavioral control shapes behavior. The findings states, adolescents from low-income, less-educated backgrounds in Kakuma may adopt norms that normalize teenage pregnancies while having limited control or knowledge over reproductive choices. Similarly, Social Cognitive Theory (SCT) highlights how observational learning and low self-efficacy increased by a lack of positive female role models can make adolescents view early motherhood as acceptable or inevitable.

To evaluate the impact of the COVID-19 pandemic on the mental health of adolescent mothers

The COVID-19 pandemic had a considerable negative impact on mental health, with a mean score of 4.3 for difficulty accessing mental health services and 4.5 for increased feelings of isolation. This suggested that the pandemic exacerbated pre-existing mental health challenges among the participants. The findings echo those Sangsawang and Sangsawang (2023) study that conducted a comparative cross-sectional study involving 126 mothers (63 adolescents and 63 adults) in an unspecified location, following STROBE guidelines. The results showed that both adolescent and adult mothers experienced negative mental health impacts during the epidemic, with adolescent mothers exhibiting increased rates of depressive symptoms and maternal self-efficacy and lower scores in social support. This comparative analysis highlights the unique vulnerabilities of adolescent mothers during the pandemic and calls for tailored support systems to mitigate the heightened risk of postpartum depression. The current findings challenge the lack of targeted policies in place by the government for adolescent mothers' mental health well-being, especially in marginalized areas and emergency setups.

To find out the prevalence of common mental health issues among adolescents experiencing teenage pregnancies

The highest mean score was recorded for the question, “ Do you think about your current problems ?” The mean was recorded at 3.25, demonstrating that continuing personal issues are a major concern for the adolescents assessed. This exhibited a particularly alarming trend of participants being stuck with problems related to family, school, or socio-economic issues of the adolescent stage. Overall findings in the questionnaire on psychological and emotional well-being presented the standard deviations, and there was a range from 0.67 to 1.01 , which suggested there were significant individual differences among the participants in experiences based on emotions. In the qualitative analysis adolescent mothers reported cases of anxiety, social isolation, feelings of loneliness, and lack of sleep and appetite, and these major contributors were a lack of access to mental health care services and social isolation. These findings are consistent with a comprehensive review of the literature on adolescent pregnancy and mental health, encompassing diverse adolescent populations from various countries and cultures. That indicated adolescent pregnancy significantly influences mental health, with high rates of depression, anxiety, and other disorders (Dillon, 2014).

The current findings support the Comprehensive Mental Health Action Plan 2013-20230 (World Health Organization (2021)), where it promotes putting in place strategies for prevention and promoting mental health so as to assist in providing comprehensive, integrated, and responsive mental health and social care services in community-based settings such as Kakuma, Turkana West Sub-county. Thus, this supports the need for targeted adolescent mothers' psychosocial support services that intend to mitigate risks and are culturally sensitive ,inclusive and adolescent friendly.

In addition, the high prevalence of mental health issues among the teenage mothers in Kakuma could be linked to stigma, poverty, and lack of mental health knowledge.

To establish the role of social support systems in mitigating mental health issues among teenage mothers.

The results stated that family support was found to significantly mitigate mental health issues with an odds ratio of 2.5, indicating a substantial protective effect. This emphasizes the importance of family and peer support in promoting positive mental health and well-being, especially during times of increased stress, such as during the COVID-19 pandemic. The findings affirm the previous studies that highlight the critical role of social support in mitigating mental health problems among adolescents, suggesting that teenage mothers with insufficient social support may face increased risks of depression and anxiety (Qi et al. (2020)). Though the studies show that there is a need for social support for teenage mothers, there isn't any identified or targeted for adolescent mothers, and most recommendations on a tailored support solution, informed by the specific needs and experiences of teenage mothers, may assist in addressing their vulnerabilities and promote their mental health and well-being during and after the postpartum period. To add to this, the findings also support the Inter-Agency Standing Committee (IASC) on the intervention pyramid of mental health and psychosocial support that through the provision of basic needs and social support, it reduces the mental health issues and also assists with the limited resources and availability of mental health services provision in marginalized areas(Loughry, M. (2024)).

