Developing a Model to Implement National Mental Health Policy Framework and Integration of Mental Health care into HIV Services at Primary Health Care Settings

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Research

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Abstract

Background

People living with HIV are at a notably increased risk of developing mental health conditions or may precede the HIV infection, such as depression and anxiety, which partially arise from having to adjust, not only to the diagnosis, but coming to terms with living with a chronic, infectious illness, may also be due to direct infection of the brain by the HIV. Mental health conditions have been reported to be common in people living with HIV (PLWH). Research has shown that the chances of PLWH experiencing mental health disorder is very high. This is not far from the fact that there exists a link between mental health conditions in HIV patients with neurotoxic effect of HIV patient’s central nervous system. The incorporation of mental health services into other medical services at primary health care level is found on epidemiologic data, which shows that psychiatric conditions are over-represented in primary health care.

Methods

This study was informed by mixed methods, participatory action research and made use of quantitative (self-administered questionnaire) and qualitative (in-depth interviews and focus group discussions) data collection tools. The study was conducted in three district level hospitals that offered primary and comprehensive care for HIV (initiation and ART management) and mental health conditions in the eThekwini district of KwaZulu-Natal, South Africa. Inclusion criteria was observed throughout the process of data collection. There were face to face interviews that were conducted with the research team.

Only registered nurses, doctors, psychologists, and experts in both areas of interest, had a qualification in general nursing and in mental health nursing, medical doctors that had specialized in mental health, and those specialized in HIV were included in this study.

Results

It was evident that there were no existing models which adequately addressed how the national mental health policy framework can be successfully implemented towards integrating mental health into HIV services at primary health care settings.

Conclusion

Health care providers have limited awareness of the national mental health policy framework as well as the processes involved in its implementation.

Introduction

People living with HIV are at a notably increased risk of developing mental health conditions, such as depression and anxiety, which arise from having to adjust not only to the diagnosis but coming to terms
with living with a chronic infectious illness (De Ridder, Geenen, Kuijer, & van Middendorp, 2008; Hanghøj & Boisen, 2014). Similarly, people living with mental health conditions can also be at a higher risk for HIV. People living with HIV can experience mental health issues that can affect their quality of life and stop them seeking health care, adhering to treatment and continuing care. Studies across 38 countries show that 15% of adults and 25% of adolescents living with HIV reported having depression or feeling overwhelmed, which could be a barrier to adherence to antiretroviral therapy (HIV/AIDS, 2018).

Currently, very few health services are addressing the HIV-related needs of people living with mental health issues or the mental health issues of people living with HIV, (Mellins & Malee, 2013). This situation needs to change. Various studies conducted globally have estimated that HIV prevalence among people living with severe mental disorders could be between 1.5% in Asia and up to 19% in Africa (HIV/AIDS, 2018).

The integration of mental health services into HIV services is still non-existent across the Sub-Saharan African region, despite a significant increase in the volume of literature on the mental health needs of people living with HIV (PLWH) over the last two decades, (Kharsany & Karim, 2016) Poor attention to the mental well-being of PLWH across the region is inconsistent with available evidence, indicating that, firstly, mental disorders contribute largely to disease burdens (Mayston, Kinyanda, Chishinga, Prince, & Patel, 2012)

Identifying mental health issues among people living with HIV is critical; however, far too often said people go undiagnosed and untreated (HIV/AIDS, 2018). There are many reasons for this, all of which need to be addressed. People may not want to reveal their psychological state to health care workers for fear of stigma and discrimination and health care workers may not have the skills or training to detect psychological symptoms or may fail to take the necessary action for further assessment, management, and referral, if symptoms are detected.

**Methods**

**Study design and participants**

The study was informed by mixed methods, participatory action research (PAR). The methodology was defined as an approach which is democratic, equitable, liberating, and life-enhancing (MacDonald, 2012; Sousa, Driessnack, & Mendes, 2007). PAR takes into consideration an individual’s feelings, views, and patterns which are not subjected to manipulation from the researcher (Dick, 2006). The participant makes active and informed decisions throughout all aspects of the research process (MacDonald, 2012).

