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Linking coping strategies to locally-perceived aetiologies of mental distress in northern Rwanda

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ABSTRACT

Introduction How and why people in a particular setting turn to a specific coping strategy for their distress is pivotal for strengthening mental healthcare and this needs to be understood from a local point of view. Prior research in northern Rwanda documented common local concepts of distress for the population that cannot receive assistance despite severe adversities; however, the locally-perceived causes, manifestation and coping strategies and their associations are still unclear.

Methods The qualitative study in the Musanze district, northern Rwanda, was informed by Interpretative Phenomenological Analysis. In-depth interviews were conducted with people with lived experience and those in close contact with people with lived experience of distress. Ethnographic observation was conducted and the analyses were complimented by an earlier ethnography in the same village.

Results Study participants (n=15) included community members with lived experience of mental distress and/or those with close friends or family with lived experience. The perceived manifestations of the mental distresses were diverse and the causal attributions shifted from more social, concrete and explainable (eg, loss) towards magical, more abstract and unexplainable (eg, poisoning). Finally, participants sought coping strategies in accordance with their causal attribution in ways that made sense to them.

Conclusion The coping strategies were chosen according to the perceived aetiology of the symptoms and they were perceived to be effective for their distress. Local coping strategies that match people's help-seeking patterns should therefore be supported in policy and programmes. In Rwanda this requires a mutual training of medical professionals and traditional healers and establishing co-treatment within two parallel systems. This also requires the support for programmes and initiatives that strengthen positive interactions and change in circumstances.

Key questions

What is already known?

- Mental health programmes and interventions benefit from incorporating local perceptions into the programme design and implementation.
- Local perceptions in northern Rwanda have been poorly studied and used.

What are the new findings?

- Strong link between perceived causes and pathways used to seek help emerged in people with lived experience or close to those with lived experience of mental distress.
- Participants sought help for mental distress in accordance to their beliefs on the causes of their distress and this included traditional medicine, biomedicine and local community groups.
- When the received help matched the participants causal attributions it was perceived as appropriate and effective.

What do the new findings imply?

- The findings show a need to use and support the naturally occurring pathways of social interaction, prayer and changes in circumstances to improve milder distress.
- Cooperation between traditional and biomedical doctors needs to be established for more severe distress so that help would make sense and meet the needs of the people.

INTRODUCTION

Over the past decade scholars and policymakers have increasingly acknowledged the importance of culture and context in establishing mental health support across diverse settings. The global mental health movement has increasingly recognised and shown that local explanations about the causes, manifestation and appropriate coping strategies for mental distress directly influence help-seeking patterns, treatment acceptability and effectiveness of specific treatments.[1–3] This has led to a scholarly attempt to empower local populations to co-produce, inform, adapt and improve mental health interventions in the settings they are implemented in.[4 5]

One stream of scholarly and policy attention has been exploring the avenue for collaboration with traditional healers. Traditional healing systems are used for mental health complaints by populations in low-income and middle-income as well as in high-income

settings[6–8] and several countries have been attempting to incorporate healers into their healthcare systems.[9 10 11] Importantly, a recent systematic review showed some evidence that traditional healers can provide effective psychosocial interventions especially for mild symptoms in common mental disorders.[12] Further to that, studies from different settings have shown that traditional healing is perceived to have positive impacts such as social and spiritual well-being, meaningfulness of life[13] and symptom improvement.[14] However, the contextually-specific knowledge of why traditional healing is perceived to be effective and why different people use different sectors of healthcare for mental health complaints remains understudied. This knowledge however remains pivotal as it could provide a bridge to strengthen the pathways which populations naturally use for their health complaints; and be used to empower local populations in the process of improving mental health interventions.

One classic model of why and when traditional healing is perceived to be therapeutic is provided by Kleinman and Sung.[15 16] The explanatory model suggests that for many patients, only symptom relief and treatment of related psychosocial problems is not enough, but meaningful explanations are sought to explain their disease and illness. Subsequently, traditional practitioners can be well-equipped to respond to this and provide explanations that are socially and culturally compatible with the patient. Evaluations of being healed therefore involve either or both: effective control of the disease or illness manifestations as well as personally and socially understanding the meaning of the experience. Kirmayer[17] in describing the diversity of healing practices, has equally emphasised on symbolic aspects of healing that have physiological, psychological and social effects. Other scholars suggest that the reasons for perceived effectiveness may lie on other patient satisfaction factors. This might include the time spent on the patient and ritualised ceremonies which reduce stress and prime positive expectations.[12 18] Traditional medicine has therefore been well investigated as one way in which people find culturally suitable explanations for their illness experience. However, people hold diverse causal explanations for their experiences and seek various ways of reducing distresses, not confined to the spaces of traditional and modern medicines. This paper concerns other causal explanations and coping strategies, as well as traditional and modern medicines, and considers why people in a particular setting turn to a specific coping strategy for their distress.

