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# Cultural Adaptation of A Respite Program For Caregivers Of Mentally Challenged Children In Pakistan: A Qualitative Study

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**ABSTRACT:** In low-income countries like Pakistan, caring for children with special needs is challenging due to a shortage of mental health providers. This study adopted a Respite Program from a developed country to support caregivers of mentally challenged children. Thirty interviews with caregivers and family volunteers at a rehabilitation institute led to training manual adjustments. The 5-session intervention was found convenient and acceptable, with high satisfaction reported. Most participants wanted extended intervention and volunteer training in daily living activities. Three main themes emerged: The perspective of the participants on the intervention, The listening skills exercises in the facility, and, Input on the intervention manual for home practice. Culturally adapted interventions benefit caregivers and children, fostering trust and accessibility across diverse backgrounds.

**Keywords:** Short breaks, Mothers, Children, Mental Challenges, Stress.

## INTRODUCTION

According to the Global Burden of Disease Survey 2016, approximately 55 million children under five years suffer from developmental disabilities with higher prevalence among low- and middle-income countries (LMICs). (Olusanya et al. 2018) In South Asia, an estimated prevalence of 1.81% to 23.3% has been reported for all mental disorders among children and adolescents. (Willmot et al. 2023) The figures are even more distressing in Pakistan with a reported rate ranging from 19 to 65 per 1000 children. (Lakhani, Gavino, and Yousafzai 2013) Despite the available evidence-based interventions like the World Health Organization's Mental Health Gap Action Programme (WHO mhGAP) protocols, (Hamdani et al. 2021) there are limited choices regarding care for children and families with mental disorders in LMICs. (Rathod et al., n.d.)

Numerous studies have revealed a link between caregivers' mental health and children with mental challenges. (Gérain and Zech 2018; Masulani-Mwale et al. 2019) Many of these caregivers require psychological support and specialized services but have financial and other constraints. (Ae-Ngibise et al. 2015) Respite care is beneficial to both caregivers and children, (Whitmore and Snethen 2018) which comes in both formal and informal manner. (Isa et al. 2016) Formally, it can be delivered in a facility while informal support involves assistance from family, friends, and social connections at home. (Kong et al. 2021) High-income countries have successfully implemented respite models for individuals with special needs, showcasing acceptability and effectiveness. (Cooke, Smith, and Brenner 2020; Fan et al. 2018) However, there is a crucial need to address caregivers in low-income countries, (Hogan et al. 2022) Adapting strategies from high-income countries, like task shifting from highly skilled to less skilled individuals, (Javadi et al. 2017) has proven successful in diverse mental health conditions even in low and middle-income countries. (Escoffery et al. 2018; Raviola et al. 2019) This paper focuses on culturally adapting an intervention for caregivers of mentally challenged children in Pakistan, previously successful in a Western context. The intervention involves family volunteers to provide support, presenting a potential solution for bridging the gap in mental health care for children in low-resource settings.

## OBJECTIVES

### Research Questions:

- How to culturally adapt an evidence-based intervention in an LMIC, developed and tested in a developed country?
- What will be the appropriate settings for delivering this intervention?
- Who will be the most appropriate person to deliver it?
- What will be the most appropriate format --- one-on-one or focused group discussions for delivering the intervention?
- What adaptations will be needed to the content e.g., pictures, language, etc.?

**Primary Objective:** To culturally adapt the Family Peer Support Buddy Program, an intervention from a developed country, to provide respite to caregivers of mentally challenged children.

## METHODS

**Study setting:** This pilot study took place at the XXX, XXX from June 2020 to September 2020. Being a national facility, it provides services to individuals from diverse cultural and socioeconomic backgrounds. The predominant languages spoken by visitors include Urdu (national language), Pothohari, and Punjabi.

**Study design:** For a collaborative qualitative adaptation process, distinct topic guides were tailored for in-depth interviews with caregivers and family volunteers of mentally challenged children before and after a suitable intervention. (Family Peer Support Buddy Program: Families of persons with a mental illness helping one another, 2005).

**Research team:** The research team was comprised of a primary researcher, three clinical psychologists, a rehabilitation specialist, and speech and occupational therapists. The primary researcher has prior experience in working with the vulnerable population, has no affiliation with the rehabilitation institute, and has not previously interacted with the participants. All the members have received training in qualitative analysis.