Participants were purposively selected to participate in the study. The sample comprised of primary health care providers providing care to patients living with HIV and mental health conditions in the eThekwini district. Health care providers included; registered nurses trained in general nursing and mental health, medical doctors specializing in mental health and HIV, psychologists, and psychiatrists. Eligible participants had to have been working in the primary health care setting for a minimum of two years, over
the age of 18 years, and be willing and able to provide informed consent. Inclusion criteria was observed throughout data collection process.

Ethical considerations

This study was approved by the Research Ethics Committee of the University of KwaZulu-Natal, protocol number: HSS/2248/017D. Participation in the study was voluntary. Participants were informed that they could withdraw from the study at any point. Confidentiality of participant information was maintained throughout the study.

Assessments instruments and data collection

The process of collecting data for developing a model was conducted in four cycles and made use of both qualitative and quantitative data collection techniques (Creswell, Hanson, Clark Plano, & Morales, 2007). Data was collected in three facilities rendering mental health care, HIV management, and primary health care. Health care practitioners consisted of nurses, doctors, psychologists, and psychiatrists working in mental health care institution, HIV, and PHC. These cycles are presented diagrammatically below:

Figure 1.1. Diagrammatic representation of the participatory action research process and integrated cycles as it will be applied in this study. Summary of cycles presented. Adapted from (Zuber-Skerritt, 2002).

The diagrammatic representation of the participatory action research process and integrated cycles as it was applied in the study was used to summarize the cycles presented and it was adapted from, Zuber-Skerritt, 2002.

Reliability and Validity

Workshops that were conducted after data collection process were done to ensure the reliability and validity of the results. The employed questionnaire that was used by the researcher was a self-developed questionnaire and the Cronbach's alpha test was used to define the reliability of the study. Only Cronbach's alpha score of $\geq 0.70$ was taking into consideration and with eigen values superior $\geq 1$. Content validity was used in the study to validate the items in the instrument measured what aimed to measurer in terms of the research objectives. The reliability of the instrument was tested by administering the questionnaire to five (5) registered nurses of the population and then administering the same questionnaire to the same respondents two (2) weeks later. The two rounds of the questionnaire from these respondents were then checked to see if the results would still be the same and consistent, which would indicate the reliability of the questionnaire to elicit the necessary information and the internal consistency of the questionnaire.

Trustworthiness
The basis for rigor in the experimental research is founded in commonly established routines for establishing the two concepts of the reliability and validity of the research, however, in this study the researcher used action research, being essentially qualitative. Rigor in action research is based on checks to ensure that the outcomes of research are trustworthy, in such a way that they do not reflect the particular perspectives, biases or worldview of the researcher and are not based solely on superficial or simplistic analyses of the iniquity being investigated. In this research study the researcher used checks for trustworthiness to vigorously establish veracity, trustworthiness, or validity of the information and analyses that have emerged from the research process.

**Conformability**

The researcher confirmed that all the procedures described took place during the study or data collection. The researchers provided an audit trail that enabled an observer to view the data collected, manuscript focus groups, voice recordings, journals related to the study. This was done to ensure the veracity of the study, providing other means for ensuring that the study was trustworthy.

**Statistical analysis**

Qualitative data was analysed using thematic framework analysis. To ensure the validity of the themes, two coders worked on the coding scheme to identify the themes evident from the data. Both coders identified similar themes from the data sources. (Onwueguzie & Leech, 2007).

Quantitative data was analysed using the Predictive Analysis Software (previously known as Statistical Package for the Social Sciences) Version 21 for Windows. Each item of the questionnaire was coded. Frequencies were computed to determine percentages for each item contained in the questionnaire.

**Results**

**Sample characteristics**

Participants who took part in the study were aged between 26 to 35 years, they were 32.5% (n=65) and 25% were 25 or younger. The minority were 17.5% (n=35) were aged 36 to 45 and about 25% (n=50) were aged 46 and above. Females total up to 65% (n=130) while 35% (n=70) were males.

Number of years of experience of the participants was also taken into consideration, it was checked how many years as healthcare professionals, working in mental healthcare, PHC and HIV services, findings show that 40% (n=80) of participants had 2 to 5 years of experience while 22.5% (n=45) of the participants had 6 to 10 years of experience, and 15% (n=30) of the participants had 11 to 15 years of experience. A lesser number, 7.5% (n=15), had 16 to 20 years and a limited had 20 or more years of experience.

