Original Research

Exploring the cultural appropriateness of a psychosocial intervention, the Thinking Healthy Programme-Peer delivered (THPP), for perinatal depression in Lilongwe, Malawi

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Abstract

Background

Perinatal depression is a common and disabling mental health problem in Malawi and other Low- and middle-income countries. There is evidence for effective psychosocial interventions for perinatal depression, but no such intervention has been developed for use in Malawi. The broad aim of this study was to explore the cultural appropriateness of a psychosocial intervention for perinatal depression called the Thinking Healthy Programme-Peer delivered for adaptation and use in Lilongwe, Malawi.

Methods

A qualitative exploratory design was used. Data were collected through conducting five Focus Group Discussions, involving thirty-eight purposefully selected participants including pregnant women, community volunteers and their supervisors, the Health Surveillance Assistants and maternal health care workers at implementation and policy level following observations of video recorded role plays of the Thinking Healthy Programme-Peer delivered sessions in theatre testing. A content analysis approach was used to analyse data.

Results

Six main themes were generated regarding the appropriateness of the content and delivery of the Thinking Healthy Programme-Peer delivered intervention, including: 1) Focus of the intervention; 2) Cultural appropriateness of the content; 3) Language used; 4) Context; 5) Provider of the intervention; and 6) Flexibility in the delivery of the intervention. The Thinking Healthy Programme-Peer delivered intervention was deemed appropriate for the target population, though with recommendations to: review illustrations to enhance clarity, use culturally appropriate stories and idioms, use daily spoken language, and adapt the number and duration of sessions to meet the needs of individual clients.

Conclusions

These findings highlight important areas to inform adaptation of the Thinking Healthy Programme-Peer delivered and add to the growing evidence of cultural adaptation of psychosocial interventions for perinatal depression.

Keywords: Perinatal depression, adaptation, the Thinking Healthy Programme-Peer Delivered, Psychosocial intervention, Task sharing, Lay volunteers, Low- and Middle-Income Countries

Introduction

Perinatal depression (PND) defined as depression occurring in pregnancy and/or the postnatal period accounts for a huge burden of illness affecting women[1,2]. Almost 11.9% of women are affected by PND globally[3] and 22.7 % to 34% of women during pregnancy and 20.8% to 25.8% in the postnatal period in Low-income and Middle-income countries[4,5]. In Malawi, the prevalence of antenatal depression has been estimated at 19%[6] and postnatal major depression at 13.9%[7]. Untreated PND can have serious long-term consequences, and was associated with preterm birth, low birth weight, early childhood underweight status and stunting, and long-term negative effects from infancy to adolescence in studies conducted in LMICs[4,8,9]. Early identification and treatment can improve maternal and child health outcomes.

Psychological/or psychosocial interventions are recommended as appropriate first line treatment for PND[10]. Most women do not prefer medication, when pregnant and breastfeeding, due to concerns of medication exposure to the infant[2]. However, in LMICs, the majority of the women with PND do not receive psychosocial interventions[11] due to shortage of specialised mental health care providers[12] particularly in Primary Health Care (PHC) settings, where the majority of the population access health services, resulting in PND often left undiagnosed and untreated. Task sharing has been recommended to be an effective and more feasible approach to address treatment gap in such settings[13]. For task sharing it is necessary to examine the potential role of other human resources, such as non-specialist/ lay health workers including peers with similar socio-demographic characteristics as the targeted population and/or with lived experiences[14]. There is evidence that psychosocial interventions for common perinatal mental disorders delivered by non-specialist and lay health workers can be implemented in

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LMICs[15]. They are effective in reducing symptoms and the burden of mental health disorders[13,16] and improve maternal and child health outcomes[15,17-22]. Including the "Thinking Healthy Programme (THP)" delivered by community health workers in Pakistan[20]; peer delivered interventions in Zimbabwe and South Africa studies[21,22] and One such example is the peer delivered Thinking Healthy Programme (THP) developed and tested in Pakistan and India[23,24]. It was adapted from the community health worker delivered THP 20 and adopted by the World Health Organisation (WHO) as a first line low intensity psychosocial intervention for perinatal depression[25].