CHAPTER FIVE

SUMMARY OF THE FINDINGS ,CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussions ,conclusions and recommendations of the study examining the impact of teenage pregnancies on adolescent mental health after COVID-19 in Kakuma, Turkana West Sub-county, Kenya. The discussion and conclusion are drawn from the study findings, based on the data analysis, which is aligned with the study's objectives, which were outlined in chapter one of the thesis. Additionally , there will be recommendations aimed at addressing the identified gaps and challenges established in the study as well as suggestions to policymakers, school managers, parents, teenage mothers, and other community stakeholders. The insights provided in this chapter aim to contribute to both theoretical and practical advancement in the field, supporting ongoing discussions and future interventions.

5.2 Summary of the findings;

The analysis yielded several important insights into the interplay between teenage pregnancy, mental health, and the impact of COVID-19 among adolescent mothers in Kakuma, Turkana West Sub-County:

1.Socio-demographic Factors Associated with Teenage Pregnancy

The findings show that socio-demographic factors—such as low levels of education, and financial hardship—are closely linked to higher rates of teenage pregnancy and mental health issues. Notably, 64.8% of adolescent mothers surveyed were not in school, and 69% were aged between 17–19 years, underscoring that school dropout during late adolescence is a key contributor to early pregnancies. Qualitative responses from healthcare providers, community leaders, and education

officials reinforced that limited access to education, economic deprivation, and unstable family structures increase the risk of adolescent pregnancy.

Implication: There is a need for targeted interventions that reduce school dropout rates by supporting girls to remain in school, especially in vulnerable households and marginalized areas.

2.Impact of the COVID-19 Pandemic on the Mental Health of Adolescent Mothers

The COVID-19 pandemic significantly worsened the mental health of adolescent mothers, particularly those who gave birth during the pandemic. Respondents reported heightened levels of stress and isolation due to disrupted healthcare services and social distancing. Quantitative data confirmed this, with high agreement on pandemic-related stress (Mean = 4.28) and feelings of isolation (Mean = 3.36). Informants also observed increases in depression and anxiety during this period.

Implication: There is a critical need for robust, rapid-response psychosocial support systems during crises to protect the mental well-being of adolescent mothers.

2.Prevalence of common mental health disorders among adolescents experiencing teenage pregnancy

The findings from the study show that participants in the study experienced emotional distress, mainly due to continuing socio-economic and personal problems, with the most concern being ongoing stress, which has a mean of 3.25. The mid-level range of emotional distress that included irritability, guilt, fear, and sadness indicates effects of past chronic stress and trauma, which likely intensified by the COVID-19 pandemic. Conversely, the lower ranges of cognitive challenges and loneliness imply that cognitive functioning and social connectedness remain unaffected.

Implications: The results indicate the need for mental health support that is targeted and inclusive and that is focused on emotional regulation, coping strategies, life skills, and problem-solving. The services to be delivered by trained counselors to assist and support adolescent mothers' psychosocial and emotional well-being in post-pandemic and marginalized areas .

4.The Role of Social Support Systems in Mitigating Mental Health Issues Among Teenage Mothers

The data indicates that social support especially from family plays a vital role in mitigating mental health challenges. While peer support groups were found to be beneficial, family support had a stronger protective effect. However, access to formal mental health services remained limited during COVID-19 (Mean = 3.7), and stakeholders confirmed insufficient institutional support.

Implication: Adolescent-friendly mental health services and programs should be established and integrated within the community to bridge this support gap.

5.Statistical Significance and the Role of Stigma

While the statistical analysis showed a positive trend between giving birth during the pandemic and increased stress levels, the p-value (0.15) was marginally above the standard threshold for significance. This suggests a meaningful association that warrants further exploration. Informants emphasized that adolescent mothers were often excluded from support systems, including schools and clinics, due to stigma and lack of awareness.

Implication: Mental health and adolescent pregnancy interventions should prioritize inclusive, stigma-free strategies that engage families, schools, and healthcare systems to better support young mothers.

