Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala

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2019/HD03/26009U

A Research Dissertation Submitted to Makerere University, College of Humanities and Social Sciences, School of Psychology, Department of Mental Health and Community Psychology in Partial Fulfilment of the Requirement for the Award of the Degree of Master of Science in Clinical Psychology of Makerere University.

January, 2023

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Declaration

I, Kirabo Hope Sarah hereby declare that this research dissertation is my original work and has never been submitted to any university or institution of higher learning for any academic award or otherwise.

Signature: 

Date: 16/01/2023

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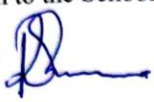
Approval

This is to certify that this dissertation titled, Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala has been approved for submission to the School of Psychology.

Signature: 

Date:16/01/2022

Dr Samuel Ouma (Ph.D.)

Dedication

I dedicate this work to all teenage mothers - may God keep you.

Acknowledgement

I am very thankful to God who has seen me through the whole process of writing this research dissertation and for the strength He has availed me. I am also truly grateful to my supervisor, Dr. Samuel Ouma for his time, academic guidance, encouragement and endurance that made this process a success. I wish to further extend my gratitude to all the lecturers and staff in the Department of Mental Health and Community Psychology. Special thanks to my family for their never ceasing support and prayers – thank you! To my amazing friends, I sincerely appreciate your counsel and overall support, God bless you extravagantly.

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Abstract

Depression during pregnancy is a worldwide health concern especially in developing countries and in teenage mothers. The risk of depression for a teenager is increased if they have experienced childhood trauma that in turn affects their resilience. Their resilience is further affected if the pregnancy is unplanned, they are stigmatised or have no social support. The aim of this study was to assess the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers. A sample of 136 pregnant teenagers aged 14 - 19 years participated in this study. The Childhood Trauma Questionnaire (CTQ) was used to measure childhood traumatic experiences, the Connor-Davidson Resilience Scale 10-item (CD-RISC-10) to measure resilience and lastly, the Edinburgh Postnatal Depression Scale (EPDS) to measure depression. Pearson correlation coefficient was used to find out the relationship between the variables, while regression analysis was done to find the mediation role of resilience on the relationship between childhood traumatic experiences and depression. The prevalence of depression in the sample was 59% while 67% of the pregnant teenagers scored high on resilience. The percentage levels of childhood traumatic experiences were; 56%, 52.2%, 43.4%, 68.4% and, 47.1% for physical neglect, physical abuse, emotional neglect, emotional abuse and sexual abuse, respectively. Results showed a significant relationship between childhood trauma, resilience and depression. Therefore, the results of the study highlight the importance of regarding the different forms of childhood traumatic experiences as risk factors of depression, teenage pregnancy, low resilience and other adverse effects to the pregnant teenager and with possible consequences to their children.

Chapter One

Background

Teenage pregnancy is a global concern, especially in developing countries where approximately 12 million girls become pregnant annually (Sully et al., 2020). As of 2015 in East Africa, Uganda at 57% had the highest number of women giving birth before the age of 20 and, more girls (12%) giving birth before the age of 16 compared to Kenya (8%) and Tanzania (7%) (Neal et al., 2015). In Uganda, 25% of women 15-19 have begun childbearing (Uganda Bureau of Statistics, 2016). The situation has been worsened by the COVID-19 pandemic and related restrictions, as seen by the 49.3% increase in teenage pregnancies in 67 out of Uganda's 136 districts. Amongst these districts, Kampala, the capital city had the second highest cases recorded at 8,460 (UNFPA, 2021).

Child maltreatment is the abuse and neglect of children below the age of 18 (WHO, 2022a) and can be potentially traumatising. Pregnant teenagers have experienced at least a form of childhood traumatic experiences (Christofides et al., 2015) whether physical, emotional or sexual. For example, up to half (1 billion) of the world's population of children aged 2-17 years, have been victims of violence (physical, emotional and/sexual) in the past year (Hillis et al., 2016). Teenage pregnancy has also been found to be significantly related to childhood traumatic experiences such as early abuse and neglect (Atuyambe, 2008). The increasing sexual related crimes especially to females below 18 years (Uganda Police, 2021) have been linked to the increase in teenage pregnancies in Uganda. This means that teenage pregnancy may not necessarily be an outcome of promiscuity but of childhood trauma.

Childhood traumatic experiences may affect the resilience of pregnant teenagers, their ability to bounce back or adapt well in the face of disaster especially if they have experienced

more than one form of trauma (Young-Wolff et al., 2019). Their resilience is further affected if the pregnancy is unintended and they are stigmatized, predisposing them to depression (Abajobir et al., 2016). One in four African pregnant women has depression (Dadi et al., 2020), and this is even greater for those aged 14 -19 than 20 - 29 years (Ayele et al., 2016). However, depressive symptoms in pregnant mothers are never or rarely addressed and might be disregarded as pregnancy symptoms such as being tired, appetite and sleep disturbances (Martínez-Paredes & Jácome-Pérez, 2019). Hence, a pregnant teenager is even more likely to develop depression due to their low resilience as a result of having experienced childhood trauma (Howell et al., 2020).

Whilst a number of studies have been done on teenage pregnancy and motherhood in Uganda (Amongin et al., 2020; Chemutai et al., 2020; Akanbi et al., 2016; Kaye, 2008; Nabugoomu et al., 2018; Nabugoomu, Seruwagi, & Hanning, 2020; Nabugoomu, Seruwagi, Corbett, et al., 2020; Tusiime et al., 2015), the role of childhood traumatic experiences and resilience in association to depression in pregnant teenagers generally remains unknown hence the reason for this study.

Problem Statement

Depression among pregnant women is steadily becoming a problem with 25% of pregnant women in Africa affected (Dadi et al., 2020). Those suffering from depression during pregnancy may actually be higher since a few are screened and diagnosed. Still, pregnant teenagers between the ages 14 – 19 years are the most affected by depression (Ayele et al., 2016) yet the current prevalence remains unknown. Moreover, the likelihood of a pregnant teenager developing depression is even greater if they experienced child abuse and/neglect – emotional, physical or sexual. With at least every pregnant teenager elsewhere having experienced a form of childhood trauma (Christofides et al., 2015), their resilience might be affected (Sexton et al.,

2015) more so if the pregnancy is unplanned and they are faced with stigma. Having low resilience is a risk factor for developing depression during pregnancy (Hain et al., 2016). Depression in pregnant teenagers is further associated with negative outcomes such as increased suicidality, poor birth outcomes like preterm and stillbirths, unsafe abortions, substance use and so on. Due to the increasing rates of teenage pregnancies in Uganda, it is of central importance to assess factors associated with depression, among pregnant teenagers for the right interventions to be put in place.

Purpose

The purpose of the study was to assess the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers in Kampala.

Objectives

The objectives of the study were;

1. To assess the relationship between childhood traumatic experiences and resilience.
2. To assess the relationship between childhood traumatic experiences and depression.
3. To examine the relationship between resilience and depression.
4. To examine the mediating role of resilience on the relationship between childhood traumatic experiences and depression.

Scope

Geographical scope

The study was conducted at Kisenyi Health Center IV, because it receives the highest numbers of pregnant teenagers receiving antenatal care in Kampala. Kampala was selected because it had the second highest cases recorded at 8,460 in 2021 (UNFPA, 2021). Kampala is

also the capital and largest city of Uganda, and with its living standards, daily life stressors, pollution, it was the ideal district for the study.

Sample scope

The study participants were first time pregnant teenagers aged 14 – 19 years.

Content scope

According to DSM-5 (American Psychiatric Association, 2013), trauma is as a result of exposure to actual or threatened death, serious injury or sexual violation where one directly experiences the traumatic event; witnesses the traumatic event in person; learns that the traumatic event occurred to a close family member or close friend (with the actual or threatened death being either violent or accidental); or experiences first-hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related).

Resilience is defined as the ability to bounce back from adversity, frustration, and misfortune (Ledesma, 2014) or to anticipate, resist, absorb, respond to, adapt to, and recover from a disturbance (Carlsonet al., 2012). In this study, resilience was majorly interpreted in two ways;

- Resilience as an outcome following a pregnant teenager's experience of childhood trauma.
- Resilience as a buffer or protective factor(s) for a pregnant teenager against depression despite having experienced childhood trauma.

In the DSM-5 (American Psychiatric Association, 2013), depression is majorly characterized by a sad, empty, or irritable mood, loss of interest or pleasure accompanied by somatic and cognitive changes that significantly affect the individual's capacity to function. The term antenatal depression will be used to mean depression during pregnancy, before childbirth.

In this study, pregnant teenager was used to mean presently pregnant girls, 13 to 19 years.

Significance

The findings of the study may be used to provide a reliable analysis on the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers. The study may raise awareness on issues related to teenage pregnancy besides family planning or physical effects, but childhood traumatic experiences, factors affecting their resilience and antenatal depression.

The findings may provide a body of knowledge needed when designing programs for addressing teenage pregnancies and its effects such as depression among pregnant teenagers. The data collected may also draw more focus and attention to the mental health issues involved in teenage pregnancy and motherhood therefore creating more programs that not only address the physical needs of pregnant teenager but their psychological needs too - empowering pregnant teenagers to adapt to their new roles as mothers.

The research is also aimed at creating empirical evidence for the Government of Uganda, the United Nations, Non-Government Organizations (NGO's) and other organizations which specialize in providing services that improve the livelihood of pregnant teenagers and prevent teenage pregnancy, to formulate procedures for intervention since Uganda continues to have high teenage pregnancy rates.

Other researchers and institutions may use the information in this research study as a source of reference. It can encourage further learning on childhood traumatic experiences, resilience and depression among pregnant teenagers. Also, this study may contribute to the field of psychology for example developmental and social psychology.

Conceptual Framework

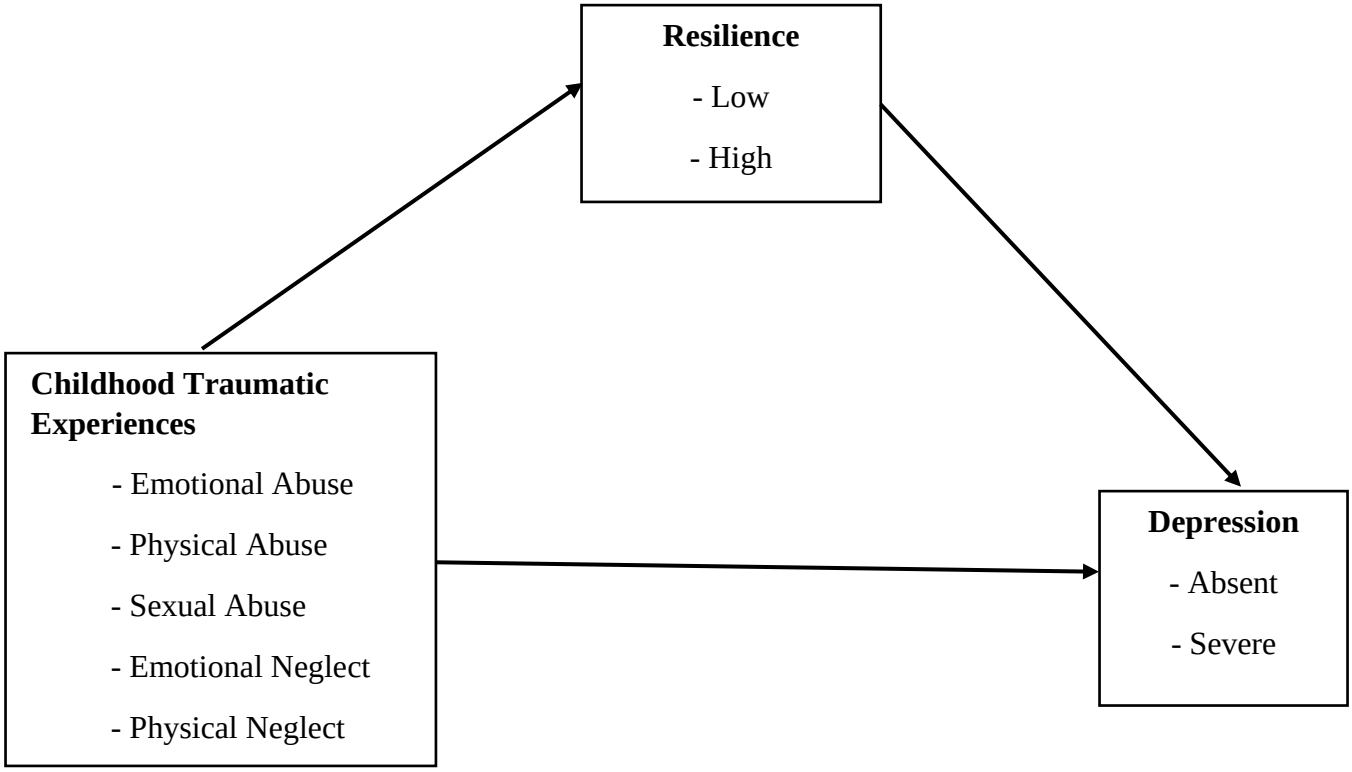

Figure 1: *Conceptual framework showing the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers.*

The conceptual framework explains the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers. In this study, childhood traumatic experiences are conceptualized as the independent variable which may be significantly related with depression, the dependent variable. History of child traumatic experiences may lower the resilience of a pregnant teenager. However, for some pregnant teenagers, because they are able to bounce back from these traumatic experiences, they may have a high resilience even to future traumas. A pregnant teenager with low resilience, for example one that is unable to adapt when changes occur or is easily discouraged by failure is more susceptible to developing

depression than one with high resilience. Still, a pregnant teenager with high resilience, for example one that can adapt when changes occur, even though they develop depression, it might not be as severe as one with low resilience. Having a history of child traumatic experiences may make a pregnant teenager vulnerable to depression, especially if they have low resilience. However, not all pregnant teenagers with a history of child traumatic experiences may develop depression. Therefore, levels of resilience may transfer the effect of childhood traumatic experiences to depression.