Previous research in the Musanze district described four prevalent idioms of distress as well as the coping strategies that local people use to reduce the distress.[19] The four concepts flowed from mild-to-severe. *Ibikomere* (wounded feelings), the mildest, included feeling sadness, deep sorrow, depression, hopelessness and grief. *Ibikomere* could then develop into two more severe forms of suffering: *ihungabana* (mental disturbance) and *ihahamuka* (trauma).[20] In local views, both were distinguished from *ibikomere* (wounded feelings) as visible behavioural problems. The last concept, *kurwara mu mutwe* (the illness of the head) is used for people who cannot communicate with others properly and show extremely deviant behaviour. People experiencing the distress were reported to have a wide array of ways of coping with their distress, including indications of using traditional medicine and local social mechanisms. However, *when* people use different coping strategies and *how* this relates to their view of aetiology remained unclear.

Previous literature in other low-income and middle-income countries has suggested that people seek care from traditional healers for severe mental health problems which are attributed to supernatural and psychosocial causes.[21 22] However, the pattern has been recognised in other low-income and middle-income countries to be more complex with other pragmatic considerations influencing people's choices of help seeking.[21] To make it clear and advance the understanding of the pattern, this research aims to understand when people use different coping strategies and how this relates to their perception of the distress aetiology in northern Rwanda. The knowledge could be used to provide suggestions of finding and using better entry-points to improve mental healthcare in this setting.

METHOD

Qualitative methods guided by Interpretive Phenomenological Analysis (IPA) were used to gain an in-depth understanding of perceived mental distresses and individual's meaning world and to develop further the existing framework of idioms of distress by the previous research.[19] IPA is concerned with lived experience, examining in detail how people make sense of an experience in their lives.[23] It deliberately uses a small number of participants, usually 10 or fewer, to examine a specific topic.[24] The data from participants are first analysed and interpreted case-by-case, followed by drawing on similarities and differences in people's reflections on the phenomenon.

The first author conducted in-depth interviews and participant observation in the Musanze district in northern Rwanda (July to August, 2019), following the previous research project on community resilience in the same region from 2015 to 2016.[19] The Musanze district was chosen for having demonstrated remarkable socioeconomic recovery after the genocide and wars in the 1990s[25] relying largely on community-led efforts. The region of Musanze went through not only the 1994 genocide, but also pre-genocide civil war (1990 to 1994). Unlike other regions, Musanze was also hugely impacted by the post-genocide *abacengezi* war (1997 to 2000) which have been almost neglected by international assistance programmes.[26] People in Musanze have recovered through mobilising their own coping strategies and resources within their communities, which this research was interested in. This research particularly focused

on one village of Musanze, which the previous project selected for a case study of community resilience, given the highest proportion of orphans within the district after 1990s as a benchmark of post-genocide adversities.[27] In short, the researched village was an atypical case in the country in terms of having shown socioeconomic recovery with very little assistance for post-genocide adversities; in other words, sampling this village enabled researchers to investigate peoples own distress and coping strategies.

Study participants included community members with lived experience of mental distress and/or those with close friends or family with lived experience (n=15). Of these, six participants were key informants (KIs) who were interviewed on two separate occasions each. Study participants also included those who the first author communicated with on mental distress as part of participant observation (n=9). Participant observation was conducted to complement the qualitative verbal interviews with non-verbal information.[28] This included taking fieldnotes on everyday life in the village, regarding the context, practices and social interactions related to distress and coping. The study results were also complimented by data analysis of the 2015/2016's research which outlined the framework of local idioms of distress.[19] The recruitment of those with lived experience initially aimed at two participants per mental distress concept. However, we found during the fieldwork that most community members did not differentiate the concepts of *ihungabana* (mental disturbance) from *ihahamuka* (trauma), thus it was unrealistic to recruit them separately. We therefore included *ihungabana* and *ihahamuka* under one label and recruited six KIs. The KIs provided detailed and representative information on each mental distress concept and were interviewed twice in order to build trust, improve depth of information and increase the credibility of the data through 'member checking,' a process of bringing the findings back to the participants and refining them.

