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Addressing behavioral health disparities for Somali immigrants through a community health worker led group cognitive behavioral therapy intervention

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ABSTRACT

Objectives: To test the feasibility and acceptability of implementing an evidence-based, peer-delivered mental health intervention for Somali women in Minnesota, and to assess the impact of the intervention on the mental health of those who received the training.

Methods: In a feasibility study, 11 Somali female community health workers were trained to deliver an 8-session cognitive behavioral therapy intervention. Each of the trainers recruited 5 participants through community outreach, resulting in 55 participants in the intervention. Self-assessed measures of mood were collected from study participants throughout the intervention, and focus groups were conducted.

Results: The 55 Somali women who participated recorded significant improvements in mood, with self-reported decreases in anxiety and increases in happiness. Focus group data showed the intervention was well received, particularly because it was delivered by a fellow community member. Participants reported gaining skills in problem solving, stress reduction, and anger management. Participants also felt that the intervention helped to address some of the stigma around mental health in their community.

Conclusions: Delivery of cognitive behavioral therapy by a community health workers offered an acceptable way to build positive mental health in the Somali community.

Key words: Immigrant, community based, mental health, community health worker, Somali, disparities

INTRODUCTION

Somali refugees have settled in Minneapolis in sizable numbers, building a dynamic and thriving community [1]. Yet there are many challenges that people face in undertaking resettlement, including the legacy of war-related violence and trauma [2], dealing with isolation, concern about family who have not been resettled, and changing family roles [3,4]. Such challenges can lead to an increase in psychological problems for Somali refugees [2]; this has also been reported for African immigrants in general [5].

Mental health issues such as depression are both common and costly [6-8] and are of greater prevalence and persistence for those living in underserved communities [9]. Despite the availability of effective treatments for depression, these communities face disparities in access to treatment [10]. Somali refugees experience barriers in accessing services that include distrust of authorities, stigma around mental health services, and linguistic or cultural barriers [11]. There are high levels of stigma around addressing mental health in the Somali community [3] and therefore a lack of culturally options to address such concerns [12]. Concerns about emotional health may become what one study focusing on Somali women described as "silent worries," as women deal with unexpressed loss and distress [13], alongside high levels of previous exposure to trauma [14]. Often western mental health services are seen as a last resort for help [4], yet with a growing need, we must explore ways to address disparities in access to behavioral health assistance for Somali refugees.

Our approach to undertaking this work is to consider the experience of mental health in the Somali community from the perspective of the Social Ecological Model (SEM), which encourages an analysis across individual, relationship, community, and societal levels [15,16]. The SEM offers a framework to advance thinking beyond increasing access to existing services to also considering the need for a multi-level understanding of health that draws on interpersonal, community, cultural, and structural aspects [17]. The SEM encourages the consideration of multiple factors that may influence mental health, including the adaptation to a new country, the influence of faith [18], and specific cultural practices that influence perspectives on health [19]. Additionally, in the Somali culture mental health problems may be seen to be caused by 'jin' or evil spirits, or may be seen as the will of Allah or God [3,4]. Addressing the barriers that prevent the Somali community from seeking help for mental health therefore requires a multi-level response, including community engagement, embedding services into systems, creating partnerships between providers and those with cultural expertise, and integration of services [11]. There is also value in collective interventions, which are seen as most likely to have an impact in the Somali community [30].

Our research makes an original contribution to addressing the mental health of Somali refugees in the US by testing the novel use of an evidence-based intervention. Cognitive behavioral therapy (CBT) has been widely established as an effective intervention for depression [21,22]. The use of CBT in face-to-face or computerized settings, individually or in groups, has been well established [21,22], and when delivered by community health workers (CHWs) offers great potential to increase access to psychological support in resource-poor settings [23,24]. In this work we drew on a structured CBT approach [25,26], which has been established as effective [27]. It has been

successfully adapted for use by CHWs to address mental health concerns in perinatal populations in rural Pakistan [23,24], showing the effective use of CHWs to deliver such interventions in a Muslim population [23,28]. Task shifting to using CHWs to deliver interventions primarily delivered by behaviorists can be seen as an important aspect of delivering more accessible, efficient, cost-effective services [29,30]. However, this approach has not yet been tested in the Somali population. In this project we tested the feasibility and impact of using CBT delivered by bilingual Somali CHWs to other Somali women in groups. The aims of the study were (1) to test the feasibility and acceptability of implementing an evidence-based, CHW-delivered mental health intervention for Somali women in Minnesota, and (2) to assess the impact of the intervention on the mental health of Somali women who receive the training.

