

UNIVERSITY OF GHANA

DEPARTMENT OF PSYCHOLOGY



AN EVALUATION OF A TELEHEALTH INTERVENTION FOR A CHRONIC CARE

GROUP IN ACCRA, GHANA

BY

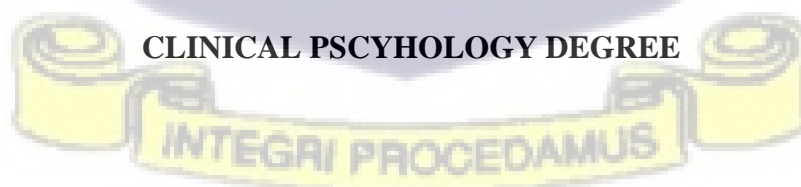
WILMA KETEKU-ATIEMO

(10531280)

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FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MPhil IN

CLINICAL PSYCHOLOGY DEGREE



APRIL, 2022

DECLARATION

I hereby declare that this thesis is an outcome of my own research work and that no part of it has been presented for any academic award in this university or any other university.



29th April, 2022

.....
WILMA KETEKU-ATIEMO

.....
DATE

(10531280)

This thesis was supervised and submitted for examination with the approval of:



29th April, 2022

.....
DR. ADOTE ANUM

.....
DATE

(Principal Supervisor)

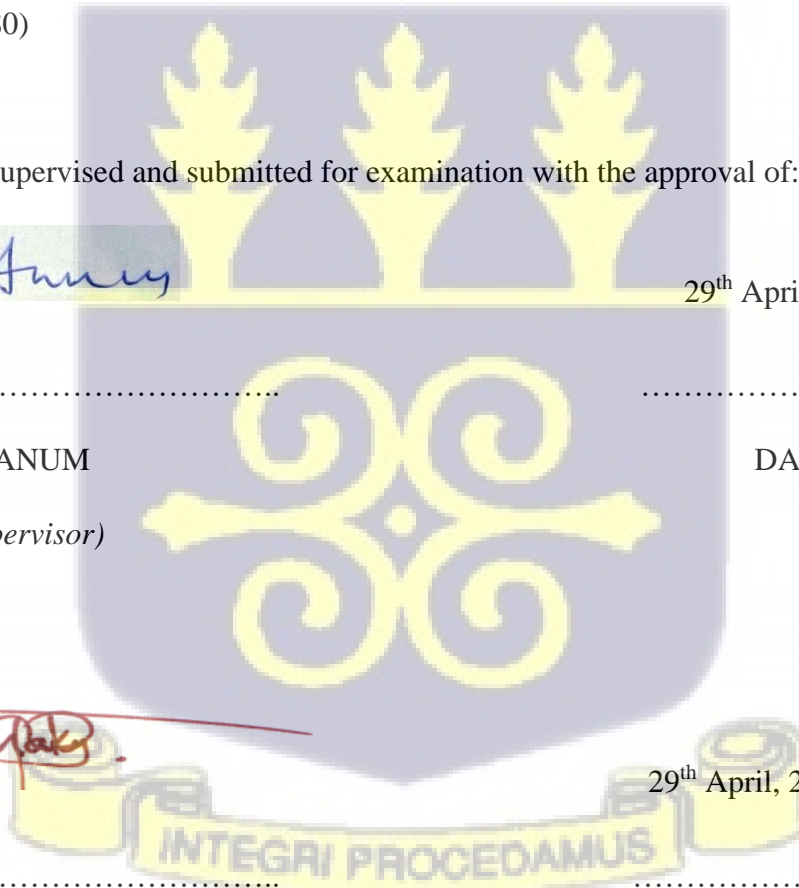


29th April, 2022

.....
DR. ANNABELLA OSEI-TUTU

.....
DATE

(Co. Supervisor)



DEDICATION

(Psalm 37:4) Delight yourself in the Lord, and he will give you the desires of your heart.

To God

We discussed, you agreed, and you delivered beyond my imagination.

To my family

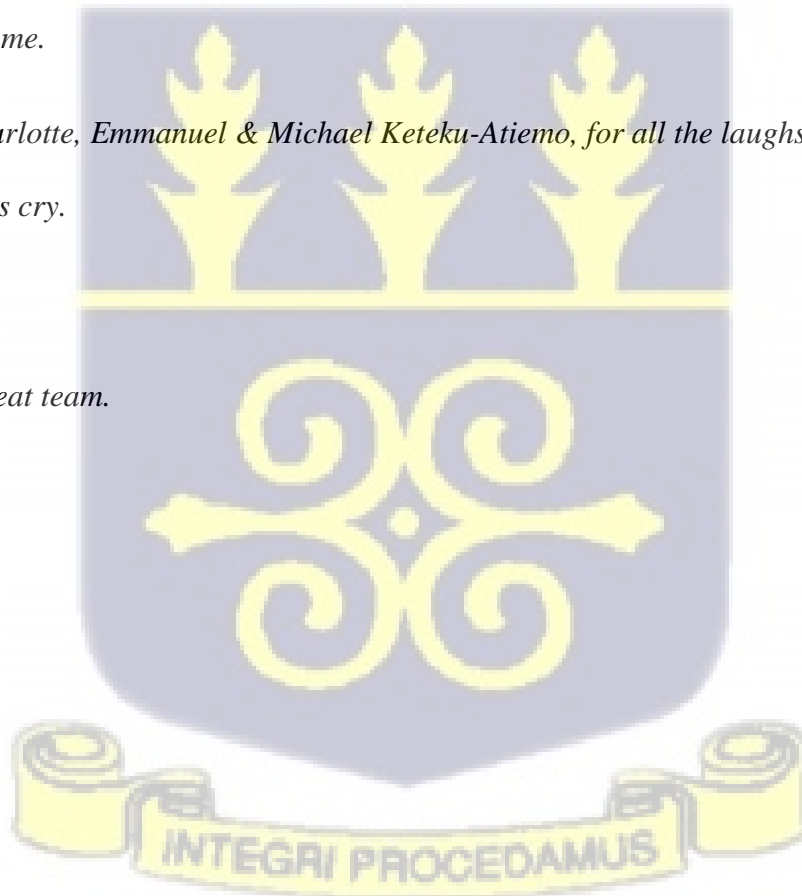
My parents, Mr. William & Mrs. Emma Keteku-Atiemo, for continuously supporting my dreams and believing in me.

My siblings, Charlotte, Emmanuel & Michael Keteku-Atiemo, for all the laughs when all I wanted to do was cry.

To SMA

We make one great team.

I love you all



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ABSTRACT

The use of technology to deliver psychological interventions has garnered considerable attention. This is especially so during the global COVID-19 pandemic which has compelled experts to explore different ways to provide mental health and psychosocial support. The Chronic Care Group developed a telehealth intervention as part of efforts to improve knowledge on COVID-19 and provide psychosocial support and care to selected vulnerable communities in Accra, Ghana for coping with the pandemic. The aim of this study was to evaluate the Chronic Care Group telehealth intervention program from the perspectives of trainees (n=8) and service recipients (n=17). Two studies were conducted using a qualitative research design. Both studies employed a qualitative approach to explore the experiences of both service users and telehealth trainees. The results were analyzed using thematic analysis. The analysis of data of the telehealth Service Recipients revealed five themes: (1) Life before and during COVID-19; (2) Knowledge about COVID-19; (3) Psychosocial support; (4) Behavior change; and (5) Acceptability of the intervention. Results from the Telehealth Trainees highlighted three themes including: (1) Impact of COVID-19 on psychology training; 2) Competence of trainees; and 3) Challenges with the intervention. From the findings of these studies, the shift to telehealth offers new ways of thinking about and providing psychosocial support or addressing mental health needs as well as psychology training. This, together with the possibility of enhanced accessibility, suggests that telehealth has potential as a new and beneficial realm of practice within mental health services in settings in Accra and Ghana as a whole.

CHAPTER ONE

INTRODUCTION

The digital world, particularly the internet, has tremendously influenced every facet of life and mental health is no exception (Amichai-Hamburger et al., 2014). The use of computer-mediated communication such as electronic mail, video conferencing, open virtual discussion rooms, etc. has formed a normal and accustomed part of everyday activities in business, education and even pleasure seeking. Psychology joined this wave unassumingly, towards the end of the 1980s (Barak, 1999). The provision of mental health services is beginning to experience a cardinal change which is being driven by digital technology (Fairburn & Patel, 2017).

Many therapeutic aspects of psychotherapy rely on both verbal and nonverbal interpersonal interaction, that might reflect why clinical psychologists have been reticent to incorporate technology into their practice in the past (Castelnuovo et al., 2001). Though face-to-face therapy will never be replaced due to its significance in psychological practice, technology now provides new ways for clients and therapists to communicate. For mental health practitioners, the internet can serve as an alternative for face-to-face treatments. Mental health professionals have recognized the potential of this medium and have used it to drive improvements in the delivery of mental health treatments, thereby facilitating social change (Amichai-Hamburger et al., 2014).

Problems with mental health, neuropsychology, and substance abuse have a significant impact on global health and well-being. These ailments are the largest cause of disability in the world and the tenth major cause of mortality (World Health Organization [WHO], 2008). Despite the high disease burden, there are severe resource constraints in the areas of prevention, diagnosis, and treatment (Forum on Neuroscience and Nervous System Disorders, Board on Health Sciences Policy, Board

on Global Health, Institute of Medicine, & National Academies of Sciences, Engineering, and Medicine, 2016). Even though treatment is accessible, over two-thirds of persons with a mental illness never seek help (WHO, 2001). According to WHO (2011), four out of every five people living with mental disorders live in middle or low-income countries and do not have access to the necessary health care. In Sub-Saharan Africa, the discrepancy is most pronounced. There is a shortage of qualified mental health practitioners in Sub-Saharan African countries, as well as a scarcity of mental health facilities and a low concern for mental conditions in public funding.

In Africa, one psychiatrist is assigned to every 2 million people, whereas in European countries, one psychiatrist is assigned to every 12,000 people, averagely (Forum on Neuroscience and Nervous System Disorders et al., 2016). Individuals with mental health challenges do not seek any form of therapeutic treatment due to cultural and educational restrictions, difficulties accessing health care and structural limitations in the healthcare system (Kofmehl, 2017). With such a high disease burden, treatment gaps, and treatment costs, it is critical to transition to treatment methods that are quick, easy to access, and the advancement of health-care systems, both in terms of satisfying the requirements of people with mental illnesses and enhancing the efficiency and cost-effectiveness in treatment delivery (Glueckauf et al., 2018).

Telehealth (i.e., telecare, telemedicine, telepsychology) has been classified as “the provision of medical care services utilizing technology modalities in lieu of, or in addition to, traditional face-to-face methods” (American Psychological Association [APA], 2020). They are professional client relationship methods that do not include direct face-to-face connection. It encompasses a wide range of options, including everything from phone conversations to video conferencing. It also has advanced features including the ability to attach documents, audio files, or videos, as well as the

ability to use podcasts to allow patients to download valuable apps (such as a relaxation system, guided self-instructions, or a therapy program) (Pénate, 2012).

The term telehealth is usually used to refer to a specific field of research and development: Internet-based psychological treatment programs (Internet-and computer-based treatments (ICTs); computer-assisted therapy (CAT); and computer-mediated Cognitive-Behavioral Therapy, to name a few (cCBT) (Pénate, 2012). **These technological advancements** are intended to work in the same way as manual-based therapies, assisting in the treatment of a variety of psychological diseases and difficulties via the internet. Psychological assessment, psychoeducation, training programs, and psychological treatment are just a few of the things that telehealth may help with. Counseling, mentoring, and providing references are among the other responsibilities (Pénate, 2012). It has potential as a treatment delivery strategy that can both enhance access to services and remove barriers to treatment accessibility (Varker et al., 2018).

The Chronic Care Group Telehealth intervention was designed to improve knowledge about the coronavirus pandemic and COVID-19, the disease that arises from viral infection and provide psychosocial support and care to selected vulnerable communities in Ghana for coping with the pandemic. A manual was developed to aid the execution of this intervention. The manual had six key areas, overview of the intervention, what you need to know about COVID – 19, protective measures for everyone, protective measures for extremely vulnerable groups, basic communication skills for telehealth interactions, supervision and self-care and important referral numbers. The intervention was in three phases. Phase one involved training telehealth volunteers to execute the aims of the intervention. After which they were assigned specific cases to contact via telephone. The volunteers were to provide basic psychoeducation and psychosocial support as outlined in the manual. For phase two, the telehealth volunteers contacted the assigned cases considered as

extremely vulnerable (e.g., people living with hypertension, diabetes, stroke, living in slums and crowded areas where risk of spread was high) and provided information about protecting themselves from the corona virus infection and coping with the psychological and mental health impact of adopting prevention strategies. (Volunteers were also to liaise with the Chronic Care group if there was a need for testing for and treatment of COVID-19). In phase three which was the final stage, recipients of the support may refer others in their communities for support sessions. Phone session appointments were created to respond to referrals. The general role of trained volunteers was to provide basic psychoeducation on COVID-19 to extremely vulnerable groups and their caregivers, model empathy and provide a listening ear and facilitate conversations around stress, anxiety and distress associated with coronavirus and COVID-19 and lastly, help people use problem solving skills to develop informed contingency plans should they become infected (Osei-Tutu & de-Graft Aikins, 2022).

The Chronic Care Team is a team of researchers and practitioners with backgrounds in health psychology, social psychology, counseling psychology, and clinical psychology, as well as two decades of experience working with individuals, families, schools, and communities in Ghana. To address complex difficulties originating from chronic illness, debility, and stress, the group employs psychological theories and evidence-based interventions that have been tested in Ghanaian settings. The training manual was created to equip trainees with the necessary skills to provide psychological support for Coronavirus preparedness, treatment, and care in Ghana's most vulnerable populations. (See Osei-Tutu & de-Graft Aikins, 2022).

Coronavirus disease (COVID-19) is “a disease caused by the newly discovered coronavirus. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Most individuals infected by the virus experience

mild to moderate respiratory illness that does not require special treatment” (WHO, 2020). However, persons believed to be at high risk of severe infection and symptoms are older adults (65 and older) and people of any age who have underlying chronic health conditions such as lung disease, heart disease, diabetes, obesity, cancer and certain blood disorders, weakened immune systems and chronic kidney and liver disease (Centers for Disease Control & Prevention [CDC], 2022).

The coronavirus has had a large global impact. In addition to the high infection and fatality rates, it has had a huge psychosocial impact, causing public uproar, economic burden, and financial loss. People from many walks of life have experienced a variety of mental health manifestations as a result of the epidemic (Dubey et al., 2020). Several governments around the world were forced to deploy quarantine and isolation measures as quickly as feasible, as a key control method. Quarantine has a wide range of implications on mental health and well-being at both the individual and population levels, in addition to physical suffering. Due to feelings of being cornered and powerless, quarantine imposed by governments and regulatory agencies can cause mass hysteria, anxiety, and agony. These sentiments are amplified when families are separated for an extended period of time due to uncertainty about the disease's prognosis, a lack of basic necessities, lost revenue, and a perception of elevated risk, all of which are aggravated by ambiguous information and poor mass communication in the initial stages of a pandemic (Maunder et al., 2003). Irritability, fear of infection and spread to family members, anger, perplexity, frustration, loneliness, denial, worry, sadness, insomnia, and despair, as well as extremes such as suicide, have been reported in previous epidemics (Brooks et al., 2020). Infectious diseases and chronic physical and mental disorders, have a negative impact on the world's poorest communities. This has serious health and developmental

ramifications. Chronic non-communicable diseases (NCDs) and injuries (NCDIs) account for more than a third of the sickness burden in the poorest areas, disproportionately impacting those under the age of 40. (de-Graft Aikins et al., 2020). A telehealth intervention is required to reach and give some form of education and psychosocial support to such populations. A telehealth intervention was established to provide such service since such persons are believed to be at a high risk of Coronavirus consequences. Following the virus's breakout, events around the world led to changes in rules, legislation, and policies governing the use of telehealth, as well as the creation of guidelines and modules for telehealth service delivery (McCord et al., 2020a).

Problem statement

Evidence suggests that telehealth or telepsychology is effective in providing psychotherapeutic support for different populations (Robinson & Serfaty, 2001; Singh & Severn, 2018; Stasiak et al., 2016; Thompson, 2016). However, a scarcity of research and application in Ghana still remains. The impact of the pandemic resulted in the adoption of changes in healthcare delivery to minimize staff-patient contact and the impact of patient outpourings on health facilities (CDC, 2020). Mental health practice equally experienced significant changes. The events surrounding the coronavirus had a significant impact on mental health practice, compelling mental health professionals to seek other options that do not require face-to-face contact and resulted in a shift toward providing telehealth services to clients and managing their caseloads remotely (McCord et al., 2020a).

The widespread misinformation, social distancing policies, and concurrent work-related stressors associated with such a highly contagious disease have long-term effects on mental health, leading to a variety of emotional disorders (e.g., irrational fear and anxiety) and problematic behaviors (e.g., maladaptive coping). As a result, there is an urgent need for adequate methods to reduce psychological stress and encourage positive COVID-19 behaviors. Telehealth services aid in

providing needed care to patients while reducing the danger of coronavirus transmission to healthcare staff and patients (CDC, 2020). The Chronic Care Group telehealth intervention was created to train telehealth volunteers to provide psychosocial support for individuals of vulnerable communities in Ghana, severely affected by the coronavirus pandemic in order to minimize the disease's terrible impact. It has not been determined whether this intervention was useful or beneficial. As a result, this thesis explores trainees' and users' experiences in providing and receiving psychoeducation and psychological support respectively via telehealth during the COVID-19 epidemic, with the goal of using the findings to aid future crisis planning and the integration of telehealth into service delivery.

Rationale for the study

Emerging technologies are commonly utilized to improve and augment the delivery of psychological and behavioral interventions across a wide range of platforms, from universal smartphone apps to cutting-edge telehealth therapies. The COVID-19 pandemic offers a unique opportunity to investigate the deployment and evaluation of these digital health treatments in the context of a public health crisis. This Telehealth intervention, though designed to improve knowledge and provide psychosocial support, can be used as a template to develop a telehealth structure to provide mental health services for other groups, as well as for crisis intervention. This may also influence how psychologists are trained in Ghana to provide mental health services and expand the use of telehealth in health service provision.

Aim of the study

The aim of the study was to evaluate the Chronic Care Group Telehealth intervention program from trainees' and service recipients' perspectives.

