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Community-Based Learning Club for Women's Health and Infant Development in Rural Vietnam

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Abstract

Perinatal mental health problems are a burden for women and a risk for the healthy development of children. In resource constrained settings stand-alone interventions are effective in treating common perinatal mental disorders, but there is little impact on early childhood development. There is, also only limited evidence available about the impact of integrating mental health interventions into multicomponent programs to improve the health of women and infants in low- and middle-income countries. In this chapter we describe the adaptation and implementation process of integrating mental health sessions into a multicomponent intervention for women's health and early child development in rural Vietnam. Pilot testing of the intervention demonstrated that it was acceptable, feasible, and well aligned with strategic context, and provided preliminary evidence of impact in Vietnam.

Introduction: Common Perinatal Mental Disorders in a Global Context

Maternal mental health is one of the World Health Organization's (WHO) priority concerns due to its effects on women's functioning and the health and development of their young children. Common perinatal mental health problems are more prevalent in low- and lower middle-income than in high-income countries. A systematic review conducted by Fisher et al. found that data were only available for 17 (of 112) low and lower middle-income countries. The weighted mean prevalence of antenatal common mental disorders was 15.6% and was higher during the postnatal period (19.8%). The review revealed a double disparity: there is much more research evidence available from high-income than low- and lower middle-income countries, but the burden is much greater in the latter than the former. Least is known about the women living in the most

disadvantaged circumstances in the least-developed countries (Fisher et al. 2012).

It was found in the systematic review that socioeconomic disadvantage, unintended pregnancy, being younger, being unmarried, lacking intimate partner empathy and support, having hostile in-laws, and experiencing intimate partner violence were risks for common mental disorders in pregnant women and mothers (Fisher et al. 2012). Poor mental health during the perinatal period increases maternal morbidity and mortality, and has negative impacts on early child development (World Health Organization 2008).

Interventions to Address Common Perinatal Mental Disorders in Low- and Middle-Income Countries

Rahman et al. (2013) completed a systematic review of the interventions available for common perinatal mental health problems in these settings and found trials of 13 interventions implemented in low- and middle-income countries (LMICs) that met inclusion criteria. All interventions were delivered by nonspecialist health workers. The review found that some interventions were effective in addressing common perinatal mental disorders among women, but that improvements in the quality of care of children were only apparent when it was a direct target. Among the interventions, the Thinking Healthy Program developed by Rahman et al. was the highest quality intervention and had the largest impact on maternal mental health (Rahman et al. 2013). The review illustrates the feasibility of using community-based interventions delivered by nonspecialist health or community workers in reducing common mental health symptoms during the perinatal period in LMICs. However, the review also revealed that most of the interventions which assessed maternal mental health as a secondary outcome did not provide sufficient information about the content and form of the mental health component or the proposed mechanism of action. There remains limited evidence about the development of mental health components for integration into community-based multicomponent interventions for maternal and child health in LMICs.

Political Context in Vietnam

Vietnam is a lower-middle income nation currently ranked 128/187 countries on the Human Development Index (UNDP 2010). Despite rapid development, 13.5% of people live below the national poverty line (World Bank 2017). There is no specific regulation related directly to maternal common mental disorders; however, it is identified in national policies as a risk factor for maternal and child health, and as a component for consideration in mental health programs. Under the strategy of "socialization of public services" issued by the Central Economics Committee, of the National Assembly (Center for Information and Documentation 2006), the political context in Vietnam is positive about addressing maternal and child health. First, the Vietnam Ministry of Labour, Invalids and Social Affairs has launched National Program 1215 (2012–2020) which has as one of its four focuses community-based strategies to improve the mental and physical health of women and children. In addition, in 2016, the Law on Care and Protection of Children was revised and one of the focuses is on the first 1000 days of life from conception to the child's second birthday (Vietnam National Assembly 2016). This component strongly aligns with the promotion of early childhood development. The Department for Child Protection and Care, Ministry of Labour, Invalids and Social Affairs, Vietnam, is currently preparing instructions on implementation of the Law. The sub-law documents are expected to be completed by 2020.