**Participants & Recruitment:** Interested eligible caregivers who were coming to the facility for routine visits along with their mentally challenged children were given recruitment flyers for the study. They were called for the first meeting along with a voluntary family member and familiarized with the details of the study. Only those were allowed to participate who had mentally ill children according to mhGAP developmental disorders criteria. (Najam, Chachar, and Mian 2019) Exclusions comprised formal primary caregivers like nurses and maids or caregivers already in another support program. Additionally, caregivers with their health conditions, necessitating inpatient care or frequent outpatient visits were excluded. To ensure a diverse representation of the study population, 15 caregivers and 15 family volunteers were recruited through purposive sampling. Due to a lack of funding, they were not offered any monetary compensation. However, refreshments were served at the end of each session.

**Training and Intervention:** Considering the local context, cultural backgrounds, and previous studies showing promising outcomes, the researchers selected and adapted a suitable intervention for the caregivers i.e., the Family Peer Support Buddy Program. Following manual simplification, participants underwent 5-day training sessions at the rehabilitation facility to comprehend their intervention roles and potential impacts on the caregivers and families. Formally, the sessions would begin after a brief introduction to the study, each lasting for 50-60 minutes and requiring 2-3 personnel from the research team. The research team obtained signed consent forms from the participants, distributed resource materials, and utilized the following modalities for practicing volunteers on their listening skills: (a) PowerPoint slides in Urdu with pictorial descriptions, explaining the content and the mode of delivery of the intervention, 5-10 minutes long (10–18 slides each session). (b) Video clips focusing on learning and practicing different methods of listening skills. (c) Role-plays targeting day-to-day scenarios of listening skills, based on the intervention manual exercises. (d) Hands-on training for practicing listening skills, in which participants were divided into groups to practice learned listening skills in the presence of the research team. (e) Informal and interactive discussions in Urdu with side-by-side clarification of their queries after every session.

Participants were instructed to incorporate the intervention exercises into daily routines for at least 10-15 minutes daily and maintain a record of them. Assessing participant understanding, gaps in knowledge and skills were addressed. Few mothers and volunteers mentioned household duties and work constraints, respectively, that could affect their adherence. To overcome this, daily reminder calls were made to participants throughout the training week.

**Data Collection & analysis:** Data were collected in two phases, that is, before and after the intervention. Recruitment data and expectations of the participants about the program were recorded in Phase 1. Phase 2 involved in-depth interviews with the participants, each spanning from 45 to 90 minutes with breaks permitted.

The Family Peer Support Buddy Program was methodically assessed for comprehensibility, acceptance, and associated benefits and barriers. Caregivers' views on setting and timings, group or one-on-one format, content, delivery of intervention, and feasibility were explored. Family volunteers were also queried about setting and timings, their perspectives on the content, their role, potential unexpected effects, motivation, and strategies for sustained engagement. Feedback on handout utility and practicality was also sought, featuring pictorial and written instructions for both caregivers and volunteers.

The interviews were digitally recorded and transcribed verbatim using NVivo software (QSR International, Melbourne, Australia). The research team thoroughly reviewed the transcript before employing inductive coding to systematically analyze each line. This process identified relevant information, which was grouped into distinct codes reflecting the research subject. These codes were derived from both participants' input and existing literature. Similar patterns were then amalgamated into larger themes. Through a literature review that involved recoding, introducing new codes, and fine-tuning themes, the analysis culminated in the identification of three main themes composed of numerous codes. Various strategies, such as triangulation among the research team, were implemented to ensure rigor and trustworthiness, enhance confirmability, generate codes, and refine themes.

The results separated the participant quotations from researcher interpretations. Quotations underwent Urdu-English-Urdu translation to ensure accuracy and are included in the results for readers to evaluate researchers' inferences.

**Ethical consideration:** Ethical approval was acquired from the Institutional Ethical Review Board and permission was taken from the hospital administration for the study. Considering the local context and cultural backgrounds, written informed

consent was obtained from both primary caregivers and family volunteers before recruitment. Consent was in Urdu language to ensure comprehension and facilitate participation. Interviews were conducted in a designated private room, while also addressing ethical concerns regarding confidentiality to safeguard participants' rights and well-being. Participants were allowed to withdraw from the study at any time.