Objectives

1. **Assess the utility of the telehealth intervention in improving knowledge about COVID-19 and provide psychosocial support.**
2. **Assess the acceptability of the service by users.**
3. **Examine the experiences and clinical competencies of telehealth trainees.**
4. **Assess whether telehealth trainees are still using the acquired competencies in their current practice.**

Research questions

1. **To what extent was the telehealth intervention effective in improving knowledge about COVID-19, and providing psychosocial support?**
2. **How acceptable was this intervention to service users?**
3. **What experiences and clinical competencies did service providers (telehealth trainees) acquire through the training and implementation of the intervention?**
4. **To what extent are telehealth trainees applying the competencies acquired in their current practice?**
5. **What were the challenges with training and implementation?**

Significance of the study

As psychological practice evolves, it is essential to find accessible and cost-effective ways of mental health service provision. The expansion of telehealth particularly in Ghana and on the African continent would assist in addressing several barriers to seeking mental health services. It has the potential to increase access to specialized mental health care that would otherwise be inaccessible, assist in the integration of behavioral health and primary care, resulting in improved results, eliminate care delays, and reduce stigma, among other things. As telehealth

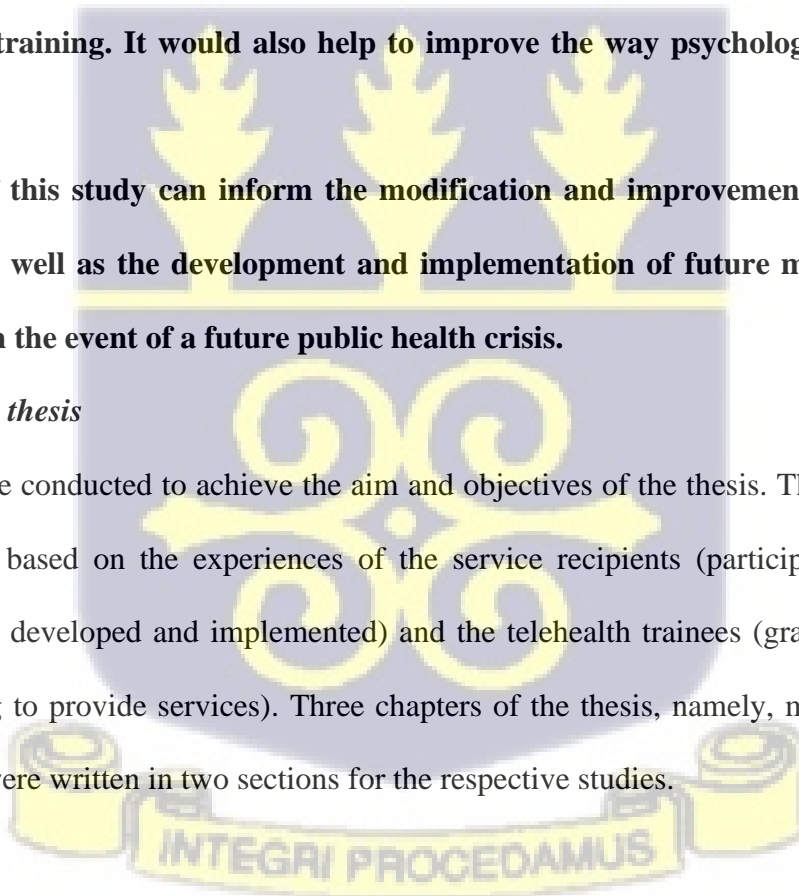
becomes a more common convenience, there is a growing amount of support and assistance for it. As a result, regulatory authorities for psychological research and practice must set recommendations for telehealth practice that are careful and based on research data. The findings of this study could help improve telehealth practice.

Due to the ethical and therapeutic effectiveness problems presented, telehealth practice demands substantial training. Our findings may be relevant to graduate programs aiming to implement telehealth training experiences in order to improve students' telepsychology and telehealth competencies in general. The best techniques to define, measure, and promote competency growth in this new specialty would be the focus of efforts to improve telepsychology training. It would also help to improve the way psychologists are trained in Ghana.

The findings of this study can inform the modification and improvement of this telehealth intervention, as well as the development and implementation of future mental health crisis interventions, in the event of a future public health crisis.

Structure of the thesis

Two studies were conducted to achieve the aim and objectives of the thesis. The studies evaluated the intervention based on the experiences of the service recipients (participants for whom the intervention was developed and implemented) and the telehealth trainees (graduate students who received training to provide services). Three chapters of the thesis, namely, methodology, results and discussion were written in two sections for the respective studies.



CHAPTER TWO

LITERATURE REVIEW

Theoretical frameworks

The theories that guided this study are the RE-AIM framework (Glasgow et al., 1999) and the cube model of competency development (Rodolfa et al., 2005).

The RE-AIM Framework.

The RE-AIM framework as proposed by Glasgow et al. (1999) is a planning and evaluation model that addresses five aspects of individual and setting-level outcomes crucial to program impact and sustainability. It was created to address the issue of lethargic and inequitable translation of scientific advancements into practice, particularly in terms of public health impact and policy. The RE-AIM dimensions include reach (R), effectiveness (E), and maintenance (M)—which operate at the individual-level (i.e., those who are intended to benefit), and adoption (A), implementation (I), and maintenance (M), which focus on the staff and setting levels (Glasgow et al., 2019). These dimensions highlight the importance of evaluating not only a traditional clinical outcome (i.e., effectiveness), but also implementation outcomes, which are less commonly examined yet critical to achieving broad influence (Holtrop et al., 2018).

In terms of access, awareness, appropriateness, and potential generalizability, the RE-AIM studies increased understanding of recruiting strategies and intervention approaches. Physiologic outcomes were once the primary focus of clinical effectiveness research. RE-AIM expanded its scope to incorporate a wide range of factors that influence public health. This method of measuring broader impacts helps in gaining a better understanding of a program's overall effects on quality of life, including unexpected consequences. This framework was adapted to examine the utility of the telehealth intervention in improving knowledge about COVID-19, providing psychosocial support

services for the telehealth service recipients, its acceptability to service recipients, competencies acquired for executing the intervention, challenges faced during the process and the competencies maintained by trainees. Effectiveness, adoption, implementation and maintenance are the four dimensions that this study focused on.

Table 1: RE-AIM Dimensions and Related Questions

RE-AIM Dimension	Addresses
Reach	
Effectiveness	Is the telehealth intervention useful in improving knowledge on COVID-19 and providing psychosocial support?
Adoption	Is the intervention acceptable to service users?
Implementation	What competencies did trainees acquire to implement the intervention?
	What were the challenges with training and implementation?
Maintenance	Are telehealth trainees applying acquired competencies in their current practice?

The Cube model of Competency development.

The cube model is a conceptual model of core skill categories used in psychology. It includes of functional competency domains as well as the intellectual and interpersonal foundations on which they are based, all of which are important components in the professional development of a psychologist (Rodolfa et al., 2005). The cube model has been utilized as a theoretical framework for assessing competency in a variety of subfields of psychology, and it is now widely employed in professional psychology. Rodolfa et al. (2005) identified 12 competencies that can be divided into two categories: foundational and functional. Foundational competences (on the x-axis) are the knowledge, skills, attitudes, and beliefs that underpin the functions that a psychologist is supposed to perform (e.g., understanding of ethics, awareness and understanding of individual and cultural

diversity issues, and knowledge of the scientific foundations of psychology). The foundational domains provide the knowledge and skills that psychologists need to gain functional competency later.

The primary applied functions that a psychologist is expected to do on a daily basis (on the y-axis) were represented by functional competencies (on the x-axis), each of which demanded the reflective integration of fundamental competencies in issue identification (e.g., assessment, intervention, consultation, and research). Beginning with graduate school, internships, postdoctoral experiences, employment, and concluding with advanced and lifetime learning, the z-axis represented the progression of training or phases of professional advancement. From a conceptual approach, the cube model assumes that the acquisition of competences overlaps throughout developmental phases. To put it another way, the development of one skill is reliant on and aided by the development of others. Students can learn how to practice psychology by using a competency framework (Madan-Swain et al., 2012).

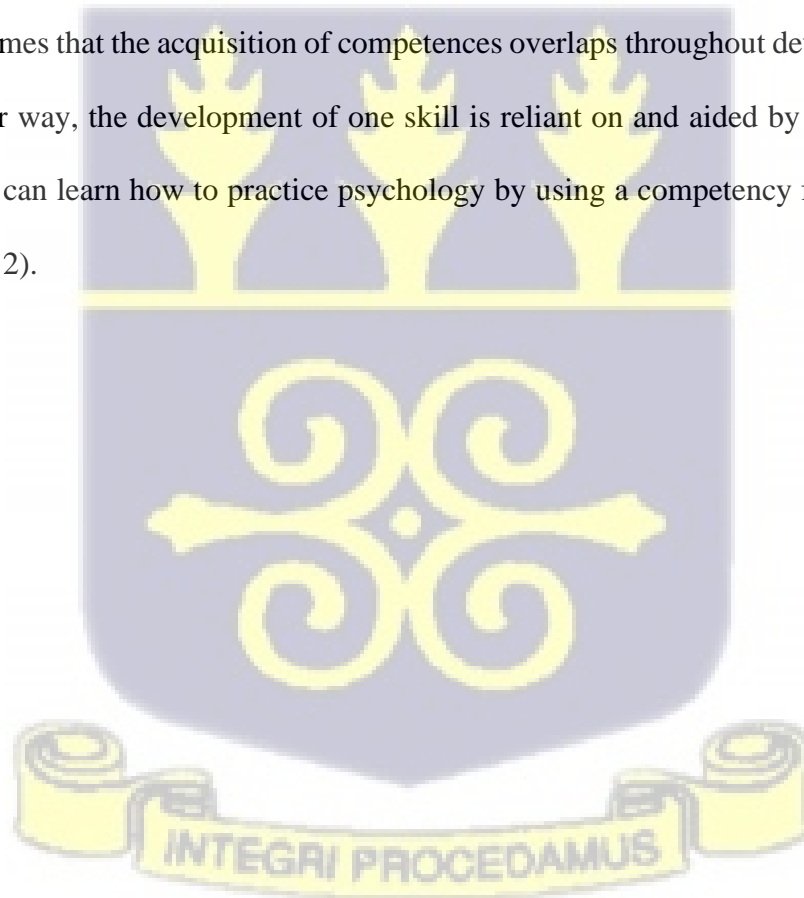
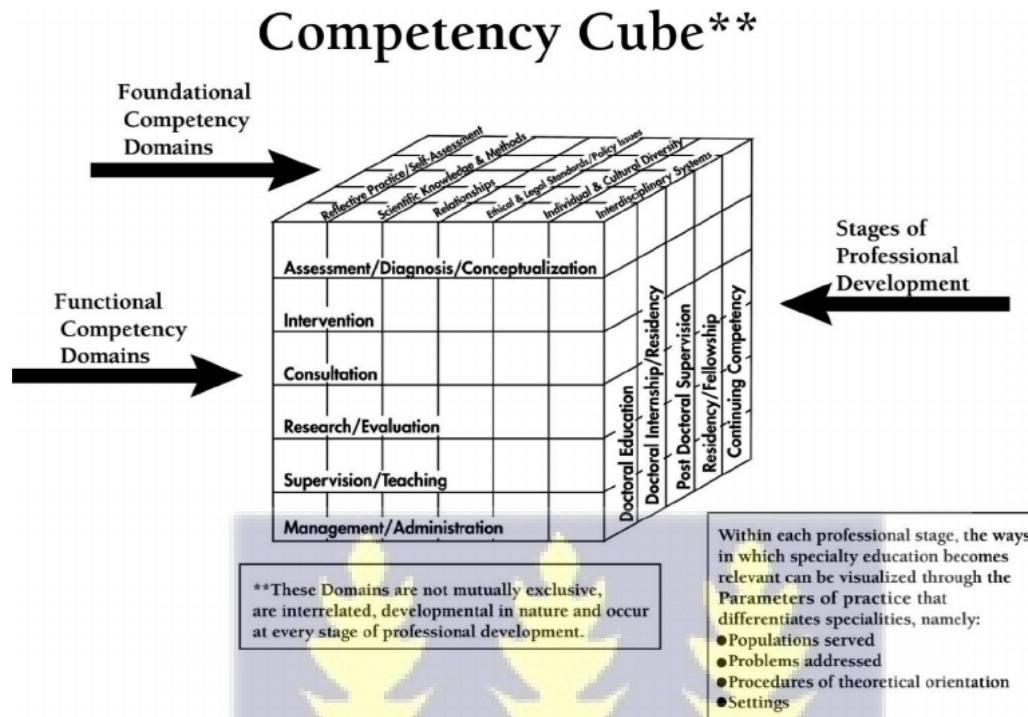


Figure 1: Competency cube (Rodolfa et al., 2005)

Trainees were expected to have basic competencies following the training. This study, based on the



competency model assessed the foundational and functional competencies acquired by trainees based on the training received for implementation of the intervention.

Related Studies

Research has shown that therapy improves mental health irrespective of the medium through which it is delivered. The use of telehealth has resulted in substantial changes in the structure and delivery of mental health treatment (Adjorlolo, 2015) as it has broken down barriers to mental health care such as accessibility, cost, and convenience of use (Hilty et al., 2007). Online interventions are progressively gaining acceptance as a viable option for meeting the growing need for mental health care. These interventions should be supported by empirical research in order to be effective (Dowling & Rickwood, 2013). Telehealth has been shown to be an effective tool in the treatment of a variety of psychological disorders, including anxiety, depression, stress, phobias, obsessive compulsive

disorder, body dysmorphic disorder, post-traumatic stress disorder, bipolar disorder (Andersson, 2018; Hodges, 2013; Varker et al., 2018), and many others.

In a meta-analysis of randomized control trials (RCTs) reporting the effects of psychological interventions delivered through smartphones in the management of anxiety, Firth et al. (2017) found a significant reduction in total anxiety scores from smartphone interventions when compared to the control condition.

Stasiak et al. (2016) have identified and described computer-based and online therapies that are used to prevent and treat depression and anxiety in children and adolescents. These programs use software to give therapy and target symptoms of sadness and/or anxiety. Various programs were found to be successful in treating these disorders, according to the findings.

In a study of ten randomized control studies, Singh and Severn (2018) found that all of them incorporated therapist-guided e-therapy therapies for generalized anxiety disorder, panic disorder, or social anxiety disorder. These studies found that therapist-assisted e-therapy interventions were more effective than waitlist and active controls in treating these problems. It may, however, have the same outcomes as face-to-face Cognitive Behavioral Therapy (CBT).

Robinson & Serfaty (2001) recruited 23 females via e-mails to provide them with treatment for bulimia nervosa who appeared to meet the full Diagnostic Statistical Manual (DSM) diagnostic criteria. These women were provided online therapy by one of two clinicians experienced in such treatment. A follow-up revealed a reduction in outcome scores. There were also significant correlations between word count, engagement with treatment and outcomes. From the study, it was evident that, the internet is a useful way to recruit and treat those with eating disorders.

Lin et al. (2019) concluded that delivering treatment interventions for drug use disorders via video conferencing was beneficial in a review of randomized control trials. These studies looked at how

psychotherapy and pharmacological treatments are delivered and found that they are connected with higher patient satisfaction and are a viable alternative, especially in circumstances when treatment access is limited.

Postel, et al. (2010) used a pre-post design to examine weekly alcohol use, alcohol-related health problems, and weekly motivation in a study of an e-therapy program including therapists for 527 Dutch-speaking patients. Despite a high dropout rate, patients demonstrated a considerable reduction in alcohol use and health concerns associated to alcohol. The program was also feasible, because it drew patients who would not have sought assistance otherwise.

Stewart et al. (2020) found that 96.8% of participants who completed the treatment no longer met the diagnostic criteria for a trauma-related disorder at posttreatment, in a pilot study that examined the feasibility and effectiveness of Trauma-focused Cognitive Behavioral therapy in childhood post-traumatic disorder; delivered via tele-psychotherapy in community-based locations of either schools or patient homes. Both youth and caregiver-reported reductions in posttraumatic stress disorder symptoms indicated clinically meaningful decreases in symptoms, with substantial effect sizes.

Criticisms of Telehealth Service.

For a variety of reasons, several specialists have resisted the use of telehealth. It has been chastised for its lack of face-to-face visibility, which makes it impossible to detect and convey nonverbal communication cues from clients and the therapist's body language on the one hand (Kanani & Regehr, 2003). These are regarded as critical components of the therapeutic interaction. Several ethical concerns have been raised about the use of technology in therapy, including secrecy and confidentiality, client and therapist identity, impersonation, emergency response, and many others (Satalkar et al., 2015). Another issue is the inadequacy of laws and regulations to address the various scenarios that internet treatment creates, such as license requirements, legal jurisdictions,

professional liability insurance, and so on, resulting in unresolved legal concerns (Manhal-baugus et al., 2001). Practical and technical issues about online therapist training, electricity dependence, and the usage of complex and fragile technologies have also been raised (Barak et al., 2008). **Though these objections persist, many of them have been addressed to a large extent as the discipline has progressed. In addition, these criticisms existed mainly at a time where technology was less advanced. People have therefore, become more accepting of online therapy as a result of advances in technology, changes in ethical rules, and the introduction of training courses and workshops** (Chester & Glass, 2006; Grohol, 2004; Mahtta et al., 2021; Gajarawala & Pelkowski, 2021).

Competence.

Competence, like every other profession, is germane to the use of telehealth in providing psychological services. Psychologists must be capable of dealing with psychopathology of varied degrees of severity in both remote and in-person sessions. Individuals with more serious problems may be readier to seek treatment online rather than in person (Yuen et al., 2010). Rodolfa et al. (2005) define competency as having knowledge or skills in a specific area, as well as being qualified, capable, and able to understand and act appropriately and effectively. "The habitual and prudent application of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in everyday practice for the benefit of the individual and community served," according to Epstein and Hundert (2002, p.226). Different elements, including as discrete information, skills, and attitudes, are included into competencies; some areas of competency are highlighted to demonstrate the integrated knowledge, abilities, and attitude used in psychology professional practice (Kaslow, 2004).

Research on competence in telehealth in Ghana remains almost limited. Professional competence is relevant in telehealth or telepsychology just as it is in face-to-face therapy. Though its use has the

capacity to reduce human error, errors in the usage of such devices can have significant consequences (Adjorlolo, 2015). The professional is required to have some competencies such as service provision, cultural competency, self-awareness, ethics and laws governing its use, telepsychology technical skills, etc. (McCord et al., 2015). Equipping professionals with such competencies through training better places them to provides quality services. de-Graft Aikins et al. (2019) investigated the competencies of professional psychologists in active clinical health practice in Ghana, finding that training prepared them primarily for research and teaching, but not for clinical practice. Due to a lack of reflective practice, serious issues in emotional and cultural competences arose. There was a lack of structural support for ongoing professional development. The conclusion is that psychologists should have the necessary skills to deliver treatments in remote locations, including to clients with severe psychopathologies, and to deal with the challenges and crises that may develop as a result (Yuen et al., 2012).

Telehealth Modules.

In the literature, there are multiple reports of telehealth modules and intervention programs that were successful in attaining their goals. Tarlow et al. (2020) found that the hub and spoke model of telehealth service delivery was an acceptable model for improving access to mental health care services in rural and underserved communities, even for clients who lived relatively far from access points, in a study to determine if service utilization behaviors varied with the remoteness of clients served by a telepsychology clinic in a predominantly rural health professional shortage area (HPSA) in Texas.

In a similar study, McCord et al. (2020b) constructed a model of core practice domains relevant to a number of telepsychology practice applications. The research found that telepsychology had the potential to address present challenges with mental health care availability, accessibility,

acceptability, anonymity, and affordability. Furthermore, the applications of this model might be communicated in many situations and through various channels, and this practice model could inform future competency development.

