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Research Article

Community perspectives to inform the development of a radio program to destigmatize mental illness in rural Uganda: a qualitative study

Yang Jae Lee[1,2], Brandon Fickling[3], Micah Goode[3], AnnaBelle Gallaher[3], Rauben Kazungu[4], Paul Coffin[5], Maya Abdel-Megid[4], Frederick Isabirye[6], Ibrahim Ssekalo[4,6], Scholastic Ashaba[7], Robert Rosenheck[1], Alexander C Tsai[8]

[1] Department of Psychiatry, Yale University School of Medicine, [2] Empower Through Health, [3] College of Medicine, University of Tennessee Health Science Center, [4] Administrative Office, Empower Through Health, [5] Williams College, [6] Local Government, Buyende District, [7] Department of Psychiatry, Mbarara University of Science and Technology, [8] Center for Global Health and Mongan Institute, Massachusetts General Hospital

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Background

The stigma attached to mental illness impedes diagnosis, treatment, and access to care for people with mental illness. Scalable interventions are needed to enhance attitudes towards seeking treatment, foster community support, and promote acceptance of individuals experiencing mental illness. We worked with community health workers in the Busoga region of eastern Uganda to develop a radio program aimed at reducing mental illness stigma. We piloted the radio program in focus groups, purposively sampling people with families affected by mental illness and people with families unaffected by mental illness, to understand their perspectives about the program's acceptability and potential effectiveness.

Methods

The 45-minute radio program was adapted from a previously studied community-led theater intervention, produced by community health workers, that demonstrated an individual's recovery from mental illness. Afterward, we conducted 2 focus group discussions, each involving six participants: n=12; and 17 one-on-one, in-depth interviews. We employed the framework method to inductively identify themes and sub-themes.

Results

Participants reported greater understanding of causes of mental illness, treatment options, and greater acceptance of those with mental illness as a result of listening to the program.

Conclusions

This radio program intervention showed potential to change healthcare seeking behavior for mental illness and to decrease mental illness stigma in rural Uganda. Further investigation is needed to assess the broader applicability of this approach.

Mental illnesses constitute the primary contributor to global disability.[1] This burden is particularly pronounced in low- and middle-income countries (LMICs), where mental health services are underfunded and mental illnesses are underdiagnosed and undertreated.[2] In Uganda, the World Health Organization estimates that 90% of people with a mental illnesses never seek treatment.[3] A notable obstacle to seeking treatment is mental illness stigma – an intricate set of adverse cultural perceptions and beliefs concerning individuals with mental illness that often manifest in discriminatory interpersonal behavior and punitive policies and (among people with mental illness) shame, secrecy, withdrawal, and reduced treatment seeking.[4-6]

Among the most influential factors in determining an individual's potential for recovery from mental illness is the strong support provided through social network ties.[7] In LMICs where formal, government-supported safety nets are limited, such as Uganda, individuals often rely on network ties for support.[2,8-10] Misconceptions about mental illness and biases against those experiencing mental health chal-

lenges contribute to stigma, undermining access to community support systems and mental health care services.[11-13] Insufficient health education, particularly prevalent in lower-income and rural areas, further intensifies the stigmatization of mental illness.[11] Consequently, there is a need for community-wide destigmatization interventions to alleviate the burden of stigma associated with mental illness and enhance the acceptability of seeking mental healthcare.

Creative arts-based interventions, while not as well studied as didactic-based health education, show promise in reducing mental illness stigma.[14,15] In the United States, pop songs disclosing an artist's battle with anxiety, depression, and suicidal ideation have been found to positively impact mental health empathy and substantially decrease stigma among college students.[16] Festivals featuring artwork created by individuals with mental illness that focus on their challenges have also been successful at reducing stigma among attendees.[17] Such artistic expressions can foster a communal understanding without the confrontational messaging often found in more didactic campaigns. However, there is a lack of evidence supporting the effectiveness of such stigma-reducing strategies in LMIC countries.

Prior research in Uganda showed that a theatrical production, coupled with a brief psychoeducation session, significantly reduced mental illness stigma by portraying a man's journey with psychosis from social exclusion to successful treatment and societal re-integration.[18,19] We sought to adapt this intervention to an audio format for eventual dissemination through radio programming. This adaptation is particularly well-suited for scalability given radio's widespread reach in Uganda, where 78% of the population regularly listens to radio programming.[20] This qualitative study explores subjective responses to a 45-minute radio program, adapted from this previously developed theater intervention, combined with a brief psychoeducation intervention.

