An Evidence-based guideline
of postpartum psychoeducation programme
to improve maternal postpartum depressive symptoms

By

Poon Lai Chu
BNURS, HKU, RN

For Master of Nursing
The University of Hong Kong

A thesis submitted in partial fulfillment of the requirements for
the Degree of Master of Nursing
at the University of Hong Kong.

July 2016
Declaration

I declare that this thesis represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualifications.

Signed ...............................................................................................................

Poon Lai Chu
I would like to express my deep gratitude to my dissertation supervisor, Dr. Elizabeth Hui for her inspiring and valuable suggestions during the planning and development of this review. Dr. Hui has provided me with professional guidance and constructive recommendations on my study.

I would also like to express my sincere thanks to my colleagues in Kowloon City Maternal and Child Health Centre and Nursing Officer in charge, Miss Adelaide Choi for their encouragement and assistance during my study.

Last but not least, I would like to offer my special thanks to my family and Mr. Dennis Lee for their great support and patience throughout my study.
Abstract of thesis entitled

“An Evidence-based guideline of postpartum psychoeducation programme to improve maternal postpartum depressive symptoms”

Submitted by

Poon Lai Chu

for the degree of Master of Nursing

at the University of Hong Kong

in July 2016

Postpartum depression has become a significant public health concern. It was found to affect more than 10% local Chinese mothers in Hong Kong. Postpartum depression brings about significant impact on mother, child and spouse. However, there is insufficient support on psychological issues for the
mothers during postpartum period.

Research studies have consistently identified that postpartum depression is treatable, and preventive approach is recommended. Evidence from many studies suggested that psychoeducational intervention in postpartum period is effective in improving depression status among postpartum mothers.

In this thesis, five studies related to the effectiveness of postpartum psychoeducation programme on reducing maternal postpartum depressive symptoms were reviewed and appraised. The feasibility of applying the findings of these studies was discussed and evaluated.

An evidence-based guideline was developed for health professionals in Maternal and Child Health Centre of the Department of Health in Hong Kong to offer psychological support to local mothers during postpartum period. The purpose of this guideline is to help nurses to promote mental health among postpartum mothers.
Contents

DECLARATION........................................................................................................... II

ACKNOWLEDGEMENTS......................................................................................... III

ABSTRACT OF THESIS ENTITLED ....................................................................... IV

CONTENTS.............................................................................................................. VI

CHAPTER 1: INTRODUCTION ............................................................................... 1

1.1 BACKGROUND .............................................................................................. 1
1.2 AFFIRMING NEEDS .................................................................................. 3
1.3 OBJECTIVES & SIGNIFICANCE ................................................................. 6

CHAPTER 2: CRITICAL APPRAISAL ................................................................. 9

2.1 SEARCH & APPRAISAL STRATEGIES ...................................................... 9
2.2 RESULTS ....................................................................................................... 11
  Participants ...................................................................................................... 12
  Intervention and Control .............................................................................. 12
  Outcome ......................................................................................................... 13
2.3 QUALITY ASSESSMENT .............................................................................. 14
  Randomization .............................................................................................. 14
  Concealment ................................................................................................. 15
  Blinding .......................................................................................................... 15
  Baseline characteristics ............................................................................... 16
  Outcome measure ........................................................................................ 17
  Drop-out rate ................................................................................................. 17
  Intention to treat ........................................................................................... 18
  Multisite comparisons ................................................................................ 18
  Level of evidence .......................................................................................... 18
  Application to the targeted population ....................................................... 19
  Summary and synthesis ............................................................................... 20
  Conclusion ..................................................................................................... 21