METHODS

Eleven Somali women were recruited to be trainers in the CBT model, Living Life to the Full (LLTTF) [25]. The Living Life to the Full model and curriculum (in English) is available on www.llttf.com and is widely used in the UK National Health Service. The model focuses on building skills for positive mental wellbeing in the context of facing a wide range of stressors faced in life. To be a trainer, each woman needed to be bilingual and able to read in both English and Somali. The trainers underwent 3 days of training with a consultant from the LLTTF program. The trainers were provided with a curriculum, which consisted of highly visual CBT-based content, with accompanying scripts to be delivered alongside this content. The LLTTF program consists of 8 topics or sessions, each of which takes approximately 1.5 hours to cover. The materials were translated so that the slides and support scripts were in Somali. These

translations were done by a translator with expertise in medical translation and were reviewed by bilingual project team members.

This project was conducted in partnership with a local health drop-in center serving an urban area in which many Somalis live. This center was made available as a location for holding the courses. However some CHWs preferred to conduct the courses in their homes. Throughout the project, the Somali CHWs were supported by bilingual project staff, who assisted with recruitment, provided additional training, and supported the CHWs as required. Each CHW was responsible for conducting outreach to the community and recruiting 5 Somali women to participate in the LLTTF course. Somalia-born women living in Minnesota who wished to attend a program to build positive mental health, felt that they would benefit from the course, and were 18 years of age or older were eligible to participate in the study. No diagnostic criteria or psychological screening were used in determining eligibility because it was felt that, given the high level of stigma, this would exclude many potential participants due to fear of reaction from family, friends, and the community to perceived mental illness.

Procedures

Estimates vary a great deal on the size of the Somali population living in Minnesota from around 21,000[31] to nearer 80,000[1]. US Census data from 2008 – 2012 indicates of those born abroad 39.5% have less than high school education, 48% high school or some college education and 12.5% a bachelor's degree or higher. While there is not very consistent information available

about the community, this study has strived to be inclusive of Somali women of a variety of backgrounds, including length of time in the US, schooling and work status (see Table 1).

Somali women were enrolled into the study by a bilingual research assistant. Participants were asked to complete a demographic survey at enrollment. Due to the high level of stigma surrounding mental health, the team chose to use self-rating visual scales for mood, where the participant indicated on a scale of 1 to 5 (represented by a sad face through to a smiling face) their level of happiness and their level of anxiety. This rating was completed at the beginning and end of sessions 1, 4, and 8.

Following completion of the program, a total of seven focus groups were conducted with 26 participants. The focus groups were conducted by a bilingual research assistant, recorded and transcribed and translated verbatim into English for analysis. Participants were recruited to participate in a focus group as they completed the intervention, so focus groups tended to be small groups of women who had completed the intervention together. The focus group sample tended to be less likely to work full time, and more likely to have some, but not college level, education, than the intervention participants (see Table 1). Participants were asked about their views of the LLTTF course and any effects, negative or positive, they had experienced in undertaking the course.

Data analysis

Qualitative data analysis

All focus groups were conducted in Somali, recorded using digital voice recorders and were translated and transcribed verbatim. Transcripts were analyzed using NVivo10 to facilitate the analysis of qualitative data. Data were analyzed using the social constructivist version of grounded theory, through which themes and subthemes were identified in the data [32,33].

Quantitative data analysis

Pre- and post-intervention differences in the mood rating scales for anxiety and 'happiness' were determined and compared using Wilcoxon signed-rank tests. This feasibility study aimed to illustrate trends and lay the groundwork for power calculations for future research.

RESULTS

Fifty-five Somali women were enrolled into the study and participated in the 8-session program, and all completed the program in full. The woman had varied experience with work, school, and time in the US (Table 1).

((Table 1 here))

Self-rated mood

Participants rated their level of happiness and their level of anxiety on visual scales, with 1 being a sad face, gradually changing to a happy face at point 5 on the scale. As the course progressed, the mean happiness levels increased, as shown by increasing scores, and the mean anxiety levels

decreased, as shown by increasing scores (Table 2). The changes from before to after individual sessions and from the initial session pre-test to the final session post-test, were statistically significant (Table 2).

((Table 2 here))

Qualitative findings

Study participants were invited to participate in a focus group to discuss their experience with the LLTTF course. Seven focus groups were conducted with 26 participants. The woman had varied experience with work, school, and time in the US (Table 1).

Benefits of the course

Participants were overwhelmingly positive about the LLTTF course, enjoying the content and describing beneficial effects that participating in the class had on their lives. Participants were asked to identify what they gained from the course. For many, learning skills around problem solving and priority setting was described as a major benefit. Participants described these skills as helping them to address issues in their lives and to break down issues into small, manageable steps, which together led to improvements in daily life.

