COLLEGE OF HEALTH SCIENCES

CLINICAL EPIDEMIOLOGY UNIT

ACCEPTABILITY OF TELEMENTAL HEALTH AND ITS INFLUENCING FACTORS AMONG ADOLESCENT PATIENTS, CARETAKERS, AND MENTAL HEALTH PROFESSIONALS AT BUTABIKA HOSPITAL.

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DECLARATION

I, Enock Suubi Segawa, hereby declare that this is my original work which has never been published or submitted to any institution of higher education for the award of a degree or any other academic qualification, and that information derived from literature has been duly acknowledged.

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APPROVAL

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DEDICATION

This thesis is dedicated to mental health professionals, patients, and their caretakers in Uganda and my parents, Rev. Can. Henry Segawa and Mrs Christine Segawa, who have not wavered in their support throughout my formal education.

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ABBREVIATIONS

APA	American Psychological Association
aPR	Adjusted Prevalence Ratio
cPR	Crude Prevalence Ratio
DALYs	Disability Adjusted Life Years.
HIV	Human Immunodeficiency Virus
ICD	International Classification of Diseases
ICT	Information and Communication Technology
IDI	In-Depth Interview
IQR	Inter-Quartile Range
KII	Key Informant Interview
LMICs	Low- and Middle-Income Countries
MHP	Mental Health Professional
MoH	Ministry of Health
NIMH	National Institute of Mental Health
PI	Principal Investigator
SOMREC	School of Medicine Research and Ethics Committee
TFA	Theoretical Framework of Acceptability of healthcare interventions.
TMH	Telemental Health
UBOS	Uganda Bureau Of Statistics
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation

OPERATIONAL DEFINITIONS

Acceptability of a healthcare intervention – A multi-faceted construct that reflects the extent to which people delivering or receiving a healthcare intervention consider it appropriate based on anticipated or experienced cognitive and emotional responses to the intervention (Sekhon et al., 2017). Quantitatively, it was measured using a questionnaire with items based on the seven constructs of the theoretical framework of acceptability and scored on a Likert scale from 1 to 5. Furthermore, acceptability of a healthcare intervention was qualitatively described with the same seven constructs of the theoretical framework of acceptability.

Adolescents – People aged 10 to 19 years (WHO, 2019).

Asynchronous telemedicine – The exchange of health information by the "store-and-forward" technique where either the patient or their healthcare provider collects the information and sends it to the other party for review at a later time (Mechanic et al., 2021).

Mental disorder – A syndrome characterised by clinically significant disturbance in an individual's cognition, emotion regulation, or behaviour that reflects a dysfunction in psychological, biological, or development processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Social deviance (e.g. political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above (APA, 2013). For this study, mental disorders included any such condition of mild to moderate severity, such as major depression, bipolar affective disorder, and conversion disorder.

Mental health – A state of well-being in which an individual realises his or her abilities, can cope with the everyday stresses of life, can work productively, and can contribute to his or her community (WHO, 2004).

Mental health professional – A qualified health worker who provides mental healthcare to patients. For this study, mental health professionals included psychiatrists, psychologists, counsellors, psychiatric clinical officers, and psychiatric nurses.

Synchronous telemedicine – The exchange of health information in real-time such as a live discussion between the patient and their healthcare provider (Mechanic et al., 2021).

Telemedicine – The remote delivery of health care services by all health care professionals using information and communication technologies for exchanging valid information for diagnosis, treatment, and prevention of disease and injuries, research, evaluation, and continuing education of health care providers (WHO, 2010). It is also called telehealth and eHealth. For this study, telemedicine is limited to the synchronous type between a patient or their caretaker and the patient's primary healthcare provider.

Telemental health – The use of information and communication technology to provide any intervention, e.g., assessment, diagnosis, treatment, and counselling, to maintain or enhance mental health (APA, 2022; NIMH, n.d.). For this study, telemental health was limited to the use of phones to provide any intervention for the maintenance or enhancement of mental health by a mental health professional in real-time.

ABSTRACT

Background: Mental disorders are a significant cause of disability worldwide, Uganda inclusive. In 2019, they accounted for 4.92% and 3.94% of the disease burden in the world and Uganda, respectively. Adolescents are at a relatively higher risk of these disorders due to developmental biological and psychological vulnerabilities to environmental stressors. Telemental health (TMH) can be used to increase access to mental health services for adolescents. However, its effectiveness will depend on its acceptability by adolescent patients, their caretakers, and mental health professionals (MHPs).

Main objective: To assess the acceptability of TMH for adolescent patients at Butabika Hospital among adolescent patients, their caretakers, and MHPs, and determine the associated factors among the patients and their caretakers.

Methods: A concurrent mixed-methods design was used. The quantitative research component was a cross-sectional design among 63 patients and 188 caretakers. Quota sampling was used. Data were collected using a researcher-administered questionnaire. It was managed in EpiData Manager and analysed using Stata software. The qualitative research component was with four mental health professionals, six patients, and eight caretakers. An exploratory descriptive qualitative approach was used. Data were collected through in-depth and key-informant interviews. It was managed in OpenCode and analysed by thematic analysis. Results from the qualitative were triangulated with those from the quantitative research component at the interpretation phase.

Results: Most patients were female (61.9%), did not own phones (59.7%), and had no experience with any TMH service (77.4%), while most caretakers were female (72.3%), owned phones (97.9%), and had no experience with any TMH service (81.4%).

The prevalence of high acceptability among patients was 77.8% (95% CI: 67.2% - 88.3%), and among caretakers was 93.1% (95% CI: 89.4% - 96.7%). None of the candidate factors

was associated with high acceptability among patients, while caretaker acceptability was associated with phone ownership (aPR 0.940, 95% CI: 0.900 - 0.982). There were no confounding or interaction effects in the data. Most participants favoured using or providing the TMH service at Butabika Hospital. Furthermore, while using or providing the service was ethical, it presented difficulties in the case of providing it to minors who were non-emancipated patients. The mental health professionals also anticipated minimal opportunity costs, except if they had to provide it outside working hours. Finally, most participants believed that physical limits hampered the efficiency of the service.

Conclusion: Most patients and caretakers expressed high acceptability of the TMH service for adolescent patients at Butabika Hospital. Among caretakers, not owning a phone was associated with a high acceptability of TMH. However, the study was underpowered to detect associations between any candidate predictor and high acceptability. Most participants had favourable opinions about the service. However, they also expressed concerns about its limitations. The management of Butabika Hospital could consider conducting formative research about the TMH service. All TMH providers should endeavour to innovate within prevailing constraints to mitigate the limitations of TMH. Finally, future researchers should use large homogeneous samples from study populations to ensure adequate study power.

GENERAL INTRODUCTION

1.1 Introduction

In 2019, mental disorders accounted for 4.92% of the global disease burden measured by Disability Adjusted Life Years (DALYs). In Africa, Sub-Saharan Africa, and Uganda, mental disorders accounted for 3.4%, 3.02%, and 3.94% of the disease burden (Our World in Data, 2019). Notably, these disorders accounted for 13% of the global disease burden among adolescents, and suicide ranked as the second leading cause of death among 15 to 29-year-olds worldwide (WHO, 2021).

Adolescents are more vulnerable to mental disorders than the general population because of significant structural and functional brain changes, making them more susceptible to environmental stressors such as peer pressure and substance use (Blakemore, 2012; Powers & Casey, 2015). More significant hormonal fluctuations in this age group also contribute to more labile moods and behaviours (Blakemore, 2019). Moreover, adolescents are yet to develop effective coping mechanisms to deal with all these stressors, which all compound to result in a higher prevalence of mental disorders among adolescents than the general population.

Previous research conducted among adolescents in Uganda has primarily focused on HIV, war, and refugees (Kinyanda et al., 2020; Meyer et al., 2020; Tumwesige et al., 2021), limiting its generalisability to the entire adolescent population. However, studies conducted in general contexts among children, adolescents, and youth have shown high rates of mental disorders (Nalugya-Sserunjogi et al., 2016; Nampijja et al., 2021; Swahn et al., 2012). While direct mortality from these conditions is typically low, they are likely to contribute significantly to death through alcohol and substance use disorders and suicide (Dattani et al., 2021).

Despite the effectiveness and cost-efficiency of treating many mental disorders (Chisholm, 2005), over 75% of people with mental disorders in Low- and Middle-Income Countries (LMICs) go untreated (Evans-Lacko et al., 2018). This treatment gap is even more pronounced among adolescents due to Uganda's lack of specialised mental health services, human resources, and facilities for this sub-population (Iversen et al., 2021).

Telemental health (TMH) can enhance adolescent patients' access to mental health services by combining task-shifting with Information and Communication Technology (ICT). Moreover, there are various TMH service providers in Uganda, including Mental Health Uganda, Safe Places Uganda, Strong Minds Uganda, and Rocket Health. Remarkably, although the clinical outcomes of TMH have been studied in high-income countries with promising results (Dorstyn et al., 2012; Hubley et al., 2016; Shigekawa et al., 2018), more research must be done on its effectiveness in Uganda.

Strong Minds Uganda reported significant progress in treating depression through tele-psychotherapy, achieving an average of 13 points reduction in depression scores among 161,859 patients according to their second quarter 2022 report. However, it is worth noting that while the institution utilises both tele-psychotherapy and in-person therapy, its report does not specify the proportion of patients receiving tele-psychotherapy (Strong Minds Uganda, 2022).

While the presence of TMH providers in Uganda suggests a certain level of acceptability, no scientific study has documented this. Moreover, the acceptability of TMH services relies on the perceptions and experiences of both service providers (mental health professionals) and users (adolescent patients and their caretakers) (Perski & Short, 2021; Sekhon et al., 2017). Therefore, it is crucial to determine TMH's acceptability among adolescent patients, adolescent patients' caretakers, and mental health professionals (MHPs) at Butabika. Furthermore, acceptability of TMH is likely to be influenced by its providers'

and users' experiences with the service, perceptions across various acceptability constructs (Sekhon et al., 2017), demographics, clinical conditions, contextual factors (Keyworth et al., 2021; Toulany et al., 2021), psychological characteristics, knowledge, (Abdool et al., 2021), mental health condition, and ICT related factors (Katusiime & Pinkwart, 2019).

At Butabika Hospital, there is a tele-counselling program where patients or caretakers can call a designated telephone number to access services through an interactive voice response system. The program offers services such as psychoeducation and the option to speak with a counsellor. If necessary, patients can be referred to in-person services. Calling the service number and consultation through the service is free of charge. The design of this study is primarily based on the features of this program, as it represents the type of TMH services expected to be available in Uganda soon. The study aimed to assess the acceptability of the TMH service and similar services for adolescent patients at Butabika Hospital and determine its associated factors among the patients and their caretakers.

1.2 Research Problem

In Uganda, the prevalence of mental disorders among children is 22.9%, while among adults, it is 24.2%. The most common disorders observed are depressive and anxiety disorders (Opio et al., 2021). However, specific national statistics on mental health issues among adolescents are lacking. Moreover, limited research has been conducted on adolescents' mental health in Uganda, excluding those affected by HIV. Nonetheless, one study did find a prevalence of 21% for significant depressive symptoms among secondary school students (Nalugya-Sserunjogi et al., 2016).

Adolescent mental illness has numerous adverse consequences. In the short term, it is associated with physical ailments like infections and allergic reactions (Bell et al., 1991; Kiecolt-Glaser & Glaser, 1992), and in the long term, it is linked to a lower quality of life (Chen et al., 2006). However, the causes of a particular case of mental illness are often

unknown, though they can stem from various factors such as genetics, excessive stress, abuse, trauma, infections, malnutrition, physiological dysfunction, and toxins (APA, 2013). Furthermore, many of these causes are influenced by social determinants of health, including education, the environment, and access to healthcare (WHO, 2014).

To address the mental healthcare needs of adolescents in Uganda, TMH can play a crucial role. This approach has already been successfully implemented in the USA and Australia to enhance access to mental healthcare for adolescents (Ali et al., 2018; Dorstyn et al., 2012). However, to maximise its effectiveness in Uganda, it is vital to study its acceptability in this specific context (Sekhon et al., 2017). Notably, the acceptability of a particular service cannot be assumed to be the same across different contexts (Perski & Short, 2021). Therefore, research was required to examine TMH's acceptability, particularly among adolescent patients in Uganda.

Additionally, the acceptability of TMH in Uganda, especially among adolescents, faced certain limitations. These limitations included low phone ownership rates among adolescents (Swahn et al., 2014). Then, for both adolescents and their caretakers, limitations included a lack of privacy (Katusiime & Pinkwart, 2019), low levels of formal education (UBOS, 2016; UNICEF, 2021), and the stigma associated with the utilisation of mental health services (Molodynski et al., 2017). MHPs also had concerns regarding increased workloads and the adaptation of in-person treatment methods to TMH systems (Haque, 2021). Overall, addressing the mental health needs of adolescents in Uganda through TMH interventions requires careful consideration of these factors to ensure successful implementation.

1.3 Justification

The Ugandan government has significantly invested in infrastructure, medical supplies, and human resources for mental health. In 2017, it introduced the Child and

Adolescent Mental Health Policy Guidelines (MoH, 2017). One of these guidelines on counselling service standards emphasises the importance of expanding the availability of telephone hotlines in all official languages to address mental health issues in the population. The emphasis on telephone hotlines indicated that the Ministry of Health (MoH) recognised the potential of TMH to improve access to mental health services for adolescents. However, this potential can only be realised if service providers and users find TMH services acceptable. To ensure the effectiveness of similar services and relevant policies in Uganda, such as the eHealth policy (MoH, 2016) and potentially a TMH policy in the future, it is crucial to understand the acceptance of TMH among MHPs and adolescent patients and their caretakers. These findings will inform the delivery of these services and policy design, implementation, and evaluation.

1.4 Research Questions

1. What is the prevalence of high acceptability of TMH among adolescent mental health patients and their caretakers at Butabika Hospital?
2. What factors are associated with the acceptability of TMH among adolescent mental health patients and their caretakers at Butabika Hospital?
3. How do adolescent mental health patients, their caretakers, and MHPs at Butabika Hospital describe their acceptability of TMH for adolescent mental health patients?

1.5 Objectives

1.5.1 General Objective

To assess the acceptability of TMH for adolescent patients at Butabika Hospital among adolescent patients, their caretakers, and MHPs and determine associated factors among the patients and their caretakers.

1.5.2 Specific Objectives

1. To estimate the prevalence of high acceptability of TMH among adolescent mental health patients and their caretakers at Butabika Hospital.
2. To determine factors associated with high acceptability of TMH among adolescent mental health patients and their caretakers at Butabika Hospital.
3. To explore the acceptability of TMH to adolescent mental health patients, their caretakers, and MHPs at Butabika Hospital.

1.6 Conceptual Framework

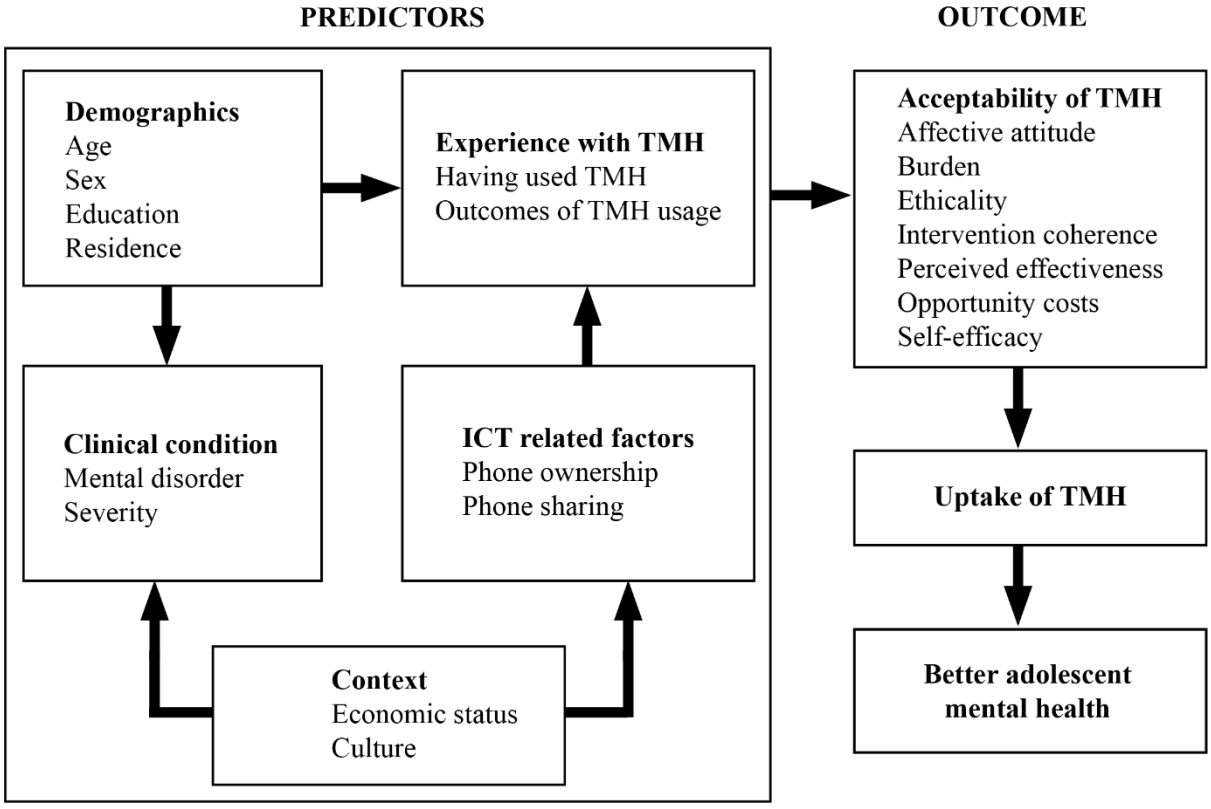

Figure 1: Conceptual framework

1.6.1 Narrative of the Conceptual Framework

The above conceptual framework is for the acceptability of TMH services by adolescent patients and their caretakers at Butabika Hospital. Factors associated with this acceptability are categorised as demographic, clinical, contextual, ICT-related, and experiential factors. Acceptability then determines the uptake of the services, and uptake

influences the impact of the services on adolescents' mental health. There are also relationships between factors in different categories. For instance, a patient's or caretaker's economic status can affect their phone ownership. Moreover, all demographic and contextual factors could affect their clinical condition.

The acceptability of TMH services was defined using the Theoretical Framework of Acceptability (TFA) (Sekhon et al., 2017). The TFA has seven constructs, namely: affective attitude, burden, opportunity costs, ethicality, intervention coherence, perceived effectiveness, and self-efficacy.

Affective attitude is how the individual feels about providing or using the intervention. Burden is the perceived effort required to provide or use the intervention. Opportunity costs are the benefits, profits, or values that must be given up by providing or using the intervention. Ethicality is how well the intervention fits with the individual's values. Intervention coherence is the extent to which the individual understands the intervention. Perceived effectiveness is the extent to which the intervention is perceived as likely to achieve its purpose. Finally, self-efficacy is the individual's confidence to perform the behaviours required to provide or use the intervention.

1.7 Scope

Among the demographic factors, age, sex, education, and location were determined. From the clinical factors, symptoms, mental disorders, and severity of the disorders were determined. From ICT-related factors, phone ownership and phone sharing were determined. From experiential factors, having used the services was determined.

LITERATURE REVIEW

2.1 Prevalence of mental disorders among adolescents in Uganda

Mental health among adolescents is understudied outside of the HIV context, likely because most funding has been offered for HIV/ AIDS research rather than primarily mental health research. It is also likely due to the feasibility of accessing HIV-infected patients relative to mental health patients due to the higher number of HIV than mental health treatment centres. Nevertheless, one study on mental health unlimited by HIV infection among school-going children and adolescents in Entebbe Municipality and Katabi Zone in the Wakiso district (Nampijja et al., 2021) found that of 322 participants, 8% had neurocognitive impairment, 5.9% had major depressive disorder, 2.8% had attention deficit hyperactive disorder, 2.2% had generalised anxiety disorder, and 8.6% had substance use disorder.

Another study examined suicidality among urban youth living on the streets and in the slums of Kampala city (Swahn et al., 2012) and found that out of 457 participants with complete data, 31% had suicidal ideation, 23% planned to attempt suicide, 20% had attempted suicide, and 12% had required medical treatment after attempting suicide. The study also found that the percentage of girls with suicidal ideation was significantly higher than that of boys.

The third study focused on depression among school-going adolescents from four secondary schools in Mukono district (Nalugya-Sserunjogi et al., 2016). Of the 541 participants, 519 had complete data and were considered for analysis. Twenty-one per cent had significant depressive symptoms. Of those, 1.5% had major depression, and 1.2% had dysthymia. Overall, these studies shed light on the prevalence of mental health disorders among adolescents in Uganda, highlighting the need for increased attention to and support for adolescent mental health.