METHODS

STUDY SETTING

The study was conducted in Buyende District, a rural area of eastern Uganda, with an estimated population of 450,000 people.[21] The primary source of media in Buyende District is radio, with two-thirds of the population relying on it for information. In contrast, access to the internet is limited to less than 5% of the population, and only a quarter of residents own a mobile phone.[21] The district's economic activities are predominantly centered around subsistence farming, animal husbandry, and small-scale enterprise.

RADIO PROGRAM INTERVENTION

The 45-minute radio program was created by adapting a previously-developed community-led theater intervention.[18,19] It was produced by community health workers, known as Village Health Teams (VHTs), who produced the original theater intervention. The radio program describes a man whose symptoms of psychosis initially result in his exclusion from the village until his family helps him obtain treatment at a health center providing mental healthcare, after which he is socially reintegrated into village life. An initial recording was translated from Lusoga, the local language, to English, and transcribed. Modifications were made to enhance clarity and entertainment value for radio listeners, including the addition of sound effects. It was translated back to Lusoga (and compared against the original to assess fidelity) for the final audio recording. At the end of the recording, a psychiatric clinical officer provided psychoeducation about mental illness with information on potential multifactorial causes of mental illness and information on where to receive treatment for approximately five minutes.

DATA COLLECTION

All individuals in Buyende District who were over the age of 18 and able to provide informed consent were eligible to participate in the study. Individuals under the age of 18 or those unable to provide informed consent were excluded from the study. We recruited a convenience sample of residents of Budiope, Masaba, and Mpunde parishes to participate in focus-group discussions (FGDs) and in-depth interviews (IDIs). Participants were classified based on whether their family was affected by mental illness. This classification was self-reported and helped ensure diverse perspectives in the analysis. By distinguishing between those with and without direct experience of mental illness in their families, the study could explore differences in perceptions and attitudes, providing a more nuanced understanding of the radio program's impact. The radio program was played to four groups of six to ten individuals each. We then conducted two FGDs utilizing a semi-structured interview guide, each involving six participants (n=12): one group whose members reported that their family was not affected by mental illness, and one group whose members were from mental illness-affected families. Each FGD consisted of participants from the same listening group. We also conducted 17 in-depth interviews (IDIs) utilizing a semi-structured interview guide: 11 IDIs with people who reported no family exposure to mental illness, and 6 IDIs with people who reported family exposure to mental illness. In total, we interviewed 29 unique respondents. FGDs and IDIs lasted between 30 and 45 minutes and were recorded with the interviewees' consent. The interviews were audio-recorded, transcribed, and translated into English. Data collection proceeded until content saturation was achieved. Informed consent and interviews were conducted by research assistants fluent in both Lusoga and English that had received psychological first aid training and either had their bachelor's degree or had at least completed two years of it. The research assistants had no prior relationship with any study participants. At some of the interviews, there was the presence of international research assistants, who helped with audio-recording the interviews.

ETHICAL CONSIDERATIONS

Research assistants obtained written informed consent, using documents translated into Lusoga, from all study participants. Prospective study participants who could not read or sign their name were permitted to indicate consent with a fingerprint, with a signature from a witness. This research study was approved by the Institutional Review Boards of The AIDS Support Organization, Uganda (TASO-2023-222) and Yale University (2000034605). In accordance with national guidelines, we received approval to conduct the study from the Uganda National Council of Science and Technology (SS1860ES).

DATA ANALYSIS

We used the framework method to inductively identify recurring themes in the data.[22] This method involves systematically coding the data and organizing it into a matrix to facilitate comparison across cases. The themes identified in this study align with the key topics addressed in the radio program and the interview questions, ensuring a structured approach to the thematic analysis. Interview transcripts were reviewed by two study team members, who familiarized themselves with the content and identified themes through an inductive process. The framework method facilitated a systematic approach to condense the accounts described in the transcriptions into a set of themes that could be assembled into a coherent narrative of responses to the radio program. All themes from the data were mapped onto the framework matrix to maintain a summarized codebook of the transcriptions. Each theme was further subdivided into sub-themes to identify features of the responses to each theme. YJL, BF, RK, MG, AG, and PC were involved in coding and development of categories and the analytic framework.

RESULTS

We inductively identified 4 themes from the data (Table 1): Education and awareness, enthusiasm, treatability of mental illness, and social acceptance.