> *I did learn how to organize myself. Before, I was a slave to my time. Work work work, then school. I forgot about myself completely. Now, I manage to make time for my school,*

when to study, my work, and to have fun with my friends. And of course I manage to sleep enough and rest enough. (Participant 3, Focus Group 3)

Many participants also described having gained skills in handling difficult situations such as challenging work situations, difficulties with neighbors, managing important documents or items (such as wallets), and finding more productive approaches to parenting. For many participants, the skills learned in the course were applied to their interactions with others in their family, friendship groups, and community. The course was described as leading to more positive interactions because their CBT skills enabled them to better understand the interactions they were having. Participants were also motivated to share these analyses with friends and family to help them think differently about their own interactions with others.

Helping your friends and family and calming them down, and doing things step by step. Having said that, if you really want me to single out one, I would say it's managing to calm someone down and saving that individual from getting into trouble. (Participant 1, Focus Group 1)

Another aspect of the course which was highly valued was the identification of strategies for reducing stress. Participants identified a range of strategies, including changing how you think about an issue, not exceeding your own limits in work or family life, using exercise, sharing your problems with others, and drawing on your faith. Some participants described how family members or friends had noticed a positive change in how stress was managed.

> *Before, I used to put a lot of pressure on myself to the point I talked to myself alone. Even my children noticed that. They asked me: Mom, who are you talking to? Now, I take it outside and talk to my friends to ease the stress. (Participant 2, Focus Group 6)*

An important aspect of managing stress was finding ways to deal with feelings of anger. Participants described many daily life frustrations, some of which were specific to adjusting to life in the US, such as language barriers and the challenges of a new life, such as navigating new schools or employment. Focusing on how to address frustrations and use the problem-solving skills they had learned, helped participants to gain better control over anger and to address the causes of their anger.

The role of faith

The role of the Muslim faith in relation to the LLTTF course was raised by a number of participants. For many of the participants, the course was seen as complimentary to their faith in that it integrated how to use faith to reduce stress, offered tools to use alongside faith, and built a positive approach to how life is organized.

> *I liked managing your family life, and putting your house in order. It looked like an Islamic lesson I had taken. So, most of the lessons pretty much go toe to toe with our Islamic teachings. (Participant 4 Focus Group 1)*

However there were also areas of challenge for a minority of the participants. These challenges

arose around perceptions that the course was not consistent with the Muslim faith in two ways. First, a small number of participants indicated that if you were Muslim, you are not able to experience stress, in that your faith should protect you from such feelings.

> *The part I thought was somehow not in line with our religion was the part that talks about stress. A Muslim shouldn't feel stress. We believe in God and we believe everything was written for us before we were born. (Participant 1 Focus Group 6)*

Second, there were specific topics that were felt by a small number of participants not to be consistent with the Muslim faith. These included any references to suicide, alcohol, or playing music. There were concerns for some that these topics should not even be mentioned, whereas others felt that, while challenging, the topics were still important to discuss.

> *There are parts which talk about suicide and this is foreign to us or our culture. But we have, or will have, our children here, and they are part of this American culture. So if these problems are not going to affect us directly, they might affect our children, and we benefit from learning how to prevent them. If not for us, it's for our children. (Participant 3 Focus Group 3)*

Stigma

Participants talked about how mental illness is stigmatized in Somali culture, and how mental distress is very much a 'behind closed door' phenomenon, where worries are not shared with

others, including family, friends, or medical providers. The fear of being judged by others in the community led to people not sharing their difficulties and isolating themselves. For some participants, the course provided an opportunity to learn more about mental illness and to apply that knowledge to their own experience of how mental illness is perceived in the community. In this way, they could start to address the stigma that surrounds mental illness.

> *The Somali community really needs this kind of course. For us, you are either a crazy person who needs to be locked away from society, or not crazy. There's no in between. We didn't know anything about stress, anxiety, depression, and all these other kinds of disorders. (Participant 6, Focus Group 3)*

Delivery of the course

Participants were generally very pleased with the delivery of the program, although some reflected that the translations could be further improved upon to clarify meaning. Overall, participants felt they benefited from the course and felt there was a need to make it available more widely in the community. Participants felt men, women, and young people could benefit from the course. Some felt men would benefit more and others felt women would, but generally participants expressed a preference for groups that are not mixed in gender. Many spoke to how they had already shared content in the course with friends and family based on their own learning.