Kilbourne et al. (2008) discuss the conceptualization, implementation, and tolerability findings of a manual-based medical care model (BCM) modified from the Bipolar Disorder Collaborative Chronic Care Model (Bauer et al., 2006; Simon et al., 2006). The concept was created to help older persons with bipolar disorder improve their medical results. It comprises of self-management sessions focusing on bipolar disorder symptom control, healthy habits, and provider engagement, (ii) telephone care management to coordinate care and reinforce self-management goals, and (iii) guideline distribution focused on bipolar disorder medical issues. BCM feasibility testing demonstrated high overall patient satisfaction, high fidelity (e.g., the majority of self-management sessions and follow-up contacts were completed), and good tolerability (dropout rate of 5%). Telephone communications may have helped to overcome hurdles to medical care (e.g., transportation).

Hodges (2013) also created a psychotherapy model (BIB model) that included technological resources to improve treatment aspects and enable successful psychotherapeutic interventions that result in long-term recovery for people with bipolar disorders. The paradigm allows persons with bipolar disorder to obtain long-term, comprehensive, and tailored psychotherapy treatment, according to the findings.

Dent et al. (2018) provided Cognitive Behavior Therapy (CBT) through phone or video using a technology-enabled, standardized, and evidence-based behavioral health approach. The program had a nationwide reach, high patient satisfaction, and significant reductions in depression, anxiety, and stress symptoms, according to a retrospective before-and-after study.

User Experiences.

In health services research, the relevance of incorporating user perspectives into intervention design is becoming widely recognized, and it is at the heart of broad policy goals to deliver patient-centered therapy that is sensitive to patients' perspectives. Despite the critical importance of such synthesis in providing a rigorous and complete foundation for driving evidence-based clinical practice, several qualitative studies addressing user perspectives have yet to be synthesized systematically (Knowles et al., 2014), despite the fact that many service users prefer remote consultations (Juan et al., 2021), which they find as satisfactory as face-to-face alternatives (Dorstyn et al., 2013; Salmoiraghi et al., 2015; Christensen et al., 2020).

Juan et al. (2021) sought to determine how service users felt about tele-mental health treatment and what factors influenced their desire to interact and accept it. Participants' perceptions and experiences were dynamic and varied across time, situations, and individuals, according to the findings. The reasons for contacting services, their relationship with care providers, both sides' access to technology and their unique preferences all influenced their impressions and experiences. Despite the fact that face-to-face care was preferred, participants nonetheless emphasized the benefits of tele-mental health and called attention to the need to address some of the obstacles that could limit access to help and aggravate inequality.

Venville et al. (2021) also found that telehealth is well accepted by service users, but that this is contingent on them continuing to receive the help they needed in a secure and comfortable manner. While certain service users' access concerns should not be neglected, the majority of service users and workers were able to transition to telehealth by focusing on maintaining connections and using choice and flexibility to maintain service delivery.

Knowles et al. (2014) found two major themes in a meta-analysis to identify factors that facilitate or impede engagement for computerized therapies: the need for therapies to be tailored to the individual, and the dialectical nature of user experience, with varying degrees of support and anonymity being viewed as both beneficial and adverse. Personalization and sensitization of information to individual users could improve the user experience of computerized therapy by acknowledging the need for users to have a feeling of "self" in the treatment, which was previously lacking. Using the shared characteristics of computerized treatment to increase perceived connection and collaboration could help to alleviate tensions produced by the dialectical nature of user experience.



CHAPTER THREE

STUDY 1: SERVICE RECIPIENTS

Methodology

This chapter focused on the various techniques used in data collection and analysis for the telehealth service recipients. The research design, population, sample and sampling procedure, method of data collection and procedure for data analysis as well as expected outcomes were discussed in this section.

Research design.

The qualitative research design was used in this study. The importance of analyzing variables in their natural situation, particularly their interactions with other factors, is emphasized by this design. It provides in-depth information of how people learn to perceive, act, and regulate their daily interactions in specific situations (Institute for Work and Health, 2011). This research took a phenomenological approach. Based on their lived experiences, this method describes a concept's or phenomenon's shared meaning for several people. Phenomenologists focus on articulating what all individuals have in common when explaining a phenomenon (e.g., grief is universally experienced). The basic goal of phenomenology is to reduce individual encounters with phenomena to a description of the phenomenon's universal essence. This is accomplished by qualitative researchers identifying a phenomenon, or "object," of human experience (Creswell & Poth, 2018, p. 121). This method allows the researcher to get a better sense of what the subjects went through and how they went through it (Moustakas, 1994).

Research setting.

The research was conducted in the Ga Mashie community of Accra, which is part of the Greater Accra region. Ga Mashie is composed of twin towns, Jamestown and Ussherstown, which are two of Accra's

oldest settlements. Both communities existed before Accra became the nation's capital in 1877, and their current location (along the Atlantic coast) is known as Old Accra (de-Graft Aikins et al., 2020). It has a long and illustrious history of artistic expression, popular culture, and political engagement. The Central Business District, Houses of Parliament, numerous government departments, and Ghana's first and leading teaching hospital, the Korle-Bu Teaching Hospital, are all within proximity. It has received a slew of development grants and support from international and local non-governmental organizations (NGOs), including being earmarked for urban regeneration as part of the millennium cities project (de-Graft Aikins, 2020). Ga Mashi is, however, one of Ghana's poorest and most densely populated non-slum settlements. Ga Mashie, like other African urban poor areas, is plagued by infectious and chronic diseases that have major health and development repercussions (Agyei-Mensah & de-Graft Aikins, 2010). Members of the neighborhood have restricted access to education, work, and formal (biomedical) health services, despite being surrounded by luxury and social amenities.

Participants.

The prospective participants for this study comprised 36 service recipients of the intervention. This was the total number of participants who received support through the intervention. However, only 17 of these participants were available to participate in the **study**. Some service recipients had either passed away and others too weak due to ill health. The service recipients were members of the *Tsui Anaa group*, a self-help group in Ga-Mashi community. They were individuals living with chronic health conditions such as hypertension, diabetes, asthma, chronic kidney disease, among others, who were considered at higher risk of the complications associated with COVID-19. Gender equity could not be ensured in this study as the intervention had already been implemented. To be included in the

study, participants should have been members of the Ga-Mashi community who received psychosocial support through the intervention program.

Sample and sampling technique.

Purposive sampling method was used in the selection of participants. This involves identifying and selecting individuals or groups who are seen to have knowledge about or experience with a phenomenon of interest (Creswell & Plano Clark, 2011). It is a non-random technique that does not require underlying theories or a particular number of informants. Basically, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Bernard, 2002; Lewis & Sheppard, 2006). Purposive sampling was used since the service recipients were believed to have been provided with a service through the intervention program and had the requisite information for the study. A semi structured interview guide (see Appendix A) was developed and used in data collection. A semi structured interview provides the opportunity to ask follow-up questions, reduces the risk of veering off the focus of the study and keeps the interview within a particular structure.

Data Collection Instrument.

The data collection instrument consisted of two sections that gathered demographic information of the participants and asked questions pertaining to the research questions. A semi-structured interview schedule with open-ended questions was used as a guide for the interviews (see Appendix 1). This guide was developed by identifying questions, a total of 19, that best bring out responses that answer the research questions which mainly focused on knowledge about COVID-19, psychosocial support and the acceptability of the intervention. Some of the questions were: 1) “When the Tsui Anaa group called you, how did they explain COVID-19 to you? 2) Knowing that having a chronic condition placed you at high risk of severe illness, if you contracted COVID-19, how did

that make you feel? 3) What coping skills did you learn to help alleviate the psychological distress associated with dealing with COVID-19? 4) How were you taught to cope with isolation? 5) What aspects of the service did you like and why? And, 6) Would you like to utilize such service in the future? The questions were translated into Ga and Twi Language, which were the languages that the participants were fluent in. This was done with the help of a research assistant who was fluent in both languages. The questions were then tested through a pilot and did not require any other modifications.

Procedure.

Following the intervention from March 2020 to June 2020, the process to evaluate the intervention began in January 2021. After receiving ethical approval from the ethics committee (ECH 107/ 20-21), an interview guide was developed and translated into both Twi and Ga languages and translated back into English to ensure that the questions conveyed the same meaning. **This was done with the help of the researcher's supervisors and a research assistant using simple forward translation (WHO, 2016). The Research Assistant who is fluent in the target languages assisted the researcher to translate the guide. The researcher's supervisors reviewed the translated interview guide, conducted a back translation and offered comments to amend the guide. The translated interview guide was shared with colleagues to determine accuracy in conveying the same meaning in both English and the two local dialects in which the interviews would be conducted.** Participants were then recruited for the study.

Initial pilot interviews were conducted in August 2021. Actual interviews were conducted from September 2021 to October 2021 at the waiting area of the Jamestown Police station. The interviews were conducted with the help of a research assistant since the researcher was part of the team that implemented the intervention. This was to prevent researcher and participant effects. **A research**

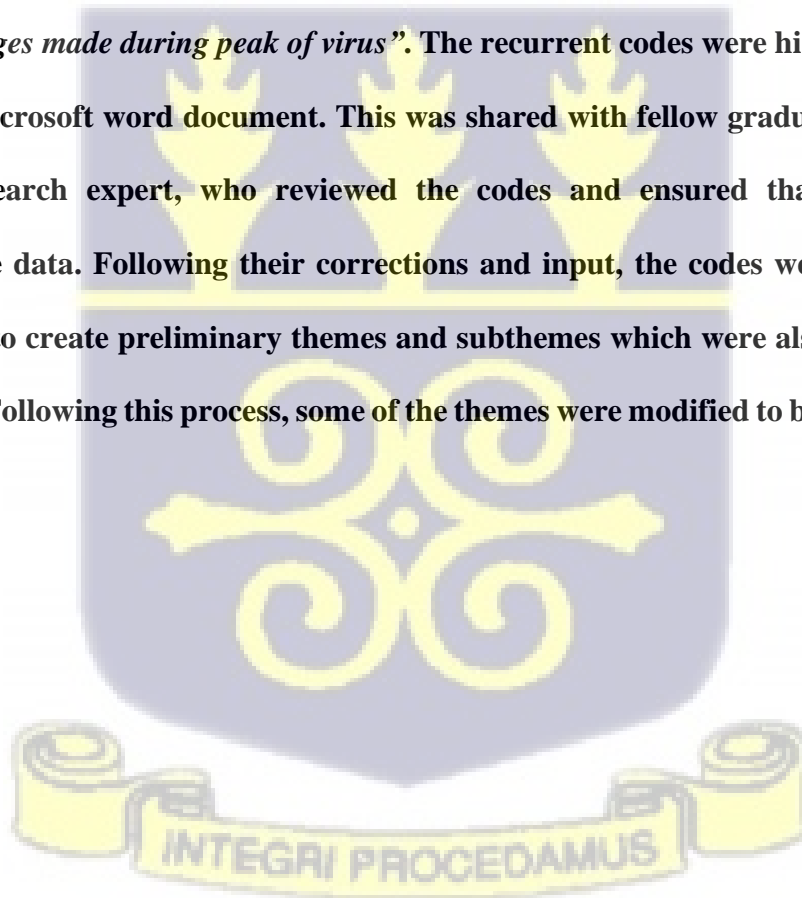
assistant was also required because of the language barrier between the researcher and the participants. Majority of the participants spoke Ga which the researcher was not fluent in. The research assistant who already had experience with qualitative research interviewing received further training on how to administer the interviews and also participated in a mock interview. The interviews were conducted individually in either Ga or Twi language and lasted for an average of 30 minutes. A total of 17 out of the 36 participants were approached for the interview and they all accepted to be part of the study. The interviews were recorded using an audio recorder with consent from participants.

Data analysis.

The data was transcribed with the support of an interview transcriber, a research assistant who was fluent in both English and Ga. An interview transcriber was needed due to the language barrier. The transcriber was to help the researcher translate the interviews into English for easy transcription. The interviews in Ga and Twi were simultaneously translated and transcribed. The transcripts were reviewed by the interviewer, researcher, supervisors and the researcher's colleagues who were fluent in the Ga language, to determine accuracy. This was done by comparing the transcripts to the audio recordings. The data was analyzed using Thematic Analysis as proposed by Braun & Clarke (2006) which includes: familiarization with all the transcripts, generation of initial codes, organization of codes into themes, review of themes, defining and naming of themes, and production of results. The aim of a thematic analysis is to uncover themes—that is, significant or intriguing patterns in the data—and then utilize those themes to discuss the research or make a point. A strong thematic analysis does more than just summarize the data; it explains and clarifies it. Using the primary

interview questions as the themes is a typical error (Clarke & Braun, 2013). This typically indicates that the data have been organized and summarized rather than analyzed.

The researcher read the scripts thoroughly to be familiar with the data. It is critical to read and reread the transcript several times during the first stage of the analysis to become as familiar with the narrative as possible. While familiarizing with the data, initial notes or commentary were made. Initial codes were identified by reviewing all the transcripts and noting parts of the transcript that communicated information about COVID-19 experiences, knowledge on COVID-19 and psychosocial support. Examples of initial codes include coping with *“lockdown,” “financial difficulties,” “feelings of distress,” “prior understanding of COVID-19,”* and *“changes made during peak of virus”*. The recurrent codes were highlighted, grouped in a table in Microsoft word document. This was shared with fellow graduate students and a qualitative research expert, who reviewed the codes and ensured that they accurately represented the data. Following their corrections and input, the codes were then compared and combined to create preliminary themes and subthemes which were also validated by the same persons. Following this process, some of the themes were modified to best depict the data.



RESULTS

The study included 17 participants (4 men and 13 women). Sixteen participants were Christians, and one was a traditionalist. Participant details are presented in Table 2

Table 2: Demographic Details of Service recipients

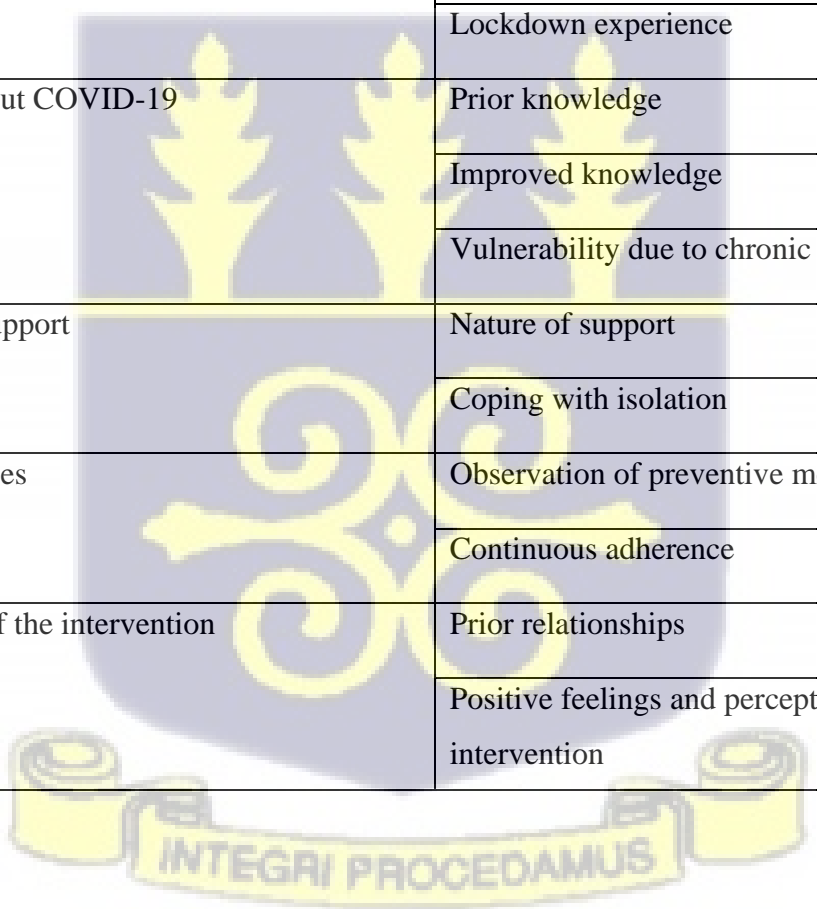
Participant No.	Age	Gender	Marital status	Employment Status	Health Condition	No of Sessions in intervention
SR001	64	Female	Widow	Unemployed	Hypertension	4
SR002	72	Male	Single	Unemployed	Hypertension	3
SR003	74	Female	Single	Retired	Hypertension	3
SR004	64	Male	Married	Employed	Hypertension, mild stroke	4
SR005	65	Female	Single	Retired	Hypertension	4
SR006	42	Female	Married	Employed	Hypertension	3
SR007	72	Female	Single	Retired	Hypertension	4
SR008	63	Female	Single	Retired	Hypertension	3
SR009	63	Female	Widowed	Retired	Hypertension, Diabetes	3
SR010	66	Female	Single	Retired	Hypertension	3
SR011	70	Female	Widowed	Retired	Hypertension, Asthma	3
SR012	65	Male	Widowed	Retired	Mild stroke	3
SR013	66	Female	Married	Retired	Hypertension	3
SR014	59	Female	Widow	Unemployed	Hypertension, Diabetes	3
SR015	60	Female	Single	Employed	Diabetes	3
SR016	50	Female	Divorced	Unemployed	Hypertension	4
SR017	66	Female	Married	Retired	Hypertension	3

Major Themes

The analysis of the telehealth service recipients’ transcripts generated five main themes: (1) Life before and during COVID-19; (2) Knowledge about COVID-19; (3) Psychosocial support; (4) Behavior Change; and (5) Acceptability of the intervention. Table 3 includes summary of themes and subthemes.

Table 3: Summary of main themes and subthemes from the User Interviews

Themes	Subthemes
Life before and during COVID-19	COVID-19 induced life changes
	Lockdown experience
Knowledge about COVID-19	Prior knowledge
	Improved knowledge
	Vulnerability due to chronic condition
Psychosocial support	Nature of support
	Coping with isolation
Behavior changes	Observation of preventive measures
	Continuous adherence
Acceptability of the intervention	Prior relationships
	Positive feelings and perceptions about the intervention



Theme 1: Life Before and During COVID-19

Many have experienced significant changes in their living experiences since the onset of COVID-19 as measures to manage this public health crisis led to the implementation of many restrictions. This resulted in extended time in isolation and loneliness and equally affected social interactions. Participants highlight the COVID-19 induced life changes and lockdown experience which together, describe the living experiences of the participants since the onset of COVID-19.

COVID-19 Induced Life Changes.

In describing their lives prior to the onset of COVID-19, the living experiences of some participants involved free movement, high engagement in social activity and the ability to go about daily economic activities. This however, changed completely as a result of the outbreak of COVID-19.

Service Recipient 1 described how he could initially go for walks around the neighborhood with other members of the community but had to abide by expert advice as a safety precaution and restrict himself to exercising around his home.

I was doing nothing. Before, I was going for a walk around, err, City engineers, [oh ok] at dawn with Nii and a couple of others because majority of the people did not want to go. We had to stop the walk at a point when [a telehealth trainee] and his people told us not to go out of our homes but rather exercise around our homes; to protect ourselves from the disease. (Service Recipient 1).