5.3 Conclusions

Based on the analysis and discussions of the findings, the following conclusions are drawn:

The analysis of the impact of teenage pregnancies on adolescent mental health after COVID-19 reveals key insights on the research study. From the first objective, the findings indicate that the socio-demographic factors associated with teenage pregnancies included low education levels, and financial difficulties among the different households.

The second objective of the evaluation of the impact of the COVID-19 pandemic on the mental health of adolescent mothers identified that the teenage mothers had increased stress levels and feelings of isolation. The pandemic also intensified existing challenges to access to mental health services.

The third objective concerning the prevalence of mental health issues among adolescents experiencing teenage pregnancies included the symptoms of anxiety, sadness, and helplessness and increased stress and worry during the COVID-19 pandemic.

The fourth objective is based on establishing the role of social support systems in mitigating mental health issues among teenage mothers, and through findings and discussions, support systems play a critical role in improving the emotional well-being of adolescent mothers . Relatively, peer support contributes positively, but their impact is lower. Also, there was on aspect that the lack of accessibility and provision of adolescent friendly mental health services are not available and requires a targeted psychosocial services system that would benefit the adolescent mother ,families ,education and health care providers.

Together the findings of this study confirm the importance of targeted integrated interventions that combine education, economic empowerment, and psychosocial support to aid adolescent mothers holistically and achieve the Sustainable Development Goals Target 3.7 that aims to ensure universal access to sexual and reproductive health-care services, including family planning, information and education, and the integration of reproductive health into national strategies and programs on adolescent mothers.

5.4 Recommendations For Policy

1. Policy makers should ensure theoretical frameworks are used in designing adolescent reproductive health interventions should consider the theory of planned behavior and social cognitive theory so as to have a better understanding of the change of behavior process and psychological needs. Through this also, it will improve the perceived behavioral control and self-efficacy among adolescents to help reduce the risk behaviors in teenage pregnancies and promote better mental health outcomes. Also, inclusion of gender-responsive and trauma-informed models
2. The government and humanitarian agencies should participate in the formulation of policies that will integrate adolescent mental health care into reproductive health and maternal health services will assist in mental health being prioritized in emergency response policies, including humanitarian crises and pandemics. Through this, it allows the strengthening and financial support of social protection programs for adolescent mothers, especially in low-income and marginalized areas like Kakuma.

5.5 Recommendation For Practice

1. The County Health Department and Ministry of Education are responsible for developing and putting in place regulations and guidelines for task shifting in mental health and allocating

funding for the community health volunteers and health facilities for mental health and psychosocial support services. International development partners such as UNHCR, UNICEF, and CBM and NGOs will play a role in the provision of training for trainers on psychological first aid (PFA) and basic mental health and psychosocial support (MHPSS) conducted for community health volunteers, teachers, and peer youth educators. To implement task shifting through community-based mental health interventions, their need for mental health campaigns and mainstreaming into different programs.

2. Ministry of Education and Teachers Service Commission (TSC) plays a role in ensuring that mental health services should be brought closer to adolescent mothers by institutionalizing support systems . This can be achieved through ensuring school-specified mental health programs by assigning trained guidance counselors in learning institutions . The teachers are also to be trained on trauma-informed care and adolescent-sensitive MHPSS. Primary health care facilities introduce mental health screening during antenatal and postnatal care for adolescents and provide referral pathways for severe mental health disorders.
3. The family plays a crucial role in emotional stability and resilience; thus, parenting sessions are included in the community-level mental health programming . The responsible stakeholders are community-based organizations and faith-based organizations, which should collaborate with social workers and mental health professionals to organize structured family counseling sessions that focus on positive parenting, reduced stigma, and building on acceptance . Also, the introduction of peer support groups that the peer mothers can be empowered through skills that can enhance them economically.

5.6 Recommendation for further studies

These research findings propose that future research consider the impact of teenage pregnancies on adolescent mental health with particular focus on

- i. Longitudinal study on adolescent mothers' post-COVID-19 to assess the long-term mental health issues
- ii. Examining the effectiveness of different types of social support (family, peers, and institutional) in promoting mental health
- iii. Gender-based violence, single-parented households, and stigma examination of this as a risk factor for adolescent pregnancy and its effect on adolescent mental health, especially in marginalized and humanitarian contexts.