THEME 1: EDUCATION AND AWARENESS

Participants reported gaining knowledge regarding the multifaceted causes, signs, and symptoms of mental illness. Through learning more about mental illness, participants reported they learned that anyone can be affected by mental illness.

SUB-THEME 1: RECOGNIZING CAUSES, SIGNS, & SYMPTOMS

Participants reported gaining knowledge about factors linked to mental illness including addiction, stress, and trauma. A recurring theme identified from the data was the importance of educating children about the harmful effects of mind-altering drugs like alcohol and marijuana.

> *"I learned that mental illness causes people not to stay well. I have learned about the things that can make the mind not work very well. There are things that people use, for example, there are those that use alcohol, marijuana, and other drugs. It makes the brain not work very well."*
> - Study participant whose family was affected by mental illness (in-depth interview)

Additionally, participants report that they learned that the impact of adverse childhood experiences, such as the loss of a family member or neglect, can contribute to mental health challenges:

> *"If children grow up in a home where they have lost a parent or are not cared for it can lead to mental illnesses."*
> - Study participant whose family was not affected by mental illness (in-depth interview)

Participants also shared that they learned about different psychosocial stressors that can lead to mental illness, and about how witchcraft is not a unique cause of mental illness in the community.

> *"What I have understood from it is that very many thoughts can make you be mentally sick, having too many thoughts you do not want to come to the open with your friends, you want to be alone, and that makes you get mental illness."*
> - Study participant whose family was affected by mental illness (in-depth interview)

These data suggest, at a minimum, that respondents experienced the radio program as conveying information that effectively educated individuals about the multifaceted nature of mental illness and the various factors that influence it. Participants endorsed learning about different potential causes of mental illness, such as adverse childhood events and ruminations. Although increased knowledge of mental illness does not necessarily result in reduction of stigma, this increase in awareness has the potential to contribute to destigmatizing efforts and promote a more informed and supportive community that can recognize and help those with mental illness.

SUB-THEME 2: BIOMEDICAL UNDERSTANDING OF MENTAL ILLNESS

Respondents further reported a shift in their understanding about who can be affected by mental illness. Whereas previously they believed people with mental illness were afflicted by bewitchment, they now expressed awareness that anyone can potentially be affected:

> *"I think my thinking has changed because I'm told that even if a person is not bewitched or someone has not experienced delusions, they can still get sick."*
> - Study participant whose family was not affected by mental illness (in-depth interview)

This shift indicates a growing recognition of the diverse causes and manifestations of mental illnesses beyond supernatural explanations. Additionally, respondents recognized that mental illness could impact not only other members of the public but also themselves:

> *"If for example I myself get a mental illness, I should not be allowed to go anywhere but Mpunde Health Center because the money that would be used to take care of me [elsewhere] would be wasted by witch doctors."*
> - Study participant whose family was not affected by mental illness (in-depth interview)

The idea that mental illness can impact anyone reflected a shift in how respondents perceived mental illnesses. Thus, mental illness was no longer recognized as a condition that solely affects those that are unrelatable but one that could also affect their own lives (possibly eliciting more empathy and acceptance).

THEME 2: ENTHUSIASM FOR THE RADIO PROGRAM

The radio program elicited subjective feelings of hope and enthusiasm from listeners about the potential positive community-wide influence expected from its informative content:

> *"I'm really excited that this is happening in our village, and it shouldn't end here in Masaba only, but it should cover the whole of Irundu sub county, but also Buyende as a district and Uganda at large because we now have a way for mental illness."*
> - Study participant whose family was not affected by mental illness (focus group discussion)

The entertainment value of the radio program was an important component to ensure that the story captured the attention of the audience, and the message was received. The respondents considered the information presented in the program as valuable to themselves and to the surrounding community.

THEME 3: TREATABILITY OF MENTAL ILLNESS

Participants voiced the belief that, although treatment options available in their villages—such as traditional healers and counseling by religious leaders—have the potential to have therapeutic effects for people with mental illness, medical intervention from health care providers at local health centers and hospitals are also an effective option to treat mental illness.

> *"Before watching the play I only knew about traditional healers, but now I am aware that there is a local health center that can treat mental illness."*
> - Study participant whose family was affected by mental illness (in-depth interview)

During the interview, this participant explicitly stated that they had not previously been aware that there was an alternative to traditional healers for treating mental illness. Many other participants also reported now knowing that they have options when deciding how they would like to treat their mental illness or the mental illness of a family member or loved one.

Relatedly, many respondents stated that they had gained the new knowledge that mental illness can be treated with modern medicine.