## RESULTS

**Characteristics of the participants:** Table 1 depicts the characteristics of the participants. All of the primary caregivers were mothers and the majority of the volunteer buddies were fathers (60%) of the mentally challenged children. Among mothers, the majority had aged in the range 25-42 years (73%) and were uneducated (40%) while among volunteer buddies, 80% had aged between 36-57 years and 47% had education till matriculation. Eleven (73.3%) of the parents were found to be first cousins and nine (60%) had their elder child sick.

<b>Table 1: Socio-demographic characteristics of primary caregivers, volunteer buddies, and mentally challenged children</b>	
<b>Characteristics</b>	<b>Frequencies (%)</b>
<b>Participants (N = 30)</b>	
Primary caregivers (n = 15)	
Mother	15 (100%)
Volunteer buddies (n = 15)	
Father	9 (60%)
Mother of the caregiver	4 (27%)
Sister of the caregiver	1 (6.6%)
Sister-in-law of the caregiver	1 (6.6%)
<b>Age of primary caregivers</b>	
25-42 years	11 (73%)
43-45 years	4 (27%)
<b>Age of volunteer buddies</b>	
27-35 years	3 (20%)
36-57 years	12 (80%)
<b>Age of the mentally challenged children</b>	
5-10 years	6 (40%)
11-16 years	4 (27%)
17-20 years	5 (33%)
<b>Gender of the mentally challenged children</b>	
Male	11 (73%)
Female	4 (27%)
<b>Diagnosis</b>	
Cerebral Palsy	3 (20%)
Down syndrome	4 (27%)
Autism Spectrum Disorder	2 (13%)
Attention Deficit Hyperactivity Disorder	2 (13%)
Intellectually impaired/slow learners	4 (27%)
<b>Education of primary caregivers</b>	
Uneducated	6 (40%)
Matriculation	4 (27%)
Graduation	3 (20%)
Master	2 (13%)
<b>Education of volunteer buddies</b>	
Uneducated	4 (27%)
Matriculation	7 (47%)
Graduation	3 (20%)
Master	1 (6%)
<b>Number of children of the respondents</b>	
Only child	4 (27%)
3-5	11 (73%)
<b>More than one mentally challenged children</b>	
	2 (13.3%)
	4 (26.6%)
<b>Parents blood relation</b>	
First cousins	11 (73.3%)
Second cousin	2 (13.3%)
Not related	2 (13.3%)
<b>Family type</b>	
Joint	11 (73 %)
Nuclear	(27 %)

**Qualitative findings:**

**Phase 1 (Before the intervention):** Three overarching themes and several subthemes emerged from the input of the caregivers and family volunteers before the cultural adaptation of the manual, that is, the perspective of the participants about the intervention, the listening skills exercises at the facility, and input on the intervention manual for on home-practice as shown in Table 2.