Chapter Two

Literature Review

This chapter reviews literature written and published by other authors as guided by the study objectives including; to examine the relationship between childhood traumatic experiences and depression, the relationship between childhood traumatic experiences and resilience and, the relationship between resilience and depression among pregnant teenagers.

Childhood Traumatic Experiences and Depression among Pregnant Teenagers

Pregnant teenagers have experienced a wide range of traumatizing events, some of which may have predisposed them to getting pregnant at a young age. Pregnant teenagers are victims of parental abuse and/or neglect, physical and/or verbal abuse, sexual abuse before and during pregnancy, attempted or actual rape, exchanged sex for money, were raised in broken homes, and assaulted by an acquaintance or relative (Clarke, 2015; Studies et al., 2010; Ochen et al., 2019; Aparicio et al., 2015). Pregnant teenagers that have experienced such traumatic events are likely to meet the diagnostic criteria for major depressive disorder (LePlatte et al., 2012).

Moreover, pregnant teenagers with a history of abuse will most likely engage in risky sexual behavior like early initiation of sex and having unprotected sex (Kheswa & Pitso, 2014). Some get in relationships with older men creating a problem of power dynamics where the girl's sexual negotiation could be compromised (Studies et al., 2010). Hence, teenage pregnancy may not be a result of recklessness and promiscuity but an outcome from childhood traumatic experiences.

Neglect from parents and caregivers, is another common narrative among pregnant teenagers. In Uganda, among reported child related offences, child neglect is still the highest

with 4,785 cases reported in 2020 and 6,805 victims (Uganda Police, 2021). All these childhood traumatic experiences have dire effects on an adolescent girl increasing her vulnerability to teenage pregnancy and depression, more so if from people that should be providers of care and support. For example, the impact of child maltreatment on late adolescence depression was found to be magnified by teenage pregnancy (Russotti, 2020).

Using the Childhood Trauma Questionnaire - CTQ, Madigan et al., (2012), found that among the pregnant teenagers in the study, 69.2% had experienced emotional abuse, 52.9% physical abuse, 51% sexual abuse, and 88.2% at least one form of neglect (either emotional or physical). Consequently, pregnant teenagers with a past of sexual and or physical abuse report more symptoms of depression than those with no history (Tzilos et al., 2012) and even those undergoing physical abuse are 7.38 times more likely to develop antenatal depression than those with no experience physical abuse (Govender et al., 2020). Further still, past sexual and physical abuse determine the severity of depression in pregnant teenagers (Tzilos et al., 2012). This is because effects from these traumatic experiences are intensified by challenges of teenage pregnancy such as stigma for being pregnant out of wedlock, inadequate finances among others (Freed & SmithBattle, 2016).

While comparing psychosocial conditions and suicidal behavior among pregnant and non-pregnant teenagers, it was found that depression at 26.3% in pregnant teenagers was two times greater than in non-pregnant teenagers at 13.6%. Additionally, pregnant teenagers were also three and a half times more likely to have attempted suicide than non-pregnant teenagers (Freitas et al., 2008). Depression in teenage mothers has been majorly attributed to maternal experiences such as childbirth hence the focus on postpartum depression. Much as stressful events are likely to predispose a pregnant teenager to depression (Nabugoomu et al., 2018; Freed

& SmithBattle, 2016), other factors like past trauma are key in explaining antenatal depression (Anderson & Perez, 2015**)**. When controlling for other variables, Hain et al. (2016) found no relationship between complications during pregnancy or stressful life events, with antenatal depression. This implies that childhood traumatic experiences may better explain depression among pregnant teenagers (Howell et al., 2020).

While measuring for depression during pregnancy and postpartum among pregnant minority adolescents with the Edinburgh Postnatal Depression Scale -EPDS, Meltzer-Brody et al. (2013) realized that 20.1% had depression during pregnancy and 10.3% postpartum, with a decrease of almost 50%. Antenatal depression was also the best predictor of postpartum depression among pregnant teenagers. Antenatal depression was explained by perceived maternal stress and history of trauma with the latter predisposing pregnant teenagers to antenatal depression five times more.

The frequency of a pregnant teenager's exposure to childhood traumatic experiences may determine the extent of their vulnerability to antenatal depression. For example, Bilginer et al. (2020) found that teenage mothers in their study reported fewer child traumatic experiences and scored lower on depression than adult mothers. Nevertheless, these results may have been due to the fact that many of the teenage mothers reported to have had a planned pregnancy which is a protective factor against depression (Muso Fubam et al., 2019).

Growing up in a dysfunctional home where for example a pregnant teenager was a victim or witnessed domestic violence increases their likelihood of developing depression (Carroll et al., 2021). In Uganda, there was a 29% increase in domestic violence cases reported in 2020 compared to cases reported in 2019. Of the 18,872 people that were victims of domestic

violence, 13,145 were female adults and 1,186 were females below 18 years (Uganda Police, 2021). The study by Ochen et al. (2019) also indicated a relationship between domestic violence and teenage pregnancy.

Intimate partner violence is also more likely to happen to pregnant teenagers that grew up in toxic environments (Bekaert & SmithBattle, 2016) and those that experience IPV are four times more likely to get depression (Thomas et al., 2019). Most pregnant teenagers in Uganda, especially in rural areas are coerced or forced to get married to the fathers of their babies (Mulogo et al., 2020) which may expose them to abuse. Statistics in Uganda show that, 10.4% of adolescents aged 15-19 have been victims of physical violence during pregnancy, and 42% have ever experienced physical, sexual, or emotional violence committed by a spouse (Uganda Bureau of Statistics, 2016). Consequently, these pregnant teenagers that have experienced physical, sexual or psychological violence are at risk of delivering a low-birth-weight baby, pregnancy-related complications like hypertension, haemorrhage or anaemia (Kaye et al., 2006).

Resilience and Depression among Pregnant Teenagers

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors. It doesn't only involve "bouncing back" from adversity, but personal growth. Different factors can make some individuals more resilient than others and being resilient doesn't necessarily mean one will not experience hardships and distress (APA, 2012). Resilience is important for people to manage stress and overcome any hardship and is especially key for pregnant teenagers that are susceptible to antenatal depression especially if with a past of childhood trauma. Low resilience is a risk factor for depression, hence resilience can be a buffer against both antenatal and postpartum depression (Hain et al., 2016).

Depression is a major source of morbidity during pregnancy. Symptoms of depression are common in the second (13%) and third trimester (12%) and lesser in the first trimester (7%) (Martínez-Paredes & Jácome-Pérez, 2019). Further still, depressed pregnant teenagers are more susceptible to poor birth outcomes such as caesarean (Salazar-Pousada et al., 2010) and preterm births that are likely to strengthen the symptoms depression. Much as antenatal depression is common, few cases are reported because symptoms are alike to those of pregnancy such as irritability, weariness, exhaustion and alterations in sleep patterns and appetite (Martínez-Paredes & Jácome-Pérez, 2019). Pregnant teenagers might read depressive symptoms as signs that they are stressed (Kinser & Masho, 2015) while others downplay them as normal, an experience that they will get used to eventually (Recto & Champion, 2018).

One of the main factors that affects the resilience and leads to depression among pregnant teenagers is the intendedness of their pregnancy. Whether a pregnancy is intended or not is a significant determinant of depression in pregnant teenagers. Pregnant teenagers with unplanned pregnancies are six times more likely to develop depression than those with planned pregnancies (Muso Fubam et al., 2019). Abortion is considered the main result of teenage pregnancy, especially for an unplanned pregnancy and among unwed pregnant teenagers for fear of stigma (Guo et al., 2019). In some occasions, pregnant teenagers are forced to abort against their will by their caregivers damaging their mental health (Clarke, 2015). In fact, 37.8% of women with antenatal depression have a history of abortion (Sahile et al., 2017) and this may be greater in pregnant teenagers.

Once pregnant teenagers perceive their pregnancy as having adverse effects on their life, depression will become even more severe (Pires et al., 2014). A student pregnant teenager may worry that pregnancy means the end of her education and consequently ambitions and dreams

(Muso Fubam et al., 2019). However, these negative perceptions can be prevented and the risk of depression alleviated through social support especially from their partners and mothers (Pires et al., 2014).

Depression is also common among unwed pregnant teenagers possibly due to fears of being rejected by their families and communities. However, a spouse's willingness to take responsibility can be a buffering factor against depression since it may help the pregnant teenager accept the pregnancy more positively (Muso Fubam et al., 2019). This may explain why becoming a mother is one of the factors that help and motivate pregnant teenagers with depression (Freed & SmithBattle, 2016) that even for an unplanned pregnancy, they find their babies to be their greatest motivation (Malindi, 2018; Mangeli et al., 2017; van Vugt & Versteegh, 2020). For example, in a study by Anwar & Stanistreet, (2015), teenage mothers revealed that becoming a mother was not an end to their dreams, as feared or implied, but a motivation that simply fueled them to succeed.

Depression among pregnant teenagers is greater than in adults with differing rates from 16 – 50%. These rates are especially higher in pregnant teenagers with no social support and experiencing stressful life events. Similarly, a pregnant teenager may remain depressed over time, even in the early years of being a parent due to dissatisfaction with support especially that from the father of the child (Easterbrooks et al., 2016). Having an adolescent spouse may contribute to low resilience in pregnant teenagers (Salazar-Pousada et al., 2010). This may be because they do not provide support that is considered helpful by pregnant teenagers like; constant support with routine activities, information and advice, emotional support, resources and material goods (Edmonds, et al 2011).

Being single at the time of pregnancy or having relationship conflicts significantly increases the risk of antenatal depression by 4.17 times due to lack of or inadequate support (Dadi et al., 2020). Therefore, having support from a spouse can protect a pregnant teenager from depression (Govender et al., 2020). Pregnant teenagers living with their spouses and spouse's family are more resilient and have lower chances of developing depression than those that live with their families (Bilginer et al., 2020).

Antenatal depression is also quite high in pregnant teenagers with no support from family and relatives (Dadi et al., 2020). Most pregnant teenagers with depression report a lack of social support from their families and abandonment by their partners once they became pregnant (Kumar et al., 2017). The risk of discrimination and stigma is greater for pregnant teenagers with no support from their spouses increasing the risk of them developing depression (Muso Fubam et al., 2019). The lack of social support is as well also related to depression and its severity in teenage mothers. When abandoned during pregnancy and after delivering these teenage mothers have a higher risk of depression (Boobpamala et al., 2019).

Although 2 out of 3 teenage mothers were found to have at least one mental disorder in a study by Van Lieshout et al. (2020), the rates of major depressive disorder were low. This was attributed to the fact that these teenage mothers may have received treatment for depression alongside support. However, depression was also not measured using standardized self-report questionnaires but structured psychiatric interviews which could have affected the results. Still in line with the above findings, teenage mothers from low-income families in Lee, Lawton, & Boateng. (2021)'s study had lower rates of depression than non-teenage mothers. While they didn't measure for resilience, they implied that the lower levels of depression among teenage mothers compared to non-teenage mothers may have been because they were resilient.

Furthermore, having a good childhood experience is another resilience factor (Freed & SmithBattle, 2016). Participants with low resilience and severe childhood traumatic experiences in a study by (Sexton et al., 2015) met the criteria for major depressive disorder. However, postpartum depression was absent in participants with high levels of resilience and severe traumatic experiences. This means that regardless of one's experience of childhood traumatic events, having high resilience is likely to reduce their vulnerability to depression. In contrast to the their findings, Easterbrooks et al. (2011) found that teenage mothers that are resilient despite having a history of parental abuse and neglect present with depressive symptoms. This, they say may be explained by the lack of social support. Carroll et al. (2021) also affirms that resilience further mediates the relationship between household dysfunction and postpartum depression among the teenage mothers in their study.