Then two to five years of experience were 50% (n=100), 14.5% (n=29) had six to ten years of experience, 7.5% (n=15) had 11 to 15 years of experience, and 5% (n=10) had 16 to 20 years of experience, in HIV
services. Of the participants, 32.5% (n=65) had 2 to 5 years of experience while 26% (n=52) of the participants had 6 to 10 years of experience. 14% (n=28) of the participants had 11 to 15 years of experience, 22.5% (n=45) had 16 to 20 years of experience, and a mere 5% (n=10) had 20 or more years of experience.

The results obtained showed that, majority of participants, which was 71% (n=142), were mental health, primary health care, HIV trained nurses while 0.5% (n=1) of participants were psychiatrists, and 21.5% (n=43) were medical doctors. Only 11 (5.5) were psychologists.

When asked about the availability of guidelines for the implementation of a national mental health policy framework, 72.5% (n=145) agreed that there were guidelines available for the implementation of a national mental health policy framework. Regardless of the majority of the participants having been agreed on the availability of guidelines needed for implementation of a national mental health policy framework, 15% (n=30) disagreed that there were guidelines for the implementation of the national mental health policy framework existed for the implementation of the national mental health policy framework, they were claiming that it was all new to them there were such guidelines. 5% (n=10) remained neutral on the statement.

Participants were further asked by the researcher using statement “guidelines on the implementation of a national mental health policy framework were read and explained to me using simple language”, results revealed that most of the participants accepted that the guidelines on the implementation of a national mental health policy framework were read and explained to them, 72.5% (n=145) of the participants agreed. However, 20% (n=40) disagreed, while 7.5% (n=15) remained neutral on the statement.

Participants responses to the question “I was given the opportunity to seek clarity on the guidelines or the available document for the implementation of a national mental health policy framework” results shows that 50% (n=100) agreed, 40% (n=80) disagreed, and 10% (n=20) refrained from responding to the statement.

The researcher further, asked the participants if the district personnel visited their facility to provide guidance on the available documentation for the implementation of a national mental health policy framework on the integration of mental healthcare services into HIV services. From the participants’ responses, it was congregated that 42.5% (n=85) agreed that the district personnel had visited in order to provide guidance on the available documentation for the implementation of a mental policy framework. However, 40% (n=80), disagreed, stating that the district personnel have not visited to provide guidance on a mental health policy framework implementation.

When the participants about the organisation of workshops or in-service education to enlighten the participants about the implementation of a national mental health policy framework, 27.5% (n=55) remained neutral and did not respond to the statement. 40% (n=80) agreed that workshops or in-service training were conducted by employers to inform employees on the implementation of a national mental health policy framework. 32.5% (n=65) disagreed, stating that there were no workshops or in-service
training that were run or in place to assist health professionals with the implementation of a national mental health policy framework.

All the health professionals that participated in this study, were asked if the district and immediate supervisors did test and evaluations of the national mental health policy framework. The results obtained showed that there was almost a balance between the participants who responded positively and negatively. 37.5% (n=75) agreed, 17.5% (n=35) of the participants abstained from responding, and 40% (n=80) disagreed that testing and evaluation of the national mental health policy framework was done by the district and immediate supervisors.

Finally, participants were asked if there was a need to implement a national mental health policy framework on the integration of mental healthcare services into HIV services and the majority of the health professionals believed that there was a need to implement a national policy framework that integrates mental healthcare services into HIV services. 80% (n=160) agreed that there was a need for the integration of mental healthcare services into HIV services, 20% (n=40) disagreed.

**Mean differences**

ANOVA one-way test was run to determine mean differences in knowledge scores between mental health professionals of different years of service, results displayed that there were statistically significant differences between groups, with a p value of 0.000 ($p=.00$). The one-way ANOVA was then followed-up by running a Tukey’s honestly significant differences (HSD) post hoc test, also known as Tukey, since our data met the homogeneity of variances assumption. The aim was to control the experiment wise error rate (usually alpha=0.05). Post hoc comparisons using the Tukey HSD test indicated that the mean score of knowledge for the MHCPs with service number of years 2-5 and 20 years and above ($p=0.00$) was significantly different than mean difference between 2-5 and 16-20 ($p=0.001$). However, there were no differences between the groups of 2-5 and 16-20 years of service ($p=0.992$).