According to Service recipient 4, there has been a reduction in economic activity, as sales and patronage of goods or products have been low as compared to before the onset of COVID-19 which for him has resulted in low income and made life difficult:

Life has not been easy at all. There's no money. At least before, we could go out and sell one or two animals to get money for the family. But since this disease came, we could not go out to sell much and people don't buy as they used to because there is no money. You also have to provide for the family. (Service Recipient 4).

Service Recipient 6 also recounted how life during COVID-19 has been different from their prior experiences. She narrated that:

What I have seen is that, now, life is not going on too well like before. In terms of trading and in our finances, it has become a bit of a challenge. I see it as a consequence of the pandemic we are experiencing. This virus that we are experiencing, ruined a lot of things in the beginning. We experienced the lockdown, we were not allowed to sell, go to town or do a lot of things. It messed up things a bit but I believe that as time goes on, everything will be fine. (Service Recipient 6).

While some service recipients highlighted the significant changes, they had experienced in their lives, others reported no change. Service Recipient 11 narrates that, “I wasn’t doing anything and I have been alright. The only thing is that, now, people are not as free as they used to be to go out and meet people.”

Lockdown Experience.

The lockdown in the hotspots of the country required many to stay at home for a period. This was one of the many measures taken to reduce the outbreak of the virus. COVID-19 restrictions caused financial hardships immediately after its outbreak. Both the formal and informal work sector were affected immensely which affected many individuals and families. Participants reported their financial struggles as follows:

The lockdown worried us. We were home all the time and things were very expensive, but we don’t have the money. We even noticed that the things provided by the government were being shared in town but when it gets to our place then they pass somewhere else, they don’t give us. The last time, they brought us plantain which wasn’t good and fried fishes we don’t like. They didn’t give us anything during the lockdown. They pass through our place with the food or give those before us and when they get to our place they don’t share. So, it was God who stayed with us during the lockdown, thinking killed a lot of us too. (Service Recipient 19).

“They” refers to people designated by the government to make relief items available to various communities”. She also added that;

If you go to buy something, they give too many complaints. If you must cook too, you have to cook plenty so that it can last for a week. The second lockdown was worse than the first we couldn't buy anything. There were no tomatoes, you can't buy onion Gh2 from 'Kotoko' so we suffered where we are. The fish too we don't know where they get it. It was just by the grace of God. (Service Recipient 19).

Social isolation, unforeseeable circumstances, changes in daily routine and reduced physical activity, can potentially lead to increasing levels of stress, loneliness and anxiety (Wilkielis et al., 2021).

There are numerous coping strategies adopted by different people in dealing with situations that result in distress. This includes self-distraction, active coping, denial, substance use, use of emotional support, use of informational support, and behavioral changes. Participants adopted various coping mechanisms such as observing hygiene protocols, adopting healthier lifestyles, engaging in social activity or seeking social support from family and friends, watching television or listening to the radio and engaging in economic and religious activities to help them deal with the impact of COVID-19. Below are narrations from participants:

Service Recipient 2 narrated that, “I was home doing nothing in particular, just seeing to chieftaincy issues”.

Service Recipient 3 admits to making behavioral changes and ensured that members of her household who were equally vulnerable, protected themselves during the lockdown to cope better:

I was home and when I needed to go somewhere, I used my nose cover. In addition, I was washing my hands frequently. Anytime I go out, I wash my hands frequently. I ensure my grandchildren wash their hands when they come back from outside before they eat. We do not go out. I cook for them at home, I did not buy food for them from outside during the lockdown. I exercise a lot too. I wake them up at dawn and we walk from here to Palladium and back to the house. (Service Recipient 3).

I either watch television or listen to the radio. On Crystal TV, I watch Ghanaian and Nigerian movies. On Sundays, I listen to Mensah Otabil's church service. I then find something to eat and relax on my bed. (Service Recipient 5).

My sister and I would discuss world issues as to how to live. Yes, err, but she is no more. We would sit here and receive all that was given during the lockdown. We used our time together to make ourselves happy. (Service Recipient 7).

My children and I have been having discussions because they also can't go anywhere. They are my friends and partner. They gave me strength during the lockdown. The elderly daughter's husband is a doctor so we do exercise in the morning, especially me. We always exercise and he talks with me and other things so I didn't have a problem. (Service Recipient 9).

Participants engaged in religious coping as a way of dealing with the various restrictions imposed during the peak of COVID-19.

Nobody goes anywhere but during the lockdown, we were going for church activities. A lot of people did not come, but the few people that came, we did whatever we were supposed to do. At home, you can't go out unless something has happened. At home, I sit and watch TV. I like watching the newspaper review. So, I watch and when I am done watching the newspaper review and eat something, I rest. (Service Recipient 11).

We thought about it for some time and pray to God to let it pass. We have not seen something like this before Ghana. We pray about it with our children anytime we wake up in the morning in our room. (Service Recipient 18).

The outbreak of infectious diseases such as COVID-19 can result in significant emotional distress such as depression, anxiety and fear of contracting the disease. (Zhou et al., 2020). Due to the restrictive measures imposed in many countries, many had to stay at home which often led to being alone or having very little social interaction, coupled with all the uncertainties of the outcome of the pandemic and an overload of devastating information about COVID-19. These narrations highlight the distress experienced:

During that, time people who do not have anybody around to have a chat with ended up being sad. [oh] Yes oh. I told you I like watching television. I could not control myself when I saw what was happening in America. I felt uneasy watching. My child warned me not to watch. The television remote was hidden for some time from me and my in-law called to ask me not to watch. I was devastated seeing people in body bags and coffins. (Service Recipient 1).

As for the fear, it is normal to feel that way. But with prayers and... if you do what they have told us to do, you won't be afraid. (Service Recipient 11).

Yes of course I was afraid, because it was all happening too fast... I always keep a distance when I am sitting and someone else is sitting next to me. (Service Recipient 14).

COVID-19, since its inception, though it has caused significant challenges in healthcare and healthcare seeking behavior, it has equally offered opportunities for its improvement and more efficient ways of providing or seeking healthcare and healthcare promotion (Saah et al., 2021). Participants describe differences in their experiences with their health and health seeking behavior during the peak of COVID-19. Whilst some completely shied away from the usage of health facilities due to the fear of either contracting the disease or being tagged as an infected person, others continued to visit as and when they needed to.

What are you going to do in the hospital? Because, you will be asked many questions. They will think that you have COVID and that's why you have come to the hospital. We have been told that you only visit the hospital when you have a serious illness. Therefore, you need to control yourself. Nothing has happened to me since. I used to take the medication but I stopped at a point in time because according to the leaflet, the medicine can give you infection. When you live a healthy lifestyle, you will be fine. Recently I had to go to the hospital for medicine because I had an issue with someone and I got angry which triggered my blood pressure to go high. The doctor asked if I have run out of medicine and I told him there is nothing wrong with me. He told me that though nothing is wrong with me I should come any time I run out and I told him ok. (Service Recipient 1).

I was going to the hospital as usual until the week of the lockdown. I was given medication during my last visit which I was taking but I was not taking it regularly because I did not want my medication to finish since we could not go to the hospital. Even if you go, you will not be allowed to enter unless it is an emergency. And so, if I take it today, I will not take it tomorrow but rather the next day so that I will not run out of the medication. That is how I was taking it. (Service Recipient 6).

Yes, I was able to go. Anytime I feel a little discomfort in my body, I go to the hospital. I take them every time. I have taken my medication this morning. I do not joke with my blood pressure (BP) medication because it is killing many people. (Service Recipient 8).

Research question 1: To what extent was the telehealth intervention effective in improving knowledge about COVID, and providing psychosocial support?

Theme 2: Knowledge About COVID-19

In exploring their knowledge acquired about COVID-19 through the Chronic care group, the narratives given by participants paint a picture about their views, perceptions and beliefs about COVID-19 before (Prior knowledge) and after receiving psychoeducation (Improved Knowledge), as well as knowing about their vulnerability to COVID-19 infection (Vulnerability due to having a chronic condition).

Prior Knowledge.

Before receiving psychoeducation on COVID-19, participants mainly had limited knowledge about what COVID-19 was, how to identify it, what measures or precautions were required to protect themselves and the outcomes of contracting the disease. There were also a few misconceptions based on the variation and authenticity of information received, which could be attributed to the different presentations of COVID-19 on different media platforms or outlets and how they were understood. This often led to some misconceptions and false theories about the virus. Some misconceptions about COVID-19 include:

We the Gas [an ethnic group in Ghana] do not believe there is Covid-19 and are not abiding by the protocols. What we know is that, the leaders in the country are making money out of the pandemic. (Service Recipient 1).

The COVID-19 virus is a sickness that really breaks you. When you get it, ‘you really don’t stand a chance’. You will experience coughing, chest pains, it makes you feel cold... There are a lot of sicknesses associated with the COVID-19 sickness. (Service Recipient 13).

The term ‘you don’t really stand a chance’ means that a person who contracts COVID-19 has no chance of survival, which may not necessarily be the case and can be classified as a misconception.

I didn’t know much about the sickness. When you give your attention to a sickness if you don’t take care, you will get it so I didn’t give my attention to it. I wasn’t feeling well by then too I keep getting boils. (Service Recipient 19).

With the misconception that giving a disease too much attention could result in contracting it, this participant decided not to give the COVID-19 virus any attention and so did not have knowledge about it.

Analysis of the data also shows that participants had very limited or inaccurate knowledge on COVID-19 prior to receiving psychoeducation from the Chronic Care Group. This is evident in the following narrations:

We knew that it is a disease that has affected many people around the world. It is a disease that when you contract it and you are not careful, you can die as a result. Therefore, you need to find the antidote. (Service Recipient 1).

I heard it being discussed on the radio and television, but I am yet to see anyone who has contracted the disease. I did not know what disease it was but what I heard is when you contract it, you cannot breathe. (Service Recipient 3).

We heard on the television that when stepping out we must wear our nose mask and wash our hands. We have been doing that ever since. (Service Recipient 4).

Though this participant was abiding by the hygiene protocols heard on radio, he still lacked the understanding of why such protocols were important.

OH. Everyone knows that it was a sickness that came “tsruukaa” (out of the blue) and it is only doctors who know what it is. That it infects you, they are bacterium in the air “neke neke neke” (this and that), hands have to be washed often and you need to do that... and I don’t go out so... I mean I don’t often go in the mist of crowd so I think it can’t infect me, not like it can’t infect me because I’m not God. (Service Recipient 12).

According to Service Recipient 12, the COVID-19 was believed to be a disease that came

“*tsrukaa*,” which meant out of the blue. This means that they have no knowledge about what the disease is and how it came about.

Prior to the psychoeducation received from the Chronic care group, some participants had some knowledge of the hygiene protocols and safety measures.

We heard on the television that when stepping out we must wear our nose mask and wash our hands. We have been doing that ever since. (Service Recipient 4).

We already knew we have to use our nose mask, wash our hands and follow the protocols. We were following the protocols before they came to have a chat with us so we do not have any issues. (Service Recipient 8).

New Knowledge.

Through the psychoeducation received from the Chronic Care Telehealth Manual, most participants showed improved knowledge about COVID-19. Based on the psychoeducation received, participants demonstrated knowledge of what the virus was, symptoms of COVID-19, mode of transmission, the protective measures and consequences of contracting the virus.

Based on the education received on the definition of COVID-19, participants explained that:

They said it is a disease caused by “mmoawa” (a virus) that is being transmitted from one person to another and so we should be careful. (Service Recipient 2).

'*Mmoawa*' (*Twi*) literally means small organisms which this participant uses to describe the COVID-19 virus and is believed to cause the Corona virus disease and further shows how it can be transmitted from person to person. Therefore, one needed to take care.

They [the telehealth providers] said it is a disease or virus in the air that people contract. (Service Recipient 6).

He [telehealth provider] said they are bacteria so we should protect ourselves, we should be wearing the face mask. (Service Recipient 19).

The following are narratives that demonstrate their knowledge retained on the mode of transmission of COVID-19:

We were told that it is a disease that can be contracted when you get close to an infected person. We should wear the nose mask and we should not go anywhere. That was the advice given us. (Service Recipient 5).

It is transmitted through the air so if an infected person coughs and spit around people can be infected. You must take good care of yourself so you do not contract the disease. (Service Recipient 7).

They [telehealth providers] said COVID-19 is a new disease that has been discovered. So, you can get it through the air or when you shake hands with someone or maybe you have contact with someone. (Service Recipient 12).

Based on the education received from the Chronic care group, participants describe the symptoms of COVID-19 as follows:

We were told that the symptoms are cold, cough, vomiting, pain in the ribs and the entire body together with flu. Aside these symptoms I do not know of any. We have been told of a 'new one' (a new variant), which is worse than the first one that came. (Service Recipient 1).

They mentioned coughing, headache, difficulty breathing... As for what I saw on the television, I cannot describe it. All I saw was dead bodies going to be buried. (Service Recipient 5).

They say that when you see the person coughing and can't breathe properly, then you will know that the person has some or you take the person for checkup. (Service Recipient 12).

Though participants had received education on the symptoms of COVID-19, some participants believed that only a doctor could tell the symptoms of COVID-19. Therefore, they suggested that such tasks should be left for healthcare professionals:

I do not know but I think it is only a doctor that can tell whether someone has COVID-19 or not. When you are sick, you go to the hospital and the doctor will determine the disease you are suffering from. You cannot tell what is wrong with the person. You will be asked to do some tests and the results will reveal what is wrong with you. Is that not the case? (Service Recipient 4).

These participants defined COVID-19 based on consequences of contracting the virus;

They said the sickness that has come, it really kills and we don't see it. (Service Recipient 7).

It is a disease that is killing many people abroad but it seems luck is on our side in this part of the world. (Service Recipient 4).

There's an admission by service recipient 4 to the fact that though the disease has killed many, the participant attributes the outcomes of the disease in Ghana to luck. This means that though others have experienced life-threatening outcomes, Ghanaians have been lucky. Eating green leafy vegetables such as '*kontomire*' provide nutrients that boost the immune system to fight COVID-19. Participants were encouraged to eat such foods to protect them.

The protective measures they learnt from the education received are as follows:

We were told not to remove this thing (referring to the nose mask), wash our hands every second with soap and wipe with tissue. The tissue should be put in a dustbin and not on the floor. We were also told to have hand sanitizers on us for ready use; particularly in areas where there is no water. (Service Recipient 1).

They said we should avoid getting close to people, we should get water to be washing of hands regularly and also wearing nose mask Hmmm, I am trying to remember. They told us

to eat well and exercise. As for that, we have already been doing it because of the bp. (Service Recipient 5).

They called and told me that what came is very serious so we should be taking good care of ourselves. And secondly, our hospital attendance, how we have our conversation and sitting among people. We shouldn't be going to funeral and things before they asked how we are doing. (Service Recipient 9).

They said we should wash our hands under running water with liquid soap and when you're done you need to sanitize your palm, when you use the paper tissue, you put it into the dustbin. There's a provided dustbin aside. When you're home too as many times as you can, and you should use the nose mask to cover where you're supposed to cover because they said your saliva can infect someone so you must use it to cover your mouth. (Service Recipient 11).

For some participants, albeit they had received psychoeducation on what COVID-19 was, some admitted that there was an inability to recall. Participants narrate as follows:

I do not know what the disease is but what I remember is that, when you contract it, you cannot breathe. I have forgotten. (Service Recipient 3).

There was also an inability to demonstrate knowledge about seeking healthcare support during the lockdown. Compared to other aspects of psychoeducation, participants were barely able to define or illustrate the terms, '*self-isolation*' and '*quarantine*'. Despite the inability of most participants to accurately recall the definition of these terms, due to forgetfulness, a few participants were able to recall;

Self-isolation? Err they said that, if you feel like where you went, there is someone there with covid, you'll have to stay in your room for some time. You will be in your own room for some days, you won't go anywhere. Before they see if you have some of the sickness or not. (Service Recipient 9).

My understanding is when someone contracts the disease; the person will be taken somewhere to be quarantined to find out whether it is covid-19. (Service Recipient 5).

The quarantine... when you get the virus, they must put you aside and treat you. (Service Recipient 11).

On the other hand, majority of them were able to illustrate '*social distancing*'. When asked to demonstrate knowledge of social distancing, participants comment as follows:

Social distancing means there should be a gap between us when we sit. On this bench only three of us can sit. The way you are close to me, it is not allowed. You are to sit on the third seat from me. Our people are not going according to protocols. When I am invited to a funeral and I meet the person who invited me, I give my donation to the person and leave. I do not sit to eat or drink. There are funerals in my locality which I cannot attend because people's life matter. A member of NDC, our party, has passed but I will not attend the funeral. People's life matter to me more than going to those events. (Service Recipient 1).

We should let a gap be between us. Is that not it? (Service Recipient 4).

Vulnerability Due to Chronic Condition.

For elderly populations and people living with chronic health conditions such as hypertension, diabetes, cardiovascular diseases, asthma, etc., they have increased risk of infection and a severe course of COVID-19. These populations are excessively impacted and are at higher risk for hospitalizations, morbidity and mortality.

Participants were fully aware of their susceptibility to the infection due to having a chronic condition, its severity and the possible consequences of infection. In expressing their feelings about the knowledge of their vulnerability, some participants admitted to being afraid, anxious, panicking, frustrated and living in uncertainty, while others experienced no fear at all:

When I heard that when you have hypertension, diabetes and other diseases could suffer more from contracting COVID-19, I was scared. I even told my husband that I heard that if you have hypertension and diabetes, you can have serious problems, he didn't believe it. He said you can still die from it whether you have such illness or not. So, he asked me to forget about it. (Service Recipient 6).

Honestly, it made me feel a little bothered. Those of us who have BP and stuff, we really need to take good care of ourselves. Because if we are unable to abide by the instructions given to us and we get COVID-19, we are the ones that... As we have also grown older, we are the ones it takes away quickly. So, we ought to follow the instructions given to us very well. (Service Recipient 13).

I felt so frustrated because I have children and only one is with me, they come and go but since the lockdown they have not been able to come. I stay alone, but they have been calling me and what they say is that, I'm a Muslim and we like washing our hands. When I'm going to clean myself, I go with soap. Our bathroom is for the whole house so when going to bath I spread 'akesha' (bleach) there and wait for some time before going to bath. I was going by that practice but now I can't. I know how to take care of myself, I tell God not to allow any misfortune to happen to me and my children. (Service Recipient 15).

I felt it in my heart because I am not well myself. (Service Recipient 20).

Hm, initially I was very afraid because they said when we get it, we will die. So, I was very worried. But when Paapa's (telehealth trainee) people called me, they explained that if I do all the things that they have asked us to do to protect ourselves, we will not die. So, I became alright. I take very good care of myself, and I make sure there is a gap between others and myself when we are talking. When that also happened, I did not joke with my medication. (Service Recipient 7).

I felt frustrated and didn't know what to do. So, we took it into prayers, so it doesn't come our way. (Service Recipient 18).

While some experienced fear and worry over their vulnerability, others had no worries and believed that they would be fine if they continued to adhere to the safety protocols, they had received education on:

I never had any fears. I had faith that once I continue to protect myself like Paapa and co told me to, there is no way I can contract the disease. I am not sure I will contract the disease because now I have also taken the vaccine. (Service Recipient 2).