The Thinking Healthy Programme – Peer Delivered (THPP) Intervention

The THPP is a manualized Cognitive Behaviour Therapy (CBT) based intervention consisting of 10 individual and 4 group sessions[24]. It uses core principles of; building an empathetic relationship, psychoeducation, family involvement, behaviour activation and problem solving[24]. The THPP shows great promise to address the psychological, relationship, support and information needs identified in qualitative studies of PND conducted in Malawi[26,27]. Since THPP is largely delivered using local peers, there would be minimal resources spent compared to cost of using skilled health care workers. Hence it has potential for replication and scaling up in communities across Malawi. However, the THPP was developed and implemented in a different setting and context. Hence, to inform adaptation of the THPP to Malawian context, we developed and conducted the qualitative study described in this report to explore the appropriateness of this psychosocial intervention, for use in Lilongwe, Malawi. Specifically, to elicit the participant's views on content and delivery of the intervention.

Methods

Study Design

A qualitative exploratory design was used. This study is a second phase of a larger mixed method study aimed at adapting and testing the feasibility of the THPP Intervention for PND in central Malawi. Focus Group Discussions (FGDs) were used to collect data for this phase.

Study Setting

This study was conducted in two primary level facilities in Lilongwe district, Malawi: Area 25 PHC clinic and Kabudula community hospital. Lilongwe district has a population of 2,626,901[28]. The fertility rate is 158 per 1000 among women aged between 15-44[29]. A 2020 Lilongwe District Health Office's midyear population projection showed that Kabudula community hospital was serving a population of 44,334, with 10,197 women of child bearing age and a population of 63,309 were served by Area 25 PHC with 14,651 women of child bearing age[30]. The two facilities provide maternal, child health and general adult health services.

Sampling

Purposive sampling was used to select participants with similar characteristics as target population, able to provide rich data needed to adapt the THPP intervention[31].

Inclusion and exclusion criteria

The study included: pregnant women attending antenatal care within the study sites; community volunteers who were working on any health-related programme for more than six months and their supervisors, the Health Surveillance Assistants (HSAs); and maternal health workers at implementation and policy level (nurse midwifes working in antenatal, postnatal and under five clinics, maternal health coordinators with an oversight role on maternal and child health services in Lilongwe district and at the Zone level). The HSAs are a frontline trained workforce at community level, providing health promotion, and illness prevention services through home visitations and mobile/outreach clinics. We excluded pregnant women younger than 18 years and community volunteers who had less than 6 months' work experience.

Recruitment of pregnant women - The clinic nurses provided information about the study to pregnant women in antenatal waiting areas during their routine visits and directed those who showed interest to the research team. Eleven pregnant women who met the study criteria at Kabudula Community hospital gave informed consent and were enrolled in the study.

Recruitment of community volunteers – Community volunteers were identified through the Environmental Health Officers responsible for the study sites. Those willing to participate in the study were given the information about the study. Ten community volunteers and 4 Health Surveillance Assistants (HSAs) working within Area 25 community consented.

Maternal care health workers - Maternal health workers were sent invitation letters that included information about the study through the nurses in charge of the respective facility and the Reproductive Health Coordinator, Ministry of Health. Thirteen maternal care health workers were included in the study after the consenting process; 4 from Kabudula community hospital, 5 from Area 25 PHC, 4 at district and zone level.

In total, the study included 38 participants (11 pregnant women, 10 community Volunteers, 4 HSAs and 13 maternal care workers).