Being young is a risk factor for depression during pregnancy (Martínez-Paredes & Jácome-Pérez, 2019). This may be due to ill preparedness and uncertainties regarding pregnancy, childbirth and motherhood that are more common in pregnant teenagers than in pregnant adults (Atuyambe, 2008) affecting their mental health and resilience (Mangeli et al., 2017). For example, (Sahile et al., 2017) found that 27.7% of mothers with depression fear complications due to pregnancy. Whilst the fear of dying due to childbirth is common in all mothers regardless of age, it is even greater among pregnant teenagers (Anderson et al., 2020). This fear may be justified seeing that the mortality rate for teenage mothers in Harron et al., (2020)'s study is 4.38 times greater than that of adult mothers. This rate is even higher in Uganda with 368 deaths per 100,000 live births and 17.2% of female maternal deaths occurring in mothers aged 15-19 years (Uganda Bureau of Statistics, 2016). This fear of childbirth may however be lessened by social support.

Having aspirations/dreams gives pregnant teenagers strengths and helps them become resilient (Freed & SmithBattle, 2016; Collins, 2010). These same aspirations propel them to go back to school (Ibrahim, 2018), despite challenges like fatigue, sickness or even need to protect themselves from stigma once their pregnancies become visible (Ruzibiza, 2020). Still, teenage mothers that return to school need ultimate support for them to be able to adjust well. For example, support from teachers by encouraging teenage mothers to for example study well (Malindi, 2018), and by providing a favorable environment is key in ensuring that they continue with their studies. Therefore, missing or dropping out of school for a pregnant teenager may affect their resilience hence depression.

Depression may also affect the would-be providers of social support especially mothers of these teenage mothers. This is because they may be burdened by guilt and shame, face stigma and are blamed for their daughters getting pregnant out of wedlock (Rahill & et al, 2020). This can compromise the quality of support given to the teenage mothers and hence their resilience. There is also a big need to support families of teenage mothers since they are the major source of support to the majority of teen mothers. Some are affected by an adolescent pregnancy and may break down if not resilient (Ricks, 2016).

Pregnant teenagers with low resilience may fail to manage well emotionally, socially, and financially (Dhaka & Musese, 2019) and instead adapt maladaptive coping ways (Mira, et al 2017). Some continue to live in denial of being a teenage mother (Katowa et al., 2017), drop out of school (Dhaka & Musese, 2019; Gyan, 2018), withdraw and isolate themselves for fear of being laughed at and scorned (Ruzibiza, 2020) becoming lonely, depressed and suicidal (Okine et al., 2020). Others so as to provide for their financial need, may end up having sex for money (Amod et al., 2019), marrying or cohabiting not to be stigmatized for giving birth unwed

exposing them to IPV and STI's (Gyan, 2018) while others return to their abusive partners once they discover they are pregnant (Bekaert & SmithBattle, 2016). In rural areas, pregnant teenagers are forced into marriage by their parents (Mulogo et al., 2020), all of which are risk factors for depression.

Even pregnant teenagers that have knowledge on depression and are aware of depressive symptoms may not seek out support due to fear of being judged and regarded as incompetent lack of finances to cover the costs. (Recto & Champion, 2018; SmithBattle, et al 2016). However, early detection or diagnosis can avert effects of depression on the course of pregnancy, obstetric and perinatal outcomes such as preterm births, still births (Martínez-Paredes & Jácome-Pérez, 2019). Pregnant teenagers can be supported in this regard through reliable and unprejudiced support sources they can refer to for advice; inspiration, information, and reassurance and tangible efforts like financial support for the teenage mothers to be able to carry out advice like (Gyan, 2017) seeking health care.

Antenatal depression can lead to postpartum depression seeing that negative effects of fragility and exposure during pregnancy are passed on. Pregnant teenagers already diagnosed with depression should be empowered with resilience skills to prevent postpartum depression or abate the effects of antepartum and or postpartum depression (Hain et al., 2016). Therefore, to foster their resilience and the wellbeing of their babies, there is a need for joint efforts from the teenage mother, family and community at large (Ibrahim, 2018; Nabugoomu et al., 2018).

Childhood Traumatic Experiences and Resilience among Pregnant Teenagers

On average, a pregnant teenager has experienced at least five traumatic events (Leplatte et al., 2012) including; sexual violence, physical abuse, death of a loved one, neglect, and

experienced poverty - some abject, or have been raised in conflicting homes (Harrell-Levy et al., 2020). These traumatic experiences will affect the resilience of pregnant teenager in many ways. (Noll et al., 2009), found childhood sexual abuse to be a risk factor for teenage pregnancy. They also found out that on average, 4.5 out of 10 pregnant teenagers had a history of child sexual abuse. Likewise, Sickel (2014) found that women with a past of childhood sexual abuse were above five times more likely to have given birth.

A relationship between experience of early trauma and early pregnancy was observed by Christofides et al. (2014). They further assert that cumulative traumatic events are more important than a single event. This implies that the more childhood traumatic events a pregnant teenager experienced the lower their resilience. Nevertheless, Young-Wolff et al. (2019), found that more women had high than low resilience during pregnancy despite having experienced more than one childhood traumatic event.

Important to note, the risk of teenage pregnancy varies with the type of child abuse experienced and its impact on the female adolescent's resilience. Madigan et al. (2014) found sexual and physical abuse to be greater determinants of adolescent pregnancy than neglect and emotional abuse. Further still, the likelihood of teenage pregnancy was almost four times magnified if an adolescent experienced both physical and sexual abuse at the same time. The 2020 annual police report of Uganda showed an increment in sex related crimes with a total of 16,257 victims, out of whom, 14,320 were female below 18 years. There was also a 3.8% increase in defilement cases reported compared to those of 2019, with 14,080 of the victims, females below 18 years and majority between 15-17 years (Uganda Police, 2021). Moreover, the cases that are never reported are likely to exceed those in the records. As a result, majority of the victims if followed up will most likely become pregnant teenagers with low resilience.

Still, there is more optimism towards teenage pregnancy among adolescents that experienced a high cumulative level of childhood traumatic experiences. They hope that having a child will be a positive factor improving their life (Shreffler et al., 2021). The mediation role of resilience for childhood household dysfunction and postpartum depression among teenage mothers was measured using the Connor-Davidson Resilience Scale 10-item (CD-RISC-10) in a study by Carroll et al, (2020). Results showed that resilience partly mediated between childhood household dysfunction like substance use, mental illness in the household, witnessing violence and postpartum depression. Therefore, despite their history of abuse and or neglect, some pregnant teenagers are more receptive and welcoming towards their pregnancies and the idea of being a mother. They may see it as an opportunity to take back control of their lives and create a better world than the ones they grew in (Sickel, 2014). Some will even break off contact with abusive parents so as to focus on their new role (van Vugt & Versteegh, 2020).

Much as teenage pregnancy may be a risk with social and health implications, it might as well be a buffering factor to these young mothers (Pfeiffer et al., 2017) especially since most female teenagers that have experienced childhood trauma see teenage pregnancy as something positive (Shreffler et al., 2021). A follow up study by Collins (2010) of mothers, seven years after giving birth as teenagers revealed they regarded teenage pregnancy as a protective factor, because of some of the positive outcomes and thus were resilient. Nevertheless, they stressed the need for unrelenting social support networks even though they were now independent.

Whilst individual (personal skills & and acceptance of change) and contextual (feeling of belonging & support in community) resilience resources are important, relational resilience resources in form of family and partner support may be a more protective factor against prenatal depression and a better mediator for childhood traumatic experiences and prenatal depression.

This may be because most childhood traumatic experiences are family or relationship related (Howell et al., 2020). Social support especially from partners, families, peers, the church, and teachers is a resilience factor for teenage mothers, helping them cope with their new role as parents and even as students (Malindi, 2018). Teenage mothers may have lower social support than teenagers that are not mothers and adult women (Verzemnieks, 1999 as cited in Kleiber et al., 2013). This is because the amount of support given is dependent on how their pregnancy affects their relationships (Gbogbo, 2020). Similarly, in communities where mothers are held responsible and faulted for their daughter's pregnancy (Studies etal., 2010) they may not be willing to support the teenage mothers.

Substance abuse is quite common among pregnant teenagers with a history of child trauma. Studies have shown pregnant teenagers with a history of abuse or undergoing intimate partner violence are more likely to abuse substances especially tobacco (Tung et al., 2020; McGuigan, 2018). Being less resilient, they use substances to help them deal with their emotions and the challenges (Lopez et al., 2011) that came with being a young mother like financial distress, stigma in the presence of inadequate social support. However, for a pregnant teenager with high resilience, pregnancy may be an opportunity to change for the better by becoming more responsible and abandoning their destructive and unhealthy lifestyles (Lévesque & Chamberland, 2016). For example, those with a history of substance abuse may decide to stop so as not to affect the wellbeing of their children nor for them to do the same once grown (Sheridan, 2018).

Abortion is considered the main result of teenage pregnancy, (Guo et al., 2019) and is more likely among pregnant teenagers with a history of childhood trauma. For instance if the teenage pregnancy was as a result of sexual abuse, the mother may abort so as not to be

reminded of the incidence. (Ngonzi et al., 2016) found complications due to abortion like post-abortion septic shock and haemorrhage were the cause of 10.8 % of maternal deaths in their study. High resilience is therefore evident in pregnant teenagers that decide to keep their babies despite having experienced abuse from their parents. However, one of the major reasons pregnant teenagers may decide to keep their baby instead of opting for abortion is the acceptance and social support from family and community (Sriyasak et al., 2016).

Support from one caregiver is a protective factor enough against effects of abuse from another. For example, much as child maltreatment is common in teenage mothers and four times greater in those that have a history of abuse, those that received social support from their mothers were able to break the cycle of maltreatment (Bartlett & Easterbrooks, 2012). Pregnant teenagers considered resilient are those regardless of having experienced childhood abuse and neglect by their parents refuse to be perpetrators of maltreatment. They likewise cut off contact and distance themselves from their dysfunctional families to break the cycle of maltreatment (Easterbrooks et al., 2011).

Childhood traumatic experiences may predispose a pregnant teenager to other future traumas. Their resilience may be weakened by past trauma, making it difficult for them to weather through other traumatic events. For instance, (McGuigan, 2020) found that trauma from intimate partner violence may contribute to childbirth trauma. Teenage mothers experiencing abuse from partners may have a premature birth, have babies with low birth weight and health issues.

Key Findings

From the literature reviewed, most pregnant teenagers have experienced a wide range of traumatic events including neglect and abuse (physical, sexual and emotional). These may have predisposed them to getting pregnant at a young age and also affected their resilience. Therefore, with low resilience a pregnant teenager is susceptible to developing depression during pregnancy and not just after childbirth. This is especially true if the pregnant teenager is in a society where teenage pregnancy is seen as a disgrace.

Gaps in Literature

Much as different studies have looked at trauma and teenage pregnancy, their central focus has been on Intimate Partner Violence (IPV) and Child Sexual Abuse (CSA) in isolation of other traumatic events a pregnant teenager might have experienced. In Uganda, studies on teenage pregnancy and motherhood cover topics such as service uptake (ANC and Family Planning), physical adverse outcomes like fistula, low birth weights, preterm and stillbirths with very scanty or no literature on the resilience and psychological wellbeing of pregnant teenagers. Also, most of the research on teenage pregnancy and motherhood has been done among school going adolescent mothers and is qualitative, hence difficulty in generalizing findings. Finally, in regards to maternal depression, majority of studies concentrate on postpartum depression with less literature on antenatal depression. Therefore, with this study, the researcher seeks to extend on the literature by filling the above gaps.

Hypotheses

The study was tested on the following hypotheses;

1. There is a significant relationship between childhood traumatic experiences and resilience.

2. There is a significant relationship between childhood traumatic experiences and depression.

3. There is a significant relationship between resilience and depression.

4. Resilience mediates the relationship between childhood traumatic experiences and depression.

Chapter Three

Methods

This chapter shows the methodological approach used in line with the study objectives. It therefore presents the study design, population, sample size, sample strategy, inclusion criteria, instrument, procedure, quality control, data management and analysis, and finally the limitations related to the study.

Study Design

This study was quantitative in nature to allow the generalisation of the findings since most studies about pregnant teenagers are qualitative. A cross sectional approach and correlational design was used to establish the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers.

Study Population

The participants for this study were first time pregnant teenagers, ages 14 -19 years. Twenty five percent (25%) pregnancies in Uganda are to teenagers ages 15 - 19 years. (Uganda Bureau of Statistics, 2016).