In relation to mental health programs, in November 2012 the Minister for Labour, Invalids and Social Affairs (MOLISA) launched Decision 1215 to promote community-based mental health approaches for both common and severe mental illnesses (Vietnam Prime Minister 2011). Since 2015, this program has been conducted a pilot phase focused on improving depression among members of the general population in the community using a self-care approach. The pilot mental

healthcare program is expected to be integrated into the essential package of primary care (Murphy et al. 2017).

Health System Structure and Social Work in Vietnam

Commune Health Stations

The Vietnamese healthcare system has focused predominantly on curative care, with little consideration of health promotion or prevention. The country has a highly developed primary care system, which reaches to each commune. The health sector provides nutrition, breast feeding, reproductive, and maternal and child health care through commune health stations. Common mental disorders are, however, not recognized or addressed by the commune health station including in the care provided to women during the perinatal period. The Women's Union, a national community organization, has a mandate to promote women's rights, roles, and health, but the programs are not integrated into the health system or comprehensive and impact is limited. Mental health literacy among the community is very limited and there is severe stigma and discrimination associated with perceived mental health problems. The definition of "mental health" used among the general population, especially in rural Vietnam, describes severe mental illness. Common mental disorders, especially during the perinatal period, are not acknowledged by either health service providers or healthcare users.

Women's Union

Vietnam has a highly structured national social organization, the Women's Union which has branches at all social levels, including local communes. More than 90% of women in Vietnam are members. The Vietnam Women's Union's mission is to "cultivate healthy, knowledgeable, skilful, dynamic, innovative, cultured and kind-hearted Vietnamese women." Its commitment to the national interest is expressed in its aims to assist women both in "building prosperous, equal, progressive and happy families" and in income generation by increasing their "knowledge and capacities" (Vietnam Women's Union n.d.). It has an explicit focus on providing guidance on childrearing methods for families with young children and another on poverty reduction and the elimination of hunger. In addition, the Women's Union is a structured mass organization whose staff function as informal social workers in the community.

The country is training its first cadre of social workers who will work for MOLISA at commune level. Potential multicomponent, community-based maternal and child health programs have been identified as providing an obvious role for community-based social workers to provide support and assistance to facilitators, and contribute to components that are within their mandate, including gender empowerment, and to undertake community development activities related to the reduction of gender-based violence.

Contribution of the Research Team to Evidence about Perinatal Mental Health

Over the past 18 years, since the establishment of our action research group to promote primary health care for mothers and children in Vietnam, we have built a unique and long-term collaboration between researchers and policy advocates in a high-income and a lower-middle income country. The Australian team members bring their expertise in maternal mental health, child nutrition, early child development, epidemiology, and knowledge translation for policy. The Vietnamese researchers bring their strong local knowledge of the health system, mental health burden, policy advocacy, program implementation in rural provinces< and research translation. The group has conducted innovative research studies which have raised awareness of perinatal mental health in rural areas in Vietnam and communicated these findings internationally.

Perinatal Mental Health in Vietnam

We have conducted a series of studies to investigate the prevalence of common mental disorders experienced by women during pregnancy and after childbirth in Vietnam. We found that the prevalence of perinatal common mental disorders in Vietnam ranged from 20% to more than 30%. There were variations in prevalence among women living in urban and rural areas, recruited from clinical or community settings, assessed during pregnancy or after giving birth, using diagnostic interviews or self-report screening instruments (Fisher et al. 2004, 2010; Tuan et al. 2003). Overall, however, as in other low- and middle-income countries perinatal common mental disorders are prevalent in Vietnam (Rahman et al. 2003; Adewuya and Afolabi 2005) and are predominantly socially determined by poverty and gender-based violence (Fisher et al. 2010).

In our long-term collaboration we have shown in rural Vietnam that during pregnancy, 32% of women report food insecurity, 20% have a BMI $<$18.5, 80% are iodine deficient, 17% have iron deficiency anemia, 19% have experienced intimate partner violence, and, especially, a third meet criteria for a common mental disorder (Fisher et al. 2013; Strauss 2000; McGregor 2007). Hence, the failure of providing mental health services to women during the perinatal period is of national concern and there is a call for well-integrated programs addressing all known risks.