> *"When someone is sick with a mental illness, you take them to a hospital to get medication."*
> - Study participant whose family was not affected by mental illness (in-depth interview)

Respondents reported that they learned that treatment for mental illness was accessible to them at the local health center. More specifically, they described how they learned from the program that the local health center in Mpunde provided mental health care.

> *"They can treat mentally ill people in that health center in Mpunde, and it has made me happy because everywhere[23] we go for treatment there is none who can treat it."*
> - Study participant whose family was not affected by mental illness (in-depth interview)

Although increasing treatment-seeking from health centers and hospitals does not in itself reduce stigma, it has the potential to improve treatment outcomes.

THEME 4: SOCIAL ACCEPTANCE

With increased knowledge regarding mental illness, participants report greater social acceptance towards those with mental illness. They report that those with mental illness need community and family support, to be treated respect, and an avenue to resume normal roles in society.

SUB-THEME 1: COMMUNITY AND FAMILY SUPPORT

After listening to the radio program, participants reported that they understood the importance of taking care of those with mental illness in their community.

> "*We should always take care of those with mental illness and not fear them because they are part of us."*Study participant whose family was affected by mental illness (focus-group discussion)

Participants reported that they have a responsibility to provide community and emotional support, so that those with mental illness are not isolated.

> "*My attitude has changed in such a way that [now I believe] most people who have psychosis are dangerous because of the way we treat them. So, what we have to do is see a way of befriending them and taking good care of them so that they aren't a danger to us anymore and take them to a mental facility like a hospital."*
> - Study participant whose family was not affected by mental illness (focus group discussion)

These attitude shifts represent potential for tangible differences in how those with mental illness are treated in the community.

SUB-THEME 2: RESPECT FOR THOSE WITH MENTAL ILLNESS

Listeners reported a shift in how to treat those with mental illness.

> "*My attitude has changed towards people with mental illness like for example if my child or wife gets mentally ill,*

> *you shouldn't isolate them, but take care of them by taking them to the hospital.*"
> - Study participant whose family was affected by mental illness (focus group discussion)

This respondent explicitly acknowledges the previous methods of treatment that they previously thought was acceptable, such as physical restraint e.g., tying in chains, while saying that their perspective shifted towards more empathetic and non-violent approaches towards dealing with those with mental illness.

> "*Another thing is we used to not think mentally ill people can be important, but through this play I have understood that mentally ill people can actually be important if they seek medical attention*."
> - Study participant whose family was not affected by mental illness (in-depth interview)

The following respondent also acknowledges previous attitudes "not think mentally ill people can be important," while stating their current changed attitude that those with mental illness can "be important" reflecting on the protagonist's journey from psychosis to a respectable career.

SUB-THEME 3: SOCIAL REINTEGRATION

The listeners reported that they had experienced a marked shift in attitude toward the possibility of those with mental illness resuming normal roles in society.

> "*What has excited me was that the boy had gotten mental illness and the parents had lost hope that he would never be fine again. But when they took him to hospital, they realized that the boy became fine and he was able to return to school.*"
> - Study participant whose family was affected by mental illness (in-depth interview)

The respondent states that the audio taught them that those with mental illness can return to school, and even be given leadership opportunities once treated.

DISCUSSION

In this qualitative study developing and evaluating subjective responses to a radio program intervention designed to destigmatize mental illness in rural Uganda, we found the intervention feasible to implement and acceptable to its target audience. Study participants exposed to the intervention reported experiencing a greater understanding of causes of mental illness, awareness of treatment options, and acceptance of people with mental illness. Thus, the radio program proved to be feasible and acceptable, and self-report data suggest it may potentially serve as a scalable strategy for expanding awareness and understanding about mental illness, potentially reducing mental illness stigma, and increasing mental health care-seeking behaviors.

One critical aspect of the intervention was the introduction of new knowledge, such as the idea that mental illness can affect anyone and is treatable with medications. However, it is unclear whether this new knowledge necessarily results in reduced stigma, as studies have shown mixed data on whether treatability reduces stigma. Studies in the United States have shown that vignettes describing successful treatment of mental illness can reduce desire for social distance and negative attitudes about mental illness.[24, 25] Contrarily, a population-based, randomized survey experiment conducted in rural southwestern Uganda that portrayed effectively treated mental illness did not appear to lead to a reduction of stigmatizing beliefs.[12] Although it is inconclusive that introduction of new knowledge leads to mental illness destigmatization, it provides more potential treatment options for those with mental illness.