Study Setting

The study was conducted at Kisenyi Health Centre IV in Central division in Kampala district. Kisenyi is a facility of Kampala Capital City (KCCA) and was selected because its antenatal clinic receives the highest numbers of pregnant teenagers in Kampala. Data on the District Health Information Software 2 (DHIS2) for the ANC1 indicator 2021, shows that the monthly average number of pregnant girls received at Kisenyi Health Centre IV monthly is 129. It was also, selected because it is located in one of Kampala's busiest slums, and has the 'Muvubuka Agunjuse' Initiative for Adolescent Reproductive Health.

Sample Size

Using G*Power Version 3.1.9.7 (Faul, Erdfelder, Lang, & Buchner, 2009), a priori power analysis was done with a power of 0.95, alpha of 0.05 and an effect size of 0.3 (Howell et al., 2020), a sample of 134 pregnant teenagers was deemed sufficient. The effect size was adapted because of the similarity in objectives of the current study and that of Howell et al. (2020). It is however important to note that differences in the characteristics of the populations might influence the findings.

Sample Strategy

A purposive sampling technique was used in selecting pregnant teenagers at Kisenyi Health Centre IV because of the sensitivity of the study. Participants were selected based on characteristics relevant to the purpose of the study. The researcher recruited every pregnant teenager meeting the inclusion criteria and was willing to participate, in waiting for or after receiving antenatal services at Kisenyi Health Center IV with the help of the midwife in-charge.

Inclusion Criteria

To be included in the study, one had to be a first-time pregnant teenager, aged 13 -19 years, receiving antenatal services at Kisenyi Health Centre IV, able to speak/write English and /or Luganda and willing/able to participate in the study.

Exclusion Criteria

Pregnant teenage girls below 13 years or women above 19 years were excluded from the studied. Pregnant teenagers that were not first-time mothers or teenage girls that were not currently pregnant were also excluded from the study. Pregnant teenagers that were not mentally or physically well enough to participate were excluded from the study.

Instruments and Measures

Data for the study was collected shortly after ethical approvals and the instruments below were used. Structured researcher administered questionnaires were used for data collection to ensure the accuracy of data collected. This is mainly because some of the pregnant teenagers were weary or found difficulty interpreting the questionnaire items as most had dropped out of school early or had struggles. The questionnaires consisted of five sections (A, B, C, and D). Section A: The demographic information of the respondents had their age, religion, marital status, education level at the time of pregnancy, occupational status, primary source of support and trimester. Section B: Childhood traumatic experiences was measured using the Childhood Trauma Questionnaire (CTQ) with 28 items. Section C: Resilience among pregnant teenagers was measured using the Connor-Davidson Resilience Scale 10-item (CD-RISC-10). Section D: Depression among pregnant teenagers was measured using the Edinburgh Postnatal Depression Scale (EPDS) with 10 items.

Childhood Traumatic Questionnaire (CTQ)

Childhood traumatic experiences was measured using the Childhood Trauma Questionnaire (CTQ; Bernstein and Fink, 1998). The CTQ was developed as a screening tool for histories of abuse and neglect. Participants answer according to a five-point Likert scale ranging from “never” = 1 to “very often” = 5, producing scores of 5 to 25 for each trauma subscale. The CTQ compiles subscale scores for emotional abuse, physical abuse, sexual abuse, physical neglect, and emotional neglect. Guided by the scores, the severity of each type of abuse can be regarded as; emotional abuse: none or minimal=5-8, low to moderate=9-12, moderate to severe=13-15, severe to extreme=16+; physical abuse: none or minimal =5-7, low to moderate =8-9, moderate to severe=10-12, severe to extreme=13+; sexual Abuse: none or minimal=5, low

to moderate =6-7, moderate to severe=8-12, severe to extreme=13+; emotional neglect: none or minimal =5-9, low to moderate =10-14, moderate to severe=15-17, severe to extreme=18+; physical neglect: none or minimal =5-7, low to moderate =8-9, moderate to severe=10-12, severe to extreme=13+.. In a community sample, the internal consistency if the CTQ was found to be 0.91, with Alpha coefficients for the five subscales as; Physical Neglect (.58), Physical Abuse (.69), Emotional Abuse (.83), Emotional Neglect (.85), and Sexual Abuse (.94) (Scher et al., 2001). The CTQ has also been used in populations like, United States of America (Sexton et al., 2015), Canada (Madigan et al., 2012; Paivio & Cramer, 2004; Madigan et al., 2014), China (Tian et al., 2020) and Nigeria (Essien et al., 2018). For the current study, the internal consistency was .85, and for the subscales; physical neglect (.61), emotional abuse (.80), emotional neglect (.70), physical abuse (.81) and sexual abuse (.90).

Connor-Davidson Resilience Scale 10-item (CD-RISC-10)

Resilience was measured using the Connor-Davidson Resilience Scale 10-item (CD-RISC-10; Jonathan R.T Davidson and Kathryn M. Connor) a shortened version of the original 25 item CD-RISC. Possible responses range from: 0 – Not true at all, 1 – Rarely true, 2 – Sometimes true, 3 – Often true, 4 – True nearly all the time. Each item is rated on a five-point scale (0 = not at all true to 4 = true nearly all the time). The total score ranges from 0 to 40 and are calculated by summing all 10 items. A higher score (20-40) represents higher levels of resilience while a lower score (0-19) represents lower levels of resilience. For the different versions of the CD-RISC, the 10-item measure has been found to be the best at measuring resilience. For example, a study on the validity and reliability of the CD-RISC in competitive sport found the CD-RISC 10 to have a Cronbach's alpha of .87, and it was the version with the strongest correlations with the outcome variables. The CD-RISC has further been used to

measure resilience of teenage mothers in Peru (Carroll et al., 2021), recent postpartum women (Sexton et al., 2015) and of patients with axial spondyloarthritis (axSpA) in Singapore, with a Cronbach's alpha of .94 (Heng et al., 2019). For the current study, the internal consistency was .87.

Edinburgh Postnatal Depression Scale (EPDS)

Depression was measured using the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987), the most used screening tool for maternal depression (Martin & Redshaw, 2018). It consists of 10 items each defined by a series of symptoms. Each item is scored on a scale of 0 (absent) to 3 (severe). A maximum score of 30 with a score of 10 or greater suggests the presence of depression. In developing the EPDS, it was found that a cut-off point of ≥13 gave 85% sensitivity and 77% specificity, and a general positive predictive value of and 83% (Cox et al., 1987). Also, a validation study of the EPDS among teenage mothers, found the Cronbach alpha coefficient to be .88 (Logsdon et al., 2009). The EPDS has also been used in other studies among teenage mothers in America (Meltzer-Brody et al., 2013), Thailand (Jantasin et al., 2020), South Africa (Govender et al., 2020), Rwanda (Niyonsenga & Mutabaruka, 2020), among others. For the current study, the internal consistency was .87.

Procedure

Following study approval by the Makerere University School of Psychology Higher Degrees Committee, the proposal was submitted for ethical review and approval by the Makerere University School of Health Sciences Research and Ethics Committee. Subsequently, the proposal was submitted to the Uganda National Council for Science and Technology (UNCST) for the final mandatory approval. The administrative letters granting permission for the study to be conducted were then presented to the public health office at KCCA and the participating

Health Facility for the final clearance to contact potential participants. The researcher worked closely with Antenatal Clinic Officer In-Charge and identified potential participants, shared information about the study and recruited participants meeting the above inclusion criteria. Participants that met the inclusion criteria and consented were presented with questionnaires, that were collected after completion and participants thanked. Collection of data took approximately two months

Ethical Considerations

The research proposal was submitted to the Department of Mental Health and Community Psychology research committee, School of Psychology, and the Internal Review Board (IRB) of Makerere University School of Health Sciences Research and Ethics Committee for ethical approval (MAKSHSREC-2022-255). Administration approval from KCCA and the health facility was also sought before data collection. The researcher ensured that participants were informed of the purpose of the study and that their information and identities were kept private and confidential. Informed consent was sought from all participants before the researcher collected data. This applied to even participants below 18 years since pregnant teenagers are assumed to be competent, able to fully understand, and have capability to make decisions regarding their participation in the study (WHO, 2022b). To further ensure the safety of participants and all involved in collecting data, the researcher adhered to the Standard Operating Procedures (SOPs) by the Ministry of Health in preventing the spread of COVID-19. The health facility had trained counsellors that provide counselling services to mothers throughout the week. Therefore, participants that were distressed as a result of the study were immediately referred to the counsellors for further assistance.

Data Management

The researcher ensured data quality by confirming that participants understood items on the questionnaire, and all completed questionnaires were checked and cleaned for accuracy of information. Research assistants were also be trained on the proper ways of collecting data. The researcher also prioritized the protection and safety of data collected. All completed questionnaires were stored securely in locked file cabinets until data analysis. After the end of data collection, questionnaires were coded, scored according to the selected measures and analyzed.

Data Analysis

Using the Statistical Package for Social Sciences (SPSS version 25), the researcher analyzed the data collected. Descriptive statistics (frequencies and percentages) were run on all participants' information including age, marital status, trimester, education level. Pearson correlation coefficient was used to analyze; Hypothesis 1 – 'there is a significant relationship between childhood traumatic experiences and resilience, hypothesis 2 – there is a significant relationship between childhood traumatic experiences and depression and hypothesis 3 – there is a significant relationship between resilience and depression among pregnant teenagers. PROCESS (Macro version 4) for SPSS was used to analyze hypothesis 4 – resilience mediates the relationship between childhood traumatic experiences and depression among pregnant teenagers.

Chapter Four

Results

This chapter gives a detailed description of results based on the study objectives and hypotheses. The different sections show the social demographic characteristics of pregnant teenagers, the relationships between childhood traumatic experiences and resilience; childhood traumatic experiences and depression; resilience and depression and lastly, the mediating role of resilience on the relationship between childhood traumatic experiences and depression.

Table 4.1

Social Demographics of Pregnant Teenagers

Characteristics	Frequency (n)	Percent (%)
Age		
14	1	.7
15	6	4.4
16	8	5.9
17	14	10.3
18	48	35.3
19	59	43.4
Religion		
Protestant	24	17.6
Catholic	41	30.1
Moslem	45	33.1
Other	26	19.1
Education level at time of pregnancy		
Primary	57	41.9
Secondary	77	56.6
Tertiary	2	1.5
Marital Status		
Single	52	38.2
Married	81	59.6
Separated	3	2.2
Occupation Status		
Student	11	8.1
Working	37	27.2
Not Working	88	64.7
Trimester		
First (1-12 weeks)	12	8.8
Second (13-28 weeks)	63	46.3
Third (29-40 weeks)	61	44.9
Primary source of support		
Self	8	5.9
Partner	86	63.2
Parents/Relatives	36	26.5
Partner's Family	5	3.7
Other	1	.7

Note. *n=136*

The sample for this study included 136 pregnant teenagers. In terms of characteristics of the sample, their age range was 14 -19 years, with majority being 18 to 19 years, (78.68%). The sample was diverse in regard to religion, including those who identified as, Protestant (17.6%), Catholic (30.1%), Moslem (33.1%), or as belonging to other religions (19.1%). At the time of pregnancy, the level of education for most respondents was, primary (41.9%) and secondary (56.6%), with only 1.5% being at the tertiary level. Regarding marital status, (59.6%) of the respondents identified as married, or staying with their spouse, while 38.2% were single and 2.2% separated from their spouses. Majority of the respondents were in the second trimester (46.3%), followed by those in the third trimester (44.9%) and the lowest number in their first trimester (8.8%). For occupation status, (8.1%) were still students, (27.2%) were working and (64.7%) were not working. Multiple sources of the support were present in the sample; self (5.9%), partner (63.2%), parents/relatives (26.5%), partner's family (3.7%) and other (0.7%).

Table 4.2

Prevalence and Descriptive Statistics of Key Variables

Variable	n(%)	M	SD	Minimum	Maximum
1. Childhood traumatic experiences					
Physical Neglect	76(56)	9.48	4.30	5.00	22.00
Physical Abuse	71(52.2)	10.05	5.90	5.00	25.00
Emotional Neglect	59(43.4)	10.16	4.81	5.00	25.00
Emotional Abuse	93(68.4)	12.71	6.20	5.00	25.00
Sexual Abuse	64(47.1)	9.60	6.61	5.00	25.00
2. Resilience		23.05	8.46	3.00	39.00
Low	45(33.1)				
High	91(67)				
3. Depression		11.60	6.72	.00	26.00
Absent	56(41.2)				
Present	80(59)				

Note. *n =136*

In regards to childhood traumatic experiences, it is apparent from the table that emotional abuse was the most prevalent as reported by the pregnant teenagers in this study. 68.4% had experienced emotional abuse with the mean value of 6.20 and most checked off item being "people in my family said hurtful or insulting things to me". 56% had experienced physical neglect, with the mean value of 9.48 falling under the scale of low to moderate. 52.2% had experienced physical abuse with the mean value of 10.05 and most checked off items being "I had to wear dirty clothes". 43.4% had experienced emotional neglect with the mean value of 10.16 and most checked off item being "My family was a source of strength and support". Lastly, 64% had experienced sexual abuse with the mean value of 9.60 and all items being

marked off similarly. 67% of the pregnant teenagers reported high resilience with the mean value being 23.05 above the cut-off of 20 that indicates high resilience. The prevalence of depression in the sample was 59%, with the mean value being 11.6 which is above the cut-off of 10 that indicates presence of depression. 39 of the pregnant teenagers indicated having had thoughts of harming themselves.