Data collection procedures

The THPP manuals were translated from English into Chichewa, the language most widely spoken in Malawi and back translated by Health Education specialists in liaison with a topic expert. Following the translation, we utilized an innovative pretesting methodology known as theatre testing to adapt the intervention[32]. For theater testing the research assistants (psychosocial counsellor and 2 mental health nurses), who were trained by THPP master trainers, video recorded role plays of the 10 individual sessions. Following this all 3 groups of participants (the pregnant women, community volunteers and maternal care workers) separately viewed each of the recorded sessions. Eleven (11) pregnant women residing within the facility, Kabudula community hospital maternity waiting home, spent approximately 3.5 to 4 hours per day for 4 days viewing the recorded videos. FGDs were conducted with them each day apart from the first day. A similar process was followed with community volunteers and maternal care workers. Each of the 2 groups spent two days viewing the recorded sessions and a FGD was conducted with each group on day 2 to elicit their views regarding the cultural appropriateness of the content and delivery of the intervention. A researcher-developed open-ended interview guide informed by the Bernal's Ecological Validity Model (EVM)[33] was used to collect data.

It consisted of 8 dimensions to ensure ecological and overall external validity of an intervention, i.e., language, persons, metaphors, content, concepts, goals, methods and context[34]. The interview guide was developed in English, translated into Chichewa, and back translated to ensure accuracy[35]. Interview guides can be accessed in the supplementary file.

The FGDs were conducted by the Principal Investigator (PI) and 2 research assistants in February and March, 2020. The PI, a mental health nurse specialist, acted as an observer while one research assistant, a psychosocial counsellor, moderated the FGDs and a second research assistant, a psychosocial counsellor, took notes. All FGDs were conducted in designated quiet rooms to ensure participants' privacy and confidentiality. FGDs lasted for 1.5 to 2 hours, they were audio recorded and field notes were taken to refer to during data analysis.

Data management and analysis

Data were analyzed using a content analysis approach in order to generate a direct representation of participants' views that could be used in the adaptation process[36]. The analysis was conducted simultaneously with data collection to enable further clarification of emerging ideas and explanation of unexpected results. Audio recordings were transcribed verbatim and translated into English. The PI reviewed the audio recordings and field notes and read and reread transcripts to formulate judgements about recuring pattern and emerging themes. Data were then imported into NVivo Release 1 for coding and analysis.

Using codes deductively developed from the key domains of Ecological Validity Model in the interview questions, the PI coded the entire data set and generated a comprehensive list of initial codes. After the coding process, data were summarized and assembled relevant to each code and transcript using Microsoft Excel. Two researchers, MN and AB reviewed the codes against the corresponding texts and through an iterative process removed some and merged others into themes. To ensure anonymity, a code was assigned to each participant and no names were used.

Ethical consideration

Ethical Clearance for the study was obtained from College of Medicine Research and Ethics Committee (COMREC) (P.09/19/2804) and permission to conduct the study at Area 25 PHC clinic and Kabudula community hospital was obtained from Lilongwe District Health Office (DHO). Written consent (signature or thumb print verified by a witness) was obtained from all participants before commencement of the study, following thorough explanation of the study. Study information sheets were read out to potential participants and further clarification provided to participants if needed.

Results

Theme 1: Focus of the intervention

The THPP was deemed very appropriate to women in the perinatal period. The majority of the participants pointed out that not all women with depression require medical treatment, what they need is psychoeducation and emotional support. The THPP will give women an opportunity to open up and discuss their issues.

P3: "... this intervention is good. We don't have enough time to go through women's issues at the clinic . Such interventions will give them a chance to open up and be given proper care".

The focus on the health of the mother, the infant, and involvement of family members was seen to have potential to improve maternal and child health by most participants.

P4: "...the intervention is appropriate, it has a family centred care approach, promotes team work, involves guardians and spouse to improve the mother and baby's health".

However, a few participants saw other family members as subsidiary participants of the intervention.

P5: "I feel like the focus should not only be on the mother and the child but on the whole family ….. some issues do not only affect the mother and the child.".

Theme 2: Cultural appropriateness of the content

The THPP sessions' content and some strategies used were deemed appropriate and helpful, as indicated by one participant;

P10: "She was helped to understand her problems because ... the counsellor helped the woman to recognise helpful thoughts and behaviours after learning about unhelpful thoughts and behaviour".