This study, and a previously published analysis of the theater intervention from which the radio program was derived, are the first to explore the perspectives of community members exposed to arts programs, whether through radio or in-person theater, designed to reduce mental illness stigma in rural Uganda.[18] This study differs from the theater intervention impact evaluation in its reliance on qualitative methods to explore how the radio program was experienced by its listeners. The richness of the qualitative data provided us with greater insight into how the radio program could potentially yield changes in mental illness stigma and mental health care-seeking behavior. Related work in Africa has demonstrated the effectiveness of radio program interventions on a variety of attitudinal outcomes related to gender equality, violence against women, child marriage, intergroup reconciliation, and albinism related stigma.[26-29]

Certain findings suggest that the presentation (in the radio program) of mental illness as treatable prompted listeners to revise their attitudes towards people with mental illness. Such a phenomenon has been observed by HIV program implementers to be successful in attenuating the stigma of HIV, a hypothesis later confirmed in cross-country analyses.[30] An experimental study conducted in southwestern Uganda used vignettes to assess the extent to which depictions of successful treatment of mental illness could affect stigma, but found no evidence that the intervention reduced mental illness stigma.[12] Elsewhere, meaningful contact with those with mental illness has been identified as an effective component of stigma reduction.[31] Given that the radio program presented here offered a comprehensive narrative of a relatable individual with psychosis, it could be argued that the program had a dual impact—making someone with mental illness relatable and while also providing tasteful entertainment value with a psychoeducational function—something that exposure to short vignettes may not achieve. Thus, the radio program has the potential to facilitate destigmatization at a wider community level.

The literature on interventions to eliminate the stigma of mental illness in low- and middle-income countries has generally been underdeveloped. Few interventions have been developed by local communities or have been systematically adapted for a particular sub-culture.[32] Other notable gaps in the literature include few randomized trials, insufficient reporting of outcomes, and the limited number of studies that have gathered empirical data and reported outcomes at all.[33,34] Among the studies addressing stigma

and discrimination, the majority have concentrated on short-term outcomes in high-income settings.[35] In low-income countries, there has been the suggestion that targeted community interventions are more effective than top-down educational campaigns, a proposition further supported by our study.[11]

Several limitations require comment. First, the intervention was not actually aired as a broadcast radio program. However, the VHTs produced the recording that was designed to be aired on the radio, and the listening groups we convened for the study are not dissimilar to the community listening groups commonly found throughout Uganda. Second, there may have been a social desirability bias, with participants potentially hesitant to express negative comments about mental illness in response to foreign investigators, especially given that the research team coordinating the listening groups and the interviews were an international team composed of both Ugandans and Americans, although all interviews were conducted by Ugandans in Lusoga. Third, the specific focus of the radio program on an individual with psychosis limits the generalizability of the study to other mental illnesses. Lastly, the intervention's geographic limitation to rural Buyende District leaves uncertainties about whether comparable effects would be observed in different contexts or populations with distinct cultural practices, beliefs, and stigmas.

CONCLUSIONS

This locally designed radio program was feasible to implement and acceptable to respondents who self-reported a decrease in stigmatizing attitudes. It thus could potentially contribute to the reduction of mental illness stigma in rural Uganda if deployed at scale. Listeners described an experience of having a greater understanding of mental illness, learned that it can be treated through the biomedical health care system, and voiced more acceptance of people with mental illness. Further investigation is needed to assess the effectiveness and broader applicability of this approach.

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AUTHORSHIP CONTRIBUTIONS

YJL: Conceptualized the study, drafted of the full manuscript, supervised data collection.
BF, MC, AG, PC, MA: Participated in data collection, contributed to writing parts of the manuscript.
RK, FI, IS: Provided supervision of data collection
SA: Edited the manuscript
RR, ACT: Conceptualized the study, edited the manuscript

COMPETING INTERESTS

Authors Yang Jae Lee, Ibrahim Ssekalo, Rauben Kazungu, and Maya Abdel-Megid are either Directors or Affiliates of the 501(c)3 non-profit organization Empower Through Health, which funded this study. Dr. Alexander Tsai reports receiving a financial honorarium from Elsevier for his work as Co-Editor-in-Chief of the Elsevier-owned journal *SSM – Mental Health*.

CORRESPONDENCE TO:

Yang Jae Lee, Department of Psychiatry, Yale University School of Medicine, New Haven, Connecticut, USA. Email: yangjae.lee@yale.edu.

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