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APPENDICES

APPENDIX I A: QUESTIONNAIRE

Thank you for participating in this survey about the impact of teenage pregnancies on adolescents' mental health after COVID-19. Your responses will assist in the objectives being researched, and all answers will remain confidential.

Please click here to indicate your informed consent to participate in this study

Section 1: Demographic Information

Adolescent Mothers Information (Tick on the appropriate box)

| | | | | |
|---|------------------------------|---|---|--|
| 1 | Age | Under 15 <input type="checkbox"/> | 15-17 years <input type="checkbox"/> | 18-19years <input type="checkbox"/> |
| 2 | Gender | Male <input type="checkbox"/> | Female <input type="checkbox"/> | Other <input type="checkbox"/> |
| 3 | Disability | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Prefer Not to Say <input type="checkbox"/> |
| 4 | Education Level | Primary School <input type="checkbox"/> | Secondary School <input type="checkbox"/> | Not in school <input type="checkbox"/> |
| 5 | Currently enrolled in school | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Prefer Not to Say <input type="checkbox"/> |

Childs Information (Tick on the appropriate box)

| | | | | |
|---|------------|----------------------------------|----------------------------------|--|
| 1 | Age | 2 years <input type="checkbox"/> | 3 years <input type="checkbox"/> | 4 years <input type="checkbox"/> |
| 2 | Gender | Male <input type="checkbox"/> | Female <input type="checkbox"/> | Other <input type="checkbox"/> |
| 3 | Disability | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Prefer Not to Say <input type="checkbox"/> |

| | | | | |
|---|-----------|-------------------------------|-------------------------------|-------------------------------|
| 4 | Year born | 2020 <input type="checkbox"/> | 2021 <input type="checkbox"/> | 2022 <input type="checkbox"/> |
|---|-----------|-------------------------------|-------------------------------|-------------------------------|

Questions are linked to the study objectives so as to assess socio-demographic factors, the impact of COVID-19, social support systems, and the prevalence of mental health disorders among adolescent mothers after the COVID-19 pandemic.

The Likert scale in the questionnaire measures the degree of agreement or disagreement with statements related to teenage pregnancy and mental health, ranging from "Strongly Disagree" to "Strongly Agree."

| | Questions | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|----------|---|--------------------------|-----------------|----------------|--------------|-----------------------|
| 1 | My level of education influenced my pregnancy experience. | | | | | |
| 2 | Financial difficulties in my household led to my early pregnancy. | | | | | |
| 3 | Living in a single-parent family increased the probability of getting pregnant. | | | | | |
| 4 | The COVID-19 pandemic exacerbated my stress and worry. | | | | | |

| | | | | | | |
|-----------|---|--|--|--|--|--|
| 5 | During the pandemic, I had trouble with accessing mental health care. | | | | | |
| 6 | I felt isolated more during the COVID-19 pandemic. | | | | | |
| 7 | During my pregnancy and motherhood, I was continuously supported by my family. | | | | | |
| 8 | Peer support groups significantly enhanced my mental health | | | | | |
| 9 | I have accessibility to counseling when I need therapy. | | | | | |
| 10 | I frequently feel sad or helpless about my situation. | | | | | |
| 11 | I often feel nervous anxious or on edge. | | | | | |
| 12 | I experience difficulty dealing with flashbacks or intrusive thoughts about terrible experiences. | | | | | |

APPENDIX II B: FOCUSED GROUP DISCUSSION QUESTIONS

1. How did COVID-19 impact your daily life and routines, especially regarding your pregnancy?

.....
.....

2. Did you experience any symptoms of mental health disorders (symptoms of mental health disorders ;feeling anxious or worried ,feeling depressed or unhappy, emotional outbursts ,sleep problems ,weight or appetite changes ,withdrawn, substance abuse, feeling guilty or worthless, suicidal thoughts)during your pregnancy? If so, how did you cope with them?