**National Mental Health Policy Framework**

The National Mental Health Policy Framework is a policy in line with the values and principles of the Alma Ata Declaration; mental health is an integral element of health.

The policy was developed through a consultative process with relevant stakeholders. All nine provinces held summits to review the state of mental health and mental health services in their province, to identify the best practices and to generate a roadmap for improving mental health. These consultations concluded in a national mental health summit where a draft of this policy framework was discussed and a declaration was made.

Integrating mental health into HIV services is unarguable. Challenges are apparent in implementing this integration that are cost-effective, and of high quality and sway. In LMICs, health systems are usually overreached due to poor mortal and monetary resources, and they are preoccupied with treating critical disorders, resulting in fragmented care and poor sustainability of health systems for mental disorders.
and HIV (Semrau et al., 2015). Studies reveal that in well developed countries health care systems are better at dealing with the lower overall burden of diseases. In well developed countries the integration of mental health care into HIV services has been initiated successfully with good results in decreasing the non-adherence of antiretroviral therapy as well as depression (Theron et al., 2015). Considering these reasons, it is highly recommended that the integration of mental health into HIV services must be facilitated.

**Conceptual framework**

Brynard (2009a) identified key factors that influence policy implementation. The key to successful policy implementation is understanding the specific situation where the policy initiative is to be put into practice. This includes understanding the environment as well as those intended to implement. Implementation is a dynamic process which is shaped by the behaviours of the political and administrative role-players involved in the implementation (Brynard, 2009a). An extensive list of the factors that influence policy implementation include effective approach, positive commitment, cooperation, effective planning, effective resourcing, enthusiasm, leadership, location of political responsibility, management style, ownership, project team/management dynamic, role delineation, skills and abilities, stakeholders, trust, use of networks, and values or beliefs. Brynard (2009a).

**Figure 1.2: Theory of organisational, process, personnel and environmental factors (Brynard, 2009b).**

Using relevant literature, the study aimed to develop a model to facilitate a policy information cascade to ensure the integration of mental health into HIV services with a focus on the National Mental Health Policy Framework. The study used the Theory of organisational, process, personnel and environmental factors (Brynard, 2009b), to guide the study and to develop a model.

**Model development**

It was evident that there were no existing models which adequately address how the National Mental Health Policy Framework can be successfully implemented towards integrating mental health into HIV services at primary health care settings.

During workshops it was evident that health care practitioners had limited awareness about the existence of the National Mental Health Policy Framework.

I am not sure of that because I do not remember anybody talking to us about any that National Mental Health Policy Framework [Participant H].

Another participant said:

Even myself I am not sure of that because I do not remember anybody talking to us about that National Mental Health Policy Framework [Participant I].
Health care practitioners expressed concerns around a lack of communication and the cascading of information regarding the policy framework; they felt that it was the responsibility of their provincial and district managers to communicate the policy to their local level managers who would then cascade to the operational practitioners at the local level.

Communication is the most important thing [Participant K].

Some health practitioners had some doubts regarding the integration of mental health care into HIV services as they felt that they were not appropriately equipped with the skills necessary to manage people with mental health conditions.

How am I expected to attend those mental health care users in HIV services as I don't have skills or trained in mental health, because I am just a general nurse with midwifery only (Participant C).

The health care practitioners believed that mental health care users should be strictly managed by practitioners trained in mental health. Those that were at primary health care units believed that they were only to attend to general conditions and refer accordingly if a general clients’ conditions complicate and present with strong side effects from antiretroviral therapy and mental health conditions such as psychosis,

As a primary health care professional working at primary health care setting, why am I expected to attend to people that are psychotic instead of referring them to the hospital with a psychiatric ward or mental health institution, ... we see so many general patients here per day and we are short staff, ...I am the only medical practitioner stationed here as we speak today

(Participant B).

The general feeling from the participants and the research team was that the model was urgently needed.