One community member, who was trained on qualitative research and trusted by local community, assisted the recruitment and interpretation during the interview. The recruitment of key informants was through word of mouth in the village to find the cases that fulfil the purposeful sampling inclusion criteria (age: over 21; past lived experience of or have family/friends with lived experience of one of the mental distresses; resident of the village in Musanze). This was the only viable way of recruitment due to the level of trust that is needed in a sensitive political context and due to the unreachability of the population through health centres/hospitals which are not regularly accessed. The topic guide with open-ended non-directive questions was developed in close discussion with the local assistant and tested prior to starting the data collection. The topic guide was structured around three main areas: perceptions and experiences of aetiology, manifestation and coping. The interviews were audio-recorded and transcribed by the assistant manually in Kinyarwanda word-by-word, including noting any contextual and semantic information such as pauses, repetition and interruptions. They were then translated by two local professionals of English-Kinyarwanda translation and were double-checked for accuracy by the community assistant and authors. Subsequently, the authors conducted thematic analysis on the transcripts manually. Analysis involved word-by-word, line-by-line coding and exploring many potential conceptual groupings. We consulted the participants and the community assistant on the emerging themes throughout. The fieldnotes from participant observation in the village and the analysis results of an earlier ethnography in the same village[19] were used to compliment the interview findings. Finally, theoretical frameworks were developed, based on theoretical coding and emerged hypotheses on mental distresses.

Patient and public involvement

The community assistant, a local trusted member from the community, was recruited and involved in the research from recruiting the participants to providing contextually important insights during the analysis. All participants were consulted during the analysis of the results.

Special caution was exercised throughout recruitment and interviews. Anyone going through current significant distress was excluded from participation. Throughout the interviews we were careful to not probe into distress and allow the participants to provide as little or as much information as they wish. Protocol was established in case distress arises including stopping the interview and referring the participants as appropriate to different sources of help available. The study was supported by the London School of Hygiene and Tropical Medicine Trust Fund and King's College London Global Mental Health Travel Fund. The funders had no role in the study design, data collection, analysis and interpretation or writing of the report.

RESULTS

Fifteen participants informed this study. Of them, six key informants (box 1) provided detailed and representing accounts on mental distresses, thus they were interviewed twice for follow-up and enriching the analysis. Of the six, three had completed some years (3 to 6 years) of primary education, two secondary education and one was currently enrolled in a university. All but one (student) had manual jobs. The gained information was based on either their own experience or observations of others' (ie, family, friends) experience and perceptions, or both.

Thematic analysis generated two frameworks of mental distress: perceived manifestations (box 2) and perceived aetiologies, coping strategies and reported effectiveness (table 1). In box 2, complementary information from previous literature is also cited.

Participants explained that they used each coping strategy to respond to a cause they understood, and consequently, experienced a recovery effect. Each

Box 1 Key informants' backgrounds (all pseudonyms)

Isano
A 32-year-old mother of three. Her husband does not have a regular contract-based job and she herself does any job she can except stealing. She finished 2 years of primary education before her parents and eight siblings were killed in the war. She narrated that the family loss made her *ibikomere* (wounded feelings) which increases when she thinks about the loss.

Uwimana
A 40-year-old woman who is farming mainly for her own consumption while selling a little bit. Her marriage where she had been beaten and insulted had ended and she explained that her *ibikomere* (wounded feelings) was due to the new circumstance of being alone. She attributed her healing to the financial and social benefits of joining mutual-saving groups.

Bizi
A 40-year-old man who had finished 4 years of primary education. His day-job is driving a bicycle-taxi. Bizi was eager to talk and repeatedly expressed his joy in conversing. Bizi accounted primarily his experience with *ihungabana* (mental disturbance) which he saw as caused by conflict and divorce from his wife, as well as by poisoning.

Keza
A 33-year-old tailor who has finished 6 years of primary education. She had experienced both *ibikomere* (wounded feelings) and *ihungabana* (mental disturbance). Her *ibikomere* was due to loss of father and education during the war and having to uphold her mother and siblings through working from the age of 13. She perceived her *ihungabana* as due to the stressors associated with witnessing her brother's sudden death.

Manzi
A 27-year-old whose *kurwara mu mutwe* (illness of the head/severe mental illness) began 7 years ago. He had been hospitalised many times and is now on medication. Although he himself thinks he is cured, his family, particularly the father, disagrees because he is still taking medication. He accounted his story with difficulty as he could not recall a lot of it.