In terms of capacity building, 15 Master's and PhD students and post-doctoral research fellows have been trained under the supervision of the research team members. All the research higher degree students secured scholarship funding, to receive research training in global maternal mental health, including through participation in design, implementation, data generation, and dissemination under the strong academic support of the research team. Since 2004, the group has published more than 40 peer-reviewed journal articles in the international literature and hundreds of articles in Vietnam's newspapers (Tran and Fisher 2017).

The group has advocated successfully to raise awareness of perinatal mental health and its impact during the "First 1000 Days of Life" to the revised Law on Care and Protection of Vietnamese Children led by the Ministry of Labour, Invalids and Social Affairs. The team is working closely with the Department of Maternal and Child Health, in the Vietnam Ministry of Health (MOH) to develop a multicomponent intervention for women's health and infant's health with a strong focus on perinatal mental health. Further, Vietnam team members have been long-term advisers to the Communist Party of Vietnam's Central Economics Committee, to evaluate policies related to socialization of public services. The intervention will be used as a case study to show how different sectors can work together to promote perinatal mental health and gender empowerment in rural Vietnam.

Development and evaluation of a community-based multicomponent intervention: What We Did

Our work is founded on a belief that perinatal mental health should be considered in the context of maternal and child health. We believe that for women to be able to provide optimal care for their fetuses and infants, their health and rights need to be addressed directly. Hence, we argue that it is essential to integrate mental health into a multicomponent intervention to promote women's health and early childhood development, from pregnancy and in the years in which they are providing primary care for a young child. The benefit of a well-integrated mental health component in this period is that common mental disorders can be addressed at the same time as promoting early childhood development. This approach is intended to contribute significantly to reducing the prevalence of perinatal common mental disorders among women and improving their caregiving capabilities.

We secured a seed grant from Grand Challenges Canada under the Saving Brains Scheme

2013–2015 to provide preliminary evidence about the multicomponent intervention. There were three objectives to the project, to: (1) develop an evidence-informed mental health component with materials for participants and facilitators; (2) translate and culturally adapt the mental health component for rural Vietnam; and (3) evaluate the acceptability, feasibility, alignment with the strategic context, fidelity, and preliminary evidence of impact of the mental health component.

A three-stage evaluation approach was designed following the Medical Research Council guidance for the development, establishment of feasibility and pilot testing of a complex intervention (Moore et al. 2015). All activities were undertaken by a multidisciplinary, cross-national group, which included bilingual experts in maternal mental health, women's health, health education, and gender empowerment in collaboration with representatives of the Vietnam Women's Union, Ministry of Labour, Invalids and Social Affairs (MOLISA) and Ministry of Health (MOH).

Stage 1: Identification of Existing Relevant Perinatal Mental Health Interventions and Development of the Component Materials

A search for WHO or UNICEF Guidelines and interventions which had either a primary or secondary outcome of women's mental health in low- or middle-income nations or potential interventions for Vietnamese women in high-income countries was completed. The WHO recommended Thinking Healthy Program was identified as the most appropriate for this setting.

Stage 2: Translation and Cultural Adaptation of the Component Materials

First, it involved translation from English to Vietnamese and cultural adaptation to use local idioms, images and circumstances using WHO guidelines. The full Thinking Healthy Program is designed for use as a treatment for individual women who are depressed, and it requires 16 sessions. The proposed program sought to ascertain whether it could be used with small groups and whether a subset of sessions could be selected for integration into a universal health promotion program. Second, a field-test of a subset of sessions with a small group of pregnant women in Ha Nam province was conducted (Fisher et al. 2014).

Based on the Vietnamese adapted version of the Thinking Healthy Program, the research team consulted local advisory groups (including psychologists, representatives of the Ministry of Health, Ministry of Labour, Invalids and Social Affairs, the Vietnam Country Office of the World Health Organization, UNICEF, and Save the Children Vietnam; and the Women's Union, commune health staff, and women in rural areas) to select essential mental health sessions to integrate into a multi-component intervention for early childhood development.