Rather than deal with the difficult feelings and thoughts about their perceived vulnerability, some participants decided to engage in avoidant coping by not thinking about it or engaging in other activities to enable them to forget or as a distraction from the real issues:

In the beginning I had a little panic and I said no, if you put fear in you, it will get the chance. I watch the television in the morning and laugh watching it, I like to watch film so that I feel happy and release the fear in me, that was what helped me. When they said people with sickness can easily get it, I was a little afraid, but it got to a point where I told myself that I will forget it. When our people called me too, they spoke to me and advised me that I should not be afraid. I should just protect myself and take my medicine and I should also do things that will make me happy and relaxed. (Service Recipient 9).

COVID infects people with underling illness and kills them quickly. I was frightened, so I know how I move about, so I don't get infected. Because as I sit here, I have BP and Diabetes too, so if some comes to add up to it then I will be dying... so I really take care of myself, so I don't get infected by it... (Service Recipient 14).

Theme 3: Psychosocial Support

In reviewing the management of the psychosocial difficulties encountered by participants, this theme looks at the experiences of participants with the support received from the chronic care group during the peak of COVID-19.

Nature of Support.

A considerable amount of support received was counselling, which included talking to them and facilitating conversations about anxiety, fear and stress, its causes and how they could deal with such issues using coping mechanisms and problem-solving skills. Participants also received financial support and other forms of relief such as, groceries, healthcare assistance and hygiene products.

They narrate the type of support received as follows:

They helped us. As I earlier mentioned, they gave us ‘provisions’ (groceries). They advise us anytime they called. Somebody like Vida will always call to check on me and tell me to always relax so that my bp will not go up. Sometime ago, err, I think last month, she called me. She asked why I had not gone for the vaccine, and I told her I would not go for the vaccine, and I do not know of any vaccination center. Now that there is a more dangerous one around, when I hear the vaccination is going on, I will go and take the vaccine. The group also sent us 1,000,000 (GHS 100) during that time. Recently they sent us some money. I do not quite remember the amount. It was either GHS 250 or GHS 500. They help us a lot. (Service Recipient 1).

The term ‘a lot’, depicted the amount of support received while ‘they advise us anytime they called’, referred to the counselling received during the care call.

They have been extremely helpful. They taught us proper dieting and exercising. I am a leader of our group, so I call them at 5 am for walks. There are elderly people amongst us. Tsui Anaa gets us doctors for medical screening and registered many of us on national health insurance scheme. Those of us who don’t have money to buy our medications too, they provided funds for us to get our medication. (Service Recipient 2).

The statement “They treat us like the hospital does” means that participants’ experience shows no difference between a face-to-face intervention and an online intervention.

Coping with Isolation.

Based on the manual, participants were equipped with coping skills which enabled them to deal with isolation, loneliness and changes in daily routine. They narrate their experiences as follows:

Ahh, they only said that we should exercise ... And that, if we feel like talking to somebody, we can call them on phone. As for the TV, as I already said, I have been watching it always so... (Service Recipient 1).

Participants were encouraged to use remote technology such as mobile phone, to keep in touch with family and friends and to exercise regularly. “We should go for walks and exercise so that we do not become dull”. (Service Recipient 2).

“Becoming dull” could mean adopting a lifestyle that is more sedentary and has the potential to further exacerbate their chronic health conditions.

They taught us to feel free at home, watch TV, play with our children, call our relatives and talk to them and pray. They also said we should not be worried or be afraid. Once we protect ourselves, we will be fine. (Service Recipient 6).

Theme 4: Behavior Changes

As part of infection control measures for COVID-19, hygiene protocols and safety precautionary measures were implemented which included, social distancing, self-isolation, quarantine, appropriate and frequent hand washing, use of nose masks and sanitizers, etc. This required significant behavior change and continuous adherence to safety protocols.

Observation of Preventive Measures.

Participants made significant behavioral changes by observing the outlined covid-19 preventive measures and maintained some of these changes due to various reasons which are mainly perceived susceptibility, perceived severity and cues to action:

Something like going to visit friends in their homes. You go out and enjoy. Attend funerals to enjoy. People will say ‘we used to drink with you’ but now you say you are drinking no more. As you have seen what is happening, you must change your lifestyle. You also need to be careful with the people you are sitting with because you will not know whether they have the virus or not. I no longer visit my friends. I only watch television in my room. (Service Recipient 1).

Service recipient 1 stopped visiting friends and attending funerals which eventually led to potential problems with friends. She however admits that these changes are necessary due to the current times.

During that time, I changed. As I said earlier, I was not going anywhere, I am home with my grandchildren most of the time. We go for walk at dawn, come back home wash down and get something to eat. I later go and lie down to rest. (Service Recipient 3).

During the COVID-19 period, I was always at home because I didn't want to get the disease. I wasn't selling or doing anything of the sort. But now go out often. (Service Recipient 6).

I have not been washing my hands as many times and things but since the COVID-19 came, whatever I touch, I must wash my hands. I don't always wear the facemask at home. We saw how other countries were suffering and their people were dying. (Service Recipient 11).

This is an external prompt to trigger behavior change (cue to action)

I don't go to crowded places, even when I must eat, I go into my room to eat, and my sister will be shouting at me to come down. If I feel like getting down, I do. I don't sit among plenty people. The sickness is carried by the wind. (Service Recipient 19).

We have been asked not to eat some things nor do some things so when I remember I abide by them. It's because I don't want to get the sickness. I am already not well myself and when I get the sickness I don't know where that will end up. (Service Recipient 20).

This reflects her chances of contracting the disease and the seriousness of the effects (perceived susceptibility and severity)

Continuous Adherence.

Sustained behavior change is crucial in preventing the spread of COVID-19. Participants adopted these hygiene protocols and preventive measures and sustained it at varying levels. The continuous maintenance was mainly to prevent infection as participants had a sense of the consequences of getting infected and encouragement from others. In response to the question about whether participants were still maintaining the hygiene protocols, participants narrated as follows:

Yes, I still do. I said I am a changed person now. If I was not maintaining the changes, I would have told you I am busy because there is a funeral I had to attend when you called. I am the treasurer of [a political party] in this area and the person who has passed is a highly placed person in the party, but I not bothered. Many people will attend the funeral and you will not see everyone. When you meet me and ask why I did not attend, I have what to tell you. I will tell you I have lost a cousin. In our family when you are bereaved you do not

attend another person's funeral. You must finish burying your dead before attending others. (Service Recipient 1).

Service Recipient 1 further supports her claim to changes made to her lifestyle by explaining her option to opt out of a funeral that requires her presence as a political party official even though it may offer privileges and opportunities through fraternizing. She goes further to make up excuses for why she has decided not to attend the funeral.

I still practice the social distancing. I make sure I do that. In addition, when I am going out, I wear my nose mask. (Service Recipient 2).

I wear my nose mask and sit. My youngest child advised me not to mix with people but rather have a space between myself and other people. I am still doing them. (Service Recipient 5).

I still do. When people come to me, I tell them to go back. The people in the house said am being mean to them and I tell them I that I am not. I ask them if they have not been hearing what our people have been teaching us. When the children come back from school, they wash their hands before eating and, in the evening, too, their mom and I heat water for them to bath. (Service Recipient 20).

However, others exhibited laxity in the sustenance of these preventive measures:

The nose masks. Sometimes I go out before realizing I do not have a mask in my pocket. In order to avoid embarrassment, I make sure I buy one on my way and it is only GHS 1. (Service Recipient 2).

I sometimes exercise which these days it is once in a while because, now I am a little busy. (Service Recipient 5).

Oh, as I said, I no longer wear the nose mask as I used to but I still wash my hands and use the hand sanitizer. And at first, I used to stay at home all day, but now, I go out a lot. Sometimes, it is as if the virus is no longer there or it doesn't exist. That is how I see it. (Service Recipient 6).

Yes, I do. You remember when I came, I told you I forgot my nose mask. I live just close by but I forgot to take my nose mask. I hope they will give us some. (Service recipient 13).

The statement, “*I hope they will give us some*” is an indication that this participant may not be able to afford nose masks which is potentially a barrier to her behavior maintenance.

The laxity of participants in maintaining the preventive measures is due to forgetfulness, inability to make time due to busy schedules, misconceptions about the existence of COVID-19 and some barriers that make it difficult to maintain these changes.

Research question 2: How acceptable was this intervention to the service users?

Theme 5: Acceptability of the Intervention

Successful implementation of interventions depends on the acceptability of recipients. Acceptability of the intervention was influenced by prior relationship with service providers and positive feelings and perceptions about the intervention.

Prior Relationships.

Due to the relationship that already existed between the services users and the trainees, the service users exhibited having increased level of participation in the intervention and expressed interest in participating in future programs and interventions by the Chronic Care Group:

I like all. All the advice they have given I like because it showed us what to do to protect ourselves. They do the health insurance for us and renew it too. Even during the COVID, they were always calling us to check on us, asking us to protect ourselves and doing things that will make us happy. What more can we ask for? (Service Recipient 1).

I do not have any problem at all. I call [one of the facilitators] on and off to ask how he is doing and when they will be coming around. (Service Recipient 4).

I would love to be part. I want to be called so we discuss how we can live long especially since we do not know what the COVID is going to do to us. (Service Recipient 8)

Positive Feeling and Perceptions About the Intervention.

Participants had very positive feelings and perceptions about the intervention which are indicators of acceptance. They share their positive feelings about the intervention as follows:

I like everything we were told because they are doing a lot for us so that we can have good life. They taught us to be patient and how to live to protect ourselves and our families. We thank them for what they are doing for us. (Service Recipient 5).

Oh, I was very happy because they taught us a lot. They also called to find out how we were doing, cautioned us to protect ourselves and encouraged us to also take the vaccine when it is made available to us. They really advised and supported us. So, I believe all of that was helpful. (Service Recipient 6).

I thank them for advising me, they thought me how to take care of myself and protect myself against the sickness that has come. I was really excited about the fact that they called us to advise us. [mmm] We were happy and also told the children what they taught us. Like, the things they asked us not to do, they also shouldn't do them. They shouldn't go out. (Service Recipient 13).

These participants were of the view that the support received from the chronic care group is a show of care, support and affection which makes the intervention more acceptable. A few participants narrated their perceptions as follows:

They advised me on how to take good care of myself so I had to follow the advice given. Somebody with knowledge in a field has advised you to do this and that, you must do it. (Service Recipient 4).

They gave us important messages to help us protect ourselves and er, help us to not be afraid, because the COVID time was very difficult. They rather want to save our life so we are grateful. They call us frequently to talk to us. We are constantly praying for them so that they will continually have the strength to be calling us for chats. It is not everyone who can do that. Some people do not have your interest at heart but they have developed some love for us, therefore any time the call us we are happy to meet them. (Service Recipient 7).

I like how they have been thinking about us. Sometimes you will be sitting there, and they will call you and ask “Aunty Amina am calling to ask how you are doing then I say I thank you very much for thinking about us” they have been thinking about us, their leader. It’s not everybody that will get the time to be checking on someone. We thank them for the love and care shared with us, may God strengthen them and strengthen us too so they will be able to ask about us and we also will be able to have a discussion with them. (Service Recipient 15).



DISCUSSION

This study sought to evaluate the Chronic Care Group Telehealth intervention program from the perspective of service recipients by assessing the effectiveness of the telehealth intervention in improving knowledge about COVID-19 and providing psychosocial support as well as the acceptability of the intervention in the context of the RE-AIM framework.

Effectiveness of the Telehealth intervention

Overall, the findings of the study show that the Chronic Care Group telehealth intervention was effective in improving knowledge about COVID-19 and providing psychosocial support for selected members of the Ga Mashi community, believed to be at risk of severe complications from contracting COVID-19. These results are consistent with increasing literature on the effectiveness of telehealth in the implementation of psychological interventions and/or psychological treatment, particularly in the era of COVID-19 (Abraham et al., 2021; Balcombe & De Leo, 2021; Varker et al., 2018; Zhou et al., 2020). The superordinate themes that emerged reflect the living experiences of participants prior to and during the outbreak of COVID-19, improved knowledge on COVID-19 and behavior change which is based on the education received as well as the impact of psychosocial support. For such a high-risk group, such service delivery is very important.

Research has shown that effective health related decision making is influenced by knowledge. Therefore, lack of knowledge (Miller et al., 2021) and misinformation can have consequential implications for the adoption of health behaviors (Farooq et al., 2021; Greene & Murphy, 2021). In previous studies on communicable diseases such as influenza, misunderstandings about the illness have been found to minimize the adoption of preventive behaviors (Bults et al., 2015; Lin et al., 2018). The disease-related memory schema or mental model, according to the Common-Sense Model of Self-Regulation, includes perceptions about the threat posed by the illness and informs

potential reactions to the threat (Benyamini & Karademas, 2019; Leventhal et al., 2016; Petrie & Weinman, 2006; Petrie et al., 2016). This framework is commonly used when a person has encountered an illness symptom, however, it can also be used to self-regulate prevention-related activities during a pandemic. Illness-related memory schema, in particular, are based on knowledge and beliefs about the illness, and they play a key role in the adoption of protective behaviors (Miller et al., 2021).

From the results, participants had limited knowledge as well as misconceptions about COVID-19 prior to receiving education, which was mainly caused by misinformation. Research on infectious diseases have shown that knowledge and beliefs are major predictors of disease-spreading behaviors.

In a test of knowledge on COVID-19 as moderator of the effects of pessimistic illness expectations and essential worker status on adherence to COVID-19 protective behaviors, knowledge, by neutralizing the negative effects of pessimistic sickness predictions, has been found to encourage preventative behaviors (Miller et al., 2021). (Abeya et al. (2021), equally found that, the level of adherence to COVID-19 preventive measures were linked to age, education, occupation, and knowledge. The results of the current study show that participants not only had significantly improved knowledge about COVID-19 but also had misconceptions corrected post-intervention which facilitated the increased adoption of COVID-19 preventive behaviors, demonstrating the effectiveness of the telehealth intervention.

As the pandemic brought about significant exacerbation of mental health challenges (Molebatsi et al., 2021), telehealth became a significant medium to provide psychosocial support (Monaghesh & Hajizadeh, 2020; Juan et al., 2021). The goal of psychosocial support is to help individuals in their native contexts in making sense of what's going on for them, exploring options, and managing everyday tasks—the efficiency of which is often predicated on close relationships between service

users and providers (Venville et al., 2021). These interventions usually entail providing practical assistance and "walking alongside" people as they go about their daily lives at work, at home, and in the community. The pandemic put many people's mental health to the test by isolating them from natural support, communal connections, and the everyday routines and rhythms that contribute to the well-being of individuals, communities, and society (Bults et al., 2015). Despite the challenges with the use of telehealth, it quickly became the primary option for people to receive mental health care or psychosocial support in the aftermath of COVID-19's widespread international service disruption. From the results, participants report the positive impact of receiving psychosocial support through telehealth consultations, which can be attributed to continuous engagement and established rapport with the team; who provided a listening ear, facilitated conversations around stress, anxiety and distress, and provided support for coping with the psychological and mental health impact of COVID-19. The responses of participants give credence to the effectiveness of using telehealth interventions in providing psychosocial support.

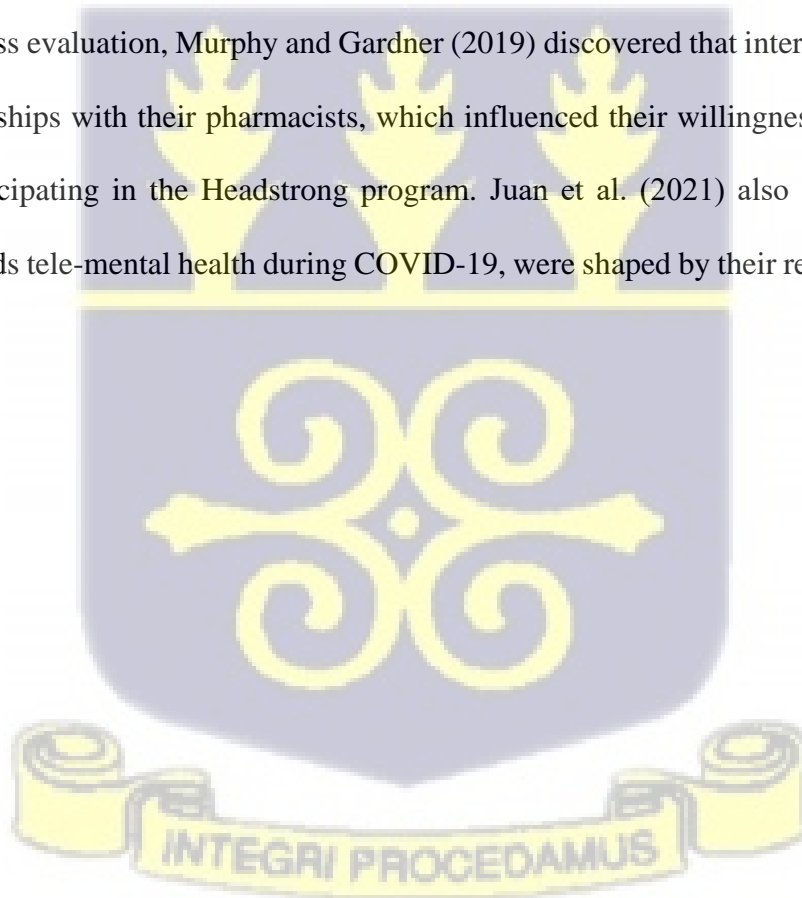
Factors such as the inability to pick nonverbal cues and make eye contact (Chadi et al., 2020), limited worker confidence in rapport-building (Interian et al., 2018), technical issues (e.g., poor audio quality, delays) and inequitable internet access (Banbury et al. 2018) have been some of the most cited barriers to implementing telehealth services before the pandemic. Participants however, did not report experiences with barriers to care or support.

Acceptability

Another objective of this study was to assess the acceptability of the intervention to service recipients within the RE-AIM framework. Though, telehealth service modality was significantly new to these participants, there was a high rate of acceptability and uptake of the intervention. Acceptability is widely recognized as a factor to consider when developing, assessing, and

implementing healthcare interventions. Yet, there is little guidance in the literature on how to define or measure acceptability (Knowles et al., 2014; Sekhon et al., 2017). The acceptability of the intervention by both service providers and users is critical to its success.

Participants demonstrated their acceptability of the intervention based on the positive feelings and perceptions participants had about the intervention. A prior relationship existing between the trainees and the service recipients accounted for this acceptability. Apart from their willingness to interact with trainees every session, there was an expression of interest to participate in such interventions in the future. In assessing men's acceptability of a men's mental health promotion program in community pharmacies through pilot testing the theoretical framework of acceptability (TFA) as part of the process evaluation, Murphy and Gardner (2019) discovered that interviewees all reported positive relationships with their pharmacists, which influenced their willingness, attitude, and low burden for participating in the Headstrong program. Juan et al. (2021) also found that patients' proclivity towards tele-mental health during COVID-19, were shaped by their relationship with care providers.



CHAPTER FOUR

STUDY 2: TELEHEALTH TRAINEES

Methodology

This chapter focused on the various techniques used in data collection and analysis for the telehealth trainee sample. The research design, population, sample and sampling procedure, method of data collection and procedure for data analysis as well as expected outcomes were discussed in this section.

Research Design.