2.2 Acceptability of TMH

A standard definition for the acceptability of a healthcare intervention is lacking. According to Sekhon et al. (2017), acceptability is a multifaceted construct encompassing the perceptions of appropriateness held by individuals involved in delivering or receiving the intervention. These perceptions are based on anticipated (prospective) or experienced (retrospective) cognitive and emotional responses.

Acceptability can be considered from the viewpoint of both intervention providers and recipients, and it is subjective, involving cognitive and emotional elements. While other definitions exist, they share similarities with this comprehensive definition and may include additional constructs. For instance, Nadal et al. (2020) recognised acceptability as comprising affective attitudes, usage intentions (prospective acceptability), satisfaction after use (retrospective acceptability), and actual usage (behaviour).

Given the absence of a standardised definition, there is no standard measure of acceptability. This study used a measure derived from the TFA developed by Sekhon et al. (2017, 2022). The TFA conceptualises acceptability as both qualitative and quantitative, and various primary studies have employed the TFA to assess acceptability using both approaches.

One qualitative study examined the acceptability of a men's mental health program among community pharmacists in Nova Scotia, Canada (Murphy & Gardner, 2019). The acceptability was evaluated through in-depth interviews (IDIs) and coding of the transcripts using the TFA. The most frequently coded constructs were the perceived effectiveness of the intervention, burden, and self-efficacy. This study focused on retrospective acceptability from the perspective of intervention providers only.

Another qualitative study employed the TFA to explore the prospective acceptability of two biomedical HIV prevention approaches among pregnant and breastfeeding women in

Sub-Saharan Africa (Sekhon & van der Straten, 2021). Focus group discussions were conducted with participants from Malawi, South Africa, Uganda, and Zimbabwe. The analysis followed a deductive thematic approach, coding the data into the seven constructs of the TFA. An iterative analysis was then performed to identify themes within each construct. The study highlighted the importance of considering end-users' perceptions to enhance the acceptability of the interventions rather than solely focusing on the nature of the products. Notably, the study did not consider the acceptability of the intervention providers.

Quantitative measurement of acceptability based on the TFA has been employed in at least four studies, where Likert scales were utilised to quantify acceptability under the TFA constructs (Bartlett et al., 2021; Damush et al., 2021; Keyworth et al., 2021; Renko et al., 2020). For example, in a study titled "acceptability, reach and implementation of a training to enhance teachers' skills in physical activity promotion," the authors investigated the prospective acceptability of a physical activity program in vocational schools and its subsequent implementation (Renko et al., 2020). One hundred ninety-four teachers from vocational and high schools in Finland participated in this study.

Acceptability was assessed through an online questionnaire administered at baseline, after training sessions, and during long-term follow-up. The questions covered each of the seven constructs of the TFA. Participants responded on a 5-point Likert scale, and the average scores for each construct were reported. However, a composite score of acceptability combining all seven constructs was not provided. Furthermore, acceptability among the intervention users (the students) was not evaluated.

Another quantitative study conducted by Bartlett et al. (2021) examined the acceptability of text messages to promote medication adherence among individuals with type 2 diabetes. The study compared ratings of prospective and retrospective acceptability of the

text message-based intervention. The researchers also explored the suitability of the TFA in the context of a technology-based intervention.

Participants in the study were asked to rate the acceptability of the intervention using a 5-point Likert scale. Average scores were calculated for each construct. The findings indicated a high correlation between prospective and retrospective acceptability. Furthermore, the study demonstrated that the TFA provided a valuable foundation for understanding the acceptability of the intervention.

2.3 Factors associated with the acceptability of TMH

Given the limited research on TMH among adolescents, this review incorporates studies focusing on TMH in different age groups or telemedicine. One such study by Toulany et al. (2021) explored the factors influencing the acceptability of TMH among children and adolescents aged 1 to 18 years in Ontario, Canada. The cross-sectional study involved two samples: 7,216 participants who had utilised the provincial TMH program and 84,033 individuals who had sought mental health and addictions-related services. Data were obtained from population-based health administration and clinical databases.

By comparing mental healthcare usage data before and after the TMH program utilisation, the researchers discovered that most participants fell between the ages of 6 and 18, were male, and hailed from lower-income urban neighbourhoods. Additionally, only 1.5% of participants previously hospitalised for a mental disorder accessed the TMH service within the following year. These findings suggest that age, gender, income, urbanisation, and disorder severity may play significant roles in determining the acceptability of TMH.

Concerning TMH utilisation among adults, Keyworth et al. (2021) conducted a cross-sectional study nested within a clinical trial to evaluate the effectiveness of a web-based intervention to prevent and reduce self-harm in the United Kingdom. The study involved 514

participants aged 18 and above, all with a history of self-harm. Acceptability was assessed using a tool based on the TFA.

Factors considered included demographic variables (age, gender, ethnicity, and social status), mental health history (non-suicidal self-harm, suicidal ideation, and suicide attempts), comorbidity with a chronic disease, and exposure to death or suicide. Acceptability was measured on an 11-point Likert scale, with scores at or below neutral (0 to 5) indicating low acceptability and above neutral (6 to 10) indicating high acceptability. Age, race, and comorbidity with a chronic disease were significantly associated with the burden construct of acceptability. Participants aged 18 to 24 and those identifying as white reported the lowest burden scores. In contrast, those with comorbid chronic diseases reported higher burden scores.

Moreover, due to the scarcity of literature specifically focused on TMH, insights were also derived from a broader study on telemedicine. Abdool et al. (2021) conducted a cross-sectional study to determine factors associated with the acceptability of telemedicine in the United Arab Emirates, encompassing participants aged 18 and above, including intervention providers, recipients, healthcare directors, and information technology professionals.

The sample consisted of 98 physicians and nurses, 215 members of the public (including patients), and 17 healthcare directors and ICT professionals. Factors such as age, sex, education, nationality, and diffusion of innovation were examined. The study found that age, sex, education, and nationality did not exhibit significant associations with acceptability. However, the diffusion of innovation emerged as a significant factor.

To summarise, the available literature suggests that several factors are likely to be associated with the acceptability of TMH. These factors include age, sex/gender, race, education, urbanisation, nationality/location, diffusion of/familiarity with services, comorbidity with a chronic illness, and the severity of the illness.

METHODS

3.1 Research Design

A concurrent mixed-methods design was utilised. The quantitative research component comprised a cross-sectional design, while an exploratory-descriptive qualitative approach was employed for the qualitative research component. This design facilitated the triangulation and expansion of the findings. The results from the IDIs were triangulated with those from the quantitative component, aiming to develop a more detailed understanding of the perspectives of service users. Furthermore, the results from the key informant interviews (KIIs) were used to expand the research by incorporating the perspectives of service providers. The components were mixed during the study's interpretation phase, assigning equal importance to qualitative and quantitative data (QUAL + QUAN).

3.2. Description of the Study Site

Butabika Hospital, located in Kampala, is Uganda's sole National Referral Mental Hospital and ranks as the country's second-largest hospital (Butabika hospital, 2013). In June 2022, 373 adolescent patients sought in-person outpatient mental healthcare from the hospital, with approximately 80 new patients. Typically, most patients have monthly reviews, indicating that around 453 unique patients would have been served at the clinic over two months.

A team of three specialised professionals provided mental health services at the clinic, including one psychiatrist and two psychiatric clinical officers. Most adolescent patients receive care during the children and adolescents' mental clinic, which takes place once a week on Wednesdays. Notably, during each clinic day, approximately a quarter of the patients attend the clinic in person, while the remaining three-quarters are represented by their caretakers, who collect medications on their behalf.

3.3 Populations

3.3.1 For the Quantitative Research Component

3.3.1.1 Target Population

Adolescent mental health patients and their caretakers in Kampala and surrounding areas.

3.3.1.2 Accessible Population

Adolescent mental health patients and their caretakers at Butabika Hospital that received in-person care at the children and adolescents' mental health clinic from 16th November 2022 to 15th March 2023.

3.3.1.3 Sample Population

All members of the accessible population that met the eligibility criteria.

3.3.2 For the Qualitative component

3.3.2.1 Sample Population

All MHPs, adolescent mental health patients, and adolescent mental health patients' caretakers at Butabika Hospital that received in-person care at the children and adolescents' mental health clinic from 16th November 2022 to 15th March 2023 and met the eligibility criteria.

3.4 Eligibility criteria

3.4.1 For the Quantitative Component

3.4.1.1 Inclusion Criteria.

- Mental health patients aged 10 to 19 years old, articulate, and consented or assented and their caretakers consented to their participation as appropriate.
- Adult caretakers of mental health patients aged 10 to 19 years old.

3.4.1.2 Exclusion criteria

- Caretakers who were not the primary caretaker of the patient.

NB: There were no exclusion criteria for patients.

3.4.2 For the Qualitative Component

3.4.2.1 Inclusion Criteria

- Mental health patients aged 10 to 19 years old, articulate, and consented or assented and their caretakers consented to their participation as appropriate.
- Adult caretakers of mental health patients aged 10 to 19 years old.
- Mental health professionals who treated adolescent mental health patients aged 10 to 19 years old at Butabika Hospital.

3.4.2.2 Exclusion Criteria

- Caretakers who were not the primary caretaker of the patient.

  NB: There were no exclusion criteria for patients or MHPs.

3.5 Sample size

3.5.1 For the pilot study

A pilot study was conducted to determine some parameters needed for calculating the sample size for objective two because these could not be determined from prior studies. Its sample size was determined using Browne's rule of thumb (Browne, 1995), which recommends at least 30 participants. Sampling for this study utilised the same methods as the main study, which used the quota sampling technique to select adolescent patients and their caretakers. Of the sample, 8 were adolescent patients, and 23 were adolescent patients' caretakers, totalling 31 participants. The first eight patients and the first 23 caretakers enrolled in the main study were included in the pilot study. The required numbers of patient and caretaker participants were rounded up to the nearest whole number, resulting in an extra participant in the pilot study.

3.5.1 For objective 1

The objective was achieved using the quantitative component. The sample size was determined using the Kish-Leslie formula (Kish & Leslie, 1965). Since the expected prevalence of acceptability of the TMH service was unknown, a prevalence of 50% was assumed for maximum variability.

The formula:

$$n = \frac{(Z\frac{\alpha}{2})^2 * p * q}{e^2}$$

Where:

$Z_{\frac{\alpha}{2}}$ is the standard normal value corresponding to the 95% confidence interval and is 1.96,

p is the assumed prevalence of acceptability and is 0.5,

q is 1 – p and is 0.5, and

e is the precision and is 0.05.

Therefore, n = 385

Adjusting n for a finite population:

$$n^* = \frac{n}{1 + \frac{n-1}{N}}$$

Where:

n* is the adjusted n, and

N is the finite population size, i.e., the number of unique adolescent patients expected to receive in-person outpatient mental healthcare at Butabika Hospital over two months.

N ≈ 453

Therefore, n* = 209

3.5.2 For objective 2

The objective was achieved using the quantitative component. The sample size was calculated based on location using the formula suggested by Fleiss et al. (1980):

$$n = \frac{[Z_{\frac{\alpha}{2}}\sqrt{p(1-p)(\frac{1}{q_1}+\frac{1}{q_2})} + Z_{\beta}\sqrt{p_1(1-p_1)(\frac{1}{q_1}) + p_2(1-p_2)(\frac{1}{q_2})}]^2}{(p_1-p_2)^2}$$

Where:

n is the required minimum sample size,

$Z_{\frac{\alpha}{2}}$ is the standard normal value corresponding to 5% significance and is 1.96,

Z_{β} is the standard normal value corresponding to 80% power of the study and is 0.84,

q_1 is the proportion of adolescent patients and their caretakers who lived in Kampala,

q_2 is the proportion of adolescent patients and their caretakers who lived outside Kampala,

p_1 is the proportion of adolescent patients and their caretakers who lived in Kampala and had high acceptability,

p_2 is the proportion of adolescent patients and their caretakers who lived outside Kampala and had high acceptability, and

p is equal to $p_1q_1 + p_2q_2$.

q_1, q_2, p_1, and p_2 were determined from a pilot study and were 0.645, 0.355, 0.800, and 0.636, respectively.

Therefore, n = 251

3.5.4 For objective 3

The objective was achieved using the qualitative component. The sample size for the patients and caretakers was determined at the point of data saturation. If three or more participants consecutively responded to a question on the interview guide without offering any new perspective, the data accumulated by asking that question was considered saturated. A sample size of six patients and eight caretakers was used, taking into account variables

such as sex, place of residence, and whether the participant had experience with TMH for both patients and caretakers. Additionally, consideration was given to the age of the patients. All eligible MHPs were considered for participation.

3.6 Sampling

3.6.1 For the Quantitative Component

Quota sampling was employed, with a quarter of the sample comprising adolescent patients and three-quarters comprising their caretakers. This approach was selected because it was determined at the beginning of data collection that about a quarter of clinic visits are by the patients, while the rest are by their caretakers. Therefore, the approach led to a sample representative of the distribution of physical clinic attendance between patients and their caretakers at that time.

Following quota sampling, consecutive sampling was utilised, inviting every patient or caretaker who met the eligibility criteria to participate in the study until the required sample size was achieved. This approach was selected due to the similarity between the available population and the required sample size. Rejecting eligible patients or caretakers would have needlessly prolonged the data collection process.

3.6.2 For the Qualitative Component

For the qualitative component of the study, purposive sampling was employed. Patients who could articulate their opinions on TMH in detail were selected to participate. Efforts were made to ensure representation from various demographics, including males and females, individuals from within and outside Kampala, younger adolescents (aged 10 to 14) and older adolescents (aged 15 to 19), and those who had and had not used any form of TMH.

Primary caretakers were also invited to participate in the study. Similar considerations were made to include a balanced representation of males and females, individuals from different locations, and those with and without experience in using TMH.

All MHPs who treated adolescent mental health patients were invited to participate. Their expertise in treating this age group was crucial for gaining insights and forming opinions on the provision of TMH.

3.7 Variables

3.7.1 Dependent Variable

A questionnaire recommended by the authors of the TFA (Sekhon et al., 2022) was utilised to measure the acceptability of TMH. The questionnaire was adapted specifically for adolescent patients and their caretakers at Butabika Hospital and for evaluating a TMH intervention. It consisted of items representing the seven constructs of the TFA, which were scored on a Likert scale ranging from 1 to 5. However, the item assessing general acceptability was omitted because it could confuse the participants in the study population. Its wording was so similar to the item assessing affective attitude that the two would yield identical data. The adapted questionnaire had Cronbach's alpha of 0.761 and 0.739 among patients and caretakers, respectively, which were above 0.700, indicating that the items for measuring acceptability on the questionnaire were reliable in these populations.

An arithmetic mean was calculated for the scores on the items about the seven constructs of the TFA on the questionnaire for each participant. Scores ranging from 1 to 3 were assigned a value of 0, indicating low acceptability, while scores ranging from 4 to 5 were assigned a value of 1, indicating high acceptability. This approach to categorisation was adopted from the study by Keyworth et al. (2021), who considered scores neutral and lower to be low acceptability and those above neutral to be high acceptability.

3.7.2 Independent Variables

Diagnosis values refer to the diagnoses as recorded in the patient's file. The accuracy of capturing diagnoses matched the first three elements of their International Classification of Diseases (ICD)-10 code. The questionnaire allowed up to three diagnoses to be recorded,

considering that approximately 45% of the patients were anticipated to have multiple diagnoses (Kessler et al., 2005). Additionally, if the diagnoses were not explicitly documented, the patient's symptoms for their current conditions were retrieved from their files. Other variables included age in completed years, sex, school attendance (for patients), highest education level attained (for caretakers), residence within or outside Kampala, having multiple diagnoses, and whether the participant owned a phone, shared a phone, or had ever used TMH.

3.8 Data collection

The eligibility of all patients to participate in the study was determined by research assistants (RAs). In contrast, that of caretakers was determined by both RAs and the principal investigator (PI). The RAs consisted of a psychiatric clinical officer and a psychiatric nurse. They utilised their clinical expertise to evaluate the patient's capacity to participate, after which they obtained informed consent and assent.

A suitable location within the hospital was assigned for conducting interviews. The PI and RAs conducted structured interviews using a researcher-administered questionnaire, while only the PI conducted IDIs. IDI data were recorded in field notes and with the assistance of an audio recorder. These interviews were conducted in English or Luganda, based on the participant's preferred language.

In the case of eligible MHPs, they were informed about the study and invited to participate at the hospital. The PI obtained written informed consent. The participants were free to choose a suitable location within the hospital for the KIIs. KII data were recorded in field notes and with the assistance of an audio recorder. These interviews were conducted in English.

3.8.1 IDIs with the adolescents

The adolescents were asked to come to the designated location within the hospital for the interviews. This location was situated in a way that allowed both the PI and the adolescent to be visible to the parent/guardian throughout the interview. However, they were sufficiently distant to prevent the parent/guardian from overhearing the conversation. This arrangement aimed to protect both the PI and the adolescent. The adolescent could still be seen by their parent/guardian, ensuring their safety while providing a private environment to express themselves freely. Simultaneously, the PI was protected from any suspicion of misconduct during the interview.

The PI explained the interview process, mentioning that notes would be taken and the audio would be recorded. Furthermore, the PI assured the adolescent that everything discussed during the interview would be kept confidential, even from their parent/guardian. Following this, the adolescent was asked if they were comfortable with having the interview audio recorded. Once the interview concluded, the researcher expressed gratitude to the adolescent and then returned them to their parent/guardian.

3.9 Data management

The filled questionnaires were securely stored in a safe at the residence of the PI. Occasionally, the PI retrieved the questionnaires from the safe, coded the data, and entered them into EpiData Manager version 4.6.0.6. Only the PI had access to the safe. Similarly, the field notes were also kept in the safe at the PI's residence. The PI transcribed all audio recordings of interviews and field notes into Microsoft Word files. If the original interview was conducted in Luganda, the PI translated them into English. Subsequently, the PI cleaned and entered the data into OpenCode version 4.0.3.0.

All electronic data were securely stored on a password-protected computer, memory card, and Microsoft OneDrive account. Only the PI could access these electronic storage

devices and the Microsoft OneDrive account. After data collection, transcription, and cleaning, all hardcopy data, including signed consent forms, were returned to the safe. The data will remain there for three to five years, after which the PI will destroy it.

3.10 Data analysis

3.10.1 Quantitative data

Data analysis was conducted using Microsoft Excel 2016 and Stata version 14.0.

3.10.1.1 Participant Description

Descriptive statistics were obtained for all independent variables. Categorical variables were summarised as frequencies and percentages while continuous variables were summarised as medians with interquartile ranges (IQRs).

3.10.1.2 Objective 1

The percentage of patients and caretakers with high acceptability as described in section 3.7.1 above was calculated. The analysis also included a 95% confidence interval for this percentage.

3.10.1.3 Objective 2

Bivariable analyses examined the relationship between each independent variable and dependent variable pair. For categorical independent variables, statistical tests such as Pearson's chi-square, likelihood ratio chi-square, and Fisher's exact test were obtained as was appropriate based on the expected frequencies in the contingency table cells. Modified Poisson regressions with robust standard errors were conducted for independent continuous variables. Unadjusted prevalence ratios and their 95% confidence intervals were reported for all independent variables.

All independent variables were added to a stepwise regression model utilising backward elimination. The p-value for removing a variable was 0.2, and the variables with p-values <0.2 were considered for multivariate analyses using modified Poisson regressions

with robust standard errors. Data were assessed for collinearity of independent variables using variance inflation factors and for strongly influential outliers using leverage statistics. After assessing for interaction, confounding was assessed using a threshold of a 10% change from crude (cPR) to adjusted prevalence ratios (aPR).

3.10.2 Qualitative data

Data were analysed using inductive thematic analysis, following the guidelines proposed by Braun and Clarke (2006). The final transcripts were transcribed, translated, cleaned, and read several times to gain familiarity with the data. Relevant text passages in the transcripts were highlighted, focusing on the acceptability of the service as guided by the constructs of the TFA. Initial codes were generated based on these highlighted passages. Some codes were subsequently merged with others to form the final set. The codes were grouped into categories aligned with the constructs of the TFA. Codes that did not fit the categories were grouped into themes. The themes were reviewed, refined, and defined. A narrative for each category or theme was written. Quotes were extracted to support the interpretations.

3.11 Data quality assurance and quality control

Study tools were translated into Luganda to accommodate participants who preferred to use Luganda. They were then back-translated by a different translator to cross-check the integrity of the translation. The research assistants underwent a two-day training session with the PI to become proficient in using the study tools. A pilot study was conducted among five adolescent patients and their caretakers at Butabika Hospital, and adjustments were made accordingly. The PI checked all completed questionnaires daily to ensure they were filled out correctly. The captured data were entered into EpiData by the double data entry method to ensure the integrity of data entry. Additionally, the PI compared audio recordings with their

transcripts to verify transcription accuracy. The PI also reviewed and refined transcripts translated from Luganda to English.