Table 4.3

Pearson Correlation Coefficients Between Key Variables

Variable	1	2	3	4	5	6	7
1. Emotional Neglect	_						
2. Emotional Abuse		_					
3. Physical Neglect			_				
4. Physical Abuse				_			
5. Sexual Abuse					_		
6. Resilience	- .202*	-.144	-.069	-.004	-.065	_	
7. Depression	.381**	.391**	.232**	.400**	.343**	-.363**	_

**p<.05. **p<.01*

Hypothesis 1. Pearson's Product Moment Correlation Coefficient was used to test H1a which states that, there is a significant relationship between childhood traumatic experiences and resilience among pregnant teenagers. For all the domains measured, results indicated that there is no significant relationship between other childhood traumatic experiences and resilience except for emotional neglect (p = -.202 <.05), that was negative and significant. This shows that an increase in emotional neglect is associated to a decrease in resilience.

Hypothesis 2. Pearson Correlation was used to test H2a which states that, there is a significant relationship between childhood traumatic experiences and depression among pregnant teenagers. As seen in table 4.3, there was a significant relationship between all childhood traumatic experiences assessed and depression, hence the hypothesis was supported.

Hypothesis 3. Pearson Correlation was used to test H3a which states that, there is a significant relationship between depression and resilience among pregnant teenagers. Results indicated that there is a significant negative relationship between depression and resilience, (r = -.363, p [.000] <.01). This implies that as depressive symptoms increase in pregnant teenagers, their resilience decreases.

Table 4.4

Mediating Role of Resilience on The Relationship Between Emotional Neglect and Depression

Res (M)					*Dep (Y)*			
	B	s.e	p	95% CI	B	s.e	p	95% CI
constant	26.55	1.67	.00	23.25, 29.86	12.50	2.02	.0000	8.49, 16.51
EN (X)	-.35	.15	.02	-.65, -.06	.45	.11	.0001	.23, .66
Res (M)	--	--	--	--	-.24	.06	.0002	-.36, -.12
R-sq	.20				.23			
F-ratio	5.68				19.91			

Test of Mediation				
	B	s.e	BootSE	95% CI
Direct effect	.45	.11	--	.23, .66
Indirect effect	.08	--	.04	.01, .18

Note. b= beta coefficients; p=level of significance; se=standard error; ci=confidence interval. X – predictor variable, M – mediator variable, Y – outcome variable. Effects are significant when the upper and lower 95% confidence intervals (CI) do not contain zero.

Hypothesis 4. PROCESS was used to test H4a, which states that resilience mediates the relationship between childhood traumatic experiences and depression among pregnant teenagers. Emotional neglect was tested as the predictor variable since the other childhood traumas were not significantly related with resilience (see table 4.4).

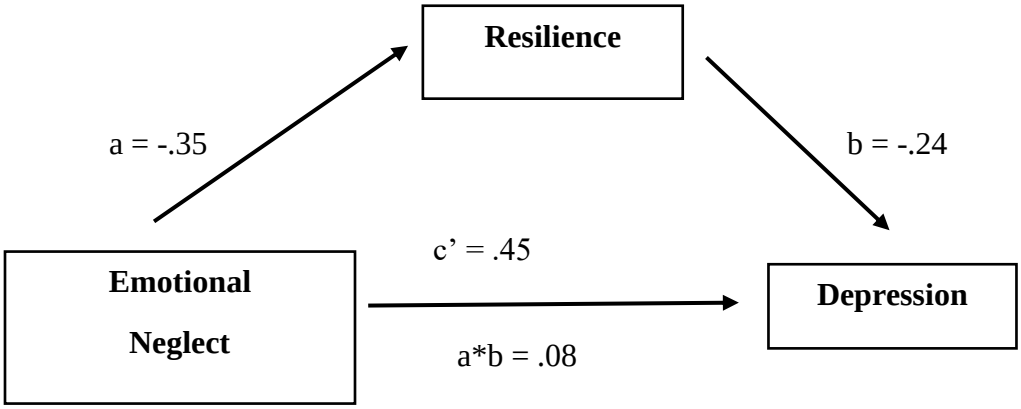

Figure 2: *Mediation effect of resilience on relationship between emotional neglect and depression.*

The path (direct effect) from emotional neglect to resilience is negative and significant (b = -.35, s.e = .15, p = .02) suggesting that an increase in emotional neglect leads to a decrease in resilience. The direct effect of resilience on depression is negative and significant (b = -.24, s.e = .06, p = .0002), indicating that an increase in resilience leads to a decrease in depression. The direct effect of emotional neglect on depression is positive and significant (b = .45, s.e = .11, p = .0001), indicating that respondents that scored high on emotional neglect are more likely to have depression than those that scored lower on the measure. The indirect effect of emotional neglect on depression (b = .08, s.e = .04, 95% CI = .01, .18) is statistically significant. This implies that resilience mediates the relationship between emotional neglect and depression.

Chapter Five

Discussion, Conclusions and Recommendations

This chapter presents the discussion of findings in relation to the previous studies' findings, that is, description of key variables and the relationship between; childhood traumatic experiences and depression, childhood traumatic experiences and resilience, resilience and depression and the mediating role of resilience on the relationship between childhood traumatic experiences and depression among pregnant teenagers., The chapter also presents the conclusions drawn from the study, recommendations, policy formulation as well as areas of further studies.

Descriptive Statistics of the Sample

The sample for this study included 136 pregnant teenagers, with majority being 18 to 19 years, 79%. Pregnant teenagers that identified as married were close to 60%, although this did not necessarily mean legal marriage but included cohabiting which is regarded as marriage by many in this context. Our results are similar to those in a study among pregnant teenagers in Brazil that showed majority lived with their spouses (Ribeiro et al., 2019). However, a study among the same population in Nigeria showed that more girls identified as single than married (Olajubu et al., 2021). Most (65%) of the pregnant girls in the current study were not working just like the majority in the study by Olajubu et al. (2021) had no source of income.

Different childhood traumatic experiences were assessed in this study and overall, 68.4% pregnant teenagers experienced emotional abuse, 52.2% experienced physical abuse, 56% experienced physical neglect, 47.1% experienced sexual abuse and 43.4% experienced emotional neglect. However, there was a possibility that 65% of the pregnant teenagers underreported maltreatment as guided by the minimisation or denial items of the childhood trauma

questionnaire (Bernstein & Fink, 1998). Still, our results of childhood traumatic experiences can be compared to those in a study by Madigan et al., (2012)'s, where among the pregnant teenagers, 69.2% had experienced emotional abuse, 52.9% physical abuse, 51% sexual abuse, and 88.2% at least one form of neglect (either emotional or physical). Contrary, pregnant teenagers in Brazil (Ribeiro et al., 2019) reported fewer childhood traumatic experiences - 14.3% emotional neglect; 12.6% physical neglect; 13.9% emotional abuse; 10.4% physical abuse, and 7.1% sexual abuse.

In regards to resilience, (67%) of the pregnant girls in the present study were resilient while, (33.1%) were not. Similar studies (Mohd et al., 2021; Carroll et al., 2021), also found pregnant teenagers/ mothers to be more resilient than not. However, this is contrary to findings by Olajubu et al. (2021), where majority of the pregnant teenagers had low resilience.

Still, despite most of the pregnant teenagers in this study scoring high on resilience, majority had depression (59%), while only (41.2%) reported no depressive symptoms. The high levels of depressive symptoms reported were to an extent contrary to findings in a study by Ribeiro et al. (2019) and Meltzer-Brody et al. (2013) that had larger samples yet only 29.2% and 20.1% of the pregnant teenagers had depressive symptoms, respectively. Nevertheless, this could be explained by the different settings.

Childhood Traumatic Experiences and Depression among Pregnant Teenagers

The current study confirmed the relationship between childhood traumatic experiences and depression among pregnant teenagers. The result was also true for all the childhood traumas that were assessed; physical abuse, emotional abuse, sexual abuse, physical neglect and emotional neglect hence the hypothesis was supported. The findings were greatly consistent with previous studies on associations between childhood trauma and depression (Meltzer-Brody et al.,

2013; Young-Wolff et al., 2019; Infurna, et al., 2016; Mandelli etal., 2015**;** Humphreys et al., 2020; Choi et al., 2015**;** Tzilos et al., 2012; Govender et al., 2020). Still, for most of these studies, emotional abuse and neglect were found to have stronger relationships with depression than other childhood traumas (Infurna, et al., 2016**;** Mandelli etal., 2015**;** Humphreys et al., 2020; Choi et al., 2015).

While comparing psychosocial conditions in pregnant and non pregnant teenagers, Freitas et al. (2008) found that pregnant teenagers reported more cases of sexual, physical and emotional abuse than non pregnant teenagers and were even two times more likely to have depression and suicidality. The impact of child abuse on late adolescence depression was found to be magnified by teenage pregnancy (Russotti, 2020), with past sexual and physical abuse determining the severity of depression in pregnant teenagers (Tzilos et al., 2012). This is because effects from these traumatic experiences are intensified by challenges of teenage pregnancy such as stigma for being pregnant out of wedlock, inadequate finances among others (Freed & SmithBattle, 2016). Therefore, the frequency of a pregnant teenager's exposure to childhood traumatic experiences may determine the extent of their vulnerability to antenatal depression. For example, Bilginer et al. (2020) found that teenage mothers in their study reported fewer child traumatic experiences and consequently scored lower on depression. Moreover, the prevalence of depression assessed in the current cross-sectional study could actually reflect the history of childhood trauma and not necessarily the pregnancy experience. This might also explain the discrepancy between current high resilience and at the same time high depressive symptoms in the next section.

Antenatal depression in a study by Meltzer-Brody et al. (2013) was explained by perceived maternal stress and history of trauma with the latter predisposing pregnant teenagers to

antenatal depression five times more. Growing up in a dysfunctional home where for example a pregnant teenager was a victim or witnessed domestic violence increases their likelihood of developing depression (Carroll et al., 2021).

Resilience and Depression among Pregnant Teenagers

The present study extends the literature by verifying the relationship between resilience and depression among pregnant teenagers hence supporting the hypothesis. The results indicated a significant negative relationship between depression and resilience. This implies that as depressive symptoms increase in pregnant teenagers, their resilience decreases. This finding is in line with Zhang et al. (2020) who also found resilience to be strongly and negatively associated with prenatal depression and for Hu et al. (2015) that found trait resilience to be negatively related to depression**.**

Most of the pregnant teenagers in the present study scored high on depressive symptoms and one of the main factors that affects the resilience and leads to depression among pregnant teenagers is an unplanned pregnancy. Pregnant teenagers with unplanned pregnancies are six times more likely to develop depression than those with planned pregnancies (Muso Fubam et al., 2019). Abortion is considered the main result of teenage pregnancy, especially for an unplanned pregnancy and among unwed pregnant teenagers for fear of stigma (Guo et al., 2019). In some occasions, pregnant teenagers are forced to abort against their will by their caregivers damaging their mental health (Clarke, 2015). In fact, 37.8% of women with antenatal depression have a history of abortion (Sahile et al., 2017) and this may be greater in pregnant teenagers. Some pregnant teenagers in the current study may have kept the pregnancy against their will, especially is it was as a result of sexual abuse, hence explaining the high cases of depression.

Depression is a major source of morbidity during pregnancy. Symptoms of depression are common in the second and third trimester and lesser in the first trimester (Martínez-Paredes & Jácome-Pérez, 2019). This may also explain the high rates of depression among the pregnant teenagers in the current study since most of them were in the second (46.3%) and third trimester (44.9%), although the researcher did not cross tabulate pregnancy trimester and depression. Depression is also common among unwed pregnant teenagers possibly due to fears of being rejected by their families and communities. However, a spouse's willingness to take responsibility can be a buffering factor against depression since it may help the pregnant teenager accept the pregnancy more positively (Muso Fubam et al., 2019). Nevertheless, depression was high despite the fact that close to 60% of the pregnant teenagers in the present study were living with their spouses and still, majority reported their partner as being the primary source of support.