Yes. I remember a friend of mine once visited me and I told her about this course and its benefits. She liked it and we spent unimaginable time going through the course and its book. (Participant 2 Focus Group 7)

Many of the participants spoke to how much they valued that the trainer for the course was a Somali woman from their community. This was important in part because the course and materials were in Somali, but also because someone from the community could better relate to the group. There was also the view that group members might be less open with non-Somali group facilitators.

We prefer to take it from a member of our community. We feel more comfortable with each other, and we understand each other. With foreigners, we might not be as open as we are with each other. It is better for us to learn from one of our own. (Participant 6, Focus Group 3)

DISCUSSION

Western mental health services are often seen as a last resort for help for the Somali community [4], which may be exacerbated by a lack of Somali Muslim mental health providers. This presents a serious challenge in how to address mental health needs, and therefore mental health disparities, in this community. This feasibility study has illustrated that targeting women in the Somali community with an evidence-based CBT intervention delivered by a bilingual CHW was

feasible and had a positive impact in both engaging women and improving their self-rated mental health. Both the qualitative and quantitative data indicate that this approach was very successful. Despite the many documented barriers in the Somali community to accessing mental health services [3,4,11], this study found there was a great level of enthusiasm for engaging in this evidence-based intervention once it was provided in a format that met the needs of the community. In the words of the one of the CHWs upon being trained: "*It is like we have [a] locked door, and you have brought us the key.*"

In this study, the use of the SEM encouraged us to develop a multi-layered intervention that could draw on interpersonal, community, cultural, and structural aspects of health [17]. The findings indicate that the women participating experienced direct personal benefit with regard to their interactions, particularly with family members. We strove to deliver this intervention in ways that were culturally compatible and to build capacity in the community to address mental health within the community. As a result, we saw much enthusiasm for sharing this CBT intervention further within the community, despite the widely reported stigma in the community towards mental illness [12,13,34]. Participants described actively sharing the skills they learned in the classes with family and friends. The course appeared to have the potential to address the persistent stigma described in this study, and in the literature, through encouraging community members to share new insights into mental health. Participants also overcame self-isolation by sharing their struggles with others in the community. It was clear that this group of women felt that the LLTTF classes could meet an important need in their community, and this approach may therefore be as a way to address health disparities.

Although the CBT groups were seen by some as very consistent with Islamic teachings, for others they felt inconsistent. This suggests there is more work to do in reconciling the role of faith in such interventions, both in addressing where it may present as a barrier to furthering understanding about mental health and to build on it as a potential asset for mental health improvement. Feedback from the CHW's trained to deliver the intervention

Limitations

There are a number of limitations to this study. The participants were a self-selected sample who were contacted through community outreach. No diagnostic testing was used to determine eligibility, nor were longer-term follow-up data collected. Focus groups participants may have been women who had more flexible schedules, which is another limitation as this may have also impacted their experience of the intervention. The next iterations of this research will focus on how to best include standardized assessment tools and the development of a randomized, controlled trial design to further assess effectiveness.

Conclusions

This study serves as a proof of principle for the novel implementation of an evidence-based intervention to address mental health in the Somali community. The results indicate that this may be an important approach for addressing health disparities for the community.

HUMAN PARTICIPANTS PROTECTION

This study was reviewed and approved by the University of Minnesota Institutional Review Board.

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Table 1. Participant demographics

	Course participants (N = 55)	Focus groups (N = 26)
Work status		
Full time	16% (9)	0% (0)
Part time	40% (22)	50% (13)
Did not work outside the home	44% (24)	50% (13)
Schooling		
None	24% (13)	19% (5)
Middle or High school	58% (32)	81% (21)
College	18% (10)	0% (0)
Time in United States		
d5 years	22% (12)	11% (3)
6–10 years	34% (19)	50% (13)
>10 years	44% (24)	39% (10)

Table 2. Self-rated levels of happiness and anxiety (N = 55)						
	Happiness			**Anxiety**		
	Before	**After**	***P* value†**	**Before**	**After**	***P* value†**
Session 1	3.1 (1.2)	3.7 (0.9)	<.0001	3.1 (1.1)	3.8 (0.9)	<.0001
Session 4	3.8 (0.8)	4.2 (0.7)	.0002	3.6 (0.9)	4.4 (0.6)	<.0001
Session 8	4.2 (0.9)	4.5 (0.6)	.0012	4.1 (0.9)	4.6 (0.6)	<.0001

Means (SD) are reported in the table.
†Wilcoxon signed-rank test comparing before and after each session.
Self-rated levels of happiness and anxiety were also statistically significant when post–session 8 scores were compared to pre–session 1 scores ($P < .0001$ for both).