Munezero
24-year-old sister of Manzi. She is currently at the university but lived in close quarters with Manzi throughout his *kurwara mu mutwe* (illness of the head/severe mental illness) and accounted several episodes in a thorough manner.

theme was supported by multiple participants, KIs, as well as previous analysis results from the same village in Musanze.[19] The final version of the frameworks was agreed based on current study and a prior study analysis[19] on mental distress experienced by the population in the village in Musanze.

Ibikomere

Ibikomere (wounded feelings, box 2) were characterised by the participants as deep sorrow, excessive thinking and behavioural changes in conversing when negative feelings arouse. Ibikomere were closely seen as caused by loss anxiety/or excessively thinking about the loss. Loss referred to two forms: a loss of close one—that is, a

Box 2 Framework for the mental distress experienced by the Musanze population

The framework provides contextual information from previous literature, as well as our study findings which were consistent with previous literature. The differences with previous literature are also noted where relevant.

Ibikomere
Ibikomere can be translated as wounded feelings.[19] Our findings emphasised the characteristics of excessive thinking and/or remembering the loss, in addition to reiterating prior findings of negative affective states such as sadness and deep sorrow expressed verbally or behaviourally. Our participants also reported that *ibikomere* (wounded feelings) change the way one converses with others, such as becoming more reserved or mute.

> 'I therefore started getting emotionally wounded for having lost my parents. I even still have them especially when I think that I won't see them again…there is a time when conversing with people, some raise the issue of having lost their family members, I, too, start thinking about mine who passed away… For example, we might be sitting here together talking and I feel very open to you but later on you realise I start being reserved. This is due to the fact that I have memories of the past…' Isano

Ihungabana
Ihungabana is best translated as mental disturbances and refers to extreme abnormal behaviour, high levels of fear, mutism and wandering.[19] Previous findings reported that some participants distinguished this from *ihahamuka* (trauma) which was perceived to be resulted from only the genocide.[19] But in our study, most of the participants saw that they are equivalent to each other and *ihungabana* (mental disturbances) incorporates distress not only due to the genocide.

Ihahamuka
Ihahamuka has been translated as the Western bio-psychological 'trauma.'[20] The word has been reported to be improvised by genocide survivors to express the bio-psychological impact of the genocide in line with the western trauma concept. It refers to breathlessness and 'breathless with frequent fear.'[20] Our participants generally saw *ihahamuka* (trauma) as equivalent to *ihungabana* (mental disturbances) and saw it as manifested in abnormal cognitions such as nightmares, confused speech as well as in extreme case hallucinations, as well as diverse abnormal behaviour, such as directionless wandering, fainting and avoidance.

> 'Then what, s/he looks like a person in coma… talking non-sensical things, screaming that there are people coming to kill him/her, talking about machetes and many other things, just referring to the genocide period.' (Uwimana)
> 'When my situation worsens while in house, I can open the door and run away. I can spend the whole night wandering the street until dawn in the morning… because actually the fact that I dream of soldiers coming to arrest me even though I have never got involved in conflict with any soldier before… So, for me, these are symptoms of ihahamuka… I had nightmares of strange things coming to catch me, and then I ran away. I spent the whole night wandering the street till the dawn…' (Bizi)

Continued

Box 2 Continued

Kurwara mu mutwe

Kurwara mu mutwe (illness of the head/severe mental illness) is used to refer to the most severe distress which for our participants and in previous literature is characterised by unexplainable behaviour such as wandering aimlessly, abnormal cognitive patterns including visual and auditory hallucinations.[26]

> 'At the beginning you hear some voices, things sounding like voices or sometimes you can have nightmares… You hear the voices telling you 'come, let's go' things of that kind …I couldn't know that, I was simply going without knowing where I was going to…Do you think I knew what was happening? I didn't know anything… Truly, it was as if I was dead without knowing where I was… Before I couldn't know where I was. I couldn't know whether I was a human being or an animal' (Manzi)

physical death of someone close to the person, including family, friend or a neighbour; and a loss of circumstances—that is, a loss of financial means, education and employment. The second loss accompanies the first loss.

Loss was reported to be coped with by regaining at least partially what was lost. KIs reported two common paths for coping in accordance with each form of loss; the loss of close one is coped with by gaining supportive relationship through social interaction, and the loss of circumstances is similarly coped with by gaining new circumstances through the supportive relationship. The second path was reported to happen simultaneously with the first path. For instance, some who had lost financial support due to a family loss joined in a mutual-saving group and gained a new means of financial support and healed; others who had lost an opportunity of education returned to a school, or learnt alternative knowledge in a church group. Reported outcomes of these coping strategies included feeling comfortable and well, acceptance of difficulties, and improvement in life.