In order to safeguard electronic data from tampering, it was securely stored on a password-protected computer, memory card, and a password-protected Microsoft OneDrive account that were exclusively accessible to the PI.

3.12 Dissemination plan

A report of the findings of this study will be shared with the staff of Butabika Hospital. Additionally, a dissertation will be submitted to the Clinical Epidemiology Unit and the Directorate of Research and Graduate Training. Furthermore, a manuscript will be prepared and submitted to a peer-reviewed journal for possible publication.

3.13 Ethical Considerations

This study was cleared by the Clinical Epidemiology Unit and received ethical approval from the School of Medicine Research Ethics Committee (SOMREC) under study approval number Mak-SOMREC-2022-425. Subsequently, Butabika Hospital granted permission to conduct the study. Informed consent or assent was obtained from each study participant or their respective parents/guardians as appropriate. Additionally, their data were anonymised to ensure confidentiality throughout the study.

RESULTS

4.1 Quantitative Results

4.1.1 Descriptive statistics of independent variables

Data were collected from 16th November 2022 to 15th March 2023 at Butabika Hospital from 251 participants, which included 63 adolescent mental health patients and 188 caretakers of adolescent mental health patients. The variables with missing data included the age of the caretaker (2), residence (1), phone ownership (1), phone sharing (2), and TMH experience (1).

4.1.1.1 Demographic, clinical, and ICT characteristics of patients

Most patients were female (61.9%), had one diagnosis (88.9%), and most primary diagnoses were mental and behavioural (55.6%). Furthermore, regarding ICT characteristics, most patients did not own phones (59.7%) or had no experience with any TMH service (77.4%). The descriptive statistics of the characteristics of patients are shown in Table 1.

Table 1: Demographic, clinical, and ICT characteristics of 63 patients

Variable	Values	Frequencies (%)
Sex	Female	39 (61.9)
Age	MD (IQR)	16 (4)
School attendance	Yes	49 (77.8)
Residence (n = 62)	Outside Kampala	30 (48.4)
Two diagnoses	Yes	7 (11.1)
Primary diagnosis	**Mental and behavioural**	**35 (55.6)**
	F19	1 (1.6)
	F20	1 (1.6)
	F22	7 (11.1)
	F30	1 (1.6)
	F31	17 (27.0)
	F32	5 (7.9)
	F43	1 (1.6)
	F44	1 (1.6)
	F81	1 (1.6)
	Neurological	**28 (44.4)**
	G40	28 (44.4)
Secondary diagnosis (n = 7)	**Mental and behavioural**	**6 (85.7)**
	F20	1 (14.3)
	F22	2 (28.6)
	F23	1 (14.3)
	F43	1 (14.3)
	F62	1 (14.3)
	Neurological	**1 (14.3)**
	G40	1 (14.3)
Owns phone (n = 62)	Yes	25 (40.3)
Shares phone (n = 62)	Yes	40 (64.5)
TMH experience (n = 62)	Yes	14 (22.6)

Key to ICD-10 codes: *F19 – Mental and behavioural disorders due to multiple drug use and use of other psychoactive substances, F20 – Schizophrenia, F22 – Persistent delusional*

disorders, F23 – Acute and transient psychotic disorders, F30 – Manic episode, F31 – Bipolar affective disorder, F32 – Depressive episode, F43 – Reaction to severe stress and adjustment disorders, F44 – Dissociative [conversion] disorders, F62 – Enduring personality changes not attributable to brain damage and disease, F81 – Specific developmental disorders of scholastic skills, G40 – Epilepsy

4.1.1.2 Demographic and ICT characteristics of caretakers

Most caretakers were female (72.3%) or had attained at least a primary 7-level education (48.9%). Regarding ICT characteristics, most of them owned phones (97.9%) or had no experience with any TMH service (81.4%). More detailed descriptive statistics of the characteristics of caretakers are shown in Table 2.

Table 2: Demographic and ICT characteristics of 188 caretakers

Variable	Values	Frequencies (%)
Sex	Female	136 (72.3)
Age (n = 186)	MD (IQR)	41 (15)
Education level	Below Primary 7	43 (22.9)
	At least Primary 7	92 (48.9)
	At least Senior 6	27 (14.4)
	Any tertiary education	26 (13.8)
Residence	Outside Kampala	90 (47.9)
Owns phone	Yes	184 (97.9)
Shares phone (n = 187)	Yes	60 (32.1)
TMH experience	Yes	35 (18.6)

4.1.2 Prevalence of high acceptability

The prevalence of high acceptability was lower among patients than among caretakers as shown in Table 3.

Table 3: Prevalence of high acceptability among 63 patients and 188 caretakers

Population	Prevalence, f (%)	95% CI, f (%)
Patients	49 (77.8)	42 – 56 (67.2 - 88.3)
Caretakers	175 (93.1)	168 - 182 (89.4 - 96.7)

4.1.3 Bivariable analyses of factors associated with high acceptability among patients

After bivariable analysis, none of the factors was significantly associated with high acceptability. However, sex (p = 0.145), having two diagnoses (p = 0.177), owning a phone (p = 0.145), and sharing a phone (p = 0.054) had p values less than 0.2. The results of all bivariable analyses of factors associated with high acceptability among patients are shown in Table 4.

Table 4: Bivariable analyses of factors associated with high acceptability among 63 patients

		Acceptability				
Variable	**Levels**	**Low, f (%)**	**High, f (%)**	**cPR**	**95% CI**	**p**
Sex	Male	3 (12.5)	21 (87.5)	1.000		
	Female	11 (28.2)	28 (71.8)	0.821	0.640 - 1.052	0.145
Age				1.023	0.954 - 1.098	0.525
School	No	2 (14.3)	12 (85.7)	1.000		
attendance	Yes	12 (24.5)	37 (75.5)	0.881	0.675 - 1.150	0.716
Residence	In Kampala	8 (25.0)	24 (75.0)	1.000		
	Outside Kampala	5 (16.7)	25 (83.3)	1.111	0.860 - 1.436	0.421
Two	No	11 (19.6)	45 (80.4)	1.000		
diagnoses	Yes	3 (42.9)	4 (57.1)	0.711	0.370 - 1.368	0.177
Primary	Neurological/	7 (25.0)	21 (75.0)	1.000		
diagnosis	unclassified					
	Mental and behavioural	7 (20.0)	28 (80.0)	1.067	0.814 - 1.398	0.635
Owns phone	No	6 (16.2)	31 (83.8)	1.000		
	Yes	8 (32.0)	17 (68.0)	0.812	0.599 - 1.100	0.145
Shares phone	No	8 (36.4)	14 (63.6)	1.000		
	Yes	6 (15.0)	34 (85.0)	1.336	0.949 - 1.880	0.054
TMH	No	10 (20.8)	38 (79.2)	1.000		
experience	Yes	4 (28.6)	10 (71.4)	0.902	0.628 - 1.295	0.717

4.1.4 Multivariable analyses of factors associated with high acceptability among patients

The variables considered for multivariable analysis were phone sharing, sex, and age. Age was considered because of its epidemiological importance. There was no collinearity of independent variables or strongly influential outliers in the data. None of these variables was significantly associated with high acceptability following the analysis. Nonetheless, sex and age were maintained in the multivariable model for their epidemiological importance. Results

of the multivariable analysis of factors associated with high acceptability among patients are shown in Table 5.

Table 5: Multivariable analysis of factors associated with high acceptability among 63 patients

Variable	cPR	aPR	95% CI	p value
Sex	0.821	0.806	0.806 - 1.041	0.098
Age	1.023	1.030	1.030 - 1.104	0.400

4.1.5 Bivariable analyses of factors associated with high acceptability among caretakers

After bivariable analysis, none of the independent variables was significantly associated with high acceptability or had a p value less than 0.2. The results of all bivariable analyses of factors associated with high acceptability among caretakers are shown in Table 6.

Table 6: Bivariable analyses of factors associated with high acceptability among 188 caretakers

		Acceptability				
Variable	**Levels**	**Low, f (%)**	**High, f (%)**	**cPR**	**95% CI**	**p**
Sex	Male	5 (9.6)	47 (90.4)	1.000		
	Female	8 (5.9)	128 (94.1)	1.041	0.944 - 1.149	0.353
Age				0.999	0.996 - 1.002	0.430
Education level				1.003	0.954 - 1.055	0.903
Residence	In Kampala	5 (5.1)	93 (94.9)	1.000		
	Outside Kampala	8 (8.9)	82 (91.1)	0.960	0.887 - 1.039	0.307
Owns phone	No	0 (0.0)	4 (100.0)	1.000		
	Yes	13 (7.1)	171 (92.9)	0.929	0.893 - 0.967	0.446
Shares phone	No	7 (5.5)	120 (94.5)	1.000		
	Yes	6 (10.0)	54 (90.0)	0.953	0.867 - 1.047	0.260
TMH experience	No	10 (6.5)	143 (93.5)	1.000		
	Yes	3 (8.6)	32 (91.4)	0.978	0.877 - 1.092	0.712

4.1.6 Multivariable analyses of factors associated with high acceptability among caretakers

The variables considered for multivariable analysis were phone ownership, sex, and age. Sex and age were considered because of their epidemiological importance. There was no collinearity of independent variables or strongly influential outliers in the data. Only phone ownership was significantly associated with high acceptability following the analysis. Nonetheless, sex and age were maintained in the multivariable model for their epidemiological importance. Results of the multivariable analysis of factors associated with high acceptability among caretakers are shown in Table 7.

Table 7: Multivariable analysis of factors associated with high acceptability among 188 caretakers

Variable	cPR	aPR	95% CI	p value
Owns phone	0.929	0.940	0.900 - 0.982	0.006
Sex	1.041	1.048	0.952 - 1.155	0.338
Age	0.999	0.999	0.997 - 1.002	0.570

4.2 Qualitative Results

IDIs were conducted with six patients and eight caretakers, and KIIs were conducted with four MHPs. Patients were evenly distributed between residences in and outside Kampala; two had used TMH before. Caretakers constituted three men and five women. They were evenly distributed between residences in and outside Kampala; two had used TMH before. Characteristics of IDI interviewees are summarised in Table 8.

Table 8: Characteristics of 14 IDI interviewees

Population	Codename	Sex	Age	Place of residence	TMH experience
Patient	Alpha	Male	15	In Kampala	No
Patient	Beta	Female	17	In Kampala	No
Patient	Gamma	Male	16	Outside Kampala	No
Patient	Delta	Male	13	Outside Kampala	Yes
Patient	Zeta	Female	18	Outside Kampala	No
Patient	Theta	Female	17	In Kampala	Yes
Caretaker	Red	Female	53	Outside Kampala	No
Caretaker	Orange	Female	31	Outside Kampala	No
Caretaker	Yellow	Female	36	Outside Kampala	No
Caretaker	Green	Female	41	In Kampala	Yes
Caretaker	Blue	Male	42	In Kampala	Yes
Caretaker	Indigo	Male	55	In Kampala	No
Caretaker	Violet	Female	39	In Kampala	No
Caretaker	White	Male	60	Outside Kampala	No

MHPs included a nurse and three psychiatric clinical officers. While all of them had provided some form of TMH before, only one had worked as a respondent in the TMH service at the hospital. Characteristics of KII interviewees are summarised in Table 9.

Table 9: Characteristics of four KII interviewees

Codename	Sex	Cadre	Experience providing the service
MHP1	Female	Nurse	No
MHP2	Female	Psychiatric Clinical Officer	Yes
MHP3	Male	Psychiatric Clinical Officer	No
MHP4	Male	Psychiatric Clinical Officer	No

Two themes, service expansion and optimisation, were generated from codes. The results of the analysis are summarised in Table 10.

Table 10: Summary of results of IDI and KII analysis

Categories and themes	Codes	
	IDIs	**KIIs**
Affective Attitude	Positive attitude, Neutral attitude	Positive attitude, Neutral attitude
Burden	Minimal burden, Less burdensome, As burdensome, ICT infrastructure, Safety	More burdensome
Ethicality	Ethical	Ethical, Ethical issues, Special cases
Intervention Coherence	Talk therapy, Extra care, Ancillary services, Caretakers' mental health.	Talk therapy, Ancillary services, Caretakers' involvement, Depending on the situation.
Opportunity Cost	Minimal opportunity cost	Minimal opportunity cost, Great opportunity cost
Perceived Effectiveness	Less effective, As effective, More effective.	Less effective
Self-Efficacy	Confidence	Confidence
Service optimisation	MHPs, Patient conditions, Organisation	Patient conditions, Organisation
Service expansion	Time, Medicine delivery, TMH experience	MHPs

4.2.1 Affective Attitude

Affective attitude was defined as a patient or caretaker's feelings about using the service or an MHP's feelings about providing the service. All participants expressed hopeful feelings regarding using the service (positive attitudes) or indifference (neutral attitudes). Those who had positive attitudes cited the utility of the service.

"I would want it because sometimes I may have a problem and not have anyone to talk to about it." (17/Female from Kampala without TMH experience)

"Now, because the service is new, we do not know details of how it will work. But for me, I like it because HIV patients can be treated over the phone." (1st Mother: Outside Kampala without TMH experience)

"I would say good because sometimes they may be shy physically to express certain issues, but maybe on the phone they can confidently express themselves since you are not looking at them." (MHP3)

Those who held neutral attitudes had feelings moderated by scepticism around its feasibility and effectiveness.

"It has no problem. Just that I am at school most times." (18/Female from Outside Kampala without TMH experience)

"Hmm, yes, with adolescents, one, they are shy. They don't want to open up. So if someone is sharing with someone he's not seeing physically, they can open up. There is a chance that the person can open up but also there are chances that they can manipulate [laughs]." (MHP2)

4.2.2 Burden

Burden was defined as the patient's or caretaker's perceived effort required to use the service or an MHP's perceived effort required to provide the service. All patients and caretakers believed that utilising the service demanded either less than or equal effort to using

in-person services. On the contrary, all MHPs thought providing the service would require more effort than in-person services.

The kinds of effort considered by patients and caretakers included borrowing phones, privacy, cost, and the inability to obtain medication via the service.

"I can easily get a place to talk in private." (17/Female from Kampala without TMH experience)

"In that case, being on phone is more convenient because it will not include transport costs." (2nd Father: in Kampala with no TMH experience)

"It may be burdensome because they are not going to send the medicine. After talking, I still have to come for the medicine." (2nd Father: in Kampala with no TMH experience)

Moreover, patients without personal phones tended to or preferred borrowing their parents' phones.

"If I can get a phone from home [from her mother], I will have no problem because I do not want to borrow phones [from elsewhere]." (17/Female from Kampala without TMH experience)

One patient owned a phone but was concerned about privacy if he had to share it with anyone other than his mother. He was worried that someone else might discover his treatment at Butabika Hospital, which he preferred to keep confidential.

"I have an issue with that [people discovering that he gets treatment from Butabika Hospital] which is why I do not share my phone with anyone." (16/Male from Outside Kampala without TMH experience)

The kinds of effort considered by MHPs revolved around a fear of higher workloads while providing the service. Such workloads depended on the number of patients and extra tasks per patient, such as documenting the phone call first in a personal record book and then transferring that information to the hospital's and MoH's records systems.

"Yes, it's hectic. That is a fact we can't shy away from. For example, you see that in such a clinic, someone is seeing 150 patients." (MHP3)

"Even the MHP that is receiving the phone call must have their own record book where they note what transpired over the phone call." – (MHP1)

Interestingly, the MHPs corroborated the patients' and caretakers' perspectives that using the service was less burdensome than in-person services because it was cheaper. However, they also thought it was because it evoked less stigma for them.

"When we are considering Butabika Hospital, few people can comfortably enter that gate. Be it the parents, even if the adolescent is interested in the service, the parent may not come because they do not want to be labelled that they entered Butabika." (MHP3)

4.2.3 Ethicality

Ethicality was defined as the extent to which using or providing the service has a good fit with a patient's, caretaker's, or MHP's value system, respectively. The question employed an analogy based on religious teachings about morality among the patients and caretakers. The religion mentioned in the analogy was adapted to align with that of the patient or caretaker. No such analogy was required when questioning MHPs.

Patients and caretakers had no moral concerns with the design of the service. However, two considered scenarios in which the service could facilitate some questionable behaviour by the MHP. A patient considered the likelihood of being swindled by an MHP through the service and a caretaker worried about the MHP potentially not having the opportunity to meet the patient face-to-face. Nonetheless, utilising the service did not rule out receiving in-person care.

"Unless they ask for money and swindle you. Otherwise, it is right. If you can explain to them your condition at any time, it would be okay. But there are some who would ask you for money, and that would be a problem." (17/Female from Kampala without TMH experience)

"Not that they have to see the child every time I come, but maybe at least once in 2 months." (1st Mother: Outside Kampala without TMH experience)

Conversely, all the MHPs were concerned about ethically providing the service given its set-up. Most prominent was the issue of consent and assent when minor-aged adolescents called into the service. Three MHPs suggested handling this issue over several interactions. The first interaction would be to build rapport and provide some limited care. Then the following ones could be to encourage the patient to involve their parent or guardian even if they did not want to do so initially.

"So the first encounter is not always very easy because you are now trying to create rapport. But as time goes on, you keep having a discussion with them until they are able to identify a person who can consent for them." (MHP4)

Notably, one MHP said he would not require a parent's or guardian's consent to treat a minor who claimed to have been abused by their parent or guardian.

"A 12-year-old has called me and is saying that my dad uses me and I am tired of having sex with him. That is a point where you will not call the parent. It is a point where you just call the probation officer in the district or nearby to go and protect the child from such abuse." (MHP3)

However, some MHPs thought ethical issues would be minimal because the service has a net good for the patients and because it is the patients seeking care from the MHPs and not the MHPs imposing the care on them.

"And on the other hand, it is them seeking the care. It is not us interrogating them. It is them seeking the service." (MHP3)

4.2.4 Intervention coherence

Intervention coherence was defined as the extent to which the patient, caretaker, or MHP understands the service and how it works. At first, there needed to be more clarity

among patients and caretakers about how the service works. Some mistakenly believed that the service could provide medicine delivery. The MHPs, on the other hand, immediately understood how the service works.

All participants recognised the ability of the service to facilitate talk therapies such as guidance, counselling, and health education.

"You may be confused, you don't know what to do, but when you talk to the MHP, you can get advice on how to get something to do. Even simply talking to the MHP can be treatment." (3rd Father: Outside Kampala without TMH experience)

"Of course, if you look at these ones [patients at the clinic], we have adolescents but most of them are brought by their relatives and guardians. If a guardian calls you, and then you are able to explain, they will be able to bring their clients here. But take for example if someone is gay and he calls you. He has a concern; he may not need medication but he only needs guidance on how to go about it." (MHP4)

Furthermore, the patients and caretakers envisioned additional ways the service could work beyond how it was designed. For instance, some caretakers recognised the service as positively impacting their mental health, and a patient thought he could use recordings of sessions to understand his condition better.

"You see, people like us with sick children can get overwhelmed by thoughts, feel sad and anxious and you feel fed up of life. But if you find someone to talk to you about your challenges, you calm down and feel better." (3rd Mother: Outside Kampala without TMH experience)

"The MHP can ask you psychological questions. Whenever they ask you a question, and you answer, a phone has a recorder. If you have recorded it and you listen back to it, you can tell that, at this point, I said uncoordinated things. Then you can get better by understanding yourself better." (16/Male from Outside Kampala without TMH experience)

All MHPs agreed that caretakers had roles in providing the service to minor-aged patients beyond consenting to their care.

"The intervention will always involve talking to adolescents themselves and also getting information from caretakers what we call collateral information. Because you cannot rely on only information got from an adolescent." (MHP2)

They also recognised the need for linkage to ancillary services such as in-person healthcare and security forces.

"You may provide counselling, psychoeducation, relief, but after we need to test for HIV. That is the fact. And if possible, we also need to get the other parties otherwise we may just leave it like that and this person may instead turn up positive yet they could have taken post-exposure prophylaxis. Linkage to the nearby healthcare facility should be part of this service." (MHP3)

However, they disagreed on when it was most appropriate to provide the service in place of in-person care, with one MHP saying they could provide the service during an initial encounter in case of an emergency; yet another thought it was most appropriate for providing follow-up care.