Stage 3: Pilot-Testing in Rural Vietnam

Setting: The multicomponent intervention was pilot tested in three rural communes in Ha Nam (a northern rural province 60 km from Hanoi, the nation's capital) where most people live by subsistence rice farming, supplemented by factory or construction work. Most women in this province can read and write the Vietnamese language to at least a Grade Six level.

Design: The two-year pilot project included content development, translation, and cultural adaptation; training of facilitators; and qualitative and quantitative outcome assessments. The mental health component was integrated into the multicomponent program which was implemented for 12 months. We recruited groups from across the life stage at which the Program is targeted and aimed to collect qualitative evidence from all stakeholders.

Within it we conducted a pilot cluster randomized controlled trial of women who were pregnant at recruitment, and who were assessed at baseline and a year later to ascertain intermediate outcomes.

Participants and recruitment: Women who were less than 20 weeks pregnant were eligible and invited to participate.

Training local facilitators: A three-day training program covering all information of the multicomponent intervention package and essential skills was provided to local facilitators (including Women Union, Commune Health Clinic and kindergarten staff) of three communes. It took 1 day to train Women's Union staff to facilitate the mental health component and a half of day of supportive supervision was provided in the first 2 months of the intervention implementation. Commune health station staff are people who have at least 2 years training in nursing or pharmacy. Kindergarten teachers are people who spent 2 or 4 years in childcare education. Women's Union staff have mostly completed high school (Grade 12) and have long-term experience in working with the local authority and the community to support the role of women.

Operation of the multicomponent intervention: The intervention was facilitated by Women's Union and commune health staff with fortnightly meetings. Each session lasted 1–2 h and was held at the village meeting hall. Project participants and their partners, and any interested family members were invited to attend the sessions. The implementation phase of the pilot test ran for 12 months. The mental health component was mainly facilitated by the Women's Union staff.

Qualitative Assessment of the Mental Health Component

Data sources: Acceptability, feasibility, and alignment with the strategic context in rural Vietnam were assessed using semi-structured interviews with key stakeholders and small group discussions and were documented with detailed field notes. *Acceptability* was investigated in terms of whether participants and facilitators found the mental health component comprehensible and useful (Peters et al. 2013). The main question addressed was whether and in what ways participants thought the mental health component was of value to women during the perinatal period. There was specific elicitation of perceptions of duration and scheduling of meetings, overall volume of information, the balance of information and opportunities for practice, use of demonstrations and visual aids, and applicability of the content in daily life. *Feasibility* was assessed as the degree to which the mental health component could be carried out in a multicomponent intervention for maternal and child health and what the barriers and enablers to implementation were (Peters et al. 2013). Facilitators were asked specific detailed follow-up questions about the duration of the mental health component; their capacity and confidence to present the content of the component, the use of teaching for adult learners, content of the facilitator's guide, mechanisms to maintain participation, relevance of between session activities for practice at home, potential benefits of conditional cash transfers and household visits to maximize uptake of activities, and documentation and reporting systems. *Fidelity* was assessed in terms of differences between the original package and the intervention implemented in this context (Peters et al. 2013). *Alignment with the strategic context* was assessed in consultation with national, provincial, and commune authorities, in health, education, and social work to identify long-term potential for integration of the mental health component into existing maternal and child health programs sustainably.

Data management and analysis: All in-depth interviews and group discussions with stakeholders were recorded after consent forms were signed. Records were transcribed fully by the research team. A deductive thematic approach was used to examine (Peters et al. 2013) the acceptability, feasibility, fidelity, and alignment with the strategic context.

Impact Assessment

Data sources: A pilot randomized controlled trial was implemented to provide preliminary evidence of impact among women who were pregnant at baseline. The endline survey was conducted after 1 year of the intervention.