> 'After separating from my husband, life became a real struggle. However, after joining mutual-saving groups, my life has somehow changed because of people I meet there. Also, what we do together that generates income makes my life better and I can say that I have no problem. I have understood that I have to live alone but I can be well.' (Uwimana)

Meanwhile, excessive thinking about the loss, the other major cause of *ibikomere* (wounded feelings), referred to remembering due to indirect or direct triggers. Indirect triggers for remembering included circumstances that were associated to the loss more distantly; for example, when someone is unable to manage taking care of his/her child, she/he remembers his/her lost parents and thinks that they could help if they were alive. Direct triggers for remembering included direct references to the loss by others or internally by oneself.

KIs reported that they cope with thinking about the loss primarily by avoiding the trigger. When thinking is triggered by circumstances (ie, indirectly), changing circumstances is reported to be effective in preventing thinking and remembering. However, when avoidance does not work, for example, when thinking and remembering occur from inside of oneself (ie, directly), KIs reported to apply spiritual coping, such as prayer. Prayer was often mentioned as the final coping strategy that KIs take when all the other strategies did not work. Reported effectiveness of prayer included preventing thinking and

Table 1 Summary of the themes

Mental distress	Causal attributions	Coping strategy	Reported effectiveness
Ibikomere (wounded feelings)	Loss	Regaining partially what was lost (eg, social support)	Improvement to well-being and accepting difficulties
	Excessive thinking about the loss	Avoiding the trigger	Preventing excessive thinking, generating hope, social interactions
		Changing circumstances	
		Prayer	
Ihungabana/Ihahamuka	Unexpected extreme form of loss	Regaining partially what was lost (eg, social support)	Improvement to well-being
(mental disturbance/trauma)	Direct excessive thinking about the loss	Avoiding the trigger	Preventing remembering
	Magical forces	Prayer	Improvement to well-being
		Traditional healing	
	Witnessing genocide	Hospital biomedical support	Reducing the distressed state
Kurwara mu mutwe (illness of the head/severe mental illness)	Magical forces	Traditional healing	Reducing the distressed state, including hallucinations.
	Biomedical causes	Hospital biomedical support	
		Family support	

remembering, generating hope and encouraging social interaction with others. Then the strategy eventually returns to the first step for coping—regaining what was lost including supportive relationships through social interaction.

> 'When I face a problem and when I know I have no one else to help me get rid of it, I pray saying; Oh my God who is in Heaven please come and help me get rid of these memories that are in my heart so that I may live like other people and not continue living lonely. As days pass by, those memories start decreasing little by little…' (Isano)

Ihungabana/ihahamuka

Ihungabana (mental disturbance) is a concept widely used among local Rwandans to express mental disturbance, or trauma, which is caused by various misfortunes. Meanwhile, *ihahamuka* (trauma) is a symbolic concept to represent genocide-caused trauma, mostly used by genocide survivors, although others can also use it for trauma resulting from other misfortunes.[20 26] In this study, all but one KI perceived *ihungabana* (mental disturbance) and *ihahamuka* (trauma) as the same; a few saw *ihahamuka* (trauma) to have more serious cause than *ihungabana* (mental disturbance). We observed this mixed-understanding not only in local communities of Musanze but also other regions such as Kigali. *Ihungabana/ihahamuka* was perceived to be manifested as abnormal behaviour (eg, wandering, fainting, speaking incoherently), nightmares and avoidance by the participants (box 2).

KIs attributed *ihungabana* (mental disturbance) to *ibikomere* (wounded feelings), or the same causes as *ibikomere*, but the causes were explained as more direct and extreme forms, such as an unexpected extreme form of loss (eg, witnessing the corpse of a family member who died in traffic accident) and direct remembering of the loss (eg, memories triggered by watching the genocide scenes on television). Added to these causes, KIs also reported that magical forces cause *ihungabana*. The most common magical force that was believed to cause was '*uburozi* (poisoning)' (box 3).