A qualitative research approach was applied in the second study. It aimed to examine the experiences of telehealth trainees in receiving training and implementing the intervention. It explains how humans learn to see, act, and govern their daily interactions in various situations in detail (Institute for Work and Health, 2011).

Research Setting.

The setting for the second study is the Department of Psychology which has faculty members that are qualified and licensed to practice and teach psychology, as well as students studying in various fields of psychology both at undergraduate and graduate levels. The participants selected for this study were graduate students who had participated in the intervention.

Participants.

Twelve master's and doctoral students from the clinical (n=5), counselling (n=4) and social (n=3) psychology disciplines, were recruited, trained and equipped with basic skills in psychology and in the use of telehealth to improve knowledge about COVID-19 and provide psychosocial support for members of a vulnerable community. The training was provided online via zoom due to COVID-19 restrictions imposed at the time.

The master's students were nearing the end of their first year in their various programs, having completed essential courses including psychopathology, counselling and psychotherapy theory and practice, and psychological assessment. One of the PhD students was in the first year, while the other two were in their fourth. These PhD students had some experience with research on community mental health in urban poor communities and served as a link between trainees and service recipients. The trainees were adept in five Ghanaian languages in addition to English (Twi, Fante, Ga, Krobo, and Hausa). They resided in four of Ghana's sixteen geographic regions: Ashanti, Central, Eastern, and Greater Accra.

Sample and Sampling Technique.

Purposive sampling method was used to select the participants. This entails locating and selecting persons or groups who are thought to be knowledgeable about or have experience with a topic of interest (Creswell & Plano Clark, 2011). It's a non-random technique that doesn't necessitate any underlying ideas or a set number of informants. Essentially, the researcher determines what information is required and sets out to discover people who can and are willing to supply it based on their knowledge or experience (Bernard, 2002; Lewis & Sheppard, 2006). Purposive sampling was adopted since the participants (service providers) were believed to have received training on telehealth and implemented the intervention program and therefore, had the requisite information for the study. Though the original number included 12 telehealth trainees, only 8 (three males; five females) were available to participate in the study. The three PhD students were not available to participate in the study. Since the researcher was conducted by one of the telehealth trainees, she was also excluded from the study. The small number of participants is because these were the only participants recruited for the intervention program. Gender equity could not be ensured in this study as the intervention had already been implemented.

Data Collection Instrument.

The interview guide was divided into two parts: one aspect for recording demographic information about the participants and the other had questions about the intervention. The interviews were guided by a semi-structured interview guide with open-ended questions (see Appendix 1). This guide was created by finding 16 questions that best elicit replies to the research questions, which mostly focused on the experiences of trainees and the competencies acquired. Some of the questions include: 1) What clinical skills did you acquire from the training that you did not have before?; 2) How did the module facilitate the building of rapport and reflective listening?; 3) How did you explore for feelings of anxiety, stress and fear?; and 4) How did you resolve issues that emerged in the sessions that you were not competent enough to handle?

Procedure.

The telehealth trainees were recruited via phone calls and WhatsApp messages for the interviews. Initial pilot interviews took place in August 2021 to ensure that the interview questions were clear. The data was then collected in October 2021. Since the researcher was part of the intervention, a research assistant was recruited to carry out the interviews with the telehealth trainees who volunteered to be part of the study. The interviews were conducted individually over the phone in English and lasted an average of 25 minutes. The interviews were recorded using an audio recorder with the trainees' consent.

Data Analysis.

The data was transcribed verbatim by an interview transcriber who was fluent in English. The interviewer reviewed the transcripts with colleagues and qualitative research experts to ensure its accuracy. The transcripts were reviewed by the interviewer and researcher to determine accuracy. Braun and Clarke's (2006) thematic analysis approaches were followed to find themes within and

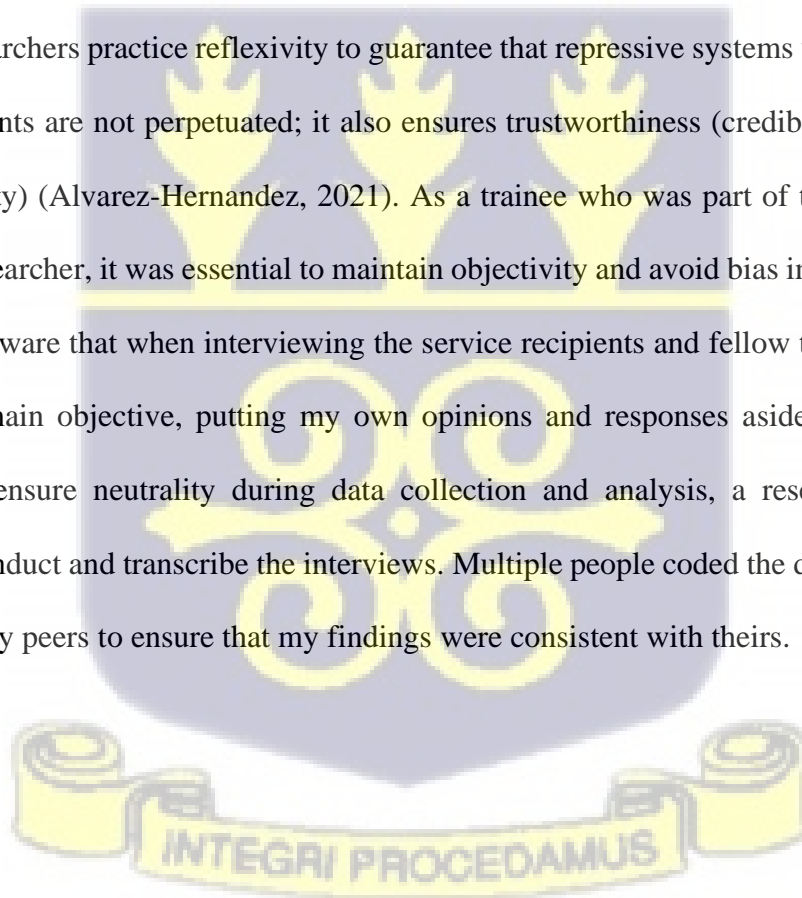
across transcripts. These include familiarization with all the transcripts, generation of initial codes, organization of codes into themes, review of themes, defining and naming of themes, and production of results.

To establish familiarity with the data, the researcher reviewed the scripts attentively. During the first step of the analysis, it is necessary to read and reread the transcript multiple times to become as familiar with the narrative as possible. Initial codes were identified by going through all the transcripts and noting sections that communicated information regarding the trainees' competencies and the intervention's implementation. Examples of initial codes include *“long delay,” “convenience,” “reflective listening,” “confidentiality,”* and *“self-care”*. The reoccurring codes were highlighted in a Microsoft Word document and organized in a table. This was also shared with other graduate students (four) and a qualitative research expert, who double-checked the codes to make sure they appropriately represented the data. Their feedback showed that the codes were mostly consistent. Some of the data was recoded. The codes were then processed into subthemes such as *negative and positive impact on training, basic tele-counselling skills, experience with telehealth, etc.* and themes such as *Impact of COVID-19 on psychology training, competence of trainees and challenges with the intervention*, which were also validated by the same individuals after they were corrected and submitted. Quotes that reflected these themes were chosen based on commonality and individuality amongst participants, noting the variance in reported experiences. These quotes were subsequently grouped together across participants. Though several quotes were identified, not all of them were included in the results or appendix. At least three quotes that were noted to be common among participants were presented in the results while also including use of language or metaphors that were distinct in the description of their experiences. Three superordinate themes were obtained

from the themes identified during data analysis which were interconnected and reflected in each of the transcripts. During this process, new themes were discovered and included in the results.

Researcher Reflexivity.

Reflexivity is the ability of a researcher to consciously refer to himself or herself in relation to the generation of information about research issues (Roulston, 2010). It aids the researcher in examining their position or role in the study, as well as how knowledge is constructed. The researcher's stance, according to Creswell and Poth (2018) has an impact on every component of the study. Qualitative research is influenced by people's interpretations of their life. The experience of a researcher influences how that meaning is interpreted, and it is significant to others (Smith et al., 2009). Qualitative researchers practice reflexivity to guarantee that repressive systems within the study and toward participants are not perpetuated; it also ensures trustworthiness (credibility, transferability, and dependability) (Alvarez-Hernandez, 2021). As a trainee who was part of the intervention and doubled as a researcher, it was essential to maintain objectivity and avoid bias in data collection and analysis. I was aware that when interviewing the service recipients and fellow trainees, I needed to endeavor to remain objective, putting my own opinions and responses aside and listening as a researcher. To ensure neutrality during data collection and analysis, a research assistant was contracted to conduct and transcribe the interviews. Multiple people coded the data and the findings were reviewed by peers to ensure that my findings were consistent with theirs.



RESULTS

The study included 8 participants include in 3 men and 5 women. Seven were Christians and one was a Muslim. Participant details are presented in Table 4.

Table 4: Demographic Details of Telehealth Trainees

Participant No.	Age	Religion	Gender	Marital status	Graduate program
TT001	28	Christian	Male	Single	MPhil Clinical Psychology
TT002	24	Muslim	Female	Married	MPhil Clinical psychology
TT003	24	Christian	Female	Single	MPhil Clinical psychology
TT004	25	Christian	Female	Single	MPhil Clinical psychology
TT005	39	Christian	Female	Married	MPhil Counselling psychology
TT006	35	Christian	Male	Single	MPhil Counselling psychology
TT007	29	Christian	Male	Single	MPhil Counselling psychology
TT008	28	Christian	Female	Single	MPhil Counselling psychology

Major Themes

After a detailed analysis of data, three themes were derived from the transcripts of the telehealth trainees. These were 1) impact of COVID-19 on psychological training; 2) competence of trainees; and 3) challenges with the intervention.

Table 5: Summary of main and subthemes from the Trainee Interviews

Themes	Subthemes
Impact of COVID-19 on psychology training	Negative impact on training
	Positive impact on training
Competence of trainees	Experience with telehealth
	Acceptance of telehealth
	Basic tele-counselling skills
	Competencies applied in current practice
Challenges with the intervention	Training sessions
	Service provision

Research question 3: What experiences and clinical competencies did the service providers (telehealth trainees) acquire through the training and implementation of the intervention?

Theme 1: Impact of COVID-19 on Psychology Training

Participants acknowledged the impact of COVID-19 on their training and discussed the ways in which they had been impacted. In the views of the trainees, COVID-19 had both a 1) Negative impact on training and 2) positive impact on training. It is important to understand how graduate psychology training was affected by COVID-19. This represents the perceptions of all 8 telehealth trainees about its impact.

Negative Impact on Training.

The COVID-19 restrictions meant that training had to be suspended for a period until alternative arrangements were made. This resulted in an overload of tasks and responsibilities, making of adjustments, setbacks and delays in their training as depicted in the extracts below:

Oh ok. So, there was a long delay especially for those of us who were starting our practicum at Korle-bu. So... And because of COVID-19, they could not admit us to begin the practicum at Korle-bu. So, there was long delay and as soon as we resumed, we realized there was a lot to catch up with. But that aside, I think... I think we are settled in now. (Telehealth Trainee 1).

So, COVID changed a lot of things. You know, we woke up one day and we were told that school had been closed down. And secondly, we had to do classes online and you already know the Ghanaian situation where internet is not very stable. Internet data is very expensive here so, even during classes, there were times that I had to hold the laptop and be walking on the streets just to be able to get a stable internet connection. (Telehealth Trainee 5).

So, it affected my training such that, some of the things that we were required to learn, it had to be in-person for you to appreciate it. So, for example, uhm you have to model empathy in class for your colleagues to also see and assess, but when we have to move onto online, you may not appreciate it as much. Aside that, practicum delayed. We didn't start as scheduled

and so we couldn't have clinical experience early enough. So sometimes having to have some experience that will be better appreciated in-person, was difficult appreciating it online. (Telehealth Trainee 8).

Trainee 1 and 2 highlighted the delay in their training process which resulted in setbacks and an eventual overload of tasks they had to catch up with, while trainee 5 and 8 respectively, shed light on internet connectivity issues and the difficulties associated with the experiential aspects of their training which was difficult to appreciate online as it would ideally be understood when taught face-to-face. These negative experiences were also expressed by the other 5 trainees.

Positive Impact on Training.

Despite the negative impact of COVID-19, participants highlighted the positive impacts of COVID-19 on their training as well. Having to stay at home and continue their training made it more convenient, efficient and led to finding innovative ways to have training or learning. Staying for a longer period at their practicum sites than expected, also resulted in improved experience. Participants detail their positive experiences as follows:

Well, I think a lot has changed but it's become more convenient for me, especially being a student because you have to do everything from home and so... Well, I mean it has taken a very different turn but I like how it is now. Aside the fact that it has delayed school, we are supposed to be done by now but just ... Things... But everything is fine. Also, ideally, we were supposed to use about six months for our practicum but because of COVID, we have done more than that and I feel we have gotten way more experience than we'd have gotten if school was going the normal ... Going by the normal calendar. I think it's made me more efficient too because I don't have to take much time like rushing to campus and moving back and forth but working from home just makes everything... I mean makes me more efficient. (Telehealth Trainee 3).

According to service recipient 3, though a lot has changed since the onset of COVID-19, it was convenient for her especially as a student since training moved online and she could do everything

from the comfort of her home. This resulted in efficiency as being at home meant more time to get a lot of things done instead of commuting all the way to campus which took a lot of her time and reduced the time she had to work. She also describes how increased amount of time spent doing practicum instead of the initial six months led to increased clinical experience.

I think yes, in some way, it has. Because, well we started our practicum afterwards but with the you know... During the pandemic, we had to resort to other ways of communicating and other ways of having lectures and all that. So, technology became... took more like a first place and even with that, we had to be very innovative and find apps. So, I think that, yes, it has impacted. We have learnt to find other means other than physical meetings. In our training, although it's... I mean there were some difficulties because, with our course, you need to be physically present, but I think it's still a positive impact and we continue to learn, because even at our practicum site too, we still do. Our clinical meetings are on zoom. So, we still haven't gone back to the physical meetings. So, yeah. That's how the impact has been. (Telehealth Trainee 4).

For service recipient 4, the onset of COVID-19 meant finding innovative ways of having classes and using technology to aid their training which also meant finding alternative means of meeting with colleagues, lecturers and supervisors during clinical meetings.

Theme 2: Competence of Trainees

Participants recount their telehealth experiences, competencies gained from the online training they received to provide psychosocial support to the service recipients, their initial hesitation and gradual acceptance of telehealth and how the knowledge acquired was transferred to other parts of their training.

Experience with Telehealth.

Prior to COVID-19, participants had no prior experience with telehealth. For all other participants, the training and service provided served as their first encounter with telehealth. This was consistent with the other five participants. Participants detail their prior experience as follows:

No, that was my first time. (Telehealth Trainee 2).

No. No, I hadn't done anything of that sort. (Telehealth Trainee 3).

Acceptance of Telehealth.

To successfully provide psychoeducation and psychosocial support to the service recipients, telehealth trainees received some training and guidance. For most participants, though they found this intervention to be new, there is acknowledgement of the fact that the training was comprehensive and provided the needed skills to support the telehealth recipients. Participants described the training and their general experience as new, exhaustive and enjoyable:

Well, it was... It was sort of all a new thing to me because I know the ethical issues surrounding the use of telehealth and so having the opportunity to go through training before the doing the actual thing, it was new and the training itself was exhaustive. So, it was something I saw as very beneficial. And it... Yes, it was exhaustive and so I was able to learn most of part of what telehealth entails and so even if not for only COVID, I'm sure I'll be able to apply the knowledge from there onto other areas of... areas I can render help to people. (Telehealth Trainee 3).

Yes, so basically, our training... That was the time I was being trained in school for the field. So, we did a few in-person, in class training with regards to seeing clients. But then, having to do sessions for somebody virtually or something was quite new. So, the whole issue of COVID-19 made it very necessary for us to do that. I think what made me enroll for it, was the fact that there was COVID-19, all of us were uncertain about what was going on and so I felt it was an opportunity to still offer service to people wherever they were. So, for the experience, it was quite new, and it was quite... I think I enjoyed the experience. It was new. All the time we were looking out for something new. The training was virtual, and the execution of the intervention was also virtual and so, it was quite new. It was a good learning experience. (Telehealth Trainee 7).

Trainees also admitted that the training improved their knowledge about COVID-19 and what telehealth entails and how it can be used successfully to support clients in an era of minimal physical contact.

Okay. The first thing was really knowledge about tele-counselling or telehealth. In fact, my impression about it changed. I never thought that... I mean I had heard that you could give counselling services over the phone or remotely but in fact I wouldn't ascribe... I didn't ascribe to it because I didn't think that it would be effective. I was just wondering "Ah, how effective is it?" But doing this, sometimes just by calling the person, you have changed... like you have...I don't know but something just changes. They feel like there's someone who cares about me. There's someone who can listen, and the knowledge that there is someone who can listen, alone, sometimes it gives them some sort of relief. So, then I realized that okay, so, it is not only about you opening your mouth to talk. Sometimes even just the presence, just staying in touch. So, that's one thing. And then I realized that, counselling remotely or giving therapy remotely is possible, especially when there is the right training and there are the right tools too. (Telehealth Trainee 4).

So, from the training, the first benefit was to learn about COVID-19 itself. So, I didn't know... Initially, I didn't know what exactly, the COVID is, even the general name for that group of viruses and the one we are currently facing is the SARS. So, I was enlightened through the training and it was my first-time conducting telehealth or tele-counselling. (Telehealth Trainee 2)

Basic Tele-counselling Skills.

Receiving such training proved to be beneficial to the telehealth trainees as it equipped them with competencies for both the implementation of the intervention and throughout their subsequent interaction with clients at their practicum sites. Below are reports from the trainees:

Well, I think that the training helped me to be... I learnt to model empathy through the training. I also learnt to, learnt to apply ethical standards when communicating over the phone. (Telehealth Trainee 1).

I also got to learn some of the skills, like before you conduct one, how you should go about it, the need to build rapport so if you are not... Like the kind of rapport, you need to build compared to the physical one because this is online. And you see, people will just use your voice to determine your facial expression because they are not seeing you or...Yeah so, I got... So, aside learning about the virus, I learnt some basic telehealth skills and I think it is helpful. Yeah, I think it is helpful for my training because, for part of my training, I was doing telehealth counselling and now, like, the world is evolving and we are moving towards technology. Because some people don't want to even meet you face to face but they are willing to talk to you online or on phone. And when you do that, they even feel comfortable talking about their issues. (Telehealth Trainee 2).

Okay so, like I said, interviewing, which is the key part of our clinical practice, interviewing and rapport building. And then, ensuring confidentiality itself. So, the traditional setting for therapy would be in an office, where you can ensure confidentiality, but then this one puts an extra, responsibility on you to keep whatever is going on confidential. And so, it taught me how to maneuver around that. (Telehealth Trainee 3).

Yes, first one was, the skills to handle clients or have a therapy through the phone. That was a good benefit and then the two, how to listen. I think the ability to listen well, to pay attention to people while listening to them on, through phone, was also a skill that I learnt through that intervention. (Telehealth Trainee 6).