.....
.....

3. What kind of support did you receive from your family or friends, and how did it affect you during your pregnancy?

.....
.....

4. How did healthcare providers support you during your pregnancy during and after COVID 19?

.....
.....

5. Did school closures or changes in educational access impact your pregnancy experience?

.....

.....

6. What changes or improvements would you recommend for supporting adolescent mothers, particularly in terms of mental health services during and after COVID 19?

.....

.....

**APPENDIX III C: SOCIAL -EMOTIONAL WELLBEING TOOL
ASSESSMENT TOOL**

SOCIAL EMOTIONAL WELLBEING ASSESSMENT FOR CHILDREN

| | | ALL THE TIME | SOMETIMES | RARELY | NEVER | Total score |
|--|--|--------------|-----------|--------|-------|-------------|
| | Do you easily become annoyed or angry? | | | | | |
| | Do you feel that there is no hope for you in the future? | | | | | |
| | Do you think about bad things that happened in the past? | | | | | |
| | Do you think about your current problems? | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| Do you have difficulties with sleeping? | | | | | |
| Do you spend time alone away from others? | | | | | |
| Do you feel afraid? | | | | | |
| Do you feel sad? | | | | | |
| Do you feel lonely? | | | | | |
| Do you have trouble making decisions? | | | | | |
| Do you have trouble remembering things? | | | | | |
| Do you feel guilty? | | | | | |
| TOTAL SCORE | | | | | |

SE wellbeing Scoring Instructions

Instructions: To calculate Emotional Wellbeing Assessment scale scores, fill in the gaps with items scored as (All the time at 3,sometimes 2,Rarely 2 and Never 0)for the initial scores, then move the item scores for each scale in the last row. Sum the last column getting the final score.

| Level of Emotional stability in a child. | Scale score |
|--|-------------|
| None | 5-10 |

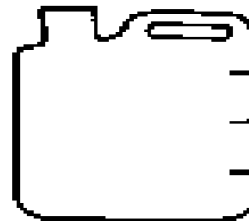
| | |
|----------|--------|
| Low | 11-20 |
| Moderate | 21- 30 |
| Sever | 31 + |



1---10



11---20



21-30



31+

N/B

- Colored pens can be used to shade where the level of distress is in.
- The tool can be used to monitor the client’s wellbeing before, during and after intervention.

APPENDIX IV: INFORMANT INTERVIEW QUESTIONS

For: Turkana West sub-county ministry of education, health care providers, and community structures such as chief *nyumba kumi wazee*.

| |
|--|
| <p><u>Name Interviewer:</u> _____</p> <p>Date Completed: _____</p> |
|--|

Preliminaries:

Introduce yourself.

Read out the consent forms, have them sign then start the discussion. Remember to prompt.

Section 1: Personal Information

1. What is your gender? (BASE ON OBSERVATION)
 - Male
 - Female
2. Could you briefly describe your position?
3. How long have you been working in this community in your position/department

Section 2: Prevalence and typology of teenage pregnancy

4. What is your understanding of the term teenage pregnancy?

Section 3: Prevalence of Teenage Pregnancies

5. Based on your knowledge/experience, what is the overall prevalence of teenage pregnancies in Turkana West Sub County?

Section 4: Types and Categories of Mental Health Issues

6. What is the common mental health issues observed among pregnant teenagers in Turkana West Sub-county?

Section 5: Gender Variations

7. Are there variations in the prevalence of teenage pregnancies based on gender norms and cultural expectations? (How do these norms impact adolescent girls?)

Section 6: Prevalence of Risk Factors Leading to Teenage Pregnancy

8. What are the primary risk factors that lead to the prevalence of teenage pregnancies in Turkana West Sub County?

- Lack of access to sexual and reproductive health education and services
- Poverty and engagement in transactional sex to meet basic needs
- Cultural norms ,early/child marriages and gender roles
- Peer pressure and influence of drugs, media or social trends
- Sexual and gender based violence (SGBV) and lack of safe spaces
- Parental neglect ,poor guidance and lack of youth mentorship
- School dropout, low attendance ,and the impact of COVID-19 (e.g. school closures, isolation)
- Other

Section 7: Prenatal, perinatal and postnatal Risk Factors

8. What are the prenatal risk factors (before, during and after childbirth) that may contribute to or worsen common mental health disorders among teenage mothers in Kakuma Turkana West Sub-County?