> 'Actually many people said that I was poisoned… People used to say that my wife was the root cause of my ihungabana but I always told them to leave her alone [but] I cannot deny this [that my wife poisoned me] because it [the signs of poisoning, for example, nightmares] often happens when I am at home sleeping' (Bizi)

Reported coping strategies for *ihungabana* (mental disturbance) included regaining at least partially what was lost and avoiding the trigger, in line with *ibikomere* (wounded feelings); Additionally, spiritual coping was applied, including receiving prayer by community members as well as consulting traditional healers (ie, herbal medicine and counselling) to treat poisoning. Spiritual and traditional healing was perceived to be effective for addressing the magical causes.

> 'Christians used to come home to pray for me. They really prayed for me… [Also] I took traditional medicines…My neighbours told me to go to traditional healers because they believed I was poisoned [uburozi]…Traditional medicines helped me because I no longer have nightmares…' (Bizi)

Moreover, for the magical causes, some KIs believed that modern medicine at hospitals is not an appropriate treatment. For them, the treatments that can address the magical causes are spiritual healing and traditional medicine, but not modern medicine.

> 'They [neighbours] were afraid that if I went to modern hospital, I could get medicines which did not correspond to my illness…They added that modern hospitals are not effective in treating patients who are poisoned.' (Bizi)

However, at the same time, some KIs also acknowledged the effectiveness of modern medicine at hospitals for *ihahamuka* (trauma) which is caused by the genocide in 1994. Keza talked about a female genocide survivor who was taken to the hospital during the genocide memorial meeting and acknowledged the role of hospitals in the treatment of *ihahamuka*. However, Keza herself had never gone to the hospital for her own *ihungabana* (mental disturbance) which was caused by her brother's death in traffic accident.

> Keza: 'People suffering from ihungabana are taken to the hospital and doctors provide them with advice. Some are even injected with serum depending on their situation… She [the genocide survivor] saw many horrible things, many people including her own family members being killed in front of her own eyes. So, you understand that the levels of our ihungabana can't be the same.'
>
> First author: 'Would you now go to a hospital if your ihungabana would start again?'
>
> Keza: 'No.'

In short, KIs commonly illustrated two important perceived nuances about the role of modern medicine at hospitals, and spiritual healing and traditional medicine. First, that hospitals can't cure *ihungabana* (mental disturbance) which is caused by magical forces. The magical causes can only be treated by spiritual healing or traditional medicine. Second, that hospital role is limited to treating what is perceived as extremely severe genocide-caused *ihahamuka* (trauma). These accounts suggested

Box 3 Poisoning

Uburozi (poisoning) is a culture-specific illness found in the Great Lake Region of Africa.[29 42] The most common symptoms are somatic pains which are believed to be caused by 'poison'—that is, harmful substances, spells, black magic and/or spirit possession, administered by someone who envies the person, someone who is unknown, ancestor spirits or local deities.[42] In local views, only traditional medicine and healing practice, including herbs, person-centred counselling and family consultation can treat *uburozi* (poisoning). Patients commonly report efficacy of traditional medicine and healing.[42 43]

a relation between perceived causes and an appropriate treatment for them; KIs perceived the effectiveness when the treatment appropriately addressed their perceived causes.

Kurwara mu mutwe

Kurwara mu mutwe (illness of the head/severe mental illness) was perceived as abnormal cognitive and behavioural patterns which are more extreme than *ihungabana/ihahamuka* (mental disturbance/trauma), such as nightmares, loss of memories, loss of self-identification and visual and auditory hallucinations. The narrative of *kurwara mu mutwe* (illness of the head/severe mental illness) was characterised by the frequent use of the pronoun 'you', which suggested the need to set the current self as separate from the self who experienced the illness. Manzi and his family described the manifestation themes:

> Father: 'He [Manzi] was doing abnormal things and he had completely changed…He became like an animal and his deeds were totally non-human…'

> Sister: 'We have a small garden of vegetables…When his illness started, he came and cut the vegetables down and went to the kitchen where our mother was cooking and he attempted to pour the food on the ground…'

> Manzi: 'At the beginning you hear some voices, things sounding like voices, or sometimes you can have nightmares…You hear the voices telling you 'come, let's go'…I was simply going without knowing where I was going to…It was as if I was dead without knowing where I was…I couldn't know whether I was a human being or an animal…'

Being unable to find rational causes for kurwara mu mutwe, KIs attributed the illness to either magical or biomedical causes. Reported coping strategies were clearly divided depending on the perceived causes. Namely, traditional healing was sought for perceived magical causes (ie, poisoning, satanic forces), whereas modern medicine at hospitals (ie, medicines and consultation) was sought for perceived biomedical causes (eg, drugs). Additionally, family support to take care of the sufferer played an important role in healing.