"For the first time if the patient is too violent to be handled, you can treat over the phone to calm the situation and save a life." (MHP1)

"At the moment in our working culture here, what we do is more of psychotherapy … but first it has to be a physical contact and then the follow-ups." (MHP2)

4.2.5 Opportunity cost

Opportunity cost was defined as the extent to which benefits, profits, or values must be given up to use or provide the service. No opportunity cost could discourage the patients and caretakers from utilising the service. However, the patients expressed notable concern about missing school. On the other hand, the MHPs considered it unacceptable if they had to

do so outside their scheduled working hours or from home. Still, one MHP claimed he could do so if he were well compensated for it.

"It would help if you could talk to them when you get back home from school in the night and then in the morning you can go back to school." (15/Male from Kampala without TMH experience)

"The things you set aside; we cannot buy life. You cannot say that I will buy life for 20,000/=. So when it comes to life, I will give it time." (3rd Father: Outside Kampala without TMH experience)

"For example, I must leave time for my family. If it means that the calling is just open then we can consider at the end of the month, how many calls have you taken, how many people have you helped, so that if you are working at 8, you can be compensated. That way people are not stressed, and you do not stress their families as well." (MHP4)

Otherwise, all MHPs agreed that there would be little to no opportunity cost if they only had to provide the service during scheduled working hours. Moreover, the one already providing the service added that she did not have to take every call.

"The service works like a customer care line. If this one doesn't pick up, the call will move to another person. Someone free will pick there and then." (MHP2)

4.2.6 Perceived effectiveness

Perceived effectiveness was defined as the extent to which the service is deemed as likely to achieve its purpose, i.e. aiding in remedying mental illness. All participants had one of three perspectives depending on some well-circumscribed contexts. They all believed that the service was less likely, as likely, or even more likely than in-person care to facilitate remedying mental illness.

One patient thought using the service would not help him overcome his shyness.

"Maybe I also gain whenever I am face to face. I become less shy and get used to people." (16/Male from Outside Kampala without TMH experience)

Similarly, one caretaker was concerned that using the service would limit his ability to cope with his child's condition.

"Because there is no one who could only be at home. Whenever you come out among people, that is also treatment. Because you get strengthened. Because these people, they tell you that there are others who are like you. That can help you even if you haven't gotten medicine." (3rd Father: Outside Kampala without TMH experience)

Notably, all participants thought the service could be hindered by the MHP's inability to accurately assess the patient's condition, prescribe, and administer medicine.

"When you are talking face to face, whatever you say, you are sure that it is the truth. But while on phone, you can decide to say something because you know that the MHP cannot see you." (16/Male from Outside Kampala without TMH experience)

"For any person here in Uganda, seeing is believing. If you are only seeing something from a far, it is hard to appreciate it the same as the one you see up close." (3rd Father: Outside Kampala without TMH experience)

"It will be like you just had a conversation. Drugs are very important because you have to give to someone first aid with some drugs to start with. But now we do not have a system where we can deliver drugs. We have not yet reached that standard but I know we shall reach there." (MHP1)

Some patients and caretakers believed the service would be as good as in-person care for receiving talk therapy, like counselling.

"If I am to get counselling, using a phone would work just the same." (18/Female from outside Kampala without TMH experience).

Finally, others thought it would help them speak more freely when they felt shy.

"Okay, you may be shy and you do not want to talk face to face. Maybe you made a mistake. But over the phone you cannot be shy because you [the patient and MHP] are not close." (17/Female from Kampala without TMH experience)

4.2.7 Self-efficacy

Self-efficacy was defined as the patient's, caretaker's, or MHP's confidence that they can perform the behaviour(s) required to use or provide the service. All participants were confident in their ability to use or provide the service. One MHP added that she was confident because she had the support of other MHPs who provided the service at the hospital. She reported that there were MHPs of all cadres among them. For instance, if the patient needed a psychologist, she said, *"We'll talk to the person and say, do you mind if I share this number with someone who can handle your issue? So, you will receive a phone call shortly from another person who can handle this."* (MHP2)

Another MHP added that he was confident because he was already providing TMH independently.

"Yes, because I have been doing it before but not through the hospital program. Now, you find these adolescents, yes you have been speaking to them physically but you realize there is something they are hiding and you are like, take my number. If there is any issue, please call me." (MHP3)

Some participants also mentioned ways or conditions in which their confidence would be further enhanced. One caretaker said she would be more confident if she knew the specific MHP with whom she was talking.

"I can talk properly. Though it would be better if I knew the person I am talking to." (4th Mother: In Kampala with TMH experience)

Furthermore, one MHP also said he would be more confident if he did not have to prescribe medicine through the service.

"If it involves medication, then it would be difficult for me to prescribe medication. For example, before we give medication, there are things we need to check for in the blood, the kidney function, taking weight, ruling out organ issues…" (MHP4)

4.2.8 Service optimisation

Service optimisation was defined as any explicit or implicit suggestion to increase the efficiency of its provision. Participants asked for special attention to conditions like violent behaviour, drug abuse, and adolescent crisis.

"My child does not like to be disturbed. Sometimes when I am not around, his siblings may disturb him and he becomes violent yet he fights with knives." (1st Mother: Outside Kampala without TMH experience)

"Mine got the disease when he was still young. But there are others who get diseases out of their own free will. Especially when you go up there [points to the upper side of the hospital], all those are brought here when they are tied up with ropes because of these drugs they use." (1st Father: In Kampala with TMH experience)

"One, issues to do with adolescent crisis are things we need to pay attention to. And then drugs. So each adolescent should be made aware of and screened for drugs much as the problem might not be something to do with drugs." (MHP2)

Some patients and caretakers wanted to have the MHP's undivided attention. Interestingly, the MHP would be more likely to give the caller their undivided attention if they only picked up the phone when they were available, as happens in the service, and did not have to do so outside of their regular work hours.

"Yes, if they also give me the time and are not distracted. For example, you as a care taker, by the time you call, you would have made the time to talk to the MHP. But for them, they are mostly busy at that time. Mainly the MHPs should give us time." (1st Mother: Outside Kampala without TMH experience)

Furthermore, one caretaker wanted to know the cadre of the MHP to whom they were talking.

"I would like to know whom I am talking to. A counsellor or doctor. As long as they are from Butabika, I don't mind talking to either. But I want to know with whom I am talking." (4th Mother: In Kampala with TMH experience)

Moreover, another cautioned that information sent via voicemail should be considered as crucial as when the caller talks to the MHP directly.

"You must find an MHP so that whether you have spoken to them directly or they left a voicemail, what follows is that that MHP tells you what to do." (1st Father: In Kampala with TMH experience)

Finally, all MHPs asked for proper scheduling and to separate time for providing the service from in-person care.

"It must be regulated, for the phone interview to be given a specific time and physical intervention also a specific time. You cannot have physical intervention in the same clinic with the phone intervention." (MHP2)

4.2.9 Service expansion

Service expansion was defined as any explicit or implicit suggestion to broaden the service's functionality. One caretaker wanted access to an MHP twenty-four-seven through the service, beyond the current set-up, whereby MHPs are only available from 8 am to 8 pm. Considering suggestions by the MHPs, this could be achieved by recruiting more MHPs and better scheduling in the service.

"That phone should be on 24hrs like that of police. Because if a person is to fall sick, you cannot predict their time. They may get an attack at midnight." (1st Father: In Kampala with TMH experience)

"Because when this service is open and people are now aware, I do not think Butabika Hospital can handle it. The available staffing levels are already very low." (MHP3)

One patient had been treated over the phone by one of the MHPs and noted that using voice notes helped ensure that he only responded when he was not too busy providing in-person care. While this was similar to the voicemail function of the service, voicemails are received by any available MHP, not a particular one, as happens with WhatsApp voice notes.

"Via WhatsApp actually. I use voice notes. Sometimes I fear to talk to him. I don't fear but I give him his respect. And he is always busy. All the time." (17/Female in Kampala with TMH experience)

A caretaker also requested that the hospital delivers medicine to them as is done for HIV patients. Considering this request, one MHP asserted that doing so would only be acceptable for prescription refills for well-known patients.

"… because HIV patients can be treated over the phone. You can call and they send medicine to you when it gets over. That would be nice. I do not know if it's the same thing that you are trying to do for us." (1st Mother: Outside Kampala without TMH experience)

"Initial prescription should be via physical and then follow-ups can be over the phone." (MHP2)

DISCUSSION

5.1 Summary of Results

In this study, a high proportion of patients (at least 7 in 10) and caretakers (at least 9 in 10) expressed high acceptability of the service. Patient acceptability was not significantly associated with any candidate factor, while caretaker acceptability was significantly associated with phone ownership. There were no confounding or interaction effects in the data.

Most participants had positive feelings about using or providing the service. Some thought it was less burdensome, as burdensome, or more burdensome than in-person care. Furthermore, using or providing the service was ethical but entailed challenges regarding providing it to minors who were non-emancipated patients. The mental health professionals also anticipated minimal opportunity costs, except if they had to provide it outside working hours. Finally, most participants believed that physical limits hampered the efficiency of the service. However, they were confident in their ability to use or provide it.

5.2 Prevalence of high acceptability among patients and caretakers

Since there were no previous quantitative studies on the acceptability of healthcare interventions in Uganda, it was impossible to interpret the prevalence of high acceptability compared to existing literature. However, the results indicate that most patients and caretakers were willing to use the service. Nevertheless, the prevalence estimates of high acceptability had wider confidence intervals among patients compared to caretakers, suggesting more random error due to the smaller patient sample size. Despite this, the lower bound of the confidence interval for the prevalence of high acceptability among patients was 67.2%, providing 95% confidence that at least 6 in 10 patients had high acceptability. Similarly, we are 95% confident that at least 8 in 10 caretakers had high acceptability.

The prevalence of high acceptability differed among the patients from that among the caretakers. This finding is attributable to the differing experiences between patients and caretakers regarding mental illness. Patients experienced both overt and covert symptoms, while caretakers were mainly affected by the overt manifestations of mental disorders in the patients. Furthermore, caretakers of young adolescent patients were more invested in managing their mental disorders than their patients were.

The high prevalence of high acceptability is attributable to the participants' positive experiences at the clinic. Participants reported significant improvements in their health or the health of the patients they cared for since attending the clinic. This confidence in the effectiveness of Butabika Hospital's healthcare services made them more receptive to a new therapeutic service by the hospital.

Another factor contributing to the high acceptability was that the new service was offered alongside regular in-person care, ensuring continuity with established therapeutic approaches. Participants could continue in-person clinic visits and receive medication as usual. Some participants even cautioned against replacing in-person care with the new service.

Furthermore, the service was free of charge and utilised familiar and established therapeutic techniques such as guidance and counselling through commonly used technology. These factors likely influenced participants to rate the service favourably on acceptability constructs such as burden and perceived effectiveness.

However, these prevalence estimates may be overestimations due to courtesy bias. The decision to administer the questionnaire through interviews rather than self-administration aimed to ensure that participants fully understood the questions before responding. However, participants may have responded more positively because that is what they expected to please the interviewers.

5.3 Factors Associated with high acceptability among Patients and Caretakers

Regarding age, high acceptability was not significantly associated with age among patients. Nonetheless, older adolescents were expected to be more likely to have high acceptability than their younger counterparts. Younger adolescents are less critical of themselves than older ones (Gittins & Hunt, 2020). Therefore, older adolescents mind other people's evaluations of them more than younger ones. Consequently, older adolescents value a service that could replace in-person visits more than their younger counterparts. However, such an association was likely not apparent due to the study being underpowered to observe it. Still, maybe acceptability among adolescents was determined primarily by proficiency with the technology required to use the service, yet that proficiency did not vary significantly with age.

Interestingly, age was not associated with high acceptability among caretakers either. Older individuals are typically less proficient with new ICT (Bhattacharjee et al., 2020). Therefore, older caretakers were expected to be less proficient with the service and, consequently, have low acceptability. However, the service was accessible through basic mobile phones, which are invariably familiar and comfortable for most people of post-adolescence age.

This finding is consistent with Abdool et al. (2021), who found that age was not associated with the acceptability of telemedicine in an adult population in the United Arab Emirates. While the authors do not offer a reason for this finding, it is suspected that they selected only those proficient with ICT. Since the questionnaire was distributed via electronic mail, only those with sufficient ICT skills could complete it. Therefore, these people are also expected to have high acceptability of telemedicine because they experience fewer challenges when using it.

Considering sex, no significant association with high acceptability was observed among patients or caretakers. This lack of association probably indicates that gender disparities do not significantly impact the acceptability of the service to women and girls relative to men and boys. Women's and girls' rights and freedoms were likely not limited to any extent that would impact their acceptability of the service relative to men and boys.

This finding was consistent with that by Keyworth et al. (2021), that gender was not associated with the acceptability of a web-based intervention to prevent and reduce self-harm in the United Kingdom. Moreover, given that the study was conducted in the United Kingdom, a first-world country, gender disparities were probably even less in their population than in Uganda.

School attendance was not associated with high acceptability among patients because it did not significantly limit their access to phones at school. Patients who attended school had sufficient access to phones by borrowing phones from trusted teachers and thus nullified any association between school attendance and high acceptability.

The highest level of education attained as a proxy for intellectual ability among caretakers was not significantly associated with high acceptability. This lack of association can be attributed to using the service not requiring extensive intellectual effort. Hence, caretakers with higher intellectual abilities were neither more nor less likely than their counterparts to accept the service.

This finding is similar to that by Abdool et al. (2021), that having a basic or undergraduate education did not determine a participant's acceptability of telemedicine. Similar underlying factors are likely to have caused this finding in that study in the United Arab Emirates as in the current study.

Kamulegeya et al. (2020) reported that ancillary services being scarce outside Kampala made the provision of telemedicine services cumbersome there. Therefore, a patient

or caretaker using the service from outside Kampala was likely to receive poorer quality care or experience much more difficulty in receiving care and so have low acceptability. However, residence in or outside Kampala, which reflected the distance between participants' homes and the hospital or ancillary services, did not significantly influence high acceptability among patients or caretakers. Several reasons can account for this finding.

Firstly, most participants did not expect to require ancillary services while using the services. If the patient or caretaker did not anticipate needing these ancillary services, their scarcity outside Kampala would not moderate their opinions of the service. Secondly, most participants from outside Kampala had no experience with telemedicine services. Thus, they lacked knowledge of the challenges users face in those areas. Thirdly, the opinions of participants from outside Kampala who were aware of these difficulties may have been counterbalanced by those of participants ignorant of these difficulties. Lastly, categorizing residence this way likely obscured any relationship between actual distance and high acceptability. A more accurate measure of distance would likely yield an association.

A patient's diagnosis determines the appropriate treatment approach, with some disorders requiring only psychotherapy. In contrast, others necessitate additional somatic therapies such as chemotherapy. The intensity of treatments may also vary, whereby some constitute more frequent sessions or higher drug dosages. However, as only a limited number of psychotherapies were deliverable through the service, patients with various management plans could get various proportions of their care, influencing their acceptance level. However, the diagnosis was not significantly associated with high acceptability due to several factors.

Most adolescent patients were not solely responsible for managing their mental health. Therefore, the specific details of their diagnosis had minimal impact on their perception of the service. Additionally, most patients at the clinic primarily received chemotherapy, so they had a limited conceptualization of their management beyond that

context. Their narrowed perspective of their management obscured the relationship between diagnosis and high acceptability.

Participants who owned phones were expected to have high acceptability of the service. However, phone ownership was not significantly associated with high acceptability among patients, and the association between the two variables among caretakers differed from what was expected. Caretakers who did not own phones had a 6% higher chance of high acceptability than those who owned phones, who were the same age and sex as them.

The lack of association between phone ownership and high acceptability among patients may be attributed to phone ownership not determining phone access or the ease with which patients could use the service. Patients who did not own phones reported they could easily borrow them from their parents at home or trusted teachers at school.

The unexpected association among caretakers can be explained by the fact that caretakers who owned phones had more experience and awareness of the limitations of using phones to accomplish various tasks. On the other hand, caretakers who did not own phones overestimated the functionality of phones relative to those who owned them and so had a high acceptability of the service.

Phone sharing, which could potentially compromise the user's privacy, was not significantly associated with high acceptability among patients or caretakers. This lack of association can be attributed to participants often sharing phones with only close family members who were already aware of the patient's mental illness. Thus, revealing the use of the service to them did not pose a significant privacy concern. Moreover, most participants used basic phones with limited functionality and memory, making it unlikely for personal information to be stored or discovered by other users. Interestingly, the patient who expressed privacy concerns owned a smartphone.

Lastly, participants' experience with TMH did not influence their acceptance of the service. Participants likely perceived this service as distinct from previous experiences with other TMH services. After all, this particular service is the first of its kind provided by a public hospital. Therefore, the participants' perceptions of other services did not affect their perceptions of this service.

5.4 Exploration of the acceptability of TMH to patients, caretakers, and MHPs.

5.4.1 Affective Attitude

All participants, including patients, caretakers, and MHPs, who held positive attitudes towards the service expressed that they felt this way due to the anticipated benefits they would derive from it. For patients and caretakers, these benefits included increased opportunities for interaction with MHPs, while for MHPs, it involved engaging with patients or caretakers who were initially hesitant.

Conversely, those indifferent towards the service raised concerns about its feasibility and effectiveness. Caretakers mentioned their inability to receive medication through the service, while MHPs highlighted the challenge of conducting comprehensive physical evaluations of patients. Observing this combination of responses is reasonable because if an individual were most excited about a service's utility, they would also be most concerned about its ability to deliver it.

The strong association between affective attitude and other constructs of acceptability raises questions about whether it is an independent construct or merely an outcome of other constructs. Supporting evidence for attitude being an outcome of other acceptability constructs can be found in a study on the acceptance of mobile healthcare services for elderly patients by their relatives (Wen-Yuan & Ming-Chien, 2010). This study found that "attitude" significantly influenced the behavioural intention to adopt mobile healthcare services.

However, it also discovered that “perceived usefulness” (perceived effectiveness) and “perceived ease-of-use” (burden) indirectly affected behavioural intention through “attitude.”

5.4.2 Burden

Most patients and caretakers did not spontaneously express concerns related to burden. Concerns about phone ownership and privacy emerged only after being prompted by the interviewer. Their spontaneous remarks primarily involved comparing the service to in-person care. Therefore, they appreciated the potential relief from travelling to and from the hospital and the associated transportation costs.

Patients’ lesser concern about phone ownership is likely because those without phones could easily borrow phones from their parents, guardians, or trusted teachers. However, relying on others’ phones restricted their usage to the proximity of those individuals. For example, if parents or guardians were away from home during the day, patients could only use the service in the late evenings or early mornings. Coincidentally, the MHPs were only available through the service from 8 a.m. to 8 p.m., limiting the patients’ available time to communicate with an MHP.

Patients and caretakers were also unlikely to save on transportation costs by using the service because the medication could not be obtained through it. Nearly all interactions between patients and caretakers with MHPs occurred while picking up medicine rather than solely for psychotherapy. Therefore, the frequency of visits to the hospital would remain unchanged, keeping their transportation expenses constant.

In general, both patients and caretakers perceived less burden from using the service compared to MHPs providing the service. Patients and caretakers viewed the service as a simple phone conversation, while MHPs had concerns about the additional workload. Consequently, many MHPs suggested scheduling, separating the service from in-person care,

and recruiting more MHPs to lessen the service burden. However, they also expressed pessimism about the implementation of these recommendations.

Most MHPs anticipated providing the service in addition to their existing responsibilities without additional compensation. This view was likely because of the typically limited funds apportioned to the hospital by the government. Kigozi et al. (2010) reported that a mere 1% of the national budget is currently allocated to mental healthcare, of which 55% is directed towards Butabika Hospital, which still falls short of meeting the hospital's requirements. Notably, many other healthcare providers have reported low acceptability of TMH because of its inconvenience relative to in-person care (Brooks et al., 2013).

Furthermore, MHPs only had to attend to phone calls through the service when they were not occupied with in-person care, ensuring that their provision of in-person care was maintained. However, this arrangement also prioritised in-person care over TMH, resulting in limited availability of MHPs through the service when they provided in-person care.

5.4.3 Ethicality

All patients and caretakers regarded using the service as ethical, with only two individuals considering situations where its use may be unethical. Initially, the patients and caretakers primarily considered the moral aspect of interacting with an MHP over the phone. When prompted to explore potential immoral aspects regarding the contents of those interactions, most of them could not envision the MHP saying anything objectionable.

These caretakers probably had yet to encounter situations where MHPs suggested anything conflicting with their values. On the other hand, one MHP considered a scenario where mental healthcare might challenge a caretaker's values, such as in cases of sexual deviance. However, none of the caretakers considered such situations because their patients were not receiving care for such conditions at the clinic.

Regarding the MHPs' perspectives, most expressed concerns about consent and assent when treating minors are non-emancipated patients. The complexity of decision-making in such situations was likely increased by increased transparency. Interactions through the service could be monitored more closely than in-person care. Consequently, MHPs might have felt pressure to justify every decision based on standard ethical and professional codes of conduct, which might need to be improved in some instances. However, their opinions were similar to those by Raveesh and Munoli (2020), who, in their opinion piece addressing the ethical and legal aspects of telepsychiatry in India, emphasised the necessity of adhering to identical ethical standards in telepsychiatry as in traditional in-person care.