- Lack of antenatal care and support during pregnancy
- Unplanned or unwanted pregnancy
- Stigma and social rejection from family or community

- Exposure to domestic or gender based violence
- Health complications during childbirth (e.g. prolonged labor, cesarean section)
- Lack of emotional and psychological support during delivery
- Financial stress and inability to meet basic needs
- Poor postnatal care and lack of follow-up support
- Isolation or being abandoned by partner or family after childbirth
- Parenting stress and lack of childcare knowledge
- Pre-existing mental health conditions or family history of mental illness
- Other

Section 8: Availability of Mental Health Care Services for Pregnant Teenagers

9. What mental health care services does your organization/department provide to pregnant teenagers?
10. Are there existing social support services for pregnant teenagers in your area? If yes, could you mention them?
11. Are these services accessible and adolescent-friendly?

Section 9: Influence on Education and Healthcare

12. How do teenage pregnancies influence the existence and quality of education and healthcare services in your area?
13. What best describes the school attendance rate for pregnant teenagers in Kakuma Turkana West Sub-county ?

- Most pregnant teenagers continue attending school regularly
- Some pregnant teenagers attend school ,but many drop out before delivery
- Few pregnant teenagers attend school; most drop out during pregnancy
- I don't know/Not sure

14.Are there specific barriers that hinder school attendance for pregnant teenagers?

Section 10: Knowledge, Attitudes, and Practices on Teenage Pregnancy and Mental Health

15.What comes to your mind when you encounter a pregnant teenager??

16.Are there any beliefs or attitudes towards teenage pregnancy and mental health issues in your area?

17. If yes, could you mention some of these beliefs or attitudes?

Recommendations and Strategies

18. What actionable recommendations and strategies can improve the quality of life for pregnant teenagers and address their mental health challenges in Turkana West Sub County? (Mbinu zipi ambazo zinaweza kuangaziwa kuboresha maisha ya vijana wa kike wenye changamoto za ujauzito?)Kiswahili

APPENDIX V:ETHICAL REVIEW FORM



RESEARCH, INNOVATION, AND OUTREACH DIVISION

KCA UNIVERSITY SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REQUEST FOR ETHICAL REVIEW FORM

The request must include the following information for the research to be considered for approval:

| | |
|---|--|
| Name, institution, and contact details (email and phone number) of the principal/lead investigator/researcher: | Wendy Jerotich Misoi, Student of Masters of Arts in Counselling Psychology, Department of Education, KCA University. Wendymisoi7@gmail.com 0792203134 |
| If it is a thesis, include also the name(s), institution(s), and contact details (emails and phone numbers) of the supervisor(s): | N/A |
| Date of request: | 20 TH January 2025 |
| Title of the Research: | IMPACT OF TEENAGE PREGNANCIES ON ADOLESCENTS' MENTAL HEALTH AFTER COVID-19: A CASE STUDY OF KAKUMA, TURKANA WEST SUB-COUNTY, KENYA |
| Planned or confirmed source of funding: | Self-sponsored |
| Members of the research group and their roles in the implementation of the study, as well as possible cooperation with other universities, research institutes, or similar organizations: | Supervisor- Dr. Priscillah Njoki Supervisor -Dr. Ignatius Nyaga Researcher-Wendy J. Misoi |
| What is the level of risk presented by your research? | Please indicate whether the research risk assessment (Check risk document) stated on the application is: <input type="checkbox"/> Low risk (<i>Research has no foreseeable risk of harm, discomfort, or inconvenience to respondents</i>) <input type="checkbox"/> Medium risk (<i>Research has potential risk of unexpected negative consequences, harm or discomfort, but where appropriate steps can be taken to mitigate the risk</i>) |