Like *ihungabana/ihahamuka* (mental disturbance/trauma), the most commonly-reported magical cause was poisoning (box 3); additionally, satanic forces were also reported as a cause of *kurwara mu mutwe*. Both poisoning and satanic forces are considered forms of spirit possession. The concept of 'Satan (*ishitani*)' was explained by the participants to be from Christianity which was introduced to the country during the colonial era. This concept was also associated with the local concept of 'bad spirits (*imyuka mibi*)', representing angry deities and spirits of ancestors who did bad deeds in their lives and possess the person. When the sufferer and his/her family and neighbours believed that the *kurwara mu mutwe* (illness of the head/severe mental illness) was caused by poisoning, bad spirits or satanic forces, they sought traditional healing as the most appropriate treatment. KIs commonly reported that traditional healing is effective for the treatment of *kurwara mu mutwe* caused by magical forces. The reported effectiveness included reduction in nightmares, the ceasing of hallucinations and returning to 'normal'. Some KIs reported on people who suffered from *kurwara mu mutwe* and were taken to a traditional healer:

> 'He had been in love with a girl and later on, he turned his back on her. Then… the girl decided to poison him…He was taken to traditional healers, and ended up getting recovered… He was given the medicine [herbs] to be mixed with the porridge and the other was to be mixed with the body lotion so that he could rub it all over his body…Other cases may be someone's family satanic forces…I think modern medicine can't heal this illness. Can you be suffering poison and then go to the modern medicine?' (Uwimana)

Meanwhile, when the sufferer, his/her family and neighbours attributed the illness to biomedical causes, they sought modern medicine from the hospital. Reported effectiveness of biomedical treatment included ceasing of hallucinations and reduction in abnormal behaviour. Manzi's sister exemplified this:

> 'I think the root cause might be alcohol and tobacco he [Manzi] used to take…it was not because of poisoning…I think it [the reason why Manzi was healed] was because of the medicines he took from the hospital. It was thanks to the doctors' assistance…' (Munezero)

Regardless of the perceived causes, family support was commonly-reported as a key to healing. Family members and neighbours who usually share everyday life and help each other take the person to a traditional healer or hospital depending on their causal attribution; they also devote themselves to caring and being with the sufferer.

> 'We tried to be closer to him, we used to take him and converse with him. If he had been in that situation and missed someone to take care of him and take him to hospital, he would not have gone there himself.' (Munezero)

DISCUSSION

This study explored *when* people use different coping strategies and *how* this relates to their view of aetiology and elaborated on the perceived causes, manifestations and coping strategies of local concepts of distress which were identified by previous research in Musanze. The study explored this in the context of a population in northern Rwanda which has not received appropriate assistance despite the severe adversities experienced.[26] The results highlighted that the manifestations of the mental distresses were diverse and included remembering and thinking about loss, negative changes in feelings, cognition, behaviour and communication. Those manifestations were seen as caused by loss and thinking about the loss. If the causal attributions were not related to loss, they were either seen as due to biomedical power such as drugs or due to magical power of poisoning or satanic forces. Participants sought coping strategies in accordance with their causal attribution in ways that made

sense to them. For magical causes, help was sought from traditional healers and/or prayer, and for biomedical causes, help was sought from modern hospitals and medication and social relationships. Perceived severity of *ihungabana/ihahamuka* (mental disturbance/trauma) was linked to whether a person thought modern hospitals to be appropriate for getting better or not.

The study demonstrated the link between causal attributions and type of coping strategy used which implies that these pathways could be used for providing the type of help that people need and find important to them. Contrary to prior research on perceptions of mental distress in four conflict-affected countries,[29] our findings did not imply that help is not sought from the conventional hospitals because of lack of staff, medicine or willingness to try it. Our participants did seek help from hospitals, but only when they thought the cause of the distress to be well-addressed in the hospitals. It was not that biomedical treatment was perceived as unavailable or inaccessible, but that participants perceived it as inappropriate for certain distresses. In fact, participants recognised the importance of biomedicines and hospital expertise in helping with certain conditions which impact the mind only if it matched their biomedical causal attribution. Moreover, our participants saw traditional medicine as the most effective treatment for distress which was attributed to poisoning or satanic forces, which was also divergent from prior research.[29]