Participants had difficulties with pictures used in the intervention, when asked to comment on individual pictures it was noted that they all had different interpretations. The majority of participants recommended a review of these pictures;

P3: "there are things that are not adding up in these pictures like this one... She [the woman in the picture] looks like she is smoking, or touching her mouth or complaining, these are some of the things that are confusing in the pictures. The facial expressions need to be improved".

Theme 3: Language used

Although participants agreed that the use of Chichewa was appropriate as it is the commonly used language in the area, they had problems comprehending some Chichewa terms, especially literal translations. For instance, pregnant women and community volunteers explained that the idiom commonly used for depression symptoms in their area is 'high blood pressure' or 'phuma' referring to someone who is thinking too much. While all health workers understood the vernacular terminology used for depression in the role plays, they still suggested some alternative terms and recommended use of common idioms and daily spoken words. As two participants said:

P3: "..the language was appropriate, however, there are some words, difficult to understand… [Participant mentioned several words including steps and pillars] ".

P4: "…use words that are easy to understand…some words can be simplified [Participant proceeded to list words that can be simplified, then the group discussed alternatives]".

Theme 4: Context

Involvement of family in the intervention was highly recommended by participants for various reasons; while pregnant women felt intervention delivered to women and their families will ensure they have a healthy baby, health workers indicated that such an intervention will strengthen the Ministry of Health, Reproductive Health's initiative of encouraging men to be part of the maternal care and accompany women in labour called "companion in labour".

P3: "…there will be no problems in involving the husband during labour and delivery at the clinic with such an intervention that encourages family involvement right from the community".

Theme 5: Provider of the intervention

Table 1: Differences between the Original THPP and the adapted version of THPP and comments from study findings

Domain	Original THPP	Adapted version of THPP	Comments
Language (appropriateness, cultural applicability of terms and comprehension)	Language - English	Translated into Local language (Chichewa) – Simplified further using daily spoken words and common idioms	Participants recommended simplified Chichewa as they had challenges to comprehend some literal translated words - explored idioms used for key words and daily spoken words/language
Provider of the intervention	Female peer volunteer	Female peer volunteer	A female volunteer was viewed culturally acceptable by majority of participants. Few indicated that they would consider male volunteers with consent from family
Illustrations and pictures	Illustrations and stories consistent with Asian culture	Redesigned all Illustrations and stories to a local Malawian context	Illustrations were not consistent with local Malawian culture, they conveyed different messages to different participants. Just like one participant said; "There are things that are not adding up in these pictures…. looks like she [the woman in the picture] is smoking, or touching her mouth... the facial expressions need to be improved".
Content (Cultural appropriateness and context)	Content - Focus on the mother and baby. Utilizing core elements of CBT – building empathetic relationship, family involvement, focusing on the here and now, behavior activation and problem solving	Content - Focus on the mother and baby. Utilizing core elements of CBT – building empathetic relationship, family involvement, focusing on the here and now, behavior activation and problem solving -These were maintained using simplified Chichewa	Participants recommended the focus of the intervention and strategies used
Implementation (frequency of sessions and place)	Place – home Frequency – 10 individual sessions, 4 group sessions	Place – home Frequency – 7 individual sessions and 4 group sessions	Participants did not recommend specific number of sessions, rather flexibility on number of sessions depending on the need. From available evidence, a minimum of 8 sessions are considered effective (Vanobberghen et al, 2020), hence the adapted version has a minimum of 7 sessions and maximum 10 sessions; 4 sessions during pregnancy (Session 1: Introductory Session, Session 2: Mother's Personal Health Session 3: Mother's Relationship with people around her and Session 4: Mother Child Relationship) then 3 sessions following child birth (Session 5: Mother's Personal Health, Session 6: Mother's Relationship with people around her, Session 7: Mother's Child Relationship) The remaining 3 sessions, sessions 8-10 can be delivered if the mother still screens positive for depression after session 8, (Session 8: Mothers Personal Health Session 9: Mother's Relationship with people around her and Session 10: Mother Child Relationship).