Table 2: Simplification of the manual by the Research Team after in-depth interviews with Caregivers and Family volunteers		
Themes	Subthemes	Quotations
<i>The perspective of the participants on the intervention</i>	<i>Caregiver's Opinions</i>	<i>"This intervention would not work in my home." (Mother 5 ???)</i>
		<i>"No one has ever given any support to me."</i>
		<i>"Mothers are held responsible for everything in this society."</i>
		<i>"When this program was explained, I did not think it would work in my home, as no one has given any support to me before." (Mother 3)</i>
		<i>"Thinking about mothers is a very good idea because nobody pays attention to what they are going through and are held responsible for everything related to their children." (Mother 6)</i>
	<i>Thoughts of the Family Volunteers</i>	<i>"Helping my wife at home is a new idea for me."</i>
		<i>"I don't know anything about the household chores."</i>
		<i>"I will be trained to help my wife? This is a new idea for me." (Family volunteer 3)</i>
		<i>"How can I help; I don't know anything about the work at home or how to take care of the child." (Family volunteer 6)</i>
		<i>"I am not a doctor, what can I do?" (Family volunteer 8)</i>
<i>The listening skills exercises in the facility</i>	<i>Changes in the terminology as suggested by the participants in the facility</i>	<i>'Facing squarely' to 'listening carefully'. 'Facing towards the other person' to 'baghair tokay doosray kee baat ghaur se sunna', 'doosray kee taraf moo kar kay baithnaa.' (Urdu)</i> <i>Words like 'looking away', 'folded arms' and 'not attending' to 'not paying attention', 'interrupting while the other person is speaking', 'talking to someone else', or 'using the phone while a person is speaking' to 'baat kay dauraan idhar udhar daikhna', 'baat ko gaur se naa sunna', 'kissi kee baat kay beech mein bolna', 'kissi kee baat kay darmiyaan phone per baat karna'. (Urdu)</i> <i>For the term 'buddy' in the original manual, words like 'dost', 'sabailee', and 'madadgaar' in Urdu were suggested by the mothers</i>
	<i>Metaphors</i>	<i>'Empathy' to 'understanding what another person is going through, 'listening attentively' and, 'holding hands'. 'Hamdardee se paish aana', and 'doosray kay baalaat ko samajhnaa'. (Urdu)</i> <i>The "Western clothes in the illustrations and the figures" in the original manual needed changes, as pointed out by a couple among participants as 'angraizee kapray' and 'patloon kameez'.</i>
	<i>Learning activities in the facility</i>	<i>Role plays, hands-on practice, and PowerPoint were liked by the participants. Lectures were least likable.</i>
<i>Input on the intervention manual for home practice</i>	<i>Figures and illustrations</i>	<i>"The brochure for home practice seems very helpful and easy to practice because it is in Urdu." (Mother 1)</i>
	<i>Practicing material for home</i>	<i>"Pictures in the flyer will help a lot." (Mother 2)</i>

**Manual Simplification by the Research Team:** After adapting the Family Peer Support Buddy Program to the Urdu language and initial interviews, further modifications were made to enhance the understanding and feasibility of the participants. Besides linguistic experts, the researchers actively participated in the translation process. "Buddy/friend/peer" was replaced by the "madadgaar" word in Urdu. Additionally, illustrations depicting Western attire in the original manual were adjusted to reflect Pakistani culture, created by a local graphic designer. These final illustrations, along with case scenarios, underwent pilot testing before integrating into the adapted manual for subsequent interviews.

**Phase 2 (After the Intervention):** Following the completion of the 5-day workshop, the obtained data was analyzed and yielded the following themes and subthemes (Table 3).

Table 3: In-depth interviews with caregivers & family volunteers after cultural adaptation of the intervention and a 5-day workshop.		
Themes	Subthemes	Quotations
The perspective of the participants on the intervention	Caregivers' opinion	"Husband has become more patient, and empathic." (Mother 1)
		"My husband understands my problems in a better manner." (Mother 5)
		"More programs like these need to be arranged for mothers." (Mother 4)
		"This program is good but it would be more helpful if he (husband) was trained to help me in feeding or attending to other needs of the child." (Mother 3)
	Thoughts of the family volunteers	"I can see an obvious difference in her mood when we sit and talk." (Volunteer - Husband 6)
		"I make an extra effort to discuss things, it is part of our routine now." (Volunteer - Husband 7)
		"I feel very confident and happy to help." (Volunteer - Husband 4)
		"Such like things should be arranged for mothers at the facility, where they can be helped in addition to their children because it is very difficult for husbands to take out time." (Family volunteer 3)
		"Families can be given some money to motivate them for participation in such like programs." (Family volunteer 9)
		"Programs like these can be advertised through media so that more people know about it." (Family volunteer 8)
		"My reason for taking part in this program is that I care about her, she is the mother of my children." (Family volunteer 5)
		"I cannot see my daughter like this, I want to help her in this difficult time." (Mother 1)
The listening skills exercises in the facility	Response of the participants about the listening skills exercises in the facility	"Learning through the TV was very helpful." (Mother and volunteer 4)
		"Initially I felt a bit shy and embarrassed that everyone would be watching me, while I was practicing at the facility or I might be doing it wrong but with proper guidance and support from the staff, I was able to understand and practice." (Family volunteer 5)
		"Watching exercises on TV made us understand empathic listening." (Mother and volunteer 8)
		"Role plays were very interesting." (Mother and volunteer 8)
		"Hands-on training helped participants learn communication skills." (Mother and volunteer 10)
		"The characters in the play had similar problems to ours." (Mother and volunteer 8)
		"The problems of the characters were resolved by simple communication skills." (Mother and volunteer 8)
		"We can relate ourselves to the characters in the play." (Mother and volunteer 8)
		"The play helped us understand the whole program." (Mother and volunteer 8)
		"The brochure was easy to practice as it was in Urdu." (Mother 1)
Input on the intervention manual for home practice	Views of the participants on home practicing exercises	"Pictures in the brochure helped us a lot." (Mother 2)
		"What if we cannot practice these exercises 5 times a week." (Family volunteer 4)
		"How is this going to help our child?" (Family volunteer 3)
		"The brochure for the home practice helped us a lot." (Mother and volunteer 1)
		"The content is very basic but important and does not take much time to read and practice." (Mother 7)
		"The pictures in the brochure are very interesting and self-explanatory." (Mother 8)
		"Content and pictures are according to our own culture." (Mother 4)