These findings can be explained through the explanatory model[16] and the notion of the placebo effect. In line with the explanatory model, our findings suggest that participants may have found culturally and personally concurrent explanations for their distress from the different coping strategy pathways. This included being treated with biomedicines for distress they thought to have a biomedical cause such as drugs; receiving social support for where it was lost before; receiving traditional medicines for poisoning and/or satanic forces. Another potential explanation is the placebo notion. Placebo is defined as an inactive or dummy treatment which despite the lack of an active ingredient has a treatment effect.[30 31] Among various explanations to understand the placebo effect[31] are anthropological models which emphasise on the rituality of giving medical practice[32] while psychological models emphasise on the cognitions of expectations and appraisals.[33 34]

Considering the theoretical basis for the findings showing a relation between causal attribution, coping strategy and perceived effectiveness, the study lends itself to recommendations at a population level for similar contexts. First and foremost, the coping strategies that people use should be used for providing the type of help that people need and find important to themselves. This includes finding the space to use traditional medicine as a treatment for mental distresses that people perceive as having magical causes. Although a recent study by Schierenbeck and colleagues[35] shows that traditional medicine remains important in Rwanda as an informal avenue for help, their study also suggested that there is currently little cooperation and cross-referrals. In light of preliminary evidence that traditional healers can effectively treat some mental distresses[12] and considering our study findings that emphasise the importance for people to receive the treatment that corresponds to their causal attribution, mutual training for medical doctors and traditional healers should be established. This would establish biomedical knowledge for traditional healers and also teach medical doctors to understand the magical causal attributions from anthropological perspectives. It would assist cross-referral and open avenues for co-treatment within two parallel systems. If quality can be assured, this could lead to treatments which would accommodate to peoples' worldviews and perceived needs.

Second, similar to prior studies, we too found that participants did not seek help from biomedicine nor traditional healers for the condition that was caused by loss and thinking about the loss.[29 36] Participants usually perceived the appropriate coping to occur through change in circumstances, positive social interactions and prayer. We therefore recommend programmes to primarily target the enhancement of these naturally used pathways so that help would make sense and meet the needs of the people and prevent the development of more severe conditions. Microsaving groups could be one of these naturally used pathways. For example, in Musanze, microsaving groups, known as cooperatives, are functioning to collectively save money and help each other.[37] Cooperatives could therefore be supported as they have the potential to aid with the change in circumstances and positive social relations. Participants in the current study found that cooperatives are invaluable for helping to cope with changes in financial circumstances after loss, as well as providing positive social interactions. Programmes that would foster microsaving could therefore have a positive impact on peoples coping, while programmes which regulate them, or hinder their autonomy and creativity, should be avoided. Last, wider programmes could be established to inform the population that biomedicine is not only confined to providing acute support to people with genocide-caused *ihahamuka* (trauma), but also to other trauma reactions.

The study had some limitations. First, the sampling of key informants was limited to the social networks of the gatekeeper. However, due to the politically-sensitive setting and the stigmatisation of mental health, the trust-based sampling was the only viable recruitment method of approaching the hard-to-reach population. Further, the study was conducted by a foreign researcher who is unfamiliar with the local language. Data analysis occurred through the lens of the English translation, not Kinyarwanda. It must therefore be acknowledged that despite consulting the gatekeeper and participants throughout the analysis, translation of local nuances may have been imperfect. It is equally important to note that the findings are limited to the context in which the population cannot receive assistance despite severe adversities. In other regions of Rwanda, national and international level programmes are one coping option for genocide survivors.[38–40] However, the population in Musanze was primarily affected by the war, not genocide, and these

programmes remain unavailable to them as a natural pathway.

CONCLUSION

As one of the few studies examining the perspectives of people with lived or close experiences with mental distress in northern Rwanda, the findings inform recommendations to improve mental healthcare in formal and informal health sector. Drawing from our findings that emphasise the importance of matching people's expectations to the received care, we suggest community's social mechanisms for attributed loss, traditional medicine and healing for attributed magical causes and conventional medicine for attributed biomedical causes. This is the way in which the participants in the study differentiated their application of different health systems. It is however known from literature on medical pluralism, that peoples attributions are not static but change depending on the context.[41] Therefore, it is important for policies and programmes to understand the possible and likely explanatory model, and equally importantly to count for the possibility of change. This would allow to flexibly accommodate people's health-seeking behaviours and respect their decision-making each time. Mental health education for practitioners on the explanatory models could also aid them in understanding and provision of appropriate support. In northern Rwanda this currently would require a mutual training of medical professionals and traditional healers and establishing co-treatment within two parallel systems. This also requires the support for programmes and initiatives that strengthen positive interactions and change in circumstances for milder mental distress.

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