The primary outcome was symptoms of perinatal common mental disorders which were assessed by Depression Anxiety and Stress Scale 21 – Vietnam validation (DASS 21-V). The DASS 21-V had previously been formally

validated against diagnostic psychiatric interviews, in rural Vietnam by the research team in a sample of 221 women. The sensitivity and specificity to detect symptoms meeting clinical diagnostic criteria were 79.1% and 77.0%, respectively. The scale is able to detect common mental disorders (depression and anxiety) among women in this setting (Tran et al. 2013). Data collectors were blinded to whether participants were in the intervention or control group. The survey questionnaire also included sociodemographic characteristics.

Data management and analysis: Quantitative data were collected by paper-based questionnaires and entered in a password-protected database using Access software. Only participants in both intervention and control groups who completed baseline and endline surveys were included in the analyses. Stata Version 13 (StataCorp LP, College Station, Texas, USA) was used to analyze the data. Regression analysis was performed to control for the difference between the control and intervention group at the baseline.

What We Learned?

Stage 1: Identification of Existing Relevant Interventions and Development of the Mental Health Component Materials

According to Rahman et al.'s 2013 systematic review, 13 interventions addressing perinatal common mental disorders had been trialed in resource-constrained settings (Rahman et al. 2013). Among these interventions, the Thinking Healthy Program developed and tested in Pakistan was found to be most effective intervention to address common mental disorders in LMICs. The program consists of five modules beginning at 30 weeks' gestation and continuing to 10 months postpartum. The program uses cognitive behavior therapy as the key method to treat depressed women with a consideration of the relationships of the mother and her baby, her family, and her community. Sixteen sessions were delivered in individual home visits by Lady Health Workers who were trained for 2 days and received monthly half-day supervision (Rahman et al. 2008). Therefore, this program was selected by the research team as potentially promising for adaptation for rural Vietnam.

Stage 2: Translation and Cultural Adaptation of the Mental Health Component

A fully translated and adapted Thinking Healthy program in Vietnam (called THP-V) was evaluated by the research team. The THP-V was adapted for use in group formats, and participants suggested that a smaller set of sessions would be useful for all women. The THP-V was found to be acceptable, comprehensible, and appropriate to pregnant women in rural Vietnam (Fisher et al. 2014). The result of this stage provided a complete version that was ready for use in a larger scale trial.

After consulting with the advisory group, four sessions (two sessions during pregnancy period and two sessions during postpartum period) were selected to be suitable to integrate in a multicomponent intervention which was a community-based psycho-educational program focusing on the first 1000 days of life from conception to the child's second birthday by equipping caregivers with knowledge and skills for effective self-care and parenting.

Materials Content and Design

The multicomponent intervention comprising 24 sessions covering topics including pregnancy care, breastfeeding, and complementary feeding; newborn care, care for children's common illnesses; child-caregiver interactions and play for cognitive stimulation; child injury prevention; maternal mental health and family supports for the mother and her baby. Each session included playing a short 5–10 min DVD and 60–90 min for short talks, group discussions, role play, caregiving practice, and question and answer discussions for a total 120-minute session. The sessions were assembled into five modules.

There are four mental health sessions out of 24 sessions. All mental health sessions focused on identifying negative thoughts, reframing them, and practice with support from the family and relatives. Participants were encouraged to describe any difficulties they were experiencing and applying the positive thinking approach among the group to find a possible and feasible solution with support from other group members and facilitators.

Stage 3: Pilot-Testing in Rural Vietnam

In total, five in-depth interviews and three group discussions were conducted among stakeholders including three interviews with representatives of commune People's Committees, two interviews with provincial and district Women's Union staff, and three group discussions with the intervention facilitators and participants in three intervention communes. In each commune in the intervention arm, one woman and her family were invited to share their experiences of and views about the program.

Qualitative Assessment of the Mental Health Component

Acceptability

Intervention content: Intervention participants appraised the content of the mental health component as highly salient, acceptable, and comprehensible. "I felt more confident in taking care of my son and I did not blame myself if my child was ill" (a 22-year-old teacher in Doi Son commune) and "The content is very practical. We live in a rural area, so this is the first time we heard about the mental health problems during maternal period. However, it's a new concept and it's about our thoughts. First, I found it's difficult for me to apply it. Then I talked to other mothers and Women's Union staff, I started to change my thoughts. Now I think I enjoy more being a happy mother" (a participant from Liem Can Commune). Mental health component was found to fit well into the multicomponent program. "We think that the mental health sessions are essential part to promote maternal and child health" (a commune health station staff from Doi Son commune).