We need an intervention model that will guide and help to ensure the effective implementation of this national mental health policy framework, but... mmhh... [mumbling], that model must address exactly what need to be done and how (Participant X).

Participants felt that the model should involve all levels of health care provision and there needs to be a provision of workshops and in-service training for the effective implementation of the policy.

The model must address these policy developers from national down to districts level and communities (Participant C).

Another participant said:

What we are saying is yes, we need a model but people from national [National Department of Health] must communicate about the existence of model developed so that it can be implemented well, and we need to be workshopped [trained] on policy developed (Participant G).
Health care practitioners showed great interest in seeing the National Mental Health Policy Framework being successfully implemented and mental health care being integrated into HIV services at primary health care settings.

We are saying, let us develop this model then now and see if it does address what we want to happen and see (Participant A).

**Process for generating the model**

In the process of generating the model, the research team started by describing what the model was trying to represent and to identify, as well as describing the gaps that made the National Mental Health Policy Framework experience a failed implementation, and then analysed them in relation to the phenomenon of interest. The research team, together with the researcher, deliberated on what could then generate a positive result of integrating mental health into HIV services by implementing the National Mental Health Policy Framework accordingly for the benefit of the clients. The process followed was suggested by several authors, such as (Netemeyer, Bearden, & Sharma, 2003), as they also deliberated on the visual representation of a model which was also attempted by the research team and the researcher.

The model was amended several times until the research team and the researcher were all satisfied that it had produced a good model that could be followed for the effective and active implementation of an existing National Mental Health Policy Framework on the integration of mental health into HIV services. The research team and the researcher searched and read some literature as a guide. The research team members reflected on the proposed components of the various adapted models and discussed how to best capture the components they had identified as most significant to the idea of developing a model that was going to be realistic and practical, as well-being understood in simple language by everyone.

The research team then provided verbal and written constructive criticism related to the overall applicability of the model. The constructive criticism was then integrated into later versions of the model as it was being developed, which were subsequently presented to the research supervisor. The research team thought of the best ways to capture the important concepts from the literature and the findings from cycles one, and three. The researcher’s responsibility during model development and in the research team was to frequently draw the research team back to cycles one, two, and three of the study findings, making sure that findings were being merged so that they did not just base everything on the reviewed literature (Hatch, 2002).

This continuous process of refining and working with findings gave birth to a draft model that had the items that assisted in creating the foundation for developing the concepts to be included in the developed model to implement the existing National Mental Health Policy Framework on the integration of mental health into HIV services at selected primary health care settings. The researcher then engaged the research team in the vital process of deliberating and arguing on a newly developed model in order to clarify the specific concepts of the model, to ensure that the concepts were theoretically equally exclusive, in a manner, to have clinical effectiveness.
Discussion

Cycle four of the study deals with the process of developing a model to implement the National Mental Health Policy Framework on the integration of mental health into HIV services in primary health care settings. After permission from mental health services had been obtained, the researcher identified certain people and invited them to join the research team. They had been selected because they were experts and were experienced in mental health and HIV services at primary health care units and had a vested interest for change in their institutions. The research team members consisted of one psychiatrist, two psychologists, ten psychiatric nurses, two managers, four primary health care nurses, three HIV personnel, and one social worker.

The first meeting with the research team on the development of a model was to reﬂect on the ﬁndings from cycles one, two, and three of the current study. In the meeting, the research team decided to develop a model. A further meeting was held in which the research team came up with the draft of the model. Research team members agreed to utilise the model in the implementation cycle. The researcher asked the members to re-examine the model and ﬁnalise it. (Chinn, Kramer, & Maeona, 2007) indicate that models are structural designs consisting of organised and related concepts. Models are developed to provide, diagrammatically, how one concept logically or casually inﬂuences and connects with another. The major purpose of the model was to recognise and understand the process required to successfully implement the policy.

In ensuring collaborative and technical support, the researcher made the best use of participants’ participation at every level of model development. The technical and collaborative support facilitated effective and efﬁcient utilisation of the plan. The effective and efﬁcient implementation of the policy required staff participation in the planning, monitoring, and evaluation of the implemented policies. Real participation of the research team was enabled by the development of mutual belief, admiration, honesty, and decent determination between participants.