5.4.4 Intervention Coherence

The misunderstanding among patients and caretakers that the service would include medication delivery likely stemmed from the fact that medicine was central to their treatment. They associated clinic appointments with collecting medication and recognised improvements or deteriorations in their conditions based on medication adherence. However, they understood other treatments obtainable through the service due to their familiarity with those treatments when provided in person.

Interestingly, both caretakers and MHPs had broader perspectives on how the service could be beneficial. Caretakers emphasised how it could assist them in managing the demands of caregiving, while MHPs highlighted its potential to reach new patients not enrolled at the hospital. These distinct views likely arose from the different perspectives caretakers and MHPs held on mental healthcare. Caretakers focused on the mental health of their patients and themselves, while MHPs often considered the mental health of multiple individuals, including those outside the hospital.

Moreover, healthcare providers and researchers have long been concerned about caretakers' mental health when their patients have chronic conditions such as mental health

disorders. In a systematic review of this topic, Graven et al. (2021) recognised that although caring for their patients often took a toll on caretakers, the caretakers seldom prioritised their mental health over their patients' needs. Consequently, the authors, like the caretakers in the current study, viewed TMH as an opportunity to enhance the accessibility of mental healthcare for the frequently over-extended caretakers.

5.4.5 Opportunity Costs

While some patients and caretakers identified opportunity costs associated with using the service, they did not consider them significant. This perception likely arose from their expectation that the opportunity costs of using the service would be much lower than those of in-person services. For instance, using the service required less time than travelling to and from the hospital and waiting in line.

Similarly, MHPs only anticipated considerable opportunity costs in providing the service if they were required to do so outside their regular working hours. They considered providing the service as part of their work. Thus, the opportunity costs during working hours were similar to those associated with performing any other task at work, which they were accustomed to doing.

The perspective of MHPs aligns with the findings of Fisher et al. (2009) regarding work/non-work balance. Fisher et al. discovered that job satisfaction and stress were influenced by four key factors: the interference of work with personal life, the interference of personal life with work, the enhancement of work by personal life, and the enhancement of personal life by work. Consequently, if MHPs expected that providing the service would disrupt their personal lives without offering corresponding benefits, they would likely have lower acceptance of the service.

5.4.6 Perceived Effectiveness

Some patients and caretakers correctly recognised that the limitations of the service made it less effective for treating their mental disorders or those of their patients. However, some of them erroneously believed that it was equally effective as in-person care for receiving any form of psychotherapy. This perception likely stemmed from the false assumption that verbal communication alone is sufficient in psychotherapy, disregarding the need for comprehensive physical assessments required at the beginning and during specific psychotherapies, which cannot be conducted over the phone.

Considering the limitations of the service, MHPs had more reservations about its effectiveness. However, they all deemed the service helpful despite these limitations. They likely reasoned that compromising some aspects of mental healthcare quality was acceptable considering the benefits of using the service, such as reducing barriers to mental healthcare utilisation. Consequently, patients, caretakers, and MHPs believed that the service addressed mental illnesses at the population level more effectively than in-person care by reducing these barriers.

Holčapek et al. (2023) provided their legal perspective regarding the compromise in quality. They acknowledged that the physical limitations of telemedicine inherently make it riskier or less effective than in-person care. However, they argued that the standard of care against which telemedicine is often evaluated is a flexible and abstract concept that can be interpreted in a way that recognises telemedicine as meeting those standards. They further suggested that the decrease in quality in certain aspects of telemedicine can be offset by its advantages, such as improved access to healthcare and protection of the patient's right to choose telemedicine, as long as they are adequately informed to make such a decision.

5.4.7 Self-efficacy

Both patients and caretakers expressed confidence in their ability to use the service, while MHPs were confident in their capacity to provide it. Patients and caretakers likely felt confident because they considered using the service as simply engaging in a phone conversation. They also probably felt secure enough to disclose information remotely to an MHP.

MHPs' confidence stemmed from the proficiency they had developed by providing other TMH services. However, their confidence was diminished if they could not combine TMH with in-person care. In other words, if a patient had no access to in-person care, MHPs were not confident in their ability to provide effective treatment solely through the service. This lack of confidence is understandable, given that the MHPs were primarily trained to provide in-person care. Furthermore, the scope of the service was so limited that MHPs probably anticipated providing only a severely restricted amount of care through the service alone.

5.4.8 Service Optimisation

Caretakers and MHPs recommend paying particular attention to drug abuse. They had likely noticed the high prevalence of substance use among older adolescents. A study conducted by Abbo et al. (2016) involving 3,200 secondary school students aged 12 to 24 in Northern and Central Uganda revealed that 70.1% had experimented with alcohol and substances at some point, while 39.1% engaged in regular use.

Furthermore, the caretaker's request to know the cadre of the MHP with whom they were talking via the service is reasonable as it enables them to make well-informed decisions regarding the mental healthcare of their patients. Providing such information facilitates the principle of autonomy in medical ethics. The caretaker was likely concerned that utilising

TMH could hinder their ability to ascertain the cadre of the MHP with whom they are interacting and, therefore, requested that such information be readily available to them.

5.4.9 Service Expansion

Most participants either expressed a desire for the service to have more functions or were disappointed by its limitations. Notably, they wished it could replace in-person services within its physical limitations while maintaining the freedom to choose between it and in-person services. Their suggestions consisted of making two comparisons: one, between the service and in-person services, and two, between the service and other telemedicine services.

For example, one caretaker asked that the service include medicine delivery as is done for HIV-infected patients. Furthermore, one MHP suggested increasing the service's staffing to serve patients beyond those familiar with Butabika Hospital's in-person services, which is the case for Mental Health Uganda, that a patient need not be familiar with in-person mental healthcare before calling in (Mental Health Uganda, 2022).

The most crucial challenges to expanding the service in these ways are connected to its administration by a public hospital instead of a private entity. As such, it is limited in funding and flexibility. Furthermore, alternative services in the private sector may be organised to maximise profits. However, this one aims to be accessible to the lowest-income earners in the country. Nonetheless, whenever such desires are expressed, it is worth considering whether there are opportunities within its limitations to increase its functions.

5.5 Strengths of the study

The current study is likely the first one conducted on the acceptability of TMH in Uganda. It is based on a TMH service that uses basic phones, which are widely accessible nationwide. Therefore, its results are relevant when considering the simplest TMH services available in the country.

This study utilised the theoretical framework of acceptability, which conceptualises acceptability as a multifaceted concept. Hence, the current study consisted of a thorough assessment of the concept.

Acceptability was considered from the perspective of the providers and users of TMH, thus incorporating two necessary groups for the successful uptake of a new healthcare service. Furthermore, the service users included the patients' caretakers, who play a crucial role in their care, especially if the patients are young or severely ill.

Finally, it was conducted at the only national referral mental hospital. Therefore, the participants consisted of a selection of patients and caretakers from various regions of the country.

5.6 Limitations of the study

The data likely contains selection bias from recruiting only the patients who attended their clinic visits in person. These patients are likely to be older, more self-reliant, and less severely ill than those who did not come to the clinic.

The study did not encompass the measurement of economic status, which was hypothesised to influence the acceptability of the service. Economic status was excluded due to the inability to accurately ascertain participants' economic status, such as household income, wealth, and occupation. This exclusion was done because adolescents could not answer such questions on behalf of their parents or guardians, and the parents or guardians themselves were unlikely to provide accurate responses.

Additionally, during the design phase of the study, the minimum sample size was determined based on the assumption that patients' and caretakers' data would be analysed together. However, the analysis revealed such distinct differences in acceptability between the two populations that they were subsequently examined separately. This approach reduced

statistical power and increased the likelihood of type II errors. The study had less than 3% power to detect associations between any candidate predictor and high acceptability.

Furthermore, the scores on individual acceptability constructs were averaged to derive the score for overall acceptability. This approach falsely implied that all constructs held equal importance. However, it was employed to ease the interpretation of composite acceptability scores.

Lastly, since most participants had yet to use or provide the service, this study primarily assessed the prospective acceptability of the service. However, retrospective acceptability, evaluated after using or providing the service, will likely differ from prospective acceptability and provide valuable insights for TMH stakeholders.

5.6 Trustworthiness of qualitative data

5.6.1 Credibility

Member-checking techniques were employed to establish credibility in the qualitative aspect of the study. The data obtained from interviews was cross-referenced with information derived from field notes. Additionally, two interview transcripts were given to their respective participants to verify the accuracy of the transcriptions and ensure that they truly reflected what was said.

5.6.2 Transferability

The findings of this study can be applied to MHPs who treat adolescent patients in public hospitals like Mulago National Referral Hospital. They are also relevant to similar professionals working in private facilities, provided they handle comparable patient volumes in contexts similar to Butabika Hospital. Moreover, the insights gathered from patients and their caretakers will likely apply to other adolescent mental health patients and their caretakers in Kampala and nearby areas with mild to moderate mental illnesses and from households with low to average incomes.

5.6.3 Dependability

The PI employed bracketing and peer debriefing methods to ensure dependability during the data recording process. The PI maintained a clear distinction between his observations of the participants and their statements and his interpretations of the data. A peer debriefing session was conducted with a colleague with expertise in qualitative data analysis. During these sessions, the colleague provided feedback on the data, and their reactions were considered during the data analysis phase.

5.6.4 Confirmability

To ensure confirmability, the PI maintained a journal documenting the activities carried out during data collection and detailed notes on the transcription and analysis procedures.

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

At least seven in 10 patients and nine in 10 caretakers expressed high acceptability of TMH for adolescent patients at Butabika Hospital.

None of the candidate factors was significantly associated with high acceptability of TMH among the patients, while among caretakers, not owning a phone was significantly associated with high acceptability of TMH. However, these results had a high likelihood of random and type II errors due to the small sample sizes.

Patients, caretakers, and MHPs had favourable opinions about TMH, varying with their mental healthcare experience. Generally, patients and caretakers expected less burden from using TMH than MHPs expected from providing the service. The MHPs were especially worried about bigger workloads while providing TMH that would not be matched with increased remuneration.

The MHPs were concerned about the ethical issues arising from providing TMH to minors who were non-emancipated patients, such as obtaining informed consent. They also only anticipated significant opportunity costs to providing the service if they had to do so outside working hours.

All MHPs and some patients and caretakers thought that TMH was less effective than in-person care due to its physical limitations, such as the inability to receive medicine or conduct a thorough physical assessment of the patient, which likely explains why caretakers who owned phones had a lower likelihood of having high acceptability. Similarly, the MHPs needed more confidence to provide TMH when they could not also refer them to in-person care. Nevertheless, despite those limitations, all participants were excited about TMH's utility.

6.2 Recommendations

The high acceptability of TMH for adolescent patients at Butabika Hospital may encourage mental health providers to start or continue providing TMH to these patients. The management of Butabika Hospital could also consider conducting formative research about the TMH service for adolescent mental health patients. The research results will inform their efforts to improve the service for these patients.

Phone ownership is associated with a lower likelihood of having high acceptability, which is probably an indicator of scepticism about TMH effectiveness among caretakers who use phones more frequently. TMH providers need to demonstrate the capabilities of TMH use, especially how physical limitations are navigated in the service to increase acceptability among caretakers who own phones.

Administrators of institutions providing TMH should be cognisant of the higher workloads associated with providing the service above that associated with providing in-person care. Specifically, they should consider hiring more MHPs to provide TMH and remunerating those MHPs to a level commensurate with this workload.

Administrators of institutions providing TMH and the Ministry of Health should enact institutional and national TMH policies to address the likely ethical issues of providing the service to minors who are non-emancipated patients. Additionally, educators of mental health professionals should incorporate teachings about providing mental healthcare remotely. These policies and education will increase MHPs' confidence to provide TMH to adolescent patients.

Considering the limitations of small sample sizes, future researchers should be meticulous during their design and data collection phases. They should include large, homogeneous samples from the populations they intend to study. Furthermore, it would be valuable for researchers to include populations with experience with TMH services to

examine their retrospective acceptability of TMH. They could also consider studying the efficacy and effectiveness of TMH for various mental health conditions and conducting needs assessments of TMH in various contexts in Uganda.

To maximise the effectiveness of TMH services, providers should acknowledge their limitations and endeavour to find innovative solutions within prevailing constraints. For example, they could establish and maintain networks with ancillary services such as pharmacies to ensure efficient medication delivery. Moreover, incorporating smartphone usage into TMH delivery, including exchanging images and videos, can facilitate physical examinations of patients. Such enhancements will increase TMH services' utility and overall acceptability.

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APPENDICES

Appendix 1: Consent form for the adolescents for the structured interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com

Background and rationale for the study: You have been invited to participate in this study because you are an adolescent (aged 10 to 19 years old) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, people your age are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if you do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to participate in the research project: You may take about 15 minutes to participate in this study.

Procedures: If you agree to participate in this study, you will be asked a few questions from a questionnaire. Your responses to these questions will be recorded on the questionnaire.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to you directly. However, the things we shall learn from this study will be used to improve telemental health for people like you. Furthermore, you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you participate in this study.

Confidentiality: Your name will not be recorded anywhere on the questionnaire. This consent form and the questionnaire with your responses will be stored in a safe with a lock. All information from this study will be stored on a password-protected computer, password-

protected flash disk, and password-protected cloud account. The information will only be available to people doing the study.

Alternatives: You may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for participating in this study.

Compensation for participation in the study: Everyone who participates in the study will be given ten thousand shillings (10,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You can refuse to participate in this study and even leave it at any time you want. Leaving the study will not affect your treatment at Butabika Hospital in any way.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while participating in it. I understand that my decision to participate or not will not affect my ability to continue getting treatment at Butabika Hospital. In the use of information from the study, my identity will be concealed. I am aware that I may withdraw from the study at any time. 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.

Participant

Name ……..... Signature/thumbprint …… Date ……

Witness

Name ……..... Signature ……. Date ……

Interviewer

Name ……..... Signature ……. Date ……

Appendix 2: Consent form for the adolescents for the structured interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Oyitiddwa okwetaba mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 19) ng'onoonya obujjanjabi mu ddwaaliro e Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abantu ab'emyaka gyo batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa tokkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavubwo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 15 okwetaba mu kunoonyereza kuno.

Emitendera: Bw'oba okkirizza okwetaba mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula lw'ebibuuzo. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa ku lupapula luno.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali bulabe bwa maanyi busuubirwa okuva mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okukumalako emirembe.

Okuganyulwa: Tewajja kubaawo mugaso gwonna gy'oli butereevu. Naye ebintu bye tugenda okuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno

ey'obujjanjabi bwa telemental health eri abantu nga ggwe. Ekirala, tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba weetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo. Ekiwandiiko kino ekisaba olukusa, n'olupapula oluliko byoyanukudde bijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukirirwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Oyinza okugenda mu maaso n'emirimu gyo egy'olunaku mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kusasula ssente zonna olw'okwetaba mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Buli muntu eyetaba mu kunoonyereza kuno ajja kuweebwa sillingi omutwalo gumu (10,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kukuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembelyo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Osobola okugaana okwetaba mu kunoonyereza kuno n'otuuka n'okukuleka essaawa yonna gy'oyagala. Okuva mu kunoonyereza tekijja kukosa bujjanjabi bwo mu ddwaaliro e Butabika mu ngeri yonna.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange nga neetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwange okusigala nga nfuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze ng'omuntu bijja kubikkibwako. Nkimanyi nti nyinza okuva mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….…….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya ……..... Omukono…….…….

Ennaku z'omweezi …….

Appendix 3: Consent form for the adolescents for the in-depth interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been invited to participate in this study because you are an adolescent (aged 10 to 19 years old) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, people your age are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if you do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to participate in the research project: You may take about 30 minutes to participate in this study.

Procedures: If you agree to participate in this study, you will be asked a few questions from an interview guide. Your responses to these questions will be recorded in a notebook and using an audio recorder.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to you directly. However, the things we shall learn from this study will be used to improve telemental health for people like you. Furthermore, you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you participate in this study.

Confidentiality: Your name will not be recorded anywhere on the interview guide or field notes. This consent form will be stored in a safe with a lock. The audio recordings with your responses and all transcripts from them will be stored on a password-protected computer,

password-protected flash disk, and password-protected cloud account. And the information will only be available to people doing the study.

Alternatives: You may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for participating in this study.

Compensation for participation in the study: Everyone who participates in the study will be given fifteen thousand shillings (15,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You can refuse to participate in this study and even leave it at any time you want. Leaving the study will not affect your treatment at Butabika Hospital in any way.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while participating in it. I understand that my decision to participate or not will not affect my ability to continue getting treatment at Butabika Hospital. In the use of information from the study, my identity will be concealed. I am aware that I may withdraw from the study at any time. 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.

Participant

Name ……..... Signature/thumbprint …… Date ……

Witness

Name ……..... Signature ……. Date ……

Interviewer

Name ……..... Signature ……. Date ……

Appendix 4: Consent form for the adolescents for the in-depth interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com

Ebigendererwa n'ensibuko y'okunoonyereza: Oyitiddwa okwetaba mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 19) ng'onoonya obujjanjabi mu ddwaaliro e Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abantu ab'emyaka gyo batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa tokkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavubwo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 30 okwetaba mu kunoonyereza kuno.

Emitendera: Bwokkiriza okwetaba mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula lw'ebibuuzo. Okwanukulakwo eri ebibuuzo bino kujja kuwandiikibwa mu katabo awamu n'okukulikoodinga mu kyuma ekirikoodinga amaloboozi.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali bulabe bwa maanyi busuubirwa okuva mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okukumalako emirembe.

Okuganyulwa: Tewajja kubaawo mugaso gwonna gy'oli butereevu. Naye ebintu bye tugenda okuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno

ey'obujjanjabi bwa telemental health eri abantu nga ggwe. Ekirala, tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba weetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo oba mu katabo akalimu byoyanukudde. Ekiwandiiko kino ekisaba olukusa kijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukirirwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Oyinza okugenda mu maaso n'emirimu gyo egy'olunaku mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kusasula ssente zonna olw'okwetaba mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Buli muntu eyetaba mu kunoonyereza kuno ajja kuweebwa sillingi omutwalo gumu n'ekitundu (15,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kukuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembelyo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Osobola okugaana okwetaba mu kunoonyereza kuno n'otuuka n'okukuleka essaawa yonna gy'oyagala. Okuva mu kunoonyereza tekijja kukosa bujjanjabi bwo mu ddwaaliro e Butabika mu ngeri yonna.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange nga neetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwange okusigala nga nfuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze ng'omuntu bijja kubikkibwako. Nkimanyi nti nyinza okuva mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza. Nkitegeera nti okuteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyennina kuba nalyo mu mateeka wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 5: Consent form for the parents/ guardians of minor aged adolescents for the structured interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: Your child has been invited to participate in this study because they are an adolescent (aged 10 to 19 years) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, adolescents are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your child's willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to in the research project: Your child may take about 15 minutes to participate in this study.

Procedures: If you allow your child to participate in this study, they will be asked a few questions from a questionnaire. Their responses to these questions will be recorded on the questionnaire.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers to your child from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to your child directly. However, the things we shall learn from this study will be used to improve telemental health for adolescents like them. Furthermore, they will not receive any treatment in this study, but they can continue to receive treatment at Butabika Hospital whether or not they participate in this study.

Confidentiality: Your name or your child's name will not be recorded anywhere on the questionnaire. This consent form and the questionnaire with your child's responses will be

stored in a safe with a lock. All information from this study will be stored on a password-protected computer, password-protected flash disk, and password-protected cloud account. The information will only be available to people doing the study.

Alternatives: You and your child may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any extra costs for your child participating in this study.

Compensation for participation: If your child participates in the study, they will be given ten thousand shillings (10,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participants' rights: For any questions regarding you and your child's rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: Your child can refuse to participate in this study and even leave it at any time you or they want. And leaving the study does not mean that they cannot continue getting treatment at Butabika Hospital.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and our (my child and I) rights while my child participates in it. I understand that my decision to let my child participate or not will not affect their ability to continue getting treatment at Butabika Hospital. In the use of information from the study, our identities will be concealed. I am aware that I may withdraw my child from the study at any time. I understand that by signing this form, I do not waive any of our legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to let my child participate. A copy of this form will be provided to me.