Intervention format: Visual teaching followed by group discussions was ". . .a new approach and it was attractive to club participants. . ." (a health facilitator from Doi Son commune). "I learned not only through the session materials such as DVD instructional videos and practice role-plays but also through other members' experiences" (a 21-year-old new mother in Doi Son commune).

Feasibility

Women's Union facilitators reported some difficulties in facilitating mental health sessions. "Mental health is a new concept for us and it is uncommon to share our thoughts to others" (a facilitator in Liem Can commune). However, "after the first meeting, we contacted project officers to discuss about our difficulties to identify solutions. Now, we feel more confident to deliver the mental health sessions to women, and know how to help them feel better. It is easier for us to integrate the mental health message into messages for taking care of the child" (a facilitator in Doi Son commune).

Participation rate: On average, each woman attended 2.7 mental health sessions. The highest attendance was 4. The most common reasons for not attending some sessions were work commitments among employees of construction companies which did not permit time off for health programs. Around 70% women in the intervention arm were factory workers, and they had only two Sundays off a month.

Facilitators' capacity: Mental health is a new aspect for women in rural areas which is difficult to capture and share. Women's Union staff reported that at the first meeting, they were not confident in facilitating mental health sessions, because they think it is health-related topic. After discussing with project officers, they understand the social determinants of mental health problems, which is relevant to their routine activities. Then, Women's Union staff found the topic is feasible.

Teaching method: Visual approach by applying DVDs video and leaflets was found to be effective

and attractive for providing information to participants. However, this approach requires projectors and portable screen which created some difficulties for facilitators to set up a meeting.

Alignment with the Strategic Context

The program was found to fit the strategies of the health sector, the Women's Union and provincial authorities. "Perinatal mental health is an essential component to the maternal and child health. WHO has focused on this component to promote the early child development in developing countries. This is the first project in Vietnam to integrate the mental health component into a multi-component intervention for early child development. It will help to advocate the Ministry of Health to include this component in the existing maternal and child health program" (Hoang Thi Bang, PhD. – Professional in women's and children's health – WHO Office in Vietnam).

The Program received support from the Vietnam Women's Union. "This approach is consistent with our vision, fulfilling the gap in health care for women and children. This project meets the needs of our staff at the grassroots level. We desire to further develop policies for rural areas" (Nguyen Thi Tuyet Mai, Head of Family and Social affairs Department, Vietnam Women's Union).

In addition, "the project shared our vision, which is to improve the quality of human resource and poverty elimination with the involvement of multi-sectors" (Deputy Head of Doi Son local authority).

In term of health sector, "The mental health component aligned with the maternal and child health programs that we are implementing. It's a new concept, but we think its importance should be paid attention by health workers" (head of commune health station in Liem Can commune).

Impact Assessment

A total of 48 women in the control group and 64 women in the intervention group were pregnant at recruitment and completed both baseline and end-line surveys. The participants had a mean age of 26.8 years old (SD = 5.2), 48.2% completed secondary school, 66.07% were farmers and workers, more than 70% having average and better off household economic status.

After controlling for participants' baseline characteristics, women in the intervention had significantly lower total mean DASS-21-V score, compared to controls (mean difference = −2.96 (95% CI: −5.24; −0.67)).

Implications for the Subsequent Phase

The program was shown to be acceptable and feasible. Some revisions to content and mode of implementation were required before effectiveness could be tested in a community-based trial. Although the mental health component integrated into the multicomponent intervention was found to be acceptable, salient, feasible, and to have promising evidence of impact, there was a need to add further elements including understanding and managing relationships with their children, families, and friends; and social support received from mass organizations. In addition, the pilot test was under-powered to detect differences between groups. The next phase will require an adequately powered cluster randomized controlled trial, with process and economic evaluations conducted alongside the main trial.