The researcher invited the research team and the participants to a ﬁnal workshop to present the concluded model. Through a group discussion process the participants critiqued the model and decided that they needed to implement the model and assess if it was practicable in their institutions.

4.1 Description of the model

To achieve the successful implementation of a new policy, effective communication was essential. That communication needed to take place at all levels of health care provision including national, district, sub-district, facility, and community level (De Vos, 2005). In that way the provision of person-centred care, integrated care, and the retention of patients in care was ensured.

In spite of the increasing numbers of PLWH, who are in receipt of antiretroviral therapy consume close normal life expectancy, subsequent in more PLWH over the age of 50 years. Development of personalized satisfying and anticipation intervention are needed in the country, from regional to global level. According
to the study conducted by Autenrieth et al. (2018), using the AIDS Impact Module of the Spectrum software to compute the increasing numbers of PLWH, new infections and AIDS related deaths for PLWH for the year 2000-2016. Projections until 2020 were calculated based on assumed ART scale up to 81% coverage by 2020, consistent with the UNAIDS 90-90-90 treatment targets. Their results proved that globally, there were 5.7 million (4.7 million to 6.6 million of PLWH in 2016. PLWH above the age 50 years enlarged significantly from 8% in year 2000 to 16% in 2016, these statistics are expected to increase to 21% by 2020. According to UNAIDS statistics, about 80% of PLWH at the age of 50 and above from the low- and middle-income countries with Eastern and Southern Africa had the high numbers while the proportion of PLWH at the of 50 years was greater in high income countries. There is an increasing high number of PLWH in the LMICs that are still likely to endure to surge by 2020. Integration of mental health into HIV services should be developed and implemented to cater for the changing psychological, physical needs of people with dual illness of mental health and HIV as there are many people who will need these services.

Globally, mental health problems are more common among people living with HIV than among the general population. It has been discovered that mental health problems affect HIV therapy adherence and retention. Addressing this challenge researchers used a task sharing approach among lay health care works and clinicians to integrate mental health care into HIV services at a pilot hospital in the Amhara and Tigray regions of Ethiopia. Using the model trained lay healthcare workers proactively screened patients using a mental health screening tool and subsequently linked potential clients with trained clinicians working at HIV services for further diagnosis and treatment. Researchers retrospectively gathered their secondary data, including demographic characteristics and diagnosis information, from mental health clinicians and case managers quarterly reports from HIV services during the implementation period which was January 1, 2013 to March 31, 2014. Their results revealed that during the initial three-month implementation period of their project January to March 2013, case managers screened 5,862 PLWH for mental health disorders. Case managers referred 687 (11.7%) patients with suspected mental health disorders to clinicians for further evaluation and management. Of that total screened by case manager during that period, clinicians confirmed that 454 (7.7%) had a mental health disorder, (Ahmed, Weldegebreal, & Mekonnen, 2020).

In spite of the dual burdens of mental disorders in PLWH in LMICs and evidence of their synergistic negative effects, approaches and strategies to address the mental health needs of PLWH in LMICs had received only limited attention (Chibanda, Benjamin, Weiss, & Abas, 2014; Mayston et al., 2012). Mental disorders in these settings are often untreated due to a lack of, pre-and post-counselling as well as pharmacological treatment opportunities (Petersen & Lund, 2011; World Health Organization, 2001). The cited authors recommend that policies about the integration of mental health into primary health care must be developed and be communicated well to the policy implementers for the effective and successful integration of these services (Chibanda et al., 2014; Mayston et al., 2012; Sikkema et al., 2015).
At a national level it is essential for the collaborative development and conceptualisation of new policies between key stakeholders including policy developers and middle management. New policies need to be communicated through participatory workshops. At a national level it is essential to ensure that the necessary financing structures are made accessible and available.

Once the policy has been conceptualised, district level management’s role is to cascade communication and training to sub-district level management. This can be accomplished through meetings, workshops, and training. Sub-district level management is responsible for ensuring that new policies are communicated and introduced to the facility responsible for providing new integrated care.