Depression may persist among pregnant teenagers to the early years of being a parent even with the presence of support due to dissatisfaction with support especially that from the father of the child (Easterbrooks et al., 2016). Also, having an adolescent spouse may contribute to low resilience in pregnant teenagers (Salazar-Pousada et al., 2010). This may be because they do not provide support that is considered helpful by pregnant teenagers like; constant support with routine activities, information and advice, emotional support, resources and material goods (Edmonds, et al 2011). Most pregnant teenagers with depression report a lack of social support from their families and abandonment by their partners once they became pregnant (Kumar et al., 2017). The risk of discrimination and stigma is greater for pregnant teenagers with no support from their spouses increasing the risk of them developing depression (Muso Fubam et al., 2019).

Approximately 38% of the pregnant teenagers in this study reported to be single. Being single at the time of pregnancy or having relationship conflicts significantly increases the risk of antenatal depression by 4.17 times due to lack of or inadequate support (Dadi et al., 2020). Therefore, having support from a spouse can protect a pregnant teenager from depression (Govender et al., 2020). Pregnant teenagers living with their spouses and spouse's family are more resilient and have lower chances of developing depression than those that live with their families (Bilginer et al., 2020). Depression among pregnant teenagers is greater than in adults with differing rates from 16 – 50%. These rates are especially higher in pregnant teenagers with no social support and experiencing stressful life events (Easterbrooks et al., 2016; Dadi et al., 2020). The lack of social support is not only related to depression but also, its severity in teenage mothers. When abandoned during pregnancy and after delivering these teenage mothers have a higher risk of depression (Boobpamala et al., 2019). The level of support from the partner in this sample needs to be taken with a bit of caution since, spousal support during pregnancy for many pregnant teenagers is often used by men to ensure they escape legal consequences associated with teenage pregnancy. In that case the protective nature of such support to the pregnant teenagers may not be perceived as such.

Being young is a risk factor for depression during pregnancy (Martínez-Paredes & Jácome-Pérez, 2019). This may be due to ill preparedness and uncertainties regarding pregnancy, childbirth and motherhood that are more common in pregnant teenagers than in pregnant adults (Atuyambe, 2008) affecting their mental health and resilience (Mangeli et al., 2017). For example, Sahile et al. (2017) found that 27.7% of mothers with depression fear complications due to pregnancy. Whilst the fear of dying due to childbirth is common in all mothers regardless of age, it is even greater among pregnant teenagers (Anderson et al., 2020). This fear may be

justified seeing that the mortality rate for teenage mothers in Harron et al. (2020)'s study is 4.38 times greater than that of adult mothers. This rate is even higher in Uganda with 368 deaths per 100,000 live births and 17.2% of female maternal deaths occurring in mothers aged 15-19 years (Uganda Bureau of Statistics, 2016). This fear of childbirth may however be lessened by social support. Fear (anxiety) is generally associated with or comorbid with depression although the current study did not measure prenatal anxiety.

Results of this study were contrary to those in a study by Van Lieshout et al. (2020), where the rates of major depressive disorder among teenage mothers were low. However, this was attributed to the fact that these teenage mothers may have received treatment for depression alongside support. Likewise, Lee et al. (2021) found that teenage mothers from low-income families had lower rates of depression than non-teenage mothers. Whilst they didn't measure for resilience, they implied that the lower levels of depression may be explained by the resilience of the teenage mothers.

Childhood Traumatic Experiences and Resilience among Pregnant Teenagers

The researcher hypothesised a significant relationship between childhood traumatic experiences and resilience. For the childhood traumas assessed, emotional neglect was significantly related with resilience (r= -.202*, p (.019) <.05) unlike the other traumas - physical abuse, sexual abuse, emotional abuse and physical. The significant and negative association between emotional neglect and resilience indicated that an increase in emotional neglect led to a decrease in resilience. Emotional neglect implies inattentiveness to a child's emotional and development needs (Lawler & Talbot, 2012, p. 460-466), where their affectional needs are often overlooked, ignored, refuted, or unacknowledged by a parent or caretaker (Ludwig, & Rostain, 2009, p. 103-118). In this regard, the results were consistent with Lee, et al., (2018), that found

emotional neglect, an often ignored type of childhood trauma, to have a very significant effect on one's resilience.

As seen in a multivariate meta-analysis by Watters et al. (2021), trauma and resilience were found to have a significant negative relationship indicating that increased trauma was linked to low resilience. A relationship between experience of early trauma and early pregnancy was observed by Christofides et al. (2014). They further assert that cumulative traumatic events are more important than a single event. This implies that the more childhood traumatic events a pregnant teenager experienced the lower their resilience.

However, Young-Wolff et al. (2019), found that women were more likely to have high resilience during pregnancy despite having experienced more than one childhood traumatic event. Likewise, in this current study, 67% of the pregnant teenagers scored high on resilience compared to the 33% that had low resilience. This may explain why, much as teenage pregnancy is a risk with social and health implications, it is regarded as a buffering factor (Pfeiffer et al., 2017) especially since most female teenagers that have experienced childhood trauma see teenage pregnancy as something positive (Shreffler et al., 2021). A follow up study by Collins (2010) of mothers, seven years after giving birth as teenagers revealed they regarded teenage pregnancy as a protective factor, because of some of the positive outcomes and thus were resilient. Nevertheless, they stressed the need for unrelenting social support networks.

Studies have shown pregnant teenagers with a history of abuse or undergoing intimate partner violence are more likely to abuse substances especially tobacco (Tung et al., 2020; McGuigan, 2018). Being less resilient, they use substances to help them deal with their emotions and challenges (Lopez et al., 2011). As well, abortion is considered the main result of teenage

pregnancy, (Guo et al., 2019) and is more likely among those with a history of childhood trauma. High resilience is therefore evident in pregnant teenagers that decide to keep their babies despite having experienced abuse from their parents or caretakers. Nevertheless, one of the major reasons pregnant teenagers may decide to keep their baby instead of opting for abortion is the acceptance and social support from family and community (Sriyasak et al., 2016).

Resilience is higher in pregnant teenagers with no history childhood trauma since having a good childhood experience is a resilience factor (Freed & SmithBattle, 2016) and also, support from one caregiver a protective factor against effects of abuse from another. For example, much as child maltreatment is common in teenage mothers and four times greater in those that have a history of abuse, those that received social support from their mothers were able to break the cycle of maltreatment (Bartlett & Easterbrooks, 2012). Pregnant teenagers considered resilient are those regardless of having experienced childhood abuse and neglect by their parents refuse to be perpetrators of maltreatment. (Easterbrooks et al., 2011).

Childhood traumatic experiences may predispose a pregnant teenager to other future traumas. Their resilience may be weakened by past trauma, making it difficult for them to weather through other traumatic events. For instance, McGuigan, (2020) found that trauma from intimate partner violence may contribute to childbirth trauma. Teenage mothers experiencing abuse from partners may have a premature birth, have babies with low birth weight and health issues.

Resilience as a Mediator of Childhood Traumatic Experiences on Depression

The last hypothesis of this study stated that resilience mediates the relationship between childhood traumatic experiences and depression among pregnant teenagers. The direct effects

showed that emotional neglect was a significant predictor to resilience (b = -.35, s.e = .15, p = .02) suggesting that an increase in emotional neglect leads to a decrease in resilience. Emotional neglect was also a significant predictor to depression (b = .45, s.e = .11, p = .0001) indicating that respondents that scored high on emotional neglect were more likely to have depression than those that scored lower on the measure. Resilience was also found to significantly predict depression (b = -.24, s.e = .06, p = .0002), indicating that an increase in resilience leads to a decrease in depression. The indirect effect of emotional neglect on depression (b = .08, s.e = .04, 95% CI = .01, .18) is statistically significant. This implies that resilience mediates the relationship between emotional neglect and depression.

This finding is consistent to a body of research that has established resilience as a mediator for childhood trauma and depression (Carroll et al., 2021; Schulz et al., 2014; Watters et al., 2021; Wingo et al., 2010; Lee et al., 2018). Resilience is defined as the ability to bounce back from adversity, frustration, and misfortune (Ledesma, 2014) or to anticipate, resist, absorb, respond to, adapt to, and recover from a disturbance (Carlson et al., 2012). In this study, resilience was majorly interpreted in two ways; as a buffer or protective factor against depression and, as an outcome following a pregnant teenager's experience of childhood trauma. Whilst individual (personal skills & and acceptance of change) and contextual (feeling of belonging & support in community) resilience resources are important. Relational resilience resources in form of family and partner support may be a more protective factor against prenatal depression and a better mediator for childhood traumatic experiences and prenatal depression. This may be because most childhood traumatic experiences are family or relationship related (Howell et al., 2020).

Resilience was also found to be a partial mediator between childhood household dysfunction like substance use, mental illness in the household, witnessing violence and

postpartum depression (Carroll et al., 2020). Participants with low resilience and severe childhood traumatic experiences in a study by (Sexton et al., 2015) met the criteria for major depressive disorder. However, postpartum depression was absent in participants with high levels of resilience and severe traumatic experiences. This means that regardless of one's experience of childhood traumatic events, having high resilience is likely to reduce their vulnerability to depression. In contrast to the their findings, Easterbrooks et al. (2011) found that teenage mothers that are resilient despite having a history of parental abuse and neglect present with depressive symptoms. This, they say may be explained by the lack of social support. Carroll et al. (2021) also affirms that resilience further mediates the relationship between household dysfunction and postpartum depression among the teenage mothers in their study.

Study Strengths

Amongst other strengths, one to highlight was the population of the study - its diversity in terms of religions, tribe, economic and marital status, among others, that allowed for varying responses; and the size, that allowed for the possible generalization of the findings.

The study design, setting, and even the tools used were a strength in contributing to the reliability of the study findings.

Study Limitations

There was a possible lack of potential depth especially regarding the childhood trauma experienced by the pregnant teenagers since the study was purely quantitative. Nevertheless, the findings project a clear picture of the magnitude of the problem.

Conclusion

This study found high prevalence of depression among pregnant teenagers, 59%, while 67% scored high on resilience. The percentage levels of childhood traumatic experiences were;

56%, 52.2%, 43.4%, 68.4% and, 47.1%% for physical neglect, physical abuse, emotional neglect, emotional abuse and sexual abuse, respectively. This study was also, able to establish the relationship between childhood traumatic experiences, resilience and depression among pregnant teenagers. Findings also showed that resilience was a significant mediator between childhood traumatic experiences and depression. Still, the different forms of childhood trauma experienced by a number of these pregnant teenagers may not only explain their depression but also be the reason for their pregnancies. All this can have or increase risk for negative outcomes for the pregnant teenager such as, increased suicidality, poor birth outcomes like preterm and stillbirths, unsafe abortions, substance use and so on. With the high and ever increasing rates of teenage pregnancies in Uganda, these results, highlight the importance of regarding the different forms of childhood traumatic experiences as risk factors of depression and teenage pregnancy with special focus on the resilience of pregnant teenagers.

Recommendations

The findings in this study are relevant in pointing out the importance of prioritizing the mental health needs of pregnant teenagers. Much as the government of Uganda has tried to deliver youth friendly services to pregnant teenagers by allocating them specific antenatal care days, the current package should be revised to integrate assessment of their psychological wellbeing and suitable interventions be put in place. For example, screening for both antenatal and postpartum depression as well as childhood trauma should be done.

Programmes empowering pregnant teenagers with positive coping and stress management strategies to boost their resilience should be designed and implemented. Spouses, parents or relatives should also be encouraged to offer pregnant teenagers suitable social support.

To the researcher's knowledge, this is the first study of this kind in Kampala and Uganda at large therefore, further research should still be done to assess the extent of childhood traumatic experiences, resilience and depression among pregnant teenagers including a more representative sample of the population for example, including participants from rural settings to compare findings. Further research should be done on the specific role and impact of emotional neglect and abuse to mental health, since current focus is on mainly sexual and physical abuse. Also, future research can employ a mixed methods strategy to further explore childhood traumatic experiences reported by pregnant teenagers and their resilience sources.