Content Revision

In addition to the visual aids developed in the pilot phase, participants and facilitators require take home materials. Participant handbooks which have action-oriented steps with key messages for each session will be delivered to participants. The handbook will be revised to a low Vietnamese language literacy level and designed with culturally appropriate images to attract participants and their families. Facilitator Handbooks include short suggested scripts, and essential steps for each session will be developed.

Addressing Essential Elements

Domestic violence prevention: Violence perpetrated by an intimate partner is a significant risk factor for women's mental health. Since 2014, Vietnam has had a National Program of Action against Domestic Violence prevention and control up to 2020. Each commune has established a domestic violence program and a reconciliation committee to prevent domestic violence (Vietnam Prime Minister 2014). It was expected to be effective in reducing violence experienced by women who were pregnant or who had recently given birth in this setting. However, the National Program did not lead to any significant improvements among the intervention participants. The program was not informed by principles of gender equity and women's rights. Gender-based violence had been to some extent normalized and was considered to be a "private issue" rather than a violation of women's rights (Rasanathan and Bhushan 2011). Gender-based violence remains prevalent, and therefore, there is a need of a well-blended component to address the gender empowerment and to raise awareness that gender-based violence is both a crime and very harmful. A gender empowerment component will be added and integrated into the multicomponent intervention for maternal and child health. The gender component will aim to enhance knowledge about gender equity and women's rights, and to promote women's autonomy by increasing recognition of unpaid work, role in household financial management, and using the existing microcredit scheme to enable those who have no income-generating work to establish small businesses (Mayoux and Hartl 2009). Role of the husbands/male partners will be promoted in terms of empathy, involvement in household tasks and caring for the newborns.

Teaching method: Visual teaching method was a new approach which attracted participants in this project. However, this approach is not sustainable for local facilities because it requires projectors and screens. In addition, this method also does not encourage the communication between facilitators and participants. Therefore, the activity-based class with the support of visual aids and take-home materials will be adopted. Television and DVD player which are common in rural Vietnam will be used instead of projectors and screens.

Participation rate: To address the partial participation rate in the pilot phase, two approaches were used: (1) Household visits were conducted to participants who did not attend the meeting to update the mental health messages and to identify the actual reasons preventing them from attending the meetings; (2) take-home materials and a small gift given to participants who attend at least 80% of sessions to recognize their time away from income-generating work. Facilitators of communes with a low participation rate (<80%) were informed to encourage participants to attend the meetings; (3) intervention meetings will include people with the same gestational age in the meeting, and hence the meeting will provide more appropriate content to participants.

Inclusion of other family members: The mental health session was delivered mainly to pregnant women or new mothers. However, these women are commonly living in multi-generation families, and therefore, in the next phase, the intervention will include family members who directly influence the mental health of mothers. Partners and grandparents will be encouraged to attend the mental health session.

National integration: Department of Maternal and Child health, Ministry of Health will be invited to collaborate as an advisor to the implementation of the trial and to provide advice for the integration of the intervention into national existing programs.

Conclusion and Future Actions

The program fits the mandate of both the Women's Union and the Ministry of Labour, Invalids and Social Affairs, and meets each organization's need for structured evidence-informed activities to operationalise their goals.

In general, the mental health component integrated into a multicomponent intervention for maternal and child health is acceptable, feasible,

align with the strategic context and illustrates preliminary evidence of impact (Centre for Epidemiology and evidence NSWMoH 2014). It received a high recommendation for scaling up from both related government agencies, local authorities, international nongovernment organizations, and the community. The pilot phase was proved to fit well into the existing system in rural Vietnam to address the first five goals of the Sustainability Development Goals developed by United Nations, and UNICEF and WHO Nurturing Care Framework. In 2016, we secured further funding from the Australian National Health and Medical Research Council (NHMRC) to implement a cluster randomized controlled trial (Learning Clubs for Women's Health and Infant Health and Development) which included the mental health and gender empowerment components. In 2017, we secured matched funding in a competitive round from Grand Challenges Canada to conduct process and economic evaluations alongside the main trial and develop and implement a business innovation plan.

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