This is perhaps the most important level of the cascade and implementation as they are the intended level responsible for the implementation of the new policy. At this level, once the operational managers have received the training from the sub-district level management, it is then their responsibility to cascade the information as well as the training to the all cadres providing health care in the facility (Holloway & Galvin, 2016). Roles need to be clarified in the chain of service provision to ensure that all cadres are clear of their responsibilities and receive the necessary and appropriate training. The facility level needs to be appropriately staffed to ensure the provision of integrated care.

If there are any changes to the type of care provided or the way in which the care is provided at a community level it is essential for the community to be made aware. Awareness campaigns, the establishment of community-based support, and ward-based outreach teams are key in ensuring a continuum of care.

The bi-directional arrows represent those elements that are essential and should be continually happening between and within the different levels of health care. These elements include communication and feedback.

Elements in the arrows facing one direction should cascade from a national level to a community level and include leadership, mentoring and supervision, refresher training, updating of manuals and guidelines, and policies and monitoring as well as evaluation.

**4.2 Model implementation**

Once the model had been developed it was implemented in one of the mental health facilities that had all the services concerned, like HIV services at primary health care settings participating in the research. Hospital A was chosen by the researcher and the research team because it was interested in implementing the model. After the model was presented to the participants and feedback was requested by the researcher from the participants regarding the developed model in the form of group discussions and comments. The researcher was listening for similarities and differences and asked the participants to reflect back on these (Larkin, Dierckx de Casterlé, & Schotsmans, 2007). While the implementation was in progress, the researcher was attending to the challenges that were experienced by the participants through action research (Koshy, 2005).
The researcher was in regular contact with the research team to maintain the implementation of the model and to discuss the implementation, identify challenges arising from the implementation, and find solutions to such challenges using action research (Dick, 2006).

4.3 Limitations

The limitation was that the model was implemented in one research setting. This permits more research to determine how effective it is to implement the National Mental Health Policy Framework and integrating mental health into HIV services at primary health care units.

4.4 Strengths

The study not only explores the process of integrating mental health into primary health care, but offers recommendations towards the successful introduction and implementation of new policies.

4.5 Implications and recommendations

To ensure that policies are well received and successfully implemented, health care providers who are responsible for the provision of services through the implementation of the policies need to be made aware of the policies and need to be included in the process of introduction and implementation.

Policies are to be well communicated to policy implementers by district level personnel and to be well explained using simple language. Continuous in-service workshops to equip almost all the health care practitioners need to be established, conducted, and monitored. National and provincial managers must ensure that all policies have successfully reach the relevant policy implementers and ensure that they had been adequately trained on each policy developed.

Conclusion

The model was further refined and agreed upon as a good model and adopted as a continuous tool for the implementation of the national mental health policy framework regarding the integration of mental health care into HIV services at primary health care settings. The research team and the researcher motivated and encouraged the continuous active implementation of the national mental health policy framework on the integration of mental health care into HIV services by everyone. The need for implementing the integration of mental health into HIV service at primary health care level using this model will allow the routine screening of PLWH for mental health disorders to get help and to proactively identify and manage patients with co-morbidities. The integration of mental health into HIV services through task sharing approach is a feasible strategy that could increase access to mental health services among PLWH. (Ahmed et al., 2020).

Declarations

Availability of data and materials
The data and the material will be available on request.

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Authors’ contributions

Cele WB designed the study, collected and analysed data, compiled and wrote the manuscript. The supervisor, EM. Mhlongo guided the design and provided logistical support during data collection, reviewed the manuscript and provided critical comments.

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Availability of data and materials

The data used in this study are available from the corresponding author upon reasonable request.

Ethics approval and consent to participate

Approval for this study was obtained from the Research Ethics Committee of the University of KwaZulu-Natal, Protocol number: HSS/2248/017D. The consent of participants was sought before they were enrolled in this study. The participants offered to take part in the study voluntarily.

Consent for publication

Not applicable

Competing interests

All authors declare no competing interests.

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Figures

Figure 1

Diagrammatic representation of the participatory action research process and integrated cycles as it will be applied in this study. Summary of cycles presented. Adapted from (Zuber-Skerritt, 2002).
Figure 2

Theory of organisational, process, personnel and environmental factors (Brynard, 2009b).
Figure 3

Model of Facilitate the implementation of a National Mental Health Policy Framework

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