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Appendices

Appendix A: IRB Approval Letter (MAKSHSREC-2022-255)

MAKERERE UNIVERSITY
P.O. Box 7072 Kampala, Uganda
E-mail: healthsciences.irb@gmail.com
deanshs@chs.mak.ac.ug
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COLLEGE OF HEALTH SCIENCES
SCHOOL OF HEALTH SCIENCES
OFFICE OF THE DEAN

MAKERERE UNIVERSITY
SCHOOL OF HEALTH SCIENCES
APPROVED
VALID UNTIL
28 APR 2023
RESEARCH & ETHICS COMMITTEE
P. O. BOX 7072, KAMPALA

To: Hope Kirabo

28/04/2022

Makerere University
0701134333

Type: Initial Review

Re: MAKSHSREC-2022-255: Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala, Three, 2022-04-27

I am pleased to inform you that at the **103rd** convened meeting on **22/02/2022**, the Makerere University School of Health Sciences REC, committee meeting, etc voted to approve the above referenced application. Approval of the research is for the period of **28/04/2022** to **28/04/2023.**

As Principal Investigator of the research, you are responsible for fulfilling the following requirements of approval:

1. All co-investigators must be kept informed of the status of the research.
2. Changes, amendments, and addenda to the protocol or the consent form must be submitted to the REC for re-review and approval **prior** to the activation of the changes.
3. Reports of unanticipated problems involving risks to participants or any new information which could change the risk benefit: ratio must be submitted to the REC.
4. Only approved consent forms are to be used in the enrollment of participants. All consent forms signed by participants and/or witnesses should be retained on file. The REC may conduct audits of all study records, and consent documentation may be part of such audits.
5. Continuing review application must be submitted to the REC **eight weeks** prior to the expiration date of **28/04/2023** in order to continue the study beyond the approved period. Failure to submit a continuing review application in a timely fashion may result in suspension or termination of the study.
6. The REC application number assigned to the research should be cited in any correspondence with the REC of record.
7. You are required to register the research protocol with the Uganda National Council for Science and Technology (UNCST) for final clearance to undertake the study in Uganda.

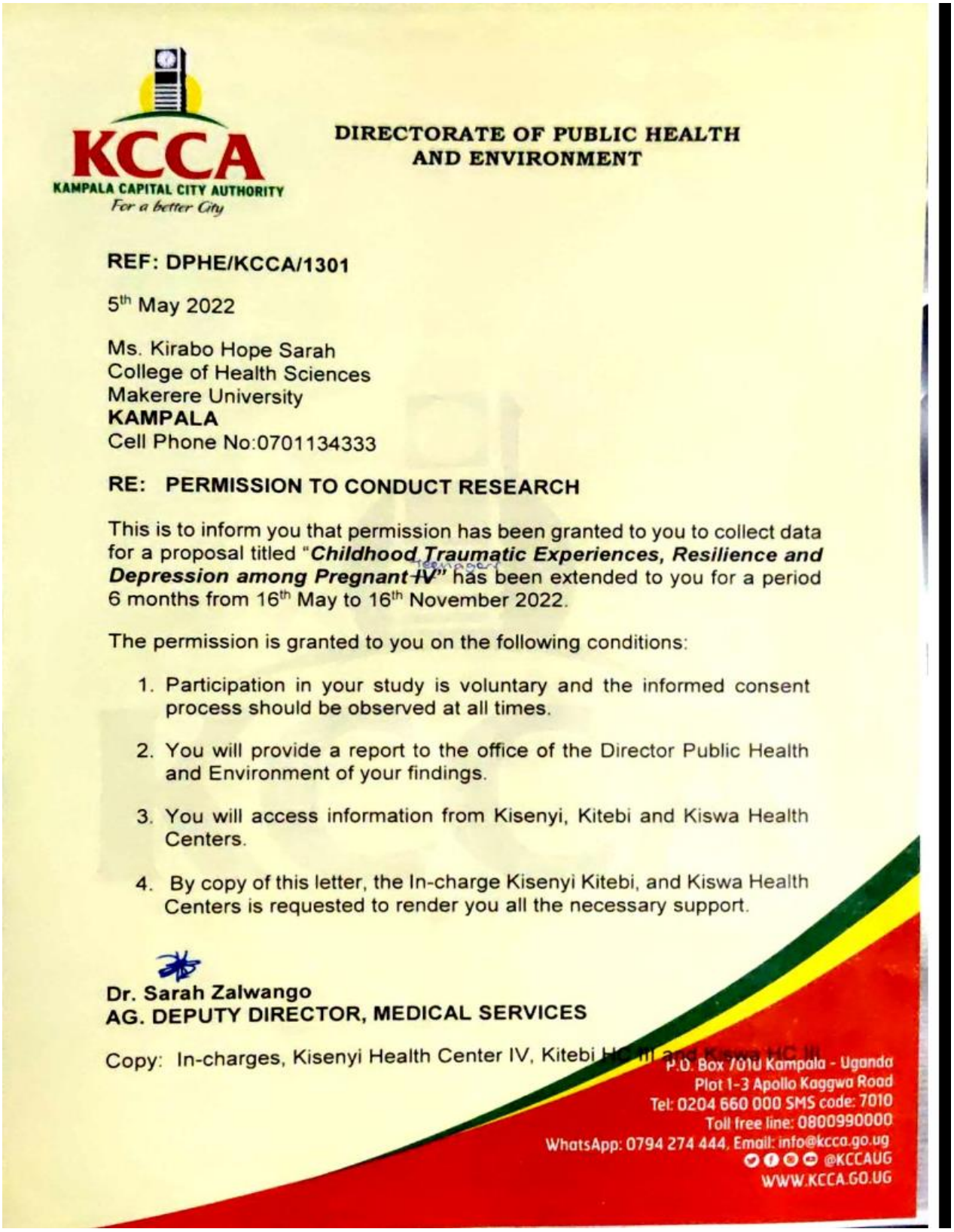
The following is the list of all documents approved in this application by Makerere University School of Health Sciences REC:

No.	Document Title	Language	Version Number	Version Date
1	Protocol	English	Three	2022-04-27
2	Informed Consent forms	English	Two	2022-03-23
3	Informed Consent forms	Luganda	Two	2022-03-23
4	COVID-19 Risk Management	English	PDF	2022-01-27
5	Data collection tools	English	PDF	2022-01-27

Yours Sincerely

Kalidi Rajab
For: Makerere University School of Health Sciences REC

Appendix B: KCCA Approval Letter



KCCA
KAMPALA CAPITAL CITY AUTHORITY
For a better City

DIRECTORATE OF PUBLIC HEALTH AND ENVIRONMENT

REF: DPHE/KCCA/1301

5th May 2022

Ms. Kirabo Hope Sarah
College of Health Sciences
Makerere University
KAMPALA
Cell Phone No:0701134333

RE: PERMISSION TO CONDUCT RESEARCH

This is to inform you that permission has been granted to you to collect data for a proposal titled "***Childhood Traumatic Experiences, Resilience and Depression among Pregnant IV***" has been extended to you for a period 6 months from 16th May to 16th November 2022.

The permission is granted to you on the following conditions:

1. Participation in your study is voluntary and the informed consent process should be observed at all times.
2. You will provide a report to the office of the Director Public Health and Environment of your findings.
3. You will access information from Kisenyi, Kitebi and Kiswa Health Centers.
4. By copy of this letter, the In-charge Kisenyi Kitebi, and Kiswa Health Centers is requested to render you all the necessary support.

Dr. Sarah Zalwango
AG. DEPUTY DIRECTOR, MEDICAL SERVICES

Copy: In-charges, Kisenyi Health Center IV, Kitebi HC III and Kiswa HC III

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Appendix C: IRB Approved Consent Letter (English and Luganda)

MAKERERE UNIVERSITY SCHOOL OF HEALTH SCIENCES RESEARCH AND ETHICS COMMITTEE (MAKSHS-REC)

INFORMED CONSENT FORM TEMPLATE FOR CHILDHOOD TRAUMATIC EXPERIENCES, RESILIENCE AND DEPRESSION AMONG PREGNANT TEENAGERS

Title of the proposed study:
Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala.

Investigators:
Kirabo Hope Sarah

Study sponsor
Self

Background and rationale for the study:
Depression among pregnant girls is high yet the actual prevalence remains unknown. Moreover, the likelihood of a pregnant teenager developing depression is even greater if they experienced child abuse and/neglect – emotional, physical or sexual. This in turn affects their resilience more so if the pregnancy is unplanned and they are faced with stigma. Depression in pregnant teenagers is further associated with negative outcomes such as increased suicidality, poor birth outcomes like preterm and stillbirths, unsafe abortions, substance use and so on. With the increasing rates of teenage pregnancies in Uganda, it is of central importance to assess factors associated with depression, among pregnant teenagers for the right interventions to be put in place.

Purpose:
To assess the relationship between Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala.

Procedures:
Pregnant teenagers attending routine antenatal care at selected health facilities in Kampala will be approached and given information about the study. Girls who meet the inclusion criteria and are willing to participate will be given consent forms. following signing of written consent forms, questionnaires will either be self-administered (those who can read and write) or administered by the researcher.

Who will participate in the study and where the study is going to be conducted from?
Pregnant teenagers attending antenatal care at Kisenyi Health Center IV.

Risks/Discomforts:
There are no serious risks envisioned for participants other than occasional distress some participants might experience when recalling past negative experiences.

Benefits of the research study:

No tangible or material benefits will be given to participants but findings of the study might help teenage girls who might find themselves in similar situations of pregnancy in future.

Cost:
No extra costs will be incurred by any participant since they will be met at their respective antenatal clinics during their scheduled routine visits.

Compensation for participation in the study:
Participants will only be given refreshments. In the unlikely event that a participant is injured during the process of the study, she will be assisted by ANC staff within her antenatal care facility. Additionally, participants who experience serious emotional/psychological distress due to answering study questions will be referred to a counsellor within their respective ANC facility for support.

Reimbursement:
Participants will not be reimbursed. They will be recruited from their usual antenatal clinics where they will be asked to participate in the study by completing questionnaire. Thus, there will be very minimal interference with their routines.

Questions about the study:
Participants who have study related questions can reach the investigator, Kirabo Hope Sarah to answer such questions on; 0701134333, kirabohope1@gmail.com

Questions about participants rights:
Participants who have questions regarding their welfare and rights as research participants can have their questions addressed by the MAKSHSIRB Ag. chairperson Dr. Kalidi Rajab on telephone number +256 776798978 or +256 0200903786)

Research involving the collection of human materials/samples
This research will not involve collection of human materials/samples.

Dissemination of study feedback or study findings and progress of the study
As an academic project, study findings will be compiled into a dissertation and published through Makerere University Online Library. Efforts will also be made to disseminate findings through Conferences and workshops both local and international. Finally, articles will be written and published in internationally recognised peer reviewed journals.

Statement of voluntariness:
Participation in the proposed study is voluntary and participants may join on their own free will. participants also have a right to withdraw from the study at any time without penalty.

Ethical approval of the research study
The study has been approved by Makerere University School of Health Sciences Research and Ethics Committee /IRB) which is an accredited Ugandan based Research and Ethics Committee/IRB.

Confidentiality:

The information that will be collected will be kept anonymous and confidential in accordance with the international and local ethical standards governing research involving humans as research participants. My identity will be concealed and my name will not appear anywhere on the coded forms with the information. The study team will be the only one with the authority to access the collected data. However, the School of Health Sciences Research and Ethics Committee and the Uganda National Council for Science and Technology (UNSCT) may have access to private information that identifies the research participants by name where applicable. The filled questionnaire or any other filled data collection form will be kept under strict lock and key, and information on computers will be kept confidential with password protection respectively. For any further questions, I may contact the Chairperson of the School of Health Sciences Research and Ethics Committee (MakSHSREC) on (+256) +256 776798978 / (+256) 0200903786 or Uganda National Council of Sciences and Technology on Tel: (+256)-041-4705500).

STATEMENT OF CONSENT

..... has described to me what is going to be done, the risks, the benefits involved and my rights regarding this study. I have been informed about the study in which I am voluntarily agreeing to take part. In the use of this information, my identity will be concealed. I am aware that I may withdraw at anytime. I understand that by signing this form, I do not waive any of my legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to participate. A copy of this form will be provided to me.

Name of research participant…….

Age……..

Signature/thumbprint …….

Date (DD/MM/YY)…….

(Witness for illiterate and mentally incapacitated or physically handicapped participants who signs with thumbprint should be provided below)

Name of Witness ……. .

Signature ……...

Date (DD/MM/YY)……...

Name of the person consenting the research participant:……

Signature …… …….

Date (DD/MM/YY)…….....

MAKERERE UNIVERSITY SCHOOL OF HEALTH SCIENCES RESEARCH AND ETHICS COMMITTEE (MAKSHS-REC)

FOOMU Y'OKUKKIRIZA OKWETABA MU MUSOMO GUNO OKU'NYONYEREZA KU EBIKANGABWA EBY'OMUBUTO, OBUGUUMU N'E NNAKU MU BAWALA ABAVUBUKA AB'EMBUTO MU KAMPALA.