**Quantitative findings:** Quantitative data regarding acceptability, satisfaction, and suggestions of participants in the program is given in Table 4. It shows that there was an overall high level of acceptability regarding the program among participants. All participants were interested enough to attend all the sessions of training and agreed on the mode, venue, and timing of the study. Among the training resources, PowerPoint lectures were the least likable method for training. The majority (caregivers, volunteers) thought that the training (93.3%, 86.7%), research team (100%, 100%), and learning activities (100%, 100%) were very helpful and that they had now better knowledge about mental health and in a better position to help their family compared to before the training.



Table 4: Results of the adaptation process including acceptability, satisfaction, and suggestions in the program.					
<b>Acceptance of the intervention and its various parameters.</b> Dyads attended all the sessions. Participants understood the intervention and agreed on the mode and venue of intervention. Timings were acceptable for the participants. The pace of learning was acceptable for the participants. Participants liked role plays and hands-on training. Participants liked interactive sessions. PowerPoint lectures were the least likable method.				<b>n (%)</b>	
				30 (100%)	
				30 (100%)	
				26 (86.7%)	
				30 (100%)	
				24 (80%)	
				16 (53.3%)	
				7 (23.3%)	
<b>Using the Likert scale, please choose the most appropriate option that suits you. While 1=Not helpful/Not at all, 2=Somewhat helpful/Slightly, 3=Moderately helpful/Moderately, 4=Helpful/Considerably, and 5=Very helpful/Significantly.</b>					
<b>How much the following was helpful:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Training in the intervention</b>					
Caregivers	0 (0%)	0 (0%)	0 (0%)	1 (3.3%)	14
Family volunteers	0 (0%)	0 (0%)	0 (0%)	2 (13.3%)	(93.3%) 13 (86.7%)
<b>Research team and Method of delivery of intervention</b>					
Caregivers	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	15 (100%)
Family volunteers	0 (0.0%)		0 (0.0%)		15 (100%)
<b>Training of the volunteers</b>					
Caregivers	0 (0.0%)	0 (0.0%)	0 (0.0%)	12 (80%)	3 ((20%)
Family volunteers	0 (0.0%)	0 (0.0%)	0 (0.0%)	13 (86.7%)	2 (13.3%)
<b>Learning activities and practicing materials</b>					
Caregivers	0 (0.0%)	0 (0.0%)	1 (6.6%)	6 (40%)	8 (53.3%)
Family volunteers	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (20%)	12 (80%)
<b>Has your knowledge increased about mental health after intervention?</b>					
Caregivers	0 (0.0%)	0 (0.0%)	0 (0.0%)	3 (20%)	12 (80%)
Family volunteers	0 (0.0%)		0 (0.0%)	2 (13.3%)	13 (86.7%)
<b>Are you now in a better position to help your family and impart knowledge to others?</b>					
Caregivers	0 (0.0%)	0 (0.0%)	0 (0.0%)	2 (13.3%)	13 (86.7%)
Family volunteers	0 (0.0%)		0 (0.0%)	0 (0.0%)	15 (100%)
<b>What further changes would you suggest in the intervention process? (Dyads)</b>					
The total duration of the intervention should be increased.		24 (80%)			
In addition to providing a listening ear, it would be more helpful if volunteers were also trained to attend to the activities of daily living of the mentally challenged children.		28 (93%)			
It was at times difficult to come for training sessions as they had to arrange for someone to take care of the rest of the children at home, therefore some other option, in addition to face-to-face training should also be available.		8 (26%)			
Volunteers suggested that healthcare providers should be trained in this intervention instead of family volunteers, who should then work with the mothers in the facility when they come for their child's therapy.		2 (7%)			

## DISCUSSION

This article introduces an evidence-based intervention customized for caregivers of mentally challenged children. The adapted Family Peer Support Buddy Program is well-received, suitable, and culturally attuned to low-resource settings' family needs. This intervention, delivered by family volunteers, actively engages family members and demonstrates feasibility and acceptance.