CHAPTER 3: IMPLEMENTATION POTENTIAL & CLINICAL GUIDELINE ......... 23

3.1 TRANSFERABILITY OF THE FINDINGS .................................................... 24
  Target population .......................................................................................... 24
APPENDIX .......................................................................................................................... 25
Proposed population & population from evidence ................................................................. 26
Philosophy of care .................................................................................................................. 26
Sufficiency of number of clients in the practise setting ....................................................... 27
Time frame of the pospartum psychoeducation programme .............................................. 28
3.2 FEASIBILITY .................................................................................................................. 29
3.3 COST-BENEFIT RATIO OF THE INNOVATION ................................................................. 32
Potential Risk To Clients ...................................................................................................... 32
Potential benefits to clients ................................................................................................. 32
Risk of maintaining the current practices ........................................................................... 33
Costs of implementing the innovation ................................................................................ 34
Potential non-material benefits ........................................................................................... 35
3.4 EVIDENCE-BASED PRACTICE GUIDELINE ................................................................ 36
CHAPTER 4: IMPLEMENTATION PLAN ............................................................................... 37
4.1 COMMUNICATION PLAN .............................................................................................. 37
Administrators ....................................................................................................................... 37
Programme staff ................................................................................................................... 39
Postpartum mothers ............................................................................................................. 40
4.2 PILOT STUDY PLAN ...................................................................................................... 41
4.3 EVALUATION PLAN ....................................................................................................... 43
Participant outcome .............................................................................................................. 43
Healthcare professional outcome ....................................................................................... 44
System outcome ................................................................................................................... 45
Nature and number of participants to be involved ............................................................... 47
Data analysis ......................................................................................................................... 47
4.4 BASIS FOR IMPLEMENTATION ...................................................................................... 48
CONCLUSION ....................................................................................................................... 49
APPENDIX ............................................................................................................................. L
APPENDIX A - PRISMA 2009 FLOW DIAGRAM ................................................................. L
APPENDIX B - TABLE OF EVIDENCE ............................................................................... LI
APPENDIX C ......................................................................................................................... LIV
APPENDIX D - QUALITY ASSESSMENT USING SIGN METHODOLOGY CHECKLIST FOR CONTROLLED TRIALS .............................................................. LXXII
APPENDIX E - BUDGET PLAN ........................................................................................... LXXV
APPENDIX F - EVIDENCE-BASED PRACTICE GUIDELINE ............................................. LXXVI
APPENDIX G - CHINESE VERSION OF EPDS BEING USED IN MCHCs CURRENTLY (P.1) ............................................................................................................................. LXXX
APPENDIX G - CHINESE VERSION OF EPDS BEING USED IN MCHCs CURRENTLY
(P.2).........................................................................................................................LXXXI
APPENDIX G - ENGLISH VERSION OF EPDS BEING USED IN MCHCs CURRENTLY
(P.1)..........................................................................................................................LXXXII
APPENDIX G - CHINESE VERSION OF EPDS BEING USED IN MCHCs CURRENTLY
(P.2)..........................................................................................................................LXXXIII
APPENDIX H - HEALTHCARE PROFESSIONAL SATISFACTION SELF-REPORTED
QUESTIONNAIRE ......................................................................................................LXXXIV
REFERENCE ..........................................................................................................LXXXV
CHAPTER 1: INTRODUCTION

1.1 BACKGROUND

Postpartum depression (PPD) is a major health issue for women respective of their cultural background. It has become a common health problem affecting an increasing number of contemporary Chinese women. (Lee, Yip, Chiu, Leung, & Chung, 2001) Postpartum depression, also called postnatal depression, is defined as a “major depressive disorder with peripartum onset” by Diagnostic and Statistical Manual of Mental Disorders (DSM-V), (APA, 2015) which is referring the occurrence of clinical depression during pregnancy or after childbirth. Postpartum depression is a serious psychiatric disorder since it brings about significant impact not only on mother, but also the child and spouse, leading to poor mother-infant bonding, (Tronick, & Reck, 2009) marital disharmony, (DH, 2015) as well as causing long-term adverse effects on the emotional and cognitive development of the children. (Sutter-Dallay, Murray, Dequae-Merchadou, Glatingny-Dallay, Bourgeois, & Verdoux, 2011) (Murray & Cooper, 1997) A deterioration in postpartum depression may lead to postpartum psychosis, which could result in suicide or infanticide. Mental health problems affecting mothers can lead to increased maternal mortality rate, through adversely affecting their physical
According to the Department of Health, the symptoms of postpartum depression included persistent depressed mood, fatigue, irritability, sleeplessness, early morning wakening, loss of appetite, anxiety, panicky feeling, feeling of inadequacy, feeling of being punished, and pain such as headache, backache, shoulder pain and abdominal pain. (DH, 2015) These symptoms are no different to the symptoms from depressive episode at other times.

Following childbirth, oestrogen and progesterone levels rapidly decrease and return to pre-pregnancy level. Bloch, Schmidt, Danaceau, Murphy, Nieman, and Rubinow (2000) provided supportive evidence of the involvement of the oestrogen and progesterone in causing postpartum depression. Different clinical conditions, psychosocial, obstetric and infant related factors can also contribute to an increased risk of postpartum depression, for examples, lack of experience, poor social support after childbirth, lack of adequate rest, and high self-expectation of motherhood, and incompetence in role change, (DH, 2015) are factors commonly make mothers more stressful and prone