| | |
|--|--|
| | <input checked="" type="checkbox"/> High risk (<i>Research with real and foreseeable risk of harm and discomfort to participants and or the research team, and which may lead to serious adverse consequences if these risks are not managed in a responsible manner. It involves highly sensitive topics and/or the participation of very vulnerable and marginalized individuals/groups</i>) |
| Would you like to bring any aspects of the applications to the Ethics Review Committee's attention? | Please indicate them here N/A |
| What research data will be collected? | Both qualitative and quantitative data will be collected. |
| What personal data and confidential information will be processed? | Age, Gender, and type of disability |
| Specify any special category or sensitive data that will be collected (tick all that apply) | <input type="checkbox"/> Ethnicity <input checked="" type="checkbox"/> Mental Health (status, medical records conditions, to include disability) <input type="checkbox"/> Physical Health (status, medical records conditions, to include disability) <input type="checkbox"/> Sexual Orientation/Sexual life <input type="checkbox"/> Genetic Data (to include DNA data) <input type="checkbox"/> Biometric data (such as facial scan, iris scan, or fingerprint data used to identify a participant) <input type="checkbox"/> Political opinions <input type="checkbox"/> Trade Union membership <input type="checkbox"/> Religious or philosophical beliefs <input type="checkbox"/> Criminal Convictions and offences (to include alleged offences and convictions) <input type="checkbox"/> None <input type="checkbox"/> Other – Please specify below |
| How will data be stored and transferred during the research? | The data will be stored on a Google platform and transferred through email . |
| Specify who will be able to access the identifying information and how you will ensure they process the information securely | The data will be placed on a password-protected laptop and accessed only by the researcher and the supervisors. |
| How will research data be preserved and shared on completion of the project? (NB: Enter N/A in this section unless results will be published) | N/A |

| | |
|--|---|
| Describe the measures that will be taken to ensure data are suitable for sharing, e.g., securing consent, anonymizing data prior to deposit/sharing, and sharing confidential or high-risk information using a controlled access repository. | The study participants will be informed that confidentiality and anonymity will be observed throughout the entire research study during the data collection. Their names and personal identification numbers will be used in the data collection, except for the encoding of data for the purpose of data recognition during data analysis. |
| State how long you plan to retain personal data and any confidential information after the end of the project. Indicate also how the data will be disposed | After graduation of the Masters of Arts in Counselling Psychology, the data will be disposed. |

As the Principal Investigator of this study, I declare that I take full responsibility for the proposed study and will conduct it according to the documented proposal and in line with KCAUSERC ethical guidelines.

By signing this document, I agree that:

- a) All documents submitted with this application are true representations of the study and have not been falsified.
- b) This study will not commence in any way, and no participant will be recruited until final official approval is received from KCAUSERC
- c) The study will be conducted according to the protocol submitted. All participants will be recruited and consented to according to the protocol.
- d) Any protocol deviations or protocol violations to the submitted study must be reported to KCAU in writing by email to KCAUSERC immediately. Within five (5) business days of the deviation or violation, the Deviation/Violation Must be reported to the ISERC office.
- e) Any study-related unexpected or serious adverse event must be reported to the ISERC Office by email within twenty-four (24) hours after the PI becomes aware of the event.

Principal Investigator's Signature



Date 20th January 2024

INFORMED CONSENT FOR RESEARCH PARTICIPATION

Introduction

You are invited to participate in a research study. This document provides information about the study so that you can make an informed decision about your participation. Please take the time to read the information below. If you have any questions, feel free to ask the researcher. **(PI to Fill in the sections italicized)**

Purpose of the Study

The purpose of this study is to identify the impact of teenage pregnancies on adolescents' mental health after COVID-19 in Turkana West Sub-County to provide evidence to guide preventive and targeted mental health services for adolescent mothers in similar settings. The research is being conducted to find out the socio-demographic factors associated with teenage pregnancies, to evaluate the impact of the COVID-19 pandemic on mental health, to establish the role of social support systems in mitigating mental health issues, and to find out the prevalence of common mental health disorders among adolescent mothers. Through the data that will be collected and analyzed it will allow the researcher to have a better understanding of the broader ramifications in similar circumstances globally for policy development and intervention on mental health among teenage mothers.