But in this case, the person is not in front of you, and you have to make them understand that you are with them. So, I think one benefit is that you learn to be able to model empathy and attend to the person on the phone. The second benefit I had was, with the whole system or with the whole training that we received, I was learning how our facilitators were coordinating the entire training. They gave us a manual to work with, we go to work, we come back, we discuss it, we practice among ourselves before we finally speak to the client. The whole training process was also a great learning experience. In case in future, I must implement something like that, I have a fair idea of the structure and everything. (Telehealth Trainee 7).

The above extracts reflect some of the skills or competencies acquired which include modelling empathy, applying ethical standards, interviewing, using of local languages and culturally relevant contexts and building a therapeutic relationship over the phone, as well as reflective listening.

Research question 4: To what extent are telehealth trainees applying the competencies acquired in their current practice?

Competencies Applied in Current Practice.

During the peak of COVID-19, trainees were still required to meet criteria that formed part of their training. With little to no experiential learning on assessment, interviewing, etc., trainees had to rely on the competencies acquired from the telehealth training:

The initial training gave us an idea about how it was going to be. So, when we started or even though we had to polish up here and there, I think I applied all of these skills. How to do a better inquiry and how to think on your feet and provide answers that are satisfactory to the client. Then, sort of know how to bracket your emotions so as not to affect the quality of support that you give to the client. For example, so I earlier said that, I am currently doing my practicum at Korle Bu and the skills gathered has helped in terms of increased observational skills, increased ability to probe for feelings or thoughts that clients may not readily tell you. (Telehealth Trainee 1).

I think almost all of them because during... From there, the next was the practicum. And so far, most of the clients I see here are the students. So, they're educated and can be taken through therapy through phone or via the phone so I still use the tele-counseling skills almost every day. (Telehealth Trainee 6).

I think I am actively using all of them because during the practicum there are still people who still have fear of contracting COVID-19 and so may not like to come to the hospital to receive therapy or psychological assistance. They prefer an online session over the face to face. You have to use these skills as you are providing the

service for them. I think I am still actively using all the skills that I mentioned earlier.
(Telehealth trainee 8)

Part of the telehealth training included personal care for the telehealth trainees. Taking care of the mental health as well while helping others to deal with their issues. This was one of the skills retained after the intervention; “The ones that are still being retained? Personal care”. (Telehealth trainee 5).

Research question 5: What were the challenges with training and implementation?

Theme 3: Challenges with Training and Intervention

Two major issues that emerged from this theme were challenges with training sessions and service provision. Under this theme, the telehealth trainees report on the challenges they experienced whilst receiving the training and during the implementation of the intervention.

Training Sessions.

During the training, participants had network problems which often caused a break in the sessions and resulted in a loss of information when they were finally able to connect through a stable network:

It was basically an online training. Which challenges? Should I... Nothing major, but maybe network issues would not let you get some information, some bit of the information but.... (Telehealth Trainee 3).

The challenges had more to do with the medium of communication that we were using, sometimes you can be on a call and the network is terrible, so you are unable to hear during the training or they are delays. And sometimes your call can even go off, so maybe by the time you are able to join in, they have moved ahead, and you might have missed some components of the training. These are the challenges I experienced during the training. (Telehealth Trainee 8).

Another challenge stated was the time frame of the training which considered to be too short and would have led to the development of improved skills as compared to what they gained if the time frame for the training had been extended:

I think it was helpful, but the issue is that I think... If not because of time... If the training was extended for a while, we would have developed better skills compared to the ones we gained. I'm not saying the ones we gained were not adequate but, I am saying that, if we had enough time... (Telehealth Trainee 2).

Ok, I think the training material was quite extensive. I won't call it a challenge. After reading it, we come together to discuss it. And whatever we discuss, becomes an add-on to it. So, with the material, it wasn't a challenge. Oh, another thing was the duration of the training. I think it should have been extended for some time. Though we learnt a lot, I think we could have done a lot more. (Telehealth Trainee 7).

Service Provision.

Some of the challenges encountered during the implementation of the intervention include dealing with sensitive issues in uncontrolled environments, third party involvement, competency issues, client dependency, the time frame of the service delivery, reach of clients, language barrier and use of appropriate terminologies. The trainees narrate their challenges as follows:

Regarding uncontrolled environments and third-party involvements, Trainees had difficulties with managing the environment that the service users found themselves in which sometimes affected the discussion of sensitive issues and resulted in a number of distractions. They also had to deal with third parties such as family members or care givers of the service recipients which sometimes frustrated service provision efforts. Telehealth Trainee 1 stated:

With the practice, I think one major issue was, the fact that you couldn't control who was around the client you were talking to, because we were talking on phone. And so, even if there were sensitive issues, you wouldn't know how to address them because you were not sure about the...You couldn't... You weren't sure about whether that conversation was going to be confidential or not. And then also, for some of the clients who didn't have phones, you had to communicate with them through their caregivers. You weren't sure about all the information you were being given. There are some people who will tell you their parents are fine, and they are ok but the next time they call you, they tell you they were worried about something. There was no way you could control that. (Telehealth Trainee 1).

Trainees were of the opinion that the intervention would have been more effective if the period had been extended. Regarding the time frame, Telehealth Trainee 2 stated:

What I am about to say, has to do with the time again. I think we called them twice or so and that was it. So, if we could have done this for like a month, it would have... Since it was a module that was developed, you can't just do it anywhere... Like just some few times and then use it to test it. I don't know whether you get it. So, we should have done the counselling over a period of let's say, a month or so. So that, at least, like we have several encounters with the clients before or with the group before we finally concluded that ok, this module would help with what we were doing or not. So, we couldn't... I'm sure, if we had done it for more than a month, we could have gotten some follow-ups and we could have come up with some challenges as well. (Telehealth Trainee 2).

There were a number of competency issues and difficulty in managing service user's reliance on trainees for other forms of support that were not defined in the scope of service provision. Regarding competency issues and client dependency, Telehealth Trainee 3 stated:

Well, with the implementation, there were bits of competency issues. So, it's the first time I'm trying something like this. So, from the beginning, it was a bit difficult to even obtain information from the clients. That's why I said it shaped my interviewing skills. But with time, it got better. So, from the beginning, a bit of competency issues came up but with time, it was okay. Apart from that, I don't know if it was with me only but there was a bit of client dependency in the sense that because... There was one client that reached back, at a time that she was facing a challenge. So, she was... She said she was at the roadside and she didn't have money to pick a car and all that and I was thinking, if this patient didn't have my number, would she call me for such a thing, you know? So, I feel... I don't know if that was a bad thing, but it put some dependency on me from the client. I mean the client could just reach you at any time. There was a client that called and said "oh I was just checking on you" and I felt like this one was a bit much. (Telehealth Trainee 3).

Maybe in the beginning we were just not comfortable calling someone and trying to do a therapy on phone. I think that was a challenge to us. We have not even finished first year so I was very anxious and you're thinking if you going to do it right or I felt I wasn't fully competent. I wasn't that competent to handle it. They held us with the PhD students who had experience so that helped us to overcome it. The first time that we did it among ourselves, I think it boosted our confidence. And then when we really got online with them, the PhD students were around to serve as a source of support for us. I think that is how we were able to overcome the challenge. (Telehealth Trainee 5).

Regarding reach of clients, use of appropriate terminologies and language barriers, Telehealth Trainee 4 stated:

So, with the implementation, the... I was assigned three recipients. I was only able to get in touch with two. The last person, I called several times, the number that was given didn't go through. So, I spoke to my... the PhD student who was the head of our group. Then he got me another number. I called and they said the person wasn't around. I'll call today and she is not there; tomorrow she's not there. So, even though I was supposed to reach out to three people, I was only able to reach out to two. The person herself, they said her phone was spoilt. So, I think this was her neighbor's phone or some family member or a neighbor. So, you call and "I'm not home" and you call and "Ooh wa pie," (he or she has gone out) you call and "Me waha" (I am somewhere) and so that person, I was never able to speak to that person. The second thing was, the recipients were all fluent in Ga; of course, it's because they are from the Ga-Mashi area. Some of them, their Twi wasn't so good so in the beginning... In fact, in the beginning, I think I had prejudice mind. When I was going, I didn't go with the mindset that some of them won't speak English. So, that was one thing I did wrong. So, I went and I started speaking Twi and then... There was one who said ooh she can't understand. So, she had to give it to her son whom I had to speak to and then the person would interpret it to the recipient. That was a bit challenging because now I don't know what you are saying. I don't know whether you're saying what I want you to say to the recipient. So, I brought it up in our general meeting with our

supervisors and I think some of my colleagues faced that challenge. So, we brought it up and they addressed it. I think some were reassigned or so. But I realized later on, I think on the second call that okay, they could speak English. The third thing was, there was one who was going through a bit of an issue with getting her medication, having to shop for her grandchildren and all that. So, some of them when I call, I don't know... I felt a bit too worried about it. I don't know whether I was getting personal about the whole issue. So, I think Dr. Osei-Tutu called me and then she spoke to me about it. So, more like a debriefing of sort. So, these there the challenges I faced on the field. (Telehealth Trainee 4).

But when I was implementing the interventions, I experienced challenges because, there was a language barrier sometimes when I had to communicate with the participant or the client, so sometimes I have to get an interpreter, maybe a family member or a caretaker who understood my dialect to be able to interpret for the person. Aside that, there was difficulty finding appropriate local term for some of the terminologies we were using. For example, if we needed to find a term for diarrhea, or a term for maybe anxiety, sometimes you find it difficult to be able to make the client understand what you are talking about. I think those were the two major challenges that I faced while I was implementing the service. (Telehealth trainee 8).

Despite these challenges, the trainees admit that they had the support of their team leads and supervisors who supported them to deal with these challenges.



DISCUSSION

The study examined the experiences and clinical competencies acquired by the telehealth trainees to implement the intervention. Three themes were found which highlight the impact of COVID-19 on psychology training, the competencies acquired, and the challenges faced during the implementation of the intervention. Psychology training experienced rapid and universal change in order to respond to the pandemic. Due to the pandemic, educational evolution, and the translation of clinical procedures to an online platform, psychology training has undergone significant alterations (APA, 2020; Cavazos Montemayor, 2022). **In Ghana, graduate training like other countries, moved to online platforms, practicum was suspended for a period and telehealth became the primary mode of service delivery. It was important to take a critical look at how graduate psychology training had been affected by COVID-19.** For these telehealth trainees, COVID-19 had both positive and negative impact on their training. Online psychology training has been known to put into actions, a slew of concerns, including safeguarding the intellectual property of online teaching delivery techniques, assuring the academic integrity of exams, securing protected testing materials, and teaching across time zones to accommodate students who had gone home. The majority of instructors and training directors also may not have extensive knowledge of online educational practice (Goghari et al., 2020).

In this study, some participants reported having difficulties with course training, research and practicum. Parts of psychological training involve experiential courses such as neuropsychological assessment, psychotherapy, amongst others which participants can relate to and fully understand when demonstrated in-person (Gicas et al., 2020). Participants expressed frustration with having such experiential classes as they were difficult to appreciate in a virtual format and was coupled with unstable internet connection which sometimes resulted in the inability to keep track during lessons.

This discovery confirms earlier findings in which undergraduate psychology students describe their online learning as stressful, frustrating, exhausting, overwhelming, mentally draining, amongst others (Laher et al., 2021). Trainees' replies indicate that contact learning provide didactic value with respect to increasing students' learning experiences, boosting their knowledge and assimilation of course content, and assisting students with workload and time management.

Research and practicum form a critical aspect of graduate training. To ensure physical distancing, research and thesis dissertation as well as on-site practicum training were put on hold. This meant that many students had to readjust research objectives, use smaller sample sizes and develop innovative means of data collection. The pandemic had a significant impact on students' practicum, with practically all in-person clinical experiences halted and only a few sites offering remote telehealth consultations. Trainees highlight how there was a delay in research projects and practicum start time due to the restrictive measures put in place to manage the spread of COVID-19 which inadvertently caused an overload of responsibilities and difficulty keeping up with workload. These are consistent with findings in a study by McCord et al., (2020a) which brings to bare some of the negative consequences of COVID-19 on training and practice resulting in an impact on trainees' ability to compete for future jobs, proceed to advanced field placements if they need to collect hours to complete training programs and licensing. Goghari et al. (2020) also asserts that the halt in research and practicum training could have a number of implications for training and learners such as extended timelines for research. Despite the negative impacts on training, participants highlighted a few positive ways COVID-19 had impacted their training. The switch of psychological training to online platforms, according to trainees, had its advantages as it was convenient, resulted in efficiency, increased experience and innovation.

Implementation

Psychology training involves the development of competencies in areas required for practice and service delivery (Cavazos Montemayor, 2022). In order to implement the intervention, graduate students required training to develop some competencies for providing psychosocial support via telephone. Many of the trainees had no experience with telehealth before the training and implementation of the intervention. Based on the responses, the training and experience are described as new but comprehensive enough to provide trainees with the necessary skills to provide support; and enjoyable due to the process being a great learning experience. This is consistent with findings from Venville et al. (2021) where mental health service providers described telehealth as a whole new way of service provision but contrary to their findings in which service providers found the telehealth experience to be ‘fatiguing’, due in part to the need to adjust to a new form of practice, but also due to the additional out-of-session effort required and the increased difficulty in reading nonverbal cues to sustain rapport respectively. As part of the training experience, participants also bring attention to the knowledge gained about telehealth and COVID-19.

In this study, the three-dimensional cube model of core competencies developed by Rodolfa et al. (2005) was used as a framework to explore competencies of trainees following the training received to implement the intervention. Results show that participants were equipped with some level of foundational and functional competencies. The training equipped them with foundational competencies such as, reflective practice, building relationships (establishing rapport and modelling empathy), as well as application of ethical standards such as confidentiality and privacy. Trainees exhibited varying experiences with the acquisition of these competencies. Trainees also exhibited cultural competence, which entails being aware of and being sensitive to people from various cultural backgrounds (Rodolfa et al., 2005) using local language and sensitivity to religious

backgrounds as a form of coping. In a study of professional psychologists' competencies, de-Graft Aikins et al. (2019) discovered in their study, that participants were particularly unresponsive to the complicated dynamics of religious faith and sexual orientation.

Trainees demonstrated varying degrees of functional competencies relating to assessment (ability to pay attention to non-verbal cues that are not visible, interviewing to assess needs and offering counselling services over the phone), conceptualization, intervention and evaluation. Though trainees consider these as an acquisition of new competencies, doctoral graduate students however, according to Dopp et al. (2021) consider these as an expansion of competencies for in-person service delivery rather than brand-new learning. This can be attributed to the fact that master's graduate trainees had no prior experience for comparison.

The use of telehealth in the provision of psychosocial support has proven to be successful but not without challenges. Results show that trainees had challenges with training and service provision and experienced competency issues. For service provision, trainees describe the duration for implementing the intervention as short and had the potential to be more effective than what was recorded if it had been extended for a longer period. It would have also facilitated the identification of many more challenges with aspects of the intervention to enable improvement. There have been several issues raised about the technical concerns associated with telehealth use in psychology. Clinicians frequently describe technological challenges, such as poor internet connection and audio-visual quality, as impediments to greater use of telehealth in psychology (Hale, 2020). Tele-mental health providers, in a query by Brooks et al. (2013), presented various barriers to service provision and describe technological use as inconvenient because it requires more necessitates additional steps. Results from this study were no different from previous studies as trainees experienced network challenges during training and service provision. The environment of the service users posed a

challenge as privacy issues were raised. This is in line with the findings of some earlier telehealth studies (Choi et al., 2014; Franklin et al., 2017; Venville et al., 2021). Trainees had to deal with sensitive issues in uncontrolled environments as well as the involvement of third parties. Though trainees requested service users to find a private space for sessions and established confidentiality, there were always disturbances in their environment. A number of these service users could only be contacted through their care takers or required the support of their care takers to have the session. Other challenges include competency issues, client dependency, language barrier and use of appropriate terminologies, which resulted in a difficulty with ensuring ethical practice. A comprehensive review by Stoll et al. (2020) reveal five ethical considerations against engaging in online psychotherapy; (1) privacy, confidentiality, and security concerns; (2) therapist competency and requirement for special training; (3) communication issues particular to technology; (4) research gaps; and (5) emergency issues. They further assert that based on these findings should inform the enhancement of ethical guidelines and prompt broader ethical debate.

Maintenance

Transfer of learning was also observed among trainees. Since they had no prior practical experience, trainees had to apply the knowledge and skills gained from the training during practicum. To maintain these competencies, trainees made use of supervision and peer learning. Dopp et al. (2021) have found early evidence that through training, doctorate trainees can gain telepsychology competencies, and that a supportive, training-oriented environment, as well as a fit between telepsychology and existing professional areas of specialization, are likely to be crucial to success.

CHAPTER FIVE

General Discussion

This research evaluated the Chronic Care Group Telehealth intervention from user and provider perspectives, using two studies. While study one sought to explore the usefulness and acceptability of telehealth interventions, as such interventions might improve accessibility; the competence to administer such interventions which was the focus of study two, is important for the success of telehealth interventions. The first study which examined service user perspectives, highlighted the themes: (1) Life before COVID-19 and during COVID-19; (2) Knowledge about COVID-19; (3) Psychosocial support; (4) Behavior change; and (5) Acceptability of the intervention. Overall, the findings show that telehealth is an effective medium for improving knowledge on COVID-19, providing psychosocial support and is an acceptable medium for mental health service provision. Service users demonstrated significantly improved knowledge about COVID-19 and highlighted the forms of support they received which, through practice, enabled them to cope with the psychological impact of the pandemic. This is consistent with the findings of Graziano et al. (2021) who implemented a pilot Telehealth Psychological Support Intervention for persons living with cystic fibrosis and their caregivers which resulted in significant reductions in stress and depression and a rating of the intervention as feasible and satisfactory. Observations from the current study reveal the practicability of offering mental health services to individuals in poor urban communities. Hence, to satisfy the different needs of the Ghanaian population, it is essential to design locally customized psychosocial interventions that consider linguistic limitations as well as the living realities of targeted service recipients (Osei-Tutu & de-Graft Aikins, 2021).

Though participants were unable to recall all the information acquired, there was significant recall of salient points regarding COVID-19, protective measures and coping with associated distress one

year after the intervention had been implemented. One factor that may account for improved knowledge is the modification of the intervention to make use of the Ghanaian local languages (Twi, Fante, Ga, Hausa, and Krobo) in psychoeducation and provision of psychosocial support. All terminologies were translated into the languages that recipients were familiar with. Language concordance has been found to improve healthcare and to act as a window into broader social determinants of health, which primarily result in poor health outcomes for patients with inadequate English proficiency (Molina & Kasper, 2019). It has also demonstrated to help in effective service delivery, client compliance with therapy, and client health improvement (Kayode et al., 2020). Language skills, as well as the ability to handle cultural issues of mental healthcare, research, and teaching, are all deficient in trainings (Biever et al. 2002). In attaining high levels of satisfaction among health professionals and patients, providing high-quality treatment, and protecting patient safety, language barriers pose difficulties (Al Shamsi et. al, 2020). As a result, more prospects for psychological language programs must be created, and they must be integrated into the curriculum using evidence-based teaching methodologies, health equity focus, and standardized language assessments. The languages available should be appropriate for the client population in the various contexts.