Omutwe gw'ebigenda okusomebwaako:
Ebikangabwa eby'omubuto, obuguumu n'e nnaku mu bawala abavubuka ab'embuto mu Kampala

Abanonyelezi:
Kirabo Hope Sarah

Ayimilidde mu bye misomo gino:
Neyimilidde

Ensonga yokunonyeleza kumisomo gino:
Ennaku mu bawala ab'embuto eliwagulu nyo ng'atte omuwendo tegumanyiddwa. Ate, bano abawala bayinzadala okufuna ennaku kasta baba nga bayita mu mbeera ezikangabwa mu buto ougeza nga okulusanyizibwa kw'abaana abaato. Bino byona bikosa obugumu bwabwe ddala nga embuto zino tezayagalibwa. Ennaku mu bawala abavubuka ab'embuto eyinza okuleeta okwagala okweta, okugyamu embunto, okuzala abana abatanatuka kuzalibbwa, okukozesa ebilagala, n'ebilara. Ng'emiwendo gy'abawala abavabuka ab'embutu gy'enyogela mu gwanga, kikulu okumanya ebintu ebibakosa basoble okuyambibwa.

Ekigendererwa:
Okwekebegya enkolagana ye ebikangabwa eby'omubuto, obuguumu n'e nnaku mu bawala abavubuka ab'embuto mu Kampala.

Emitendera:
Abawala abavubuka ab'embuto nga bakyimye eddagala mu malwariro agalwondedwa muguno omusomo bagya kutukilibwa bawebwe ebigambo ebikwata ku musomo. Abawala abana kiriza okwetaba mu musomo bagya kuwebwa ekiwandiko ky'okukanya baseko omukono. Awo bagya kuwebwa empapula nebibuzo okudibwamu.

Bani abagenda okwenyigila mulusoma ne wa olusoma gye lugenda okolebwa?
Abavubuka abawala ab'embuto abaliku antenatal e' Kisenyi.

Obubenje/Okunyigirizibwa:
Tewali nyo bubenje bukilimu ngogyeko okunyirigizibwa okutonono mbekozesa mu musomo guno gwebayinza okuyitamu nga bajukulira ebintu ebitali biringu bye bayitamu.

Ebyokufuna mu lusoma olwokwekebegya:
Teli byakufuna ebikwatibwako bigya kugabwa eri abo abenyigidde mu musoma naye ebinazuulwa mu musoma bigya kuyamba abawala abavubuka abayinza okwesanga mumbera eno mubugya.

Bisale:
Tewali bisale bigya bwogelebwako kuba bagya kusangibwa ku malwaliro gye bakyimye eddagala.

Okudizza olwokwenyiga mu musomo guno:
Abanetaba mu musomo guno bagya kuwebwa ekyokuynwa. Wabula wewaba alumizidwa bagya kuyambiwa abasawo ba mateneti mu ddwaliro mwanywela eddagala. Abananyigirizibwa nga badamu ebibuzo byo musomo bagya kwogerako n'e Counsellor mu m'alwaliro gye banywera eddagala.

Okusasulwa:
Abaneteba mu musomo tebagya kusasulwa kuba bagya kusangibwa ku ddwaliro gye banywera eddagala basabibwe okwetaba mu musomo.

Ebibuzo ku musomo:
Abaneteba mu musomo nga balina ebibuzo ku musomo bayinza okutukilira omunonyelezi, Kirabo Hope Sarah okuddamu ebibuzo byabwe ku namba ye simu n'e email; 0701134333, kirabohope1@gmail.com

Ebibuzo ku ddembe lya abenyigidde mu musomo guno:
Abaneteba mu musomo nga balina ebibuzo ku ndabilira ne ddembe lyabwe nga abenyigidde mu musomo guno bagya kudibwamu ebibuzo, MAKSHSIRB Ag. chairperson Dr. Kalidi Rajab ku namba ye simu +256 776798978 or +256 0200903786)

Okunonyereza kubaamu okukuganya edanga butonde za abantu.
Okunonyeleza tekugyakubamu kukunganya ndanga butonde za abantu.

Okusasanya ebivudde mu kunoyeleza mu musomo guno
Engeri gye kiri nti eno puloject ya bya misomo, ebivudde mukunonyelezbwa kuno bija kubibwamu akatabo era kafulumizibwe okuyita ku Makerere University Online Library. Amanyi gagya tekebwa mu kusasanya ebivudde mu kunonyeleza nga mpita mu nkungana mu'gwanga ne bunayila. Ekisebayo; ebiwaddiko bija kufulumizibwa mu bayivu kumutendera gwa nsi yonna.

Obukakafu nti okwenyigila mu musomo guno kwa kyeyagalile.
Okwenyigila mu musomo guno kwa kyeyagalile atte nga tokakidwa. Anetabaa mu kunonyelezaa wadebbe okuvamu esawa yonna nga taboonelezedwa.

Okakisibwa okwabakugu mu musomo guno
Omusomo guno gwa kakasidwa esomero lyo ebyobulamu mutendekero lya Makerere wamu ne Ugandan based Research and Ethics Committee/IRB.

Obukakfu nti ebiva mu musomo guno bigenda kumibwa nga byakyama:

Ebinava mukunonyelezebwa bigya kumibwa nga bya kyama. Erinya lyo ligya kumibwa nga lya kyama. Teligya kulabika kulupapula lwona mu musomo guno. Ebinava mukunonyeleza bija kuba nnaabo bboka abakulidde okunonyeleza kuno. Okugyako School of Health Sciences Research Ethics Committee ne Uganda National Council for Science and Technology (UNSCT) basobola ofuna ebikwata ku abantu abeetabye mukunonyeleza wekinabba kyetagisa. Ebinaba bifunidwa ku

betabye mu kunonyeleza bijja kumibwa bulunji, ate ebinabba ku computer bija kutekebwa ko password nga ya kyama.

Okumanya ebisigawo, osobola okubuza akulira; School of Health Sciences Research and Ethics Committee (MakSHSREC) on (+256) +256 776798978 / (+256) 0200903786 or Uganda National Council of Sciences and Technology on Tel: (+256)-041-4705500).

Okukakasa okukiliza k'okwetaba mu kunonyeleza kuno.

..... Omunonyelaza atengezeza kubigenda okelebwa, ebiyinza okubawo, ebyofuna mu ne ndembe lyange mukwetabba mu kunonyeleza. Tegenzedwa ku mulamwa gwo kunonyeleza kuno. Ebikwatoko bijakumibwa nga byakyama ndala nga bakoseza byebangabye. Kimanyi sobala okuva mu kunonyeleza esawa yonna. Kimanyi nti okuteka omukona gwange kukiwandiko kinno tekimanye ndembe lyange wabula kitegeza nti ntegezendwa kubikwatagana kukunonyeleza kuno. Era ngenda kwatabaamu nga neyagarinde. Kopi ye'kiwandiko kino egyakupebwa.

Erinnya……

Emyaka……

Omukono/Ekyekumu…….

Ennaku z'omwezi ……..……

(Omuvunuzi owomuntu atasooma oba katayamba mu mubili oba mu mutwe abasaomukono)

(Witness for illiterate and mentally incapacitated or physically handicapped participants who signs with thumbprint should be provided below)

Erinya lyo omujulilwa……..

Omukono/Ekyekumu ……...

Ennaku z'omwezi ……...

Erinya lyo omuntu agenda okukiliza anetabba mu musomo……

……...

Omukono/Ekyekumu……

Ennaku z'omwezi…….....

Appendix D: Questionnaires

Childhood Traumatic Experiences, Resilience and Depression among Pregnant Teenagers in Kampala

Questionnaires

Section A: Bio-data Information

Please read and answer/tick appropriate item.

1. **Age:** ____
2. **Religion:** Protestant ☐ Catholic ☐ Moslem ☐ Other ☐
3. **Education Level at the time of Pregnancy:** Primary ☐ Secondary ☐ Tertiary ☐
4. **Marital Status:** Single ☐ Married ☐ Separated ☐
5. **Occupation Status:** Student ☐ Working ☐ Not Working ☐
6. **Trimester:** First (1-12 weeks) ☐ Second (13-28 weeks) ☐ Third (29-40 weeks) ☐
7. **Primary Source of Support:** Self ☐ Partner ☐ Parents/Relatives ☐

   Partner's Family ☐ Other ☐

Section B: Child Trauma Questionnaire (CTQ)

Directions: These questions ask about some of your experiences growing up as a child and a teenager. For each question, circle the number that best describes how you feel. Although some of these questions are of a personal nature, please try to answer as honestly as you can. Your answers will be kept confidential.

When I was growing up, . . .	Never true	Rarely true	Some times true	Often true	Very Often true

1.	I didn't have enough to eat.	1	2	3	4	5
2.	I knew that there was someone to take care of me and protect me.	1	2	3	4	5
3.	People in my family called me things like stupid", "lazy", or "ugly".	1	2	3	4	5
4.	My parents were too drunk or high to take care of the family	1	2	3	4	5
5.	There was someone in my family who helped me feel important or special.	1	2	3	4	5
When I was growing up, . . .						
6.	I had to wear dirty clothes.	1	2	3	4	5
7.	I felt loved	1	2	3	4	5
8.	I thought that my parents wished I had never been born	1	2	3	4	5
9.	I got hit so hard by someone in my family that I had to see a doctor or go to the hospital	1	2	3	4	5
10.	There was nothing I wanted to change about my family.	1	2	3	4	5
When I was growing up, . . .						
11.	People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12.	I was punished with a belt, a board, a cord (or some other hard object).	1	2	3	4	5
13.	People in my family looked out for each other.	1	2	3	4	5
14.	People in my family said hurtful or insulting things to me.	1	2	3	4	5
15.	I believe that I was physically abused.	1	2	3	4	5
When I was growing up, . . .						
16.	I had the perfect childhood.	1	2	3	4	5
17.	I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18.	Someone in my family hated me.	1	2	3	4	5
19.	People in my family felt close to each other.	1	2	3	4	5

20.	Someone tried to touch me in a sexual way or tried to make me touch them.	1	2	3	4	5
When I was growing up, . . .						
21.	Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22.	I had the best family in the world.	1	2	3	4	5
23.	Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24.	Someone molested me (took advantage of me sexually).	1	2	3	4	5
25.	I believe that I was emotionally abused.	1	2	3	4	5
When I was growing up, . . .						
26.	There was someone to take me to the doctor if I needed.	1	2	3	4	5
27.	I believe that I was sexually abused.	1	2	3	4	5
28.	My family was a source of strength and support.	1	2	3	4	5

Section C: Connor Davidson-Resilience Scale -10 (CD-RISC-10)

Directions: Select the answer that best indicates how much you agree with the following statements as they apply to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

No.	Item	Not True at all	Rarely true	Some Times true	Often true	True Nearly all the time
1.	I am able to adapt when changes occur	0	1	2	3	4
2.	I can deal with whatever comes my way.	0	1	2	3	4
3.	I try to see the humorous side of things when I am faced with problems.	0	1	2	3	4
4.	Having to cope with stress makes me stronger.	0	1	2	3	4

5.	I tend to bounce back after illness, injury or other hardships.	0	1	2	3	4
6.	I believe I can achieve my goals, even if there are obstacles.	0	1	2	3	4
7.	Under pressure, I stay focused and think clearly.	0	1	2	3	4
8.	I am not easily discouraged by failure.	0	1	2	3	4
9.	I think of myself as a strong person when dealing with life's challenges and difficulties.	0	1	2	3	4
10.	I am able to handle unpleasant or painful feelings like sadness, fear, and anger.	0	1	2	3	4

Section D: Edinburgh Postnatal Depression Scale (EPDS)

Directions: As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt IN THE PAST 7 DAYS, not just how you feel today.

Here is an example, already completed.

I have felt happy:

____ Yes, all the time
✓ Yes, most of the time
____ No, not very often
____ No, not at all

This would mean: I have felt happy most of the time during the past week.

Please complete the other questions in the same way.

1. I have been able to laugh and see the funny side of things:
   ____ As much as I always could
   ____ Not quite so much now
   ____ Definitely not so much now
   ____ Not at all

2. I have looked forward with enjoyment to things:
   ____ As much as I ever did
   ____ Rather less than I used to

____ Definitely less than I used to
____ Hardly at all

3. I have blamed myself unnecessarily when things went wrong:
____ Yes, most of the time
____ Yes, some of the time
____ Not very often
____ No, never

4. I have been anxious or worried for no good reason:
____ No, not at all
____ Hardly ever
____ Yes, sometimes
____ Yes, very often

5. I have felt scared or panicky for no good reason:
____ Yes, quite a lot
____ Yes, sometimes
____ No, not much
____ No, not at all

6. Things have been getting to me:
____ Yes, most of the time I haven't been able to cope at all
____ Yes, sometimes I haven't been coping as well as usual
____ No, most of the time I have coped quite well
____ No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:
____ Yes, most of the time
____ Yes, sometimes
____ No, not very often
____ No, not at all

8. I have felt sad or miserable:
____ Yes, most of the time
____ Yes, quite often
____ Not very often
____ No, not at all

9. I have been so unhappy that I have been crying:

____ Yes, most of the time
____ Yes, quite often
____ Only occasionally
____ No, never

10. The thought of harming myself has occurred to me:
____ Yes, quite often
____ Sometimes
____ Hardly ever
____ Never