The majority of participants agreed that a mature, well trained women who had experienced motherhood and can maintain confidentiality, would be ideal to deliver the intervention in their communities. The pregnant women showed preference for a female volunteer to avoid objection from their partners or other community members. Although community volunteers concurred with pregnant women on potential objection, they felt that as the current roles of male volunteers include visiting perinatal women in their catchment area they can also provide such an intervention provided there is consent and availability of other family member during the sessions.

P10: "If there are the two of you [a male volunteer and a woman] discussing, people may think you are discussing something else but if there are other people present, people cannot think about that. So, it is very important here in Traditional Authority Chitukula to consider gender of the provider".

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Table 2: Themes and subthemes

Themes	Subthemes
Focus of the intervention	Appropriate to target population
	Benefits of the intervention
Cultural appropriateness of the intervention	Use of illustrations/pictures
	Redesign appropriate illustrations
Language used	Cultural appropriateness
	Simplify terminology
	Use of cultural appropriate idioms
Context	Target population
	Setting
Provider of the intervention	Desired attributes
	Preferred gender
Flexibility in the delivery of the intervention	Lengths of sessions
	Number of sessions

Theme 6: Flexibility in the delivery of the intervention

Community volunteers and health workers were of the view that there should be some flexibility in number of sessions based on the client's progress. However, a few participants mainly pregnant women stated that it would be good to have all 10 sessions.

P4: "counselling is an individualized care so we cannot specify time and number of sessions, because we don't know what a counsellor might meet."

Discussion

Our study showed that THPP intervention was deemed appropriate for the target population in central Malawi, though with recommendations to review illustrations to enhance clarity, use culturally appropriate stories and idioms, use daily spoken language and adapt the number and duration of sessions to meet the needs of individual clients. These findings highlight important areas to inform adaptation of the THPP and add to the growing evidence of the importance of cultural adaptation of psychosocial interventions. Culturally adapted and appropriate interventions have been shown to be easily accepted by participants and feasible for delivery by lay volunteers with no health training background[16,23,37].

Participants were cognizant of the importance of psychosocial interventions like THPP for women with PND, despite having no experience of routine screening or interventions for PND in this setting[26]. Evidence from other studies also show the THPP was viewed as beneficial by both the perinatally depressed mothers and the community, which enhanced its acceptability[23,25].

Delivery of THPP, within the households of women by women who were mothers themselves, was shown to address some cultural barriers related to restriction in movement of women soon after delivery in studies conducted in Pakistan. Further, this approach was convenient for women and facilitated family involvement[23]. Our findings are very similar to those in the Pakistan study. The participants in our Malawian study also felt that delivery of THPP within the households would be very convenient to women. The home-based strategy has also shown to increase acceptability, feasibility and enhance adherence to the intervention in studies conducted elsewhere[20,38]. Although the perinatal period presents an opportunity of frequent contact with the health care system, access to the health facility might be a challenge to many mothers because of transport costs, their health status and other cultural barriers.

Use of peer volunteers, women from the same villages as the intended population, has great potential to enhance access to interventions while overcoming staff shortages in underserved areas[37]; and has shown high degree of acceptability and reduction of stigma[39]. It is not surprising that participants in our study preferred use of the peer volunteers. Culturally, female members of the family including sisters, mother or in-laws, support the woman during the last month of pregnancy and a month following child birth, hence peer volunteers can easily blend into such an existing cultural practice to effectively deliver the intervention.

An intervention like THPP that encourages family involvement was said to have potential to augment outcomes of existing initiatives including the Ministry of Health's birth preparedness that encourage partner involvement and labour companion[40]. Family members that are motivated to support the mothers during receiving the THPP might find it easier to accompany the mother throughout the perinatal period.

Overall, the content of the intervention was deemed culturally appropriate and beneficial to the perinatal women despite challenges faced with some terminology, idioms and illustrations used. The original THPP integrates existing child and maternal health education components such as nutrition, child health and development[16], which are similar to health programmes implemented in child and maternal health in Malawi. Similarly, the combined strategies in the intervention i.e., building empathetic relationship and providing psychoeducation on wellbeing of the mother, her relationship with the infant and significant others, address the much-needed information and support during the perinatal period.