Developed collaboratively with stakeholders, it targets caregiver stress by training family members to support the primary caregivers at home. (Purgato et al. 2020)

In this study, surprisingly, in contrast to our initial concerns about acceptability, the participants readily embraced the methods during training sessions. Interactive discussions further enriched participant involvement in the intervention. All participants attended the sessions, 80% favored role plays and hands-on training, while 53.3% preferred interactive sessions. Satisfaction with the content and delivery method was 100%. Similarly, in another study targeting children with autism spectrum disorder, satisfaction rates with respite care ranged from 85.7% to 100% among caregivers. (Bellone et al. 2021) In another interventional study promoting caregiver health and well-being also boasted good attendance rates, with all respondents staying throughout the study, expressing high satisfaction with each session, and 80% indicating a willingness to recommend it to other parents. (Borek et al. 2018) Due to the novelty of respite care for many caregivers, who experienced the need for assistance, they relied on the research team's expertise and perceived the benefits of the tailored support. (Zarit et al. 2017) It is plausible these factors influenced their higher satisfaction and confidence in the caregiving process.

In another feasibility study which included a peer-delivered intervention for parents of mentally challenged children, all parent-peers completed training with an attendance rate of 60% on average. The study deemed the overall feasibility positive. (Butler and Titus 2017) A similar study evaluated the intervention feasibility and acceptability in community settings. The overall engagement remained high of which 66% of respondents attended all sessions, 91% completed all the planned activities, and 82% practiced intervention exercises for over a month. (Bjornstad et al. 2021) Another pilot study has also demonstrated a higher level of satisfaction with the intervention program. (Rexhaj et al. 2017)

In our study both caregivers and volunteers reported benefits of respite care evident from caregivers' statements like; *"My husband has become more patient and empathic"* and *"My husband understands my problem in a better manner"*, as reported by husbands; *"I can see an obvious difference in her mood when we sit and talk."* Identical studies have recorded comparable statements to ours during interviews with participants. For example, in a study, one of the participants said; *"It gives me time to rest, I sleep. I take naps: I catch up on housework..."*. (McLennan et al. 2012). Likewise, a participant in another study shared *"...Now I am in a better place when there is someone who listens to me..."*. (Bray et al. 2017) These testimonials highlight the tangible advantages derived from the program. Additional studies have also articulated the potential benefits of such programs for the families and the affected children. Moreover, certain barriers and recommendations have been identified to make the program more optimal for care as suggested by our participants. (Woodgate et al. 2024) The satisfaction of participants with study materials was crucial in our study focused on culturally adapting the intervention. They made active recommendations for modifications. Past studies where participants' recommendations are followed have been shown to make them more effective, highlighting the value of participatory approaches in intervention design. (Chavarria et al. 2021)

## STRENGTHS & LIMITATIONS

A notable strength of this feasibility study was integrating a dual-service model, wherein parents accessed mental health intervention alongside their children's therapy within the same facility. This pragmatic approach effectively utilized family volunteers in resource-constrained settings, mitigating workforce shortages. The research team fostered strong rapport with families, allowing voluntary withdrawal and addressing adaptation challenges. While adaptation was confined to one rehabilitation institute, limiting generalization, the multifaceted approach enhances the intervention's potential applicability across diverse settings, warranting future expansion efforts.

## CONCLUSION

This research signifies a significant stride in addressing the mental health needs of caregivers in low-resource settings. (Adugna et al. 2020) The success of the adapted Family Peer Support Buddy Program, delivered by trained family volunteers, demonstrates the feasibility and acceptability of culturally responsive interventions. This model holds promise for advancing mental health support in diverse communities, paving the way for improved well-being in the face of mental health challenges.

## DECLARATION OF CONFLICTING INTERESTS

The author(s) declare no potential conflicts of interest concerning this article.

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