Parent/ Guardian

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature ……Date ……

Interviewer

Name ……..... Signature ……Date ……

Appendix 6: Consent form for the parents/ guardians of minor aged adolescents for the structured interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Omwana wo ayanirizibwa okwetaba mu kunoonyereza kuno olw'okubanga ali muvubuka (emyaka 10 okutuuka ku 19) afunira obujjanjabi mu ddwaaliro lya Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abantu ab'emyaka gy'omwana wo batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa abavubuka tebakkirizza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavu bw'omwana wo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Omwana wo ayinza okutwala eddakiika nga 15 okwetaba mu kunoonyereza kuno.

Emitendera: Bwokkiriza omwana wo okwetaba mu kunoonyereza kuno, ajja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula lw'ebibuuzo. Okwanukulakwe eri ebibuuzo bino kujja kuwandiikibwa ku lupapula lw'ebibuuzo luno.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliroe Butabika abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali kabi kaamanyi akasuubirwa nga kava mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okumumalako emirembe.

Okuganyulwa: Tewajja kubaawo kuganyulwa gyoli oba eri omwana wo buterevu. Wabula, ebintu ebyo byetuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno ey'obujjanjabi bwa telemental health eri abantu nga omwana wo. Ekirala, omwana wo tajja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula asobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba yeetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago oba ag'omwana wo tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo. Ekiwandiiko kino ekisaba olukusa, n'olupapula oluliko byayanukudde bijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukirirwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Ggwe n'omwana wo muyinza okugenda mu maaso n'emirimu gyammwe egy'olunaku olwo mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kuba na kyakusasula kyonna olw'omwana wo okwetaba mu kunoonyereza.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Omwana wo bw'anetaba mu kunoonyereza ajja kuweebwa sillingi omutwalo gumu (10,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kukuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo n'omwana wo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Omwana wo asobola okugaana okwetaba mu kunoonyereza kuno n'atuuka n'okukuleka essaawa yonna ggwe oba gy'ayagala. Era okuva

mu kunoonyereza tekitegeeza nti tebasobola kugenda mu maaso na kufuna bujjanjabi mu ddwaaliro e Butabika.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, gwe oba omwna wo mujja kutegeezebwa ku bivuddemu nga muyita mu ddwaaliro. Era mujja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange awamu ne ery'omwana wange nga yetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okukiriza omwana wange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwe okusigala nga nfuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze n'omwana wange ng'abantu bijja kubikkibwako. Nkimanyi nti nyinza okujja omwana wange mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza. Nkitegeera nti okuteeka omukono ku kiwandiiko kino, mbeera si tweggyeeko ddembe lyaffe lyetulina kuba nalyo mu mateeka wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza omwana wange okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Omuzadde/ omukuza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 7: Consent form for the parents/ guardians of minor aged adolescents for the in-depth interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: Your child has been invited to participate in this study because they are an adolescent (aged 10 to 17 years) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, adolescents are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your child's willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to participate in the research project: Your child may take about 30 minutes to participate in this study.

Procedures: If you allow your child to participate in this study, they will be asked a few questions from an interview guide. Their responses to these questions will be recorded in a notebook and using an audio recorder.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers to your child from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to your child directly. However, the things we shall learn from this study will be used to improve telemental health for adolescents like them. Furthermore, they will not receive any treatment in this study, but they can continue to receive treatment at Butabika Hospital whether or not they participate in this study.

Confidentiality: Your name or your child's name will not be recorded anywhere on the questionnaire. This consent form and the questionnaire with your child's responses will be

stored in a safe with a lock. All information from this study will be stored on a password-protected computer, password-protected flash disk, and password-protected cloud account. The information will only be available to people doing the study.

Alternatives: You and your child may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for your child participating in this study.

Compensation for participation: If your child participates in the study, they will be given fifteen thousand shillings (15,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you or your child for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participants' rights: For any questions regarding you and your child's rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: Your child can refuse to participate in this study and even leave it at any time you or they want. And leaving the study does not mean that they cannot continue getting treatment at Butabika Hospital.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and our (my child and I) rights while my child participates in it. I understand that my decision to let my child participate or not will not affect their ability to continue getting treatment at Butabika Hospital. In the use of information from the study, our identities will be concealed. I am aware that I may withdraw my child from the study at any time. I understand that by signing this form, I do not waive any of our legal rights but merely indicate that I have been informed about the research study in which I am voluntarily agreeing to let my child participate. A copy of this form will be provided to me.

Parent/ guardian

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature ……Date ……

Interviewer

Name ……..... Signature ……Date ……

Appendix 8: Consent form for the parents/ guardians of minor aged adolescents for the in-depth interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Omwana wo ayanirizibwa okwetaba mu kunoonyereza kuno olw'okubanga ali muvubuka (emyaka 10 okutuuka ku 19) afunira obujjanjabi mu ddwaaliro lya Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abantu ab'emyaka gy'omwana wo batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa abavubuka tebakkirizza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavu bw'omwana wo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.
Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Omwana wo ayinza okutwala eddakiika nga 30 okwetaba mu kunoonyereza kuno.

Emitendera: Bwokkiriza omwana wo okwetaba mu kunoonyereza kuno, ajja kubuuzibwa ebibuuzo ebitonotono okuva ku lukalala lw'ebibuuzo. Okwanukulakwe eri ebibuuzo bino kujja kuwandiikibwa mu katabo awamu n'okukulikoodinga mu kyuma ekilikoodinga amaloboozi.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali kabi kaamanyi akasuubirwa nga kava mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okumumalako emirembe.

Okuganyulwa: Tewajja kubaawo kuganyulwa gyoli oba eri omwana wo buterevu. Wabula, ebintu ebyo byetuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno ey'obujjanjabi bwa telemental health eri abantu nga omwana wo. Ekirala, omwana wo tajja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula asobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba yeetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago oba ag'omwana wo tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo oba mu katabo akalimu byoyanukudde. Ekiwandiiko kino ekisaba olukusa kijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukirirwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Ggwe n'omwana wo muyinza okugenda mu maaso n'emirimu gyammwe egy'olunaku olwo mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kuba na kyakusasula kyonna olw'omwana wo okwetaba mu kunoonyereza.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Omwana wo bw'anetaba mu kunoonyereza ajja kuweebwa sillingi omutwalo gumu n'ekitundu (15,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kukuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo n'omwana wo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Omwana wo asobola okugaana okwetaba mu kunoonyereza kuno n'atuuka n'okukuleka essaawa yonna ggwe oba gy'ayagala. Era okuva

mu kunoonyereza tekitegeeza nti tebasobola kugenda mu maaso na kufuna bujjanjabi mu ddwaaliro e Butabika.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, gwe oba omwna wo mujja kutegeezebwa ku bivuddemu nga muyita mu ddwaaliro. Era mujja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange awamu ne ery'omwana wange nga yetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okukiriza omwana wange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwe okusigala nga nfuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze n'omwana wange ng'abantu bijja kubikkibwako. Nkimanyi nti nyinza okujja omwana wange mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza. Nkitegeera nti okuteeka omukono ku kiwandiiko kino, mbeera si tweggyeeko ddembe lyaffe lyetulina kuba nalyo mu mateeka wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza omwana wange okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Omuzadde/ omukuza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 9: Assent form for minor aged adolescents for the structured interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been requested to be in this study because you are an adolescent (aged 10 to 18 years) being treated at Butabika Hospital. Diseases of the brain cause a lot of disability in Uganda yet most people that suffer from them can't get the right treatment. Furthermore, adolescents are more likely to have these diseases and need special treatment. Telemental health can be used so that more people can be treated. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This whole study is paid for by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: We are doing a research study about your thoughts on being treated over the phone and why you have those thoughts.

The estimated duration the research participant will take to participate in the research project: You may take about 15 minutes to be in this study.

Procedures: If you decide that you want to be in this study, you will be asked a few questions from a sheet of paper. Your answers to these questions will be recorded on that paper.

Who will participate in the study: The will be at least 61 adolescents (aged 10 to 19 years old) being treated at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital in this study.

Risks/Discomforts: We do not expect any bad things to happen to you because you answered these questions. Some questions may make you feel uncomfortable. And if that happens, tell me so that I can stop asking you those questions.

Benefits: You will not benefit directly from answering these questions. But your answers will help us improve treatment over the phone for all people of your age. And you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you allow to be in it.

Confidentiality: Your name will not be written anywhere on the sheet of paper with your answers. This sheet of paper where you sign your name and the one with your answerswill be stored in a safe with a lock. All information from this study will be stored on a computer with a password, a flash disk with a password, and a cloud account with a password. The information will only be available to people doing the study. Your parent/ guardian will not be told what we shall say in the study.

Alternatives: You may do the other things you wanted to do instead of being in this study.

Cost: Neither you nor your parent/ guardian will have to pay for you to be in this study.

Compensation for participation in the study: If you agree to be in this study, you will be given ten thousand shillings (10,000/=) only.

Reimbursement: There will be no money repaid to you or your parent/ guardian because you were in the study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You do not have to be in this study if you do not want to be. And if you decide to stop after we begin, that is okay too. You can continue getting treatment at Butabika Hospital even if you refuse to be in this study.

Dissemination of results: After the study has been completed, you or your parent/ guardian will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was accepted by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF ASSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while in it. I understand that even if I decide not to be in it, I can continue getting treatment at Butabika Hospital. When information from this study is used, my name will not be mentioned. I know that I can decide to stop answering these questions after we begin. I understand that by signing this form, I do not give up any of my rights but only show that I have been informed about this study. A copy of this form will be provided to me.

Participant

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature ….…….……Date ……

Interviewer

Name ……..... Signature …….……Date ……

Appendix 10: Assent form for minor aged adolescents for the structured interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Osabiddwa okubeera mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 18) ng'ojjanjabibwa mu ddwaaliro e Butabika. Endwadde z'omutwe zireeta obulemu bungi mu Uganda ate ng'abantu abasinga obungi abazibonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. Telemental health esobola okukozesebwa abantu bangi basobole okujjanjabibwa. Kyokka, tesuubirwa kukola singa abavubuka tebakkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kusasulidwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Tukola okunoonyereza ku ndowooza yo ku kujjanjabibwa ku ssimu n'ensonga lwaki olina ebirowoozo ebyo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 15 okubeera mu kunoonyereza kuno.

Emitendera: Bw'osalawo nti oyagala okubeera mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa ku lupapula olwo.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 613 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tetusuubira kintu kibi kyonna kukutuukako kubanga ebibuuzo bino wabiddamu. Ebibuuzo ebimu biyinza okukuleetera okuwulira obubi. Era ekyo bwe kibaawo, mbuulira nsobole okukomya okukubuuza ebibuuzo ebyo.

Okuganyulwa: Tojja kuganyulwa butereevu mu kuddamu ebibuuzo bino. Naye eby'okuddamu byo bijja kutuyamba okulongoosa obujjanjabi ku ssimu eri abantu bonna ab'emyaka gyo. Era tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba okkiriza kubeeramu oba nedda.

Okukuuma ebyama: Erinnya lyo terijja kuwandiikibwa wonna ku lupapula oluliko eby'okuddamu byo. Olupapula luno mw'oteeka omukono ku linnya lyo n'olwo oluliko eby'okuddamu byo lujja kuteekebwa mu seefu eriko kkufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa ku kompyuta eriko ekigambo ky'okuyingira, flash disk eriko ekigambo ky'okuyingira, ne akawunti y'ekire eriko ekigambo ky'okuyingira. Obubaka bujja kufunibwa abantu bokka abakola okunoonyereza. Muzadde wo/ omukuza wo tajja kubuulirwa bye tunaayogera mu kunoonyereza.

Enkola endala: Oyinza okukola ebintu ebirala bye wali oyagala okukola mu kifo ky'okubeera mu kunoonyereza kuno.

Ebisale: Ggwe oba muzadde wo/ omukuza wo tojja kukusasula kubeera mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Singa okkiriza okubeera mu kunoonyereza kuno, ojja kuweebwa sillingi omutwalo gumu (10,000/=) zokka eza Uganda.

Okuddizibwa ssente: Tewajja kubaawo ssente zikuddizibwa oba muzadde wo/ omukuza wo kubanga wali mu kusoma.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo ng'eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Tolina kubeera mu kunoonyereza kuno bw'oba toyagala kubeera. Era bw'osalawo okulekera awo nga tumaze okutandika, ekyo nakyo si kibi. Osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika ne bw'oba ogaanye okubeera mu kunoonyereza kuno.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ggwe oba omuzadde wo/ omukuza wo ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja

kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... annyonyodde ekigendererwa ky'okunoonyereza, enkola, akabi, n'emigaso ebirimu, n'eddembe lyange nga ndi mu kunoonyereza kuno. Ntegedde nti ne bwe nsazeewo obutabeeramu, nsobola okweyongera okufuna obujjanjabi mu ddwaaliro e Butabika. Amawulire okuva mu kunoonyereza kuno bwe gakozesebwa, erinnya lyange terijja kwogerwako. Nkimanyi nti nsobola okusalawo okulekera awo okuddamu ebibuuzo bino nga tumaze okutandika. Ntegedde nti bwe nteeka omukono ku foomu eno, siwaayo ddembe lyange lyonna wabula ntegeeza kyokka nti ntegeezeddwa ku kunoonyereza kuno. Kopi ya foomu eno ejja kumpa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 11: Assent form for minor aged adolescents for the in-depth interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been requested to be in this study because you are an adolescent (aged 10 to 18 years) being treated at Butabika Hospital. Diseases of the brain cause a lot of disability in Uganda yet most people that suffer from them can't get the right treatment. Furthermore, adolescents are more likely to have these diseases and need special treatment. Telemental health can be used so that more people can be treated. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This whole study is paid for by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: We are doing a research study about your thoughts on being treated over the phone and why you have those thoughts.

The estimated duration the research participant will take to participate in the research project: You may take about 30 minutes to be in this study.

Procedures: If you decide that you want to be in this study, you will be asked a few questions from a sheet of paper. Your answers to these questions will be recorded using a voice recorder.

Who will participate in the study: The will be at least 61 adolescents (aged 10 to 19 years old) being treated at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital in this study.

Risks/Discomforts: We do not expect any bad things to happen to you because you answered these questions. Some questions may make you feel uncomfortable. And if that happens, tell me so that I can stop asking you those questions.

Benefits: You will not benefit directly from answering these questions. But your answers will help us improve treatment over the phone for all people of your age. And you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you allow to be in it.

Confidentiality: Your name will not be written anywhere on the sheet of paper with your answers. This sheet of paper where you sign your name will be stored in a safe with a lock. All information from this study will be stored on a computer with a password, a flash disk with a password, and a cloud account with a password. The information will only be available to people doing the study. Your parent/ guardian will not be told what we shall say in the study.

Alternatives: You may do the other things you wanted to do instead of being in this study.

Cost: Neither you nor your parent/ guardian will have to pay for you to be in this study.

Compensation for participation: If you agree to be in this study, you will be given fifteen thousand shillings (15,000/=) only.

Reimbursement: There will be no money repaid to you or your parent/ guardian because you were in the study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You do not have to be in this study if you do not want to be. And if you decide to stop after we begin, that is okay too. You can continue getting treatment at Butabika Hospital even if you refuse to be in this study.

Dissemination of results: After the study has been completed, you or your parent/ guardian will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was accepted by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF ASSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while in it. I understand that even if I decide not to be in it, I can continue getting treatment at Butabika Hospital. When information from this study is used, my name will not be mentioned. I know that I can decide to stop answering these questions after we begin. I understand that by signing this form, I do not give up any of my rights but only show that I have been informed about this study. A copy of this form will be provided to me.

Participant

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature ……Date ……

Interviewer

Name ……..... Signature ……Date ……

Appendix 12: Assent form for minor aged adolescents for the in-depth interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Osabiddwa okubeera mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 18) ng'ojjanjabibwa mu ddwaaliro e Butabika. Endwadde z'omutwe zireeta obulemu bungi mu Uganda ate ng'abantu abasinga obungi abazibonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. Telemental health esobola okukozesebwa abantu bangi basobole okujjanjabibwa. Kyokka, tesuubirwa kukola singa abavubuka tebakkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kusasulidwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Tukola okunoonyereza ku ndowooza yo ku kujjanjabibwa ku ssimu n'ensonga lwaki olina ebirowoozo ebyo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 30 okubeera mu kunoonyereza kuno.

Emitendera: Bw'osalawo nti oyagala okubeera mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa mu katabo awamu n'okulikoodingibwa mu kyuma ekirikoodinga amaloboozi.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61(ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tetusuubira kintu kibi kyonna kukutuukako kubanga ebibuuzo bino wabiddamu. Ebibuuzo ebimu biyinza okukuleetera okuwulira obubi. Era ekyo bwe kibaawo, mbuulira nsobole okukomya okukubuuza ebibuuzo ebyo.

Okuganyulwa: Tojja kuganyulwa butereevu mu kuddamu ebibuuzo bino. Naye eby'okuddamu byo bijja kutuyamba okulongoosa obujjanjabi ku ssimu eri abantu bonna ab'emyaka gyo. Era tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba okkiriza kubeeramu oba nedda.

Okukuuma ebyama: Erinnya lyo terijja kuwandiikibwa wonna mu katabo omuli eby'okuddamu byo. Olupapula luno mw'oteeka omukono ku linnya lyo n'akatabo omuli eby'okuddamu byo bijja kuteekebwa mu seefu eriko kkufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa ku kompyuta eriko ekigambo ky'okuyingira, flash disk eriko ekigambo ky'okuyingira, ne akawunti y'ekire eriko ekigambo ky'okuyingira. Obubaka bujja kufunibwa abantu bokka abakola okunoonyereza. Muzadde wo/ omukuza wo tajja kubuulirwa bye tunaayogera mu kunoonyereza.

Enkola endala: Oyinza okukola ebintu ebirala bye wali oyagala okukola mu kifo ky'okubeera mu kunoonyereza kuno.

Ebisale: Ggwe oba muzadde wo/ omukuza wo tojja kukusasula kubeera mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Singa okkiriza okubeera mu kunoonyereza kuno, ojja kuweebwa sillingi omutwalo gumu n'ekitundu (15,000/=) zokka eza Uganda.

Okuddizibwa ssente: Tewajja kubaawo ssente zikuddizibwa oba muzadde wo/ omukuza wo kubanga wali mu kusoma.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo ng'eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Tolina kubeera mu kunoonyereza kuno bw'oba toyagala kubeera. Era bw'osalawo okulekera awo nga tumaze okutandika, ekyo nakyo si kibi. Osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika ne bw'oba ogaanye okubeera mu kunoonyereza kuno.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ggwe oba omuzadde wo/ omukuza wo ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... annyonyodde ekigendererwa ky'okunoonyereza, enkola, akabi, n'emigaso ebirimu, n'eddembe lyange nga ndi mu kunoonyereza kuno. Ntegedde nti ne bwe nsazeewo obutabeeramu, nsobola okweyongera okufuna obujjanjabi mu ddwaaliro e Butabika. Amawulire okuva mu kunoonyereza kuno bwe gakozesebwa, erinnya lyange terijja kwogerwako. Nkimanyi nti nsobola okusalawo okulekera awo okuddamu ebibuuzo bino nga tumaze okutandika. Ntegedde nti bwe nteeka omukono ku foomu eno, siwaayo ddembe lyange lyonna wabula ntegeeza kyokka nti ntegeezeddwa ku kunoonyereza kuno. Kopi ya foomu eno ejja kumpa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 13: Consent form for emancipated minor aged adolescents for the structured interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been requested to be in this study because you are an adolescent (aged 10 to 19 years) being treated at Butabika Hospital. Diseases of the brain cause a lot of disability in Uganda yet most people that suffer from them can't get the right treatment. Furthermore, adolescents are more likely to have these diseases and need special treatment. Telemental health can be used so that more people can be treated. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This whole study is paid for by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: We are doing a research study about your thoughts on being treated over the phone and why you have those thoughts.

The estimated duration the research participant will take to participate in the research project: You may take about 15 minutes to be in this study.

Procedures: If you decide that you want to be in this study, you will be asked a few questions from a sheet of paper. Your answers to these questions will be recorded on that paper.

Who will participate in the study: The will be at least 61 adolescents (aged 10 to 19 years old) being treated at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital in this study.

Risks/Discomforts: We do not expect any bad things to happen to you because you answered these questions. Some questions may make you feel uncomfortable. And if that happens, tell me so that I can stop asking you those questions.

Benefits: You will not benefit directly from answering these questions. But your answers will help us improve treatment over the phone for all people of your age. And you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you allow to be in it.

Confidentiality: Your name will not be written anywhere on the sheet of paper with your answers. This sheet of paper where you sign your name and the one with your answerswill be stored in a safe with a lock. All information from this study will be stored on a computer with a password, a flash disk with a password, and a cloud account with a password. The information will only be available to people doing the study. Your parent/ guardian will not be told what we shall say in the study.

Alternatives: You may do the other things you wanted to do instead of being in this study.

Cost: You will not have to pay to be in this study.

Compensation for participation in the study: If you agree to be in this study, you will be given ten thousand shillings (10,000/=) only.

Reimbursement: There will be no money repaid to you because you were in the study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You do not have to be in this study if you do not want to be. And if you decide to stop after we begin, that is okay too. You can continue getting treatment at Butabika Hospital even if you refuse to be in this study.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was accepted by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while in it. I understand that even if I decide not to be in it, I can continue getting treatment at Butabika Hospital. When information from this study is used, my name will not be mentioned. I know that I can decide to stop answering these questions after we begin. I understand that by signing this form, I do not give up any of my rights but only show that I have been informed about this study. A copy of this form will be provided to me.

Participant

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature ……Date ……

Interviewer

Name ……..... Signature ……Date ……

Appendix 14: Consent form for emancipated minor aged adolescents for the structured interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza omukulu: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Osabiddwa okubeera mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 18) ng'ojjanjabibwa mu ddwaaliro e Butabika. Endwadde z'omutwe zireeta obulemu bungi mu Uganda ate ng'abantu abasinga obungi abazibonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. Telemental health esobola okukozesebwa abantu bangi basobole okujjanjabibwa. Kyokka, tesuubirwa kukola singa abavubuka tebakkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kusasulidwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Tukola okunoonyereza ku ndowooza yo ku kujjanjabibwa ku ssimu n'ensonga lwaki olina ebirowoozo ebyo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 15 okubeera mu kunoonyereza kuno.

Emitendera: Bw'osalawo nti oyagala okubeera mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa ku lupapula olwo.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tetusuubira kintu kibi kyonna kukutuukako kubanga ebibuuzo bino wabiddamu. Ebibuuzo ebimu biyinza okukuleetera okuwulira obubi. Era ekyo bwe kibaawo, mbuulira nsobole okukomya okukubuuza ebibuuzo ebyo.

Okuganyulwa: Tojja kuganyulwa butereevu mu kuddamu ebibuuzo bino. Naye eby'okuddamu byo bijja kutuyamba okulongoosa obujjanjabi ku ssimu eri abantu bonna ab'emyaka gyo. Era tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba okkiriza kubeeramu oba nedda.

Okukuuma ebyama: Erinnya lyo terijja kuwandiikibwa wonna ku lupapula oluliko eby'okuddamu byo. Olupapula luno mw'oteeka omukono ku linnya lyo n'olwo oluliko eby'okuddamu byo lujja kuteekebwa mu seefu eriko kkufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa ku kompyuta eriko ekigambo ky'okuyingira, flash disk eriko ekigambo ky'okuyingira, ne akawunti y'ekire eriko ekigambo ky'okuyingira. Obubaka bujja kufunibwa abantu bokka abakola okunoonyereza. Muzadde wo/ omukuza wo tajja kubuulirwa bye tunaayogera mu kunoonyereza.

Enkola endala: Oyinza okukola ebintu ebirala bye wali oyagala okukola mu kifo ky'okubeera mu kunoonyereza kuno.

Ebisale: Tojja kukusasula kubeera mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Singa okkiriza okubeera mu kunoonyereza kuno, ojja kuweebwa sillingi omutwalo gumu (10,000/=) zokka eza Uganda.

Okuddizibwa ssente: Tewajja kubaawo ssente zikuddizibwa kubanga wali mu kunoonyereza.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo ng'eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Tolina kubeera mu kunoonyereza kuno bw'oba toyagala kubeera. Era bw'osalawo okulekera awo nga tumaze okutandika, ekyo nakyo si kibi. Osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika ne bw'oba ogaanye okubeera mu kunoonyereza kuno.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... annyonyodde ekigendererwa ky'okunoonyereza, enkola, akabi, n'emigaso ebirimu, n'eddembe lyange nga ndi mu kunoonyereza kuno. Ntegedde nti ne bwe nsazeewo obutabeeramu, nsobola okweyongera okufuna obujjanjabi mu ddwaaliro e Butabika. Amawulire okuva mu kunoonyereza kuno bwe gakozesebwa, erinnya lyange terijja kwogerwako. Nkimanyi nti nsobola okusalawo okulekera awo okuddamu ebibuuzo bino nga tumaze okutandika. Ntegedde nti bwe nteeka omukono ku foomu eno, siwaayo ddembe lyange lyonna wabula ntegeeza kyokka nti ntegeezeddwa ku kunoonyereza kuno. Kopi ya foomu eno ejja kumpa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 15: Consent form for emancipated minor aged adolescents for the in-depth interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been requested to be in this study because you are an adolescent (aged 10 to 19 years) being treated at Butabika Hospital. Diseases of the brain cause a lot of disability in Uganda yet most people that suffer from them can't get the right treatment. Furthermore, adolescents are more likely to have these diseases and need special treatment. Telemental health can be used so that more people can be treated. However, it is unlikely to work if the adolescents do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researchers: This whole study is paid for by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: We are doing a research study about your thoughts on being treated over the phone and why you have those thoughts.

The estimated duration the research participant will take to participate in the research project: You may take about 30 minutes to be in this study.

Procedures: If you decide that you want to be in this study, you will be asked a few questions from a sheet of paper. Your answers to these questions will be recorded on that paper.

Who will participate in the study: The will be at least 61 adolescents (aged 10 to 19 years old) being treated at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital in this study.

Risks/Discomforts: We do not expect any bad things to happen to you because you answered these questions. Some questions may make you feel uncomfortable. And if that happens, tell me so that I can stop asking you those questions.

Benefits: You will not benefit directly from answering these questions. But your answers will help us improve treatment over the phone for all people of your age. And you will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you allow to be in it.

Confidentiality: Your name will not be written anywhere on the sheet of paper with your answers. This sheet of paper where you sign your name and the one with your answerswill be stored in a safe with a lock. All information from this study will be stored on a computer with a password, a flash disk with a password, and a cloud account with a password. The information will only be available to people doing the study. Your parent/ guardian will not be told what we shall say in the study.

Alternatives: You may do the other things you wanted to do instead of being in this study.

Cost: You will not have to pay to be in this study.

Compensation for participation in the study: If you agree to be in this study, you will be given fifteen thousand shillings (15,000/=) only.

Reimbursement: There will be no money repaid to you because you were in the study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You do not have to be in this study if you do not want to be. And if you decide to stop after we begin, that is okay too. You can continue getting treatment at Butabika Hospital even if you refuse to be in this study.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was accepted by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while in it. I understand that even if I decide not to be in it, I can continue getting treatment at Butabika Hospital. When information from this study is used, my name will not be mentioned. I know that I can decide to stop answering these questions after we begin. I understand that by signing this form, I do not give up any of my rights but only show that I have been informed about this study. A copy of this form will be provided to me.

Participant

Name ……..... Signature/thumbprint ……Date ……

Witness

Name ……..... Signature/thumbprint ……Date ……

Interviewer

Name ……..... Signature/thumbprint ……Date ……

Appendix 16: Consent form for emancipated minor aged adolescents for the in-depth interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza omukulu: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Osabiddwa okubeera mu kunoonyereza kuno kubanga oli muvubuka (emyaka 10 okutuuka ku 18) ng'ojjanjabibwa mu ddwaaliro e Butabika. Endwadde z'omutwe zireeta obulemu bungi mu Uganda ate ng'abantu abasinga obungi abazibonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. Telemental health esobola okukozesebwa abantu bangi basobole okujjanjabibwa. Kyokka, tesuubirwa kukola singa abavubuka tebakkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'abanoonyereza mu kitongole: Okunoonyereza kuno kwonna kusasulidwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Tukola okunoonyereza ku ndowooza yo ku kujjanjabibwa ku ssimu n'ensonga lwaki olina ebirowoozo ebyo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 30 okubeera mu kunoonyereza kuno.

Emitendera: Bw'osalawo nti oyagala okubeera mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa mu katabo awamu n'okulikoodingibwa mu kyuma ekirikoodinga amaloboozi.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba bavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tetusuubira kintu kibi kyonna kukutuukako kubanga ebibuuzo bino wabiddamu. Ebibuuzo ebimu biyinza okukuleetera okuwulira obubi. Era ekyo bwe kibaawo, mbuulira nsobole okukomya okukubuuza ebibuuzo ebyo.

Okuganyulwa: Tojja kuganyulwa butereevu mu kuddamu ebibuuzo bino. Naye eby'okuddamu byo bijja kutuyamba okulongoosa obujjanjabi ku ssimu eri abantu bonna ab'emyaka gyo. Era tojja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba okkiriza kubeeramu oba nedda.

Okukuuma ebyama: Erinnya lyo terijja kuwandiikibwa wonna mu katabo omuli eby'okuddamu byo. Olupapula luno mw'oteeka omukono ku linnya lyo n'akatabo omuli eby'okuddamu byo bijja kuteekebwa mu seefu eriko kkufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa ku kompyuta eriko ekigambo ky'okuyingira, flash disk eriko ekigambo ky'okuyingira, ne akawunti y'ekire eriko ekigambo ky'okuyingira. Obubaka bujja kufunibwa abantu bokka abakola okunoonyereza.

Enkola endala: Oyinza okukola ebintu ebirala bye wali oyagala okukola mu kifo ky'okubeera mu kunoonyereza kuno.

Ebisale: Tojja kukusasula kubeera mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Singa okkiriza okubeera mu kunoonyereza kuno, ojja kuweebwa sillingi omutwalo gumu n'ekitundu (15,000/=) zokka eza Uganda.

Okuddizibwa ssente: Tewajja kubaawo ssente zikuddizibwa kubanga wali mu kunoonyereza.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembe lyo ng'eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Tolina kubeera mu kunoonyereza kuno bw'oba toyagala kubeera. Era bw'osalawo okulekera awo nga tumaze okutandika, ekyo nakyo si kibi. Osobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika ne bw'oba ogaanye okubeera mu kunoonyereza kuno.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... annyonyodde ekigendererwa ky'okunoonyereza, enkola, akabi, n'emigaso ebirimu, n'eddembe lyange nga ndi mu kunoonyereza kuno. Ntegedde nti ne bwe nsazeewo obutabeeramu, nsobola okweyongera okufuna obujjanjabi mu ddwaaliro e Butabika. Amawulire okuva mu kunoonyereza kuno bwe gakozesebwa, erinnya lyange terijja kwogerwako. Nkimanyi nti nsobola okusalawo okulekera awo okuddamu ebibuuzo bino nga tumaze okutandika. Ntegedde nti bwe nteeka omukono ku foomu eno, siwaayo ddembe lyange lyonna wabula ntegeeza kyokka nti ntegeezeddwa ku kunoonyereza kuno. Kopi ya foomu eno ejja kumpa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 17: Questionnaire for patients (English)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

General information

Participant's identification _____ Interviewer's initials _____

Date of interview (DD/MM/YY) _____

A. Demographics

1. How old are you? _____
2. * Sex
    a. Male
    b. Female
3. Do you go to school?
    a. Yes
    b. No
4. Where do you live?
    a. In Kampala
    b. Out of Kampala

B. Clinical condition

5. *Presenting complaints on first visit for current illness.
    a. _____
    b. _____
    c. _____
6. *Diagnosis
    a. _____
    b. _____
    c. _____

C. Phone anxiety

7. Do you fear talking on the phone?

I do not fear at all. I fear a lot

1	2	3	4	5
☐	☐	☐	☐	☐

D. ICT-related factors

8. Do you have a phone?
    a. Yes
    b. No
9. Do you share a phone with anyone else?
    a. Yes
    b. No

E. Experience with the telemental health

10. Have you ever been treated over the phone?
    a. Yes
    b. No

F. Affective attitude

11. Would you like to be treated over the phone?

I would not like it at all — I would like it very much

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

G. Burden

12. How easy or difficult would it be for you to call and talk to your doctor or counsellor over the phone?

Very easy — Very difficult

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

H. Ethicality

13. Is it right or wrong to be treated over the phone?

Very right — Very wrong

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

I. Intervention coherence

14. Do you understand how being treated on the phone would help you get better?

I do not understand at all I understand very well

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

J. Opportunity costs

15. Would being treated over the phone interfere with other important things in your life?

It would not interfere at all It would interfere a lot

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

K. Perceived effectiveness

16. Do you think that if you were treated over the phone you would get better?

No, I don't think I would get better Yes, I think I would get better

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

L. Self-efficacy

17. Do you feel confident that you would be able to call and talk to your doctor or counsellor over the phone?

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

Note:

* To be filled by interviewer without asking the participant.

Appendix 18: Questionnaire for patients (Luganda)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

General information

Participant's identification _____ Interviewer's initials _____

Date of interview (DD/MM/YY) _____

A. Demographics

1. Olina emyaka emeka _____
2. * Sex
    a. Male
    b. Female
3. Ogenda kussomero?
    a. Yee
    b. Nedda
4. Mubeera wa?
    a. Mu Kampala
    b. Wabweru wa Kampala

B. Clinical condition

5. *Presenting complaints on first visit for current illness.
    a. _____
    b. _____
    c. _____
6. *Diagnosis
    a. _____
    b. _____
    c. _____

C. Phone anxiety

7. Otya okwogera ku ssimu?

Ssi tya wadde Ntya nnyo ddala

1	2	3	4	5
☐	☐	☐	☐	☐

D. ICT-related factors

8. Olina essimu?
    a. Yee
    b. Nedda
9. Ogabana essimuyo n'omuntu omulala yenna?
    a. Yee
    b. Nedda

E. Experience with telemental health

10. Wali obudaabuddibwa ku ssimu?
    a. Yee
    b. Nedda

F. Affective attitude

11. Wandiyagadde okubudaabuddibwa ku ssimu?

Sandikyagadde wadde n'akatono — Nandikyagadde nnyo ddala

1	2	3	4	5
☐	☐	☐	☐	☐

G. Burden

12. Kyandibadde kyangu kitya oba kizibu kitya okukubira omusawo wo n'oyogera naye ku ssimu?

Kyangu nnyo ddala — Kizibu nnyo ddala

1	2	3	4	5
☐	☐	☐	☐	☐

H. Ethicality

13. Kituufu kitya oba kikyamu kitya okubudaabudibwa ku ssimu?

Kituufu nnyo ddala — Kikyamu nnyo ddala

1	2	3	4	5
☐	☐	☐	☐	☐

I. Intervention coherence

14. Otegeera bulungi engeri okubudaadudibwa ku ssimu gye kuyinza okunyamba okutereera?

Ssi gitegeera wadde Njitegeera bulungi

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

J. Opportunity costs

15. Okubudaabudibwa ku ssimu kwandi kontanye n'ebintu ebirala eby'omugaso mu bulamu bwo?

Tekwandi kontanye wadde Kwandi kontanye nnyo

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

K. Perceived effectiveness

16. Olowooza nti singa obudaabudiwa ku ssimu ojja kutereera?

Nedda, ssi lowooza nti nja kutereera Yee, ndowooza nti nja kutereera

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

L. Self-efficacy

17. Wekiririzaamu nti osobola okukubira omusawo wo n'oyogera naye ku ssimu?

Nedda, ssekiririzaamu wadde n'akatono Yee, nnekiririzaamu nnyo ddala.

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

Note:

* Questions to be answered by interviewer without asking the participant.

Appendix 19: Interview guide for patients (English)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

A. Affective attitude

How do you feel about talking to a mental health professional over the phone?

B. Burden

What do you think about the work you would have to do in order to talk to a mental health professional over the phone?

C. Ethicality

What do you think about how right or wrong it is for you to talk to a mental health professional over the phone?

D. Intervention coherence

How would talking to a mental health professional over the phone help you get better?

E. Opportunity costs

How would talking to a mental health professional over the phone affect other important things in your life?

F. Perceived effectiveness

How well do you think talking to a mental health professional over the phone will work as compared to talking to them in person?

G. Self-efficacy

How confident are you that you can talk to a mental health professional over the phone?

Appendix 20: Interview guide for patients (Luganda)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

A. Affective attitude

Owulira otya ng'oyogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

B. Burden

Olowooza ki ku mulimu gwe wandikoze okusobola okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

C. Ethicality

Olowooza ki ku ngeri gye kiri ekituufu oba ekikyamu okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

D. Intervention coherence

Okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu kyandikuyambye kitya okutereera?

E. Opportunity costs

Okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu kyandikosezza kitya ku bintu ebirala ebikulu mu bulamu bwo?

F. Perceived effectiveness

Olowooza okwogera n'omukugu mu by'obulamu bw'obwongo ku ssimu kijja kukola bulungi ki bw'ogeraageranya n'okwogera nabo mu buntu?

G. Self-efficacy

Oli mukakafu otya nti osobola okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

Appendix 21: Consent form for the caretakers for the structured interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com

Background and rationale for the study: You have been invited to participate in this study because you are a caretaker of an adolescent (aged 10 to 19 years old) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, adolescents are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if you do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to participate in the research project: You may take about 15 minutes to participate in this study.

Procedures: If you agree to participate in this study, you will be asked a few questions from a questionnaire. Your responses to these questions will be recorded on the questionnaire.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to you directly. However, the things we shall learn from this study will be used to improve telemental health for people like you. Furthermore, your patient will not receive any treatment in this study, but they can continue to receive treatment at Butabika Hospital whether or not you participate in this study.

Confidentiality: Your name will not be recorded anywhere on the questionnaire. This consent form and the questionnaire with your responses will be stored in a safe with a lock. All information from this study will be stored on a password-protected computer, password-

protected flash disk, and password-protected cloud account. The information will only be available to people doing the study.

Alternatives: You may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for participating in this study.

Compensation for participation in the study: Everyone who participates in the study will be given ten thousand shillings (10,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You can refuse to participate in this study and even leave it at any time you want. Leaving the study will not affect your patients' treatment at Butabika Hospital in any way.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while participating in it. I understand that my decision to participate or not will not affect my patient's ability to continue getting treatment at Butabika Hospital. In the use of information from the study, my identity will be concealed. I am aware that I may withdraw from the study at any time. 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.

Participant

Name ……..... Signature/thumbprint …… Date ……

Witness

Name ……..... Signature ……. Date ……

Interviewer

Name ……..... Signature ……. Date ……

Appendix 22: Consent form for the caretakers for the structured interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com.

Ebigendererwa n'ensibuko y'okunoonyereza: Oyitiddwa okwetaba mu kunoonyereza kuno kubanga oli mulabirira w'omuvubuka (emyaka 10 okutuuka ku 19) ng'anoonya obujjanjabi mu ddwaaliro e Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa tokkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavubwo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 15 okwetaba mu kunoonyereza kuno.

Emitendera: Bw'oba okkirizza okwetaba mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula lw'ebibuuzo. Eby'okuddamu byo mu bibuuzo bino bijja kuwandiikibwa ku lupapula luno.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba abalabirira b'abavubuka (ab'emyaka 10 okutuuka ku 19) waakiri 173, abavubuka 61 abanoonya obujjanjabi mu ddwaaliro e Butabika n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali bulabe bwa maanyi busuubirwa okuva mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okukumalako emirembe.

Okuganyulwa: Tewajja kubaawo mugaso gwonna gy'oli butereevu. Naye ebintu bye tugenda okuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno

ey'obujjanjabi bwa telemental health eri abantu nga ggwe. Ekirala, omulwadde wo tajja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula asobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba weetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo. Ekiwandiiko kino ekisaba olukusa, n'olupapula oluliko byoyanukudde bijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukiririrwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Oyinza okugenda mu maaso n'emirimu gyo egy'olunaku mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kusasula ssente zonna olw'okwetaba mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Buli muntu eyetaba mu kunoonyereza kuno ajja kuweebwa sillingi omutwalo gumu (10,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembelyo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Osobola okugaana okwetaba mu kunoonyereza kuno n'otuuka n'okukuleka essaawa yonna gy'oyagala. Okuva mu kunoonyereza tekijja kukosa bujjanjabi bwo mu ddwaaliro e Butabika mu ngeri yonna.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange nga neetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwa mulwadde wange okusigala nga afuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze ng'omuntu bijja kubikkibwako. Nkimanyi nti nyinza okuva mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….…….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya ……..... Omukono…….…….

Ennaku z'omweezi …….

Appendix 23: Consent form for the caretakers for the in-depth interview (English).

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Background and rationale for the study: You have been invited to participate in this study because you are a caretaker for an adolescent (aged 10 to 19 years old) seeking treatment at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the right treatment. Furthermore, adolescents are more likely to have these illnesses and need special treatment. Telemental health can be used to increase access to the right treatment. However, it is unlikely to work if you do not accept to use it.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To learn more about your willingness to use telemental health services and check for things that are related to that willingness.

The estimated duration the research participant will take to participate in the research project: You may take about 30 minutes to participate in this study.