Study Procedures

If you agree to participate, you will be asked to give answers to a questionnaire, a focus group discussion and a social emotional well-being tool that measures that mental health status of the participant. The activity will take about 20-25 minutes. There are about fifty four other teenage mothers who have experienced teenage pregnancies who may participate in this research study.

Potential Risks and Discomforts

There may be some risks associated with participation in this study. These risks may include; answering of the data collection instruments about traumatic events in experiencing pregnancies that may be stressful. The study participants can choose not to answer the question or may stop at any time. The risk and discomfort will be mitigated by ensuring that the enumerator will be a lay counsellor who can offer Psychological First Aid (PFA) counseling sessions to the study participant. Every effort will be made to minimize these risks, and you can withdraw from the study at any time without penalty.

Potential Benefits

While participating may not directly benefit you, the results of this study may be beneficial to school managers ,parents ,teenage mothers ,education and health policy makers as the statistical data that will be collected through the study may identify the common mental disorders experienced by teenage mothers, which may lead to the development of psychological interventions suited for them to have a stable mental health and psychosocial well-being.

Confidentiality

Your participation will be kept confidential. Any data collected will be stored securely and only accessible to the research team. Your identity will not be revealed in any publication or presentation resulting from this research.

Voluntary Participation

Participation in this study is completely voluntary. You have the right to withdraw from the study at any time without any negative consequences or loss of benefits to which you are otherwise entitled.

Questions

If you have any questions about this study, your participation, or your rights as a participant, please contact the principal investigator at Email;Wendymiso7@gmail.com and contact 0792203134.

Consent

By signing below, you indicate that you have read the information provided above, understand the purpose and procedures of the study, and voluntarily agree to participate. You can withdraw from the study at any time without penalty.

Participant Statement:

I, the undersigned, consent to participate in this study.

Name of Participant: _____

Signature of Participant: _____

Date: _____

Researcher (Principal Investigator –P1) Statement:

I, the undersigned, confirm that I have explained the nature of this study to the participants, answered all questions, and ensured that they understand the information provided.

Name of Researcher: _____

Signature of Researcher: _____

Date: _____

APPENDIX VI: ETHICS CLEARANCE CERTIFICATE



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Fax: +254 20 8361077
Mobile: +254 734 889022, 710 889022
Email: info@kca.ac.ke
Website: www.kca.ac.ke

KCA UNIVERSITY SCIENTIFIC AND ETHICS REVIEW COMMITTEE

REF: **KCAU/SERC/003**
TO: **WENDY JEROTICH MISOI (21/01422)**

Date: **20th March 2025**

Dear Sir/madam

RE: IMPACT OF TEENAGE PREGNANCIES ON ADOLESCENTS MENTAL HEALTH AFTER COVID 19: A CASE STUDY OF KAKUMA, TURKANA WEST SUB-COUNTY

This is to inform you that KCA University Scientific Ethics Review Committee (KCAUSERC) has reviewed and approved your above research proposal. Your application approval number is **KCAUSERC/SEASS003**. The approval period is **20th March 2025 – 20th March, 2026**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents-including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by **KCAUSERC**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **KCAUSERC** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to **KCAUSERC** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to **KCAUSERC**.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

Yours sincerely,

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

Dr. Caroline Ntara
Chairperson, KCA University Scientific and Ethics Review Committee

APPENDIX VII NACOSTI RESEARCH LICENSE



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Date of Issue: 15/May/2025

RESEARCH LICENSE



This is to Certify that Miss. WENDY Jerotich MISOI of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Turkana on the topic: IMPACT OF TEENAGE PREGNANCIES ON ADOLESCENTS' MENTAL HEALTH AFTER COVID-19: A CASE STUDY OF KAKUMA, TURKANA WEST SUB-COUNTY, KENYA for the period ending : 15/May/2026.

License No: NACOSTUP/25/4173491

125084

Applicant Identification Number


 Deputy Director
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code



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

See overleaf for conditions