Another modification that may have accounted for improved knowledge is the use of one-on-one telephone interaction instead of mass education of service recipients. Different theories and information were offered by the media at the time of the intervention, making it difficult for service users to assess and acquire accurate information. The telehealth intervention increased access to information and addressed COVID-19-related misinformation and conspiracy theories. Future interventions may consider whether targeted education of the population will prove to be more effective as compared to mass communication.

It is worth noting that at the time of the intervention, individuals were experiencing significant levels of distress associated with COVID-19. As such people may have been more receptive to any form of support that seems to alleviate their distress. This could potentially explain participants' acceptability and willingness to participate in the intervention. Participants were also able to adapt to the new form of service provision and were more acceptable of the intervention due to the previous rapport with the Telehealth trainees. Based on the expression of feelings and perceptions about the intervention, it was evident that participants experienced the service positively. This is congruent with the findings of Murphy & Gardner (2019) in an assessment of men's acceptability of a mental health program through the Theoretical Framework of Acceptability (TFA). In that study, participants reported having good relationships with their pharmacists which influenced their disposition towards participating in the mental health program in community pharmacies. It will be significant to examine how establishing rapport prior to implementing such interventions may facilitate acceptability and engagement.

Persons with chronic conditions have been affected directly and indirectly by the COVID-19 pandemic. High rates of community spread and various mitigation initiatives, including stay-at-home guidelines, have disrupted lives and produced social and economic burdens, in addition to morbidity and mortality (Hacker et al. 2021). It also raised worries about receiving health care reliably, as well as hampered the capacity to prevent or manage chronic disease due to healthcare facility closures, a lack of public transportation, or service reductions (Fekadu et al., 2021). de-Graft Aikins et al. (2021) investigated the psychosocial requirements of a chronic illness support group in Accra, Ghana, in the context of their larger community, which faces systemic poverty and suffers from a complex burden of infectious and chronic noncommunicable diseases (NCDs). Members of the support group from their findings, had psychosocial and material needs. They were concerned

about risk for infection, as well as need for money, food, and accessibility to NCD treatment. Hence, in pandemic responses, people with chronic conditions must not be disregarded. Healthcare systems have rapidly integrated telemedicine, not only for Covid-19–related care, but also for managing chronic diseases. The intervention successfully addressed misconceptions about how service recipients considered their vulnerability and provided support for dealing with anxieties associated with having a chronic condition during a pandemic. The study findings highlight the importance of taking steps to reduce the burden of chronic diseases in order to affect change and scale up intervention programs. After the intervention, it was evident that participants had improved health behaviors such as proper eating habits, exercise and adoption of other healthy lifestyle choices and were equipped with skills that have long term impact such as problem-solving skills. These lifestyle changes further help participants in improving their health outcomes.

As with previous interventions with this group, part of the intervention involved providing financial support and access to some healthcare benefits at some stages. Participants were expectant of financial support which could detract from the provision of psychosocial support. Such interventions therefore must ensure that offering financial support does not take away from providing care.

The second study which examines provider perspectives accentuates the themes: (1) Impact of COVID-19 on psychological training; 2) Competence of trainees; and 3) Challenges with the intervention. Trainees report the positive and negative impact of COVID-19 on their course work, research and practicum. Even though a number of challenges had been created by COVID-19, it provided an opportunity for trainees to adjust and adapt by finding more innovative tools to facilitate learning; and offered a convenient way to become more effective. This corresponds with observations made by Goghari et al. (2020), who note that, despite the fact that the COVID-19 epidemic has posed numerous obstacles for professional training, it has also significantly contributed

to change within the field, supporting the spread of tele-education and telehealth approaches. The COVID-19 epidemic and its impact on training raise fundamental questions regarding the flexibility of professional psychology training boundaries.

Prior to COVID-19, psychology students received traditional training which did not necessarily result in competence for telehealth. Few mental health training programs provided training opportunities in telehealth service delivery (McCord et al., 2020). Due to changes in the way mental health care is provided, telehealth-specific training is one factor to consider. Telepsychology has become increasingly crucial in the mental health services response to the COVID-19 global epidemic, necessitating further training (Dopp et al., 2021), in preparedness for meeting the needs of the global mental health burden. In Ghana, it is critical to make telehealth an explicit priority of psychology training programs. Telehealth's ability to improve accessibility, acceptance, and cost has been thoroughly documented (Adjorlolo, 2015; Baca et al., 2007; McCord et al., 2015; Osei-Tutu et al., 2021; Tarlow et al., 2020).

In addition, though participants had no prior practicum experience, they successfully implemented the intervention with the basic competencies acquired through the training. It is therefore important to assess whether this observation challenges the idea of mastering the traditional competencies through practicum before telehealth training. It will also be critical to look at whether this manner of training equipped students better for practicum or resulted in a shortage as participants used the skills acquired through the telehealth training in service provision during practicum.

Trainees were also equipped with basic tele-counselling skills which meet the criteria of foundational competencies as described by Rodolfa et. al (2005). They engaged in reflective practice in which they continuously assessed their own sense of competence in building relationships, modelling empathy and attention to individual differences and cultural diversity. Trainees also

demonstrated an awareness of ethical standards which guided their use of scientific methods of assessment, conceptualization, intervention, and evaluation. These skills were continuously maintained through supervision and is reportedly still used in current practice. Through the medium of service provision, trainees also had to acquire skills that were over and above traditional training such as focus on factors that they would not ordinarily consider such as tone of voice, facial expressions, use of terminologies and manner of breathing.

Trainees initially expressed hesitancy and worries about preparedness towards telehealth use. However, they became more receptive as they became acquainted with the modality. Psychologists have initially had reservations with telehealth use and have cited numerous barriers such as effectiveness, ethical concerns, access to services, building a therapeutic alliance, etc. despite reasonable evidence to support the approach (Hale & Brennan, 2020). As the field of psychology begins to gravitate towards increased telehealth use, there is the need to address hesitancy towards its use and manage anxiety towards the new experience and adapting to it. Service providers are more likely than recipients to express reservations about telehealth, making them the "initial gatekeepers" to its wider adoption (Cowan et al., 2019, p. 2519).

Conclusion

The two studies conducted sought to evaluate the Chronic Care Group Telehealth intervention (Osei-Tutu & de-Graft Aikins, 2021) from service recipients' and trainees' perspectives. **The present study contributes to literature on telehealth service provision and training of psychologists in Ghana.** The onset of COVID-19 has offered new opportunities to use digital health treatments in the context of a public health crisis and in mental health service provision. An evaluation of this intervention provides knowledge that can be used to modify the intervention which can serve as a template for developing a telehealth structure that can be used to provide mental health services to

the general population as well as during crisis interventions. This will also inform how psychologists are trained in Ghana and expand the use of telehealth in health service provision. The objectives of this study were to assess the utility of the telehealth intervention in improving knowledge about COVID-19 and providing psychosocial support, assess the acceptability of the intervention by service users, examine the experiences and clinical competencies of telehealth trainees and assess whether trainees are still applying the acquired competencies in current practice.

The telehealth intervention was evaluated based on the RE-AIM framework and the Competency cube model. The RE-AIM framework was adapted and focused on effectiveness and adoption (for service recipients) and implementation and maintenance (for telehealth trainees). The intervention was therefore not only evaluated on the traditional outcome (i.e., effectiveness), but on multiple dimensions which are less commonly examined yet critical to achieving broad influence and public health impact. The competency model was used to examine the competencies acquired by trainees to implement the intervention.

The findings of the studies show that telehealth is a useful tool for improving knowledge about COVID-19 and providing psychosocial support. It has also been found to be an acceptable medium of service provision by service recipients. The telehealth trainees were also equipped with the required competencies to execute the intervention and continue to apply them in their current practice. Based on the findings of both studies, it is evident that the transition to telehealth use opens entirely new avenues for thinking about and offering psychosocial support or mental health needs. This, together with the potential for increased access, implies that telehealth offers relevance as a new and useful domain of practice within mental health services (Venville et al., 2021). They show that more versatile support methods, such as hybrid approaches that combine face-to-face and telehealth alternatives, are acceptable and should be explored. However, any adjustments to services

must be supported by an understanding that telehealth is more than just a new platform; it is a new way of working together.

The field of psychology's scope is being adjusted and the opportunity for this field - specifically the area of assessment - to analyze and reestablish its footing in terms of area and reach in the context of the 21st century's already fast digitalization growth has emerged as an overarching theme. There are several compelling reasons why psychology students' training and supervision not only include but also emphasize the use of technology whenever possible, and why practitioners and researchers in the field continue to work to expand their plethora of valid and accessible assessment and service provision technology. It is now evident that a technologically enhanced psychological practice will not fade into the background but will be the engine that drives the profession ahead, and as a result, formal training in this area will become a criterion for claiming expertise in this domain (Bilder et al., 2020; Mikail & Nicholson, 2019). Both service users and workers will need adequate support—resources, training, coaching, and encouragement, as well as time to practice, acquire skills, and confidence—to navigate the new style of working and the new rules of engagement. Positive early telehealth interactions are critical in assisting people in persevering and overcoming any technical issues that may arise; as a result, the need to foster positive attitudes and skills regarding the potential and practice of telehealth (Wind, et al., 2020) for the delivery of psychosocial services. Graduate psychology training must improve on the existing limited telehealth training provided in order to fulfill the growing demand for a telehealth workforce (Dopp et al., 2021). Telepsychology has been important to the mental health services response to the COVID-19 global pandemic, therefore the requirement for extended training has grown significantly.

Limitations and Recommendations for Future Research

One of the limitations of this study is that, the results of both studies might be subjected to recall bias as the participants of both studies were required to answer behavior questions over the past year. The gathering of social data can be far apart in time such that there is a decay in participants' ability to recall their experiences over long periods of time (Bell et al., 2019). Future evaluations should follow within a short time frame. There was also attrition of participants which mainly included death due to old age, complications from a chronic health condition, or relocation. The gender composition of service recipients did not allow for gender comparisons as the intervention had already been implemented. The small number of participants in both studies also does not allow for generalizability. However, the goal of qualitative research is to infer from findings rather than to generalize them. This research also gives useful information that has not previously been the subject of Ghanaian research.

The inability to assess reach of the intervention is a limitation. Future research should consider the improvement of the intervention to aid reach and adherence whilst mitigating barriers to help seeking.

Though a third party was used in data collection, both studies may also be subject to social desirability as service recipients had received financial support and may feel that their opinions or comments may not be pleasing. Trainees were also aware that any negative comments might be known by the researcher who was also a trainee of the intervention. The use of a research assistant though good because of the researcher's bias was also a limitation. The language barrier made it difficult for the researcher to fully participate in the interview process which affected some aspects of note taking.

Engagement by service recipients may be high due to their membership with self-help group for which the intervention was implemented. Engagement may not be as high if participants did not already exist as a group.

Implications for Training and Practice

Based on the effectiveness of this intervention in improving knowledge and providing psychosocial support, similar psychosocial interventions can be developed and delivered by professionals and paraprofessionals in resource-constrained settings.

Since trainees had initial hesitation with the use of telehealth, it should be anticipated that the field will meet some criticism and drawback from professionals. It is therefore necessary to create avenues to increase psychologists' acceptance and adoption of this medium of service delivery, as well as focus on moving mental health service provision from clinic settings to people's homes. This would inadvertently help to minimize the stigma associated with mental illness as service users are offered the opportunity to choose a space that is private and safe for them.

Standards for telehealth training, which includes modifying the educational curriculum and standards for practice are necessary to ensure the enforcement of ethical principles and the safety of service users. The intervention can also be adapted for future crisis intervention and service provision. There should be increased debate about laws and data privacy considerations for telehealth use. The manual used in the intervention can also be used as a template to inform telepsychology training in Ghana.

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APPENDIX

Interview Guide (Service Recipients)

This interview seeks to gather information from you about your experiences with the service provided by the Chronic Care Group, the knowledge you acquired about COVID-19, and the psychosocial support you received. Note that, no answer is either right nor wrong and so you are free to answer the questions in any manner you want to. If you are uncomfortable with any question, you can decide not to answer. If you wish to discontinue the interview at any point, please feel free to let me know. If you feel anxious or scared during or after the interview, please say so. If you have any questions, you are free to ask at the end of the interview. Thank you for accepting to participate in this study.

1. How are you doing today?
2. How has life been after the start of COVID-19 till now?

Demographic Information: I would like to know more about you

1. Can you tell me more about yourself?
2. Probes: Age, level of education, religion, marital status, current employment state, number of children

Experiences during peak of COVID-19 (Antecedents Prior to Outbreak) – *Be guided by the participant's level of distress*

1. Tell me about your life prior to the outbreak of COVID-19?
2. What were your experiences during the lockdown?
3. What did you do to cope during the period?
4. I am aware that you have a chronic health condition. Can you tell me about it?
5. How did the outbreak of the virus affect your health and health seeking behavior?

Knowledge about COVID-19

1. What did you know about Covid-19 prior to being contacted by Tsui Anaa?

2. When the 'Tsui Anaa' Group called you, how did they explain COVID-19 to you?
3. From the education you received, what are some of the symptoms of COVID-19?
4. How did the 'Tsui Anaa' Group teach you to protect yourself against COVID-19?
5. What did you learn about Social distancing, quarantine and self-isolation?

Vulnerability due to Chronic illness

1. Knowing that having a health condition placed you at high risk of severe illness, how did that make you feel?
2. How did the Tsui Anaa Group teach you to protect yourself, particularly because of your health condition?
3. What did you learn about seeking healthcare in those times?

Psychosocial support

1. What was the nature of the support you received from the Tsui Anaa Group?
2. How were you taught to cope with isolation?
3. What coping skills did you learn to help alleviate the psychological distress associated with the dealing with COVID-19?
4. What other form of support did you receive?

Observation of Hygiene protocols and safety precautions

1. What changes did you make during the peak of the Corona virus and now?
2. Why did you make those changes?
3. Are you still compliant with the Hygiene protocols? Which ones are you still are you still maintaining?
4. Why couldn't you maintain the other hygiene protocols?

Acceptability

1. What aspects of the service did you like and why?
2. What aspects were you unhappy about?
3. Would you utilize such a service in the future?

Debriefing

1. Tell me how you have felt during this interview
2. Are there any questions you want to ask me for clarification?
3. Tell me if there are other questions you wished I had asked

Interview Guide (Telehealth Trainees)

This interview seeks to gather information from you about the training you received using the Chronic Care Group Telehealth Manual, the skills or competencies you acquired during the training, how that training was used to provide psychosocial support to your service recipients and how the skills or competencies you acquired have influenced your practice. Note that, no answer is either right nor wrong and so you are free to answer the questions in any manner you want to. If you are uncomfortable with any question, you can decide not to answer. If you wish to discontinue the interview at any point, please feel free to let me know. If you feel anxious or scared during or after the interview, please say so. If you have any questions, you are free to ask at the end of the interview. Thank you for accepting to participate in this study.

1. How are you doing today?
2. How has life been after the start of COVID-19 till now?
3. How has the outbreak of the virus impacted your clinical training?

Demographic Information: I would like to know more about you

1. Can you tell me more about yourself?
2. Probes: Age, level of education, religion, marital status, current employment state, number of children

Competence of trainees

1. Did you have any prior experience with telehealth before the training you received? If yes, what kind of experience do you have?
2. Tell me about the telehealth training you received from the Chronic care group?
3. What were the benefits gained and challenges experienced during the training?
4. What clinical skills did you acquire from the training that you did not have before?
5. Which of these were useful during the provision of service to the Ga-Mashi group?
6. What psychological attributes did you learn?
7. Which of these skills or attributes have been retained now?

8. How did you ensure critical examination of needs and continuous engagement with the group?
9. How did you explore for feelings of anxiety, stress and fear?
10. How did you resolve issues that came up in the sessions that you were not competent enough to handle?

Feasibility of the module

1. How did the module facilitate the building of rapport and reflective listening?
2. How did the module facilitate the provision of psychoeducation and psychosocial support?
3. What were some of the challenges you experienced in using the module during the training?
4. What were some of the challenges you experienced in using the module to provide the service?
5. How did the module ensure the use of ethical standards during service provision?
6. How did you deal with issues that came up in the course of your sessions that were not covered in the module? Probe for: whether the module informed their approach to dealing with the issue?

Debriefing

1. Tell me how you have felt during this interview
2. Are there any questions you want to ask me for clarification?
3. Tell me if there are other questions you wished I had asked



Informed Consent Document

UNIVERSITY OF GHANA



INFORMED CONSENT FORM

SECTION A – BACKGROUND INFORMATION

Title of Project: An evaluation of a telehealth intervention for a chronic care group in Accra, Ghana.

Principal Investigator: Wilma Keteku-Atiemo

Participant's ID No:

Introduction

We invite you to take part in a research study, “An evaluation of a telehealth intervention for a chronic care group in Accra, Ghana”, which seeks to evaluate the effectiveness of the Chronic Care Group Telehealth intervention in a coronavirus intervention program for enhanced telehealth practice. Taking part in this study is entirely voluntary. We encourage you to seek clarifications about this study with our team members where necessary, before making any decision. If you decide to participate, you must sign this form to give consent.

SECTION B – CONSENT TO PARTICIPATE IN RESEARCH

General information

The purpose of this research study is to obtain information and examine the user and provider experiences of the Chronic Care Group Telehealth intervention to facilitate evaluation and improvement for enhanced telehealth practice. If you meet the inclusion criteria and agree to participate in the study, you will be required to participate in the study for a period of 4 weeks. During this period, you will be interviewed about your experience with the use of the module/psychosocial support received.

Benefits or risks

This study does not have the tendency to pose any risk to you as a participant. However, all efforts will be made to ensure that it continues to pose no danger should you decide to participate.

Participating in this study will provide that necessary data that will improve the intervention being evaluated for your use and use of others.

Confidentiality

Your research records that are reviewed, stored, and analyzed in the course of this study, will be kept secure. You will not be identified by name, date of birth, address, or phone number. All identifying data collected for research purposes will be labeled with code numbers. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared. Only members of the research team will have access to your data. By signing this form, you grant will authorize such access.

Compensation

You will be given a snack or its equivalent in cash, in the sum of GH¢ 20.00 after the interview to compensate you for time and expenses for participating in this study. Compensation will be given to participants who participate fully in the study and will be given at the end of the interview.

Withdrawal from study

Participation in this study is voluntary. You therefore have the right to withdraw from the study at any point. There will be no consequences if you choose to withdraw from the study. Upon withdrawal, no data collected from you will be included in the study. You will also be required to state your reason for termination.

Contact for additional information

If you have any questions or concerns about the research, kindly contact

Dr. Adote Anum
University of Ghana
aanum@ug.edu.gh
0249107770

Dr. Annabella Osei-Tutu
University of Ghana
aopare-henaku@ug.edu.gh
0244745424

Wilma Keteku-Atiemo
University of Ghana
wilmaket@gmail.com
0249644284

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@ug.edu.gh or 00233- 303-933-866.

Section C – Participant agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

Name of Participant

Signature or mark of Participant

Date

If participant cannot read and or understand the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

Name of witness

Signature of witness/ Mark

Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

Name of Person who Obtained Consent

Signature of Person Who Obtained Consent

Date