Procedures: If you agree to participate in this study, you will be asked a few questions from an interview guide. Your responses to these questions will be recorded in a notebook and using an audio recorder.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers, and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to you directly. However, the things we shall learn from this study will be used to improve telemental health for people like you. Furthermore, your patient will not receive any treatment in this study, but you can continue to receive treatment at Butabika Hospital whether or not you participate in this study.

Confidentiality: Your name will not be recorded anywhere on the interview guide or field notes. This consent form will be stored in a safe with a lock. The audio recordings with your responses and all transcripts from them will be stored on a password-protected computer,

password-protected flash disk, and password-protected cloud account. And the information will only be available to people doing the study.

Alternatives: You may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for participating in this study.

Compensation for participation in the study: Everyone who participates in the study will be given fifteen thousand shillings (15,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You can refuse to participate in this study and even leave it at any time you want. Leaving the study will not affect your treatment at Butabika Hospital in any way.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while participating in it. I understand that my decision to participate or not will not affect my patient's ability to continue getting treatment at Butabika Hospital. In the use of information from the study, my identity will be concealed. I am aware that I may withdraw from the study at any time. 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.

Participant

Name ……..... Signature/thumbprint …… Date ……

Witness

Name ……..... Signature ……. Date ……

Interviewer

Name ……..... Signature ……. Date ……

Appendix 24: Consent form for the caretakers for the in-depth interview (Luganda).

Omutwe gw'okunoonyereza okusuubirwa: Okukkirizibwa kw'obujjanjabi bw'obulwadde bw'omutwe ng'oyita ku mikutu egy'empuriziganya (Telemental health) n'ensonga ezitambulira awamu nga kukolebwa wakati w'abavubuka, abalabirira, n'abasawo b'obulwadde bw'emitwe mu dwaaliro lya Butabika.

Omunoonyereza: Enock Suubi Segawa, omuyizi asoma diguli ey'okubiri eya "Clinical Epidemiology and Biostatistics", okuva ku ssetendekero ya Makerere, +256778607332/ 752542249, enockssegawa@gmail.com

Ebigendererwa n'ensibuko y'okunoonyereza: Oyitiddwa okwetaba mu kunoonyereza kuno kubanga oli mulabirira w'omuvubuka (emyaka 10 okutuuka ku 19) ng'anoonya obujjanjabi mu ddwaaliro e Butabika. Obulwadde bw'omutwe buvaako obulemu bungi mu Uganda kyoka abantu abasinga obungi ababubonaabona tebasobola kufuna bujjanjabi butuufu. Ekirala, abavubuka batera okuba n'endwadde zino era beetaaga obujjanjabi obw'enjawulo. "Telemental health" esobola okukozesebwa okwongera okufuna obujjanjabi obutuufu. Naye, tesuubirwa kukola singa tokkiriza kugikozesa.

Ennyonyola ku bawagira pulojekiti y'okunoonyereza n'enkolagana y'anoonyereza mu kitongole: Okunoonyereza kuno kwonna kuwagirwa omunoonyereza, Enock Suubi Segawa, Omuyizi wa MSc. Clinical Epidemiology and Biostatistics ku ssetendekero ya Makerere, Kampala, Uganda.

Omugaso: Okuyiga ebisingawo ebikwata ku bwetaavubwo eri okukozesa enkola eno eya "telemental health" era n'okukebera ebintu ebyekuusa ku bwetaavu obwo.

Ebbanga eribalirirwamu eyeetabye mu kunoonyereza ly'anaatwala mu pulojekiti y'okunoonyereza: Oyinza okutwala eddakiika nga 30 okwetaba mu kunoonyereza kuno.

Emitendera: Bwokkiriza okwetaba mu kunoonyereza kuno, ojja kubuuzibwa ebibuuzo ebitonotono okuva ku lupapula lw'ebibuuzo. Okwanukulakwo eri ebibuuzo bino kujja kuwandiikibwa mu katabo awamu n'okukulikoodinga mu kyuma ekirikoodinga amaloboozi.

Ani agenda okwetaba mu kunoonyereza kuno: Abeetabye mu kunoonyereza kuno bajja kuba abavubuka waakiri 61 (ab'emyaka 10 okutuuka ku 19) abanoonya obujjanjabi mu ddwaaliro e Butabika, abalabirira 173, n'abakugu mu by'obulamu bw'obwongo 11 abajjanjaba abalwadde abavubuka mu ddwaaliro e Butabika.

Obulabe/Ebizibu: Tewali bulabe bwa maanyi busuubirwa okuva mu kwetaba mu kunoonyereza kuno. Naye ebibuuzo ebimu biyinza okukumalako emirembe.

Okuganyulwa: Tewajja kubaawo mugaso gwonna gy'oli butereevu. Naye ebintu bye tugenda okuyiga okuva mu kunoonyereza kuno bijja kukozesebwa okulongoosa enkola eno

ey'obujjanjabi bwa telemental health eri abantu nga ggwe. Ekirala, omulwadde wo tajja kufuna bujjanjabi bwonna mu kunoonyereza kuno, wabula asobola okugenda mu maaso n'okufuna obujjanjabi mu ddwaaliro e Butabika oba weetaba mu kunoonyereza kuno oba nedda.

Okukuuma ebyama: Amannyago tegajja kuwandiikibwa wantu wonna ku lupapula lw'ebibuuzo oba mu katabo akalimu byoyanukudde. Ekiwandiiko kino ekisaba olukusa kijja kukuumibwa mu kifo ekyekusifu awasibibwa n'ekufulu. Obubaka bwonna obuva mu kunoonyereza kuno bujja kuterekebwa mu kyuma ki kalimagezi ekisibibwa n'ennamba enneekusifu, akatambi akakuumibwa n'ennamba enneekusifu, n'omutimbagano awaterekebwa obubaka ogukuumibwa n'ennamba enneekusifu. Obubaka bujja kuba nga butuukirirwa abantu bokka abakola ku kunoonyereza.

Enkola endala: Oyinza okugenda mu maaso n'emirimu gyo egy'olunaku mu kifo ky'okwetaba mu kunoonyereza kuno.

Ebisale: Tojja kusasula ssente zonna olw'okwetaba mu kunoonyereza kuno.

Okusasulwa olw'okwetaba mu kunoonyereza kuno: Buli muntu eyetaba mu kunoonyereza kuno ajja kuweebwa sillingi omutwalo gumu n'ekitundu (15,000/=) zokka ng'empeera olw'okwetaba mu kunoonyereza kuno.

Okuddiza ssente: Tewajja kubaawo kukuddizibwa ssente olw'okwetaba mu kunoonyereza kuno.

Ebibuuzo ebikwata ku kunoonyereza: Bwoba olina ebibuuzo ebikwata ku kunoonyereza, osobola okutuukirira omunoonyereza omukulu: Enock Suubi Segawa, Omuyizi owa diguli ey'okubiri eya "MSc. Clinical Epidemiology and Biostatistics," okuva ku ssetendekero wa Makerere, ku ssimu namba +256778607332 oba 752542249, enockssegawa@gmail.com.

Ebibuuzo ebikwata ku ddembe ly'eyeetabye mu kunoonyereza: Ebibuuzo byonna ebikwata ku ddembelyo nga eyeetaba mu kunoonyereza kuno, osabibwa okutuukirira Pulofeesa Ponsiano Ocama, sentebe w'akakiiko ka School of Medicine Research and Ethics Committee (SOMREC) ku ssimu namba +256772421190.

Okwetabamu okwa kyeyagalire: Osobola okugaana okwetaba mu kunoonyereza kuno n'otuuka n'okukuleka essaawa yonna gy'oyagala. Okuva mu kunoonyereza tekijja kukosa bujjanjabi bwo mu ddwaaliro e Butabika mu ngeri yonna.

Okubunyisa ebivuddemu: Oluvannyuma lw'okunoonyereza okuggwa, ojja kutegeezebwa ku bivuddemu ng'oyita mu ddwaaliro. Era ojja kuyitibwa mu musomo mu ddwaaliro omunoonyereza mw'agenda okwanjula ebivudde mu kunoonyereza kuno.

Okukkiriza mu mpisa: Okunoonyereza kuno kwaweebwa olukusa ab'essomero ly'eby'eddagala awamu n'empisa mu kunoonyereza abayitibwa "School of Medicine Research and Ethics Committee (SOMREC)".

EKIWANDIIKO EKIKAKASA OLUKUSA

..... anyinyonnyodde omugaso gw'okunoonyereza, emitendera, obuzibu n'emiganyulo egirimu, n'eddembe lyange nga neetaba mu kunoonyereza. Ntegeera nti okusalawo kwange okwetabamu oba obuteetabaamu tekujja kukosa busobozi bwa mulwadde wange okusigala nga nfuna obujjanjabi mu ddwaliro lya Butabika. Mu ku kozesa obubaka obuvudde mu kunoonyereza kuno, ebimmanyisa nze ng'omuntu bijja kubikkibwako. Nkimanyi nti nyinza okuva mu kunoonyereza ekiseera kyonna. Nkitegeera nti bwe nteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyenyinza kuba nalyo mu mateeka naye wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza. Nkitegeera nti okuteeka omukono ku kiwandiiko kino, mbeera seggyeeko ddembe lyange lyennina kuba nalyo mu mateeka wabula okulaga obulazi nti ntegeezebbwa ebikwata ku kunoonyereza mwenzikirizza okwetaba mu ngeri ey'obwa nakyewa. "Kopi" y'ekiwandiiko kino ejja kumpeebwa.

Eyeetabye mu kunoonyereza

Amannya …….....Omukono/ekinkumu …….

Ennaku z'omweezi …….

Omujulizi

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Omubuuzi w'ebibuuzo

Amannya …….....Omukono …….

Ennaku z'omweezi …….

Appendix 25: Questionnaire for caretakers (English)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

General information

Participant's identification _____ Interviewer's initials _____

Date of interview (DD/MM/YY) _____

A. Demographics

1. * Sex of patient
    a. Male
    b. Female
2. *Age of patient _____
3. How old are you?
4. * Sex of caretaker
    a. Male
    b. Female
5. What is the highest level of formal education you've attained?

_____

6. Where do you live?
    a. In Kampala
    b. Out of Kampala

B. Clinical condition of patient

7. *Presenting complaints of patient on first visit for current illness.
    a. _____
    b. _____
    c. _____
8. *Diagnosis of patient
    a. _____
    b. _____
    c. _____

C. Phone anxiety

9. Do you fear talking on the phone?

I do not fear at all. I fear a lot

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

D. ICT-related factors

10. Do you have a phone?
    a. Yes
    b. No
11. Do you share a phone with anyone else?
    a. Yes
    b. No

E. Experience with the telemental health

12. Has your patient ever been treated or have you ever received advise on taking care of your patient over the phone?
    a. Yes
    b. No

F. Affective attitude

13. Would you like your patient to be treated or for you to receive advise on taking care of your patient over the phone?

I would not like it at all I would like it very much

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

G. Burden

14. How easy or difficult would it be for your patient to be treated or for you to receive advise on taking care of your patient over the phone?

Very easy Very difficult

1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐

H. Ethicality

15. Is it right or wrong for your patient to be treated or for you to receive advise on taking care of your patient over the phone?

Very right Very wrong

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

I. Intervention coherence

16. Do you understand how your patient being treated or you receiving advise on how to take care of your patient over the phone would help them get better?

I do not understand at all I understand very well

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

J. Opportunity costs

17. Would your patient being treated or you receiving advise on how to take care of your patient over the phone interfere with other important things in your life?

It would not interfere at all It would interfere a lot

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

K. Perceived effectiveness

18. Do you think that if your patient was treated or you received advise on how to take care of your patient over the phone they would get better?

No, I don't think they would get better Yes, I think they would get better

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

L. Self-efficacy

19. Do you feel confident that you would be able to call and talk to your patients' healthcare provider over the phone?

No, I don't feel confident Yes, I feel confident

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

Note: * To be filled by interviewer without asking the participant

Appendix 26: Questionnaire for caretakers (Luganda)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

General information

Patient's ID _____ Interviewer's initials _____

Date of interview (DD/MM/YY) _____

M. Demographics

18. * Sex of patient
    a. Male
    b. Female
19. * Age of patient _____
20. Olina emyaka emeka _____
21. * Sex of the caretaker
    a. Male
    b. Female
22. Omutendera ki ogw'obuyigirize obutongole ogusinga obunene gw'otuuseeko?

_____

23. Mubeera wa?
    a. Mu Kampala
    b. Wabweru wa Kampala

N. Clinical condition of patient

24. *Presenting complaints of the patient on first visit for current illness.
    a. _____
    b. _____
    c. _____
25. *Diagnosis of patient
    a. _____
    b. _____
    c. _____

O. Phone anxiety

26. Otya okwogera ku ssimu?

Ssi tya wadde Ntya nnyo ddala

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

P. ICT-related factors

27. Olina essimu?
    a. Yee
    b. Nedda
28. Ogabana essimuyo n'omuntu omulala yenna?
    a. Yee
    b. Nedda

Q. Experience with telemental health

29. Omulwadde wo yali ajjanjabiddwaako oba gwe wali ofunye ku magezi ag'okulabirila omulwadde wo ku ssimu?
    a. Yee
    b. Nedda

R. Affective attitude

30. Wandyagadde omulwadde wo ajjanjabibwe oba gwe okufuna ku magezi ag'okumulabirila ku ssimu?

Sandikyagadde wadde n'akatono Nandikyagadde nnyo ddala

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

S. Burden

12. Kyandibadde kyangu oba kizibu kitya gy'oli omulwadde wo okujjanjabibwe oba gwe okufuna ku magezi ag'okumulabirila ku ssimu?

Kyangu nnyo ddala Kizibu nnyo ddala

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

T. Ethicality

13. Kituufu oba kikyamu omulwadde wo okujjanjabibwa oba gwe okufuna ku magezi ag'okumulabirila ku ssimu?

Kituufu nnyo ddala Kikyamu nnyo ddala

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

U. Intervention coherence

14. Otegera engeri omulwadde wo okujjanjabibwa oba gwe okufuna ku magezi ag'okumulabirila ku ssimu gye kyandimuyambye okutereera?

Ssi gitegeera wadde Njitegeera bulungi

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

V. Opportunity costs

15. Omulwadde wo okujjanjabibwa oba gwe okufuna ku magezi ag'okumulabirila ku ssimu kyandikontanye n'ebintu ebirala ebikulu mu bulamu bwo?

Tekyandi kontanye wadde Kyandi kontanye nnyo

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

W. Perceived effectiveness

16. Olowooza singa omulwadde wo ajjanjabibwa oba gwe ofuna ku magezi ag'okumulabirila ku ssimu yanditeredde?

Nedda, ssi lowooza nti aja kutereera Yee, ndowooza nti aja kutereera

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

X. Self-efficacy

17. Wekiririzaamu nti wandisobodde okukuba essimu n'oyogera n'omusawo w'omulwadde wo ku ssimu?

Nedda, ssekiririzaamu wadde n'akatono Yee, nnekiririzaamu nnyo ddala.

1 2 3 4 5

☐ ☐ ☐ ☐ ☐

Note: * Questions to be answered by interviewer without asking the participant.

Appendix 27: Interview guide for caretakers (English)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

H. Affective attitude

How do you feel about talking to a mental health professional over the phone?

I. Burden

What do you think about the work you would have to do in order to talk to a mental health professional over the phone?

J. Ethicality

What do you think about how right or wrong it is for you to talk to a mental health professional over the phone?

K. Intervention coherence

How would talking to a mental health professional over the phone help your patient get better?

L. Opportunity costs

How would talking to a mental health professional over the phone affect other important things in your life?

M. Perceived effectiveness

How well do you think talking to a mental health professional over the phone will work as compared to talking to them in person?

N. Self-efficacy

How confident are you that you can talk to a mental health professional over the phone?

Appendix 28: Interview guide for caretakers (Luganda)

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

H. Affective attitude

Owulira otya ng'oyogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

I. Burden

Olowooza ki ku mulimu gwe wandikoze okusobola okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

J. Ethicality

Olowooza ki ku ngeri gye kiri ekituufu oba ekikyamu okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

K. Intervention coherence

Okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu kyandiyambye kitya omulwadde wo okutereera?

L. Opportunity costs

Okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu kyandikosezza kitya ku bintu ebirala ebikulu mu bulamu bwo?

M. Perceived effectiveness

Olowooza okwogera n'omukugu mu by'obulamu bw'obwongo ku ssimu kijja kukola bulungi ki bw'ogeraageranya n'okwogera nabo mu buntu?

N. Self-efficacy

Oli mukakafu otya nti osobola okwogera n'omukugu mu by'obulamu bw'omutwe ku ssimu?

Appendix 29: Consent form for the mental health professionals for the key informant interview

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com

Background and rationale for the study: You have been invited to participate in this study because you are a mental health professional at Butabika Hospital. Mental illness is a major cause of disability in Uganda yet most people that suffer from it can't get the appropriate treatment. Furthermore, adolescents are more likely to have these illnesses and need specialized mental health services. Telemental health can be used to increase access to mental healthcare for adolescents. However, its effectiveness will depend on its acceptability by both the mental health professionals and adolescent patients.

A description of sponsors of the research project and the organizational affiliation of the researcher: This study is entirely sponsored by the investigator, Enock Suubi Segawa, a Student of MSc. Clinical Epidemiology and Biostatistics at Makerere University, Kampala, Uganda.

Purpose: To assess the acceptability of telemental health by the mental health professionals and adolescent patients at Butabika Hospital and determine its associated factors among the patients.

The estimated duration the research participant will take to participate in the research project: You may take about 30 minutes to participate in this study.

Procedures: If you agree to participate in this study, you will be asked a few questions from an interview guide. Your responses to these questions will be recorded in a notebook and using an audio recorder.

Who will participate in the study: The participants in this study will be at least 61 adolescents (aged 10 to 19 years old) seeking treatment at Butabika Hospital, 173 caretakers and 11 mental health professionals that treat adolescent patients at Butabika Hospital.

Risks/Discomforts: There are no expected major dangers from participating in this study. However, some questions may be uncomfortable.

Benefits: There will be no benefits to you directly. However, the things we shall learn from this study will be used to improve telemental health for mental health professionals providing it.

Confidentiality: Your name will not be recorded anywhere on the interview guide or field notes. This consent form will be stored in a safe with a lock. The audio recordings with your responses and all transcripts from them will be stored in on a password-protected computer, password-protected flash disk, and password-protected cloud account. And the information will only be available to people doing the study.

Alternatives: You may go on with your activities for the day instead of participating in this study.

Cost: You will not incur any costs for participating in this study.

Compensation for participation in the study: Everyone who participates in the study will be given fifteen thousand shillings (15,000/=) only as a reward for participating in this study.

Reimbursement: There will be no reimbursement to you for participating in this study.

Questions about the study: If you have questions about this study, you can contact the investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University, +256778607332/ 752542249, enockssegawa@gmail.com.

Questions about participant's rights: For any questions regarding your rights while participating in this study, please contact Professor Ponsiano Ocama, the Chairperson of School of Medicine Research and Ethics Committee (SOMREC) at +256772421190.

Statement of voluntariness: You can refuse to participate in this study and even leave it at any time you want. Leaving the study will not affect your employment at Butabika Hospital in any way.

Dissemination of results: After the study has been completed, you will be informed of the results through the hospital. You will also be invited to a workshop at the hospital where the investigator will present these results.

Ethical approval: This study was approved by the School of Medicine Research and Ethics Committee (SOMREC).

STATEMENT OF CONSENT

..... has described to me the purpose of the study, the procedures, risks, and benefits involved, and my rights while participating in it. I understand that my decision to participate or not will not affect my employment at Butabika Hospital. In the use of information from the study, my identity will be concealed. I am aware that I may withdraw from the study at any time. 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.

Participant

Name …… Signature ……Date ……

Witness

Name …… Signature ……Date ……

Interviewer

Name …… Signature ……Date ……

Appendix 30: Interview guide for mental health professionals

Title of the proposed study: The acceptability of telemental health and its associated factors among adolescent patients, caretakers, and mental health professionals at Butabika Hospital.

Investigator: Enock Suubi Segawa, Student of MSc. Clinical Epidemiology and Biostatistics, Makerere University.

A. Affective attitude

How do you feel about talking to an adolescent patient over the phone?

B. Burden

What do you think about the work you would have to do in order to talk to an adolescent patient over the phone?

C. Ethicality

What do you think about how right or wrong it is for you to talk to an adolescent patient over the phone?

D. Intervention coherence

How would talking to an adolescent patient over the phone help them get better?

E. Opportunity costs

How would talking to an adolescent patient over the phone affect other important things in your life?

F. Perceived effectiveness

How well do you think talking to an adolescent patient over the phone will work as compared to talking to them in person?

G. Self-efficacy

How confident are you that you can talk to an adolescent patient over the phone?