Use of local language spoken both by women and provider of the intervention, enhanced understanding of the therapy[16]. However, it was noted that there was need to

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simplify some terminology and use daily spoken words. The same was true with some illustrations that were ambiguous. Culturally appropriate pictures would be more appropriate to promote understanding. This was expected as THPP was designed for women in a different context hence need for cultural adaptation. Our findings are consistent with studies conducted in Pakistan and India where THP was simplified for peer volunteers through use of culturally adapted stories, pictures and everyday terms while maintaining the core elements of the intervention[23].

Flexibility in duration and number of sessions was suggested in this study, to correspond with varying needs of women and their families. Similar findings were reported in a study adapting original THP in India and Pakistan where frequency of THPP sessions and mode of delivery were adjusted based on the needs of women[24]. However, this needs to be done systematically to maintain the core elements of the interventions, ensure fidelity and that the required "dosage" of the intervention is delivered. A recent study that evaluated effectiveness of longer duration THPP+ in Pakistan found that it had no significant effect on a range of maternal depression symptoms and child development outcomes at 4 years postpartum[41]. These findings demonstrated need for careful adaptation to implementation challenges including fidelity and collaborative approach to address other long-term needs of women receiving the intervention and peer volunteers delivering it.

The current study has implications for further studies in cultural adaptation of psychosocial interventions and practice. First, the views obtained from a wide range of participants highlights the importance of stakeholders' engagement for successful adaptation of interventions. In this study we engaged participants residing and working within the study site and those with similar characteristics as target population. These participants had in-depth knowledge of the community, its cultural beliefs, norms and practices. Second, systematic adaptation of psychosocial interventions is recommended as it reduces the possibility of spontaneous adaptation by the practitioners and it has the potential of increasing the chance of the intervention success. The process of cultural adaptation can be perceived as a continuous process that creates opportunities for researchers to come up with more acceptable interventions. Hence further adaptation studies need to consider all stakeholders including custodians of cultural practices in the community. Similarly, measures that sustain volunteer's motivation need to be considered when implementing or rolling out interventions like THPP. Experience has shown that some form of incentive, either monetary or non-monetary, is expected for continuous volunteer engagement with various programmes in Malawi. Hence, contextual adaptation of such interventions is crucial for their effective implementation.

Strengths and Limitations

Involvement of a wide range of participants with similar characteristics to those targeted by the intervention i.e., pregnant women, community volunteers, their supervisors and key maternal care workers is a major strength of this study. Similarly, use of FGDs enabled thorough discussions and enriched data collected. However, these findings need to be interpreted with caution as we did not involve postnatal women and other community members e.g., partners and other family members to explore their views regarding their potential involvement in the intervention. Additionally, a more participatory theatre testing approach was not employed with all participants in this study. Unlike the pregnant women, the community volunteers and maternal care health workers watched all sessions and had discussions at the end. As a consequence, these participants might have been generalizing their feedback across the whole intervention and not able to give detailed feedback about each session.

Conclusion

This study showed that THPP was deemed useful and appropriate to perinatal women with depression in two communities in Lilongwe but changes needed to be made to make it suitable to the local context. These findings highlight important areas to inform adaptation of the THPP and add to the growing evidence of the importance of cultural adaptation of psychosocial interventions.

Declarations

Availability of data and materials

Coded data sets are available from the corresponding author on reasonable request.

Competing interests

The authors declare that no competing interests exists

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Authors' contributions

MN designed the study; collected, transcribed and analysed the data; drafted the manuscript and reviewed all drafts. EC Analysed data, revised and approved all drafts; SMB revised and approved all drafts and searched literature; NA, a THPP master trainer, trained and supervised the research team, reviewed and approved all drafts and searched literature; RS Reviewed and approved all drafts and searched literature. All authors read an approved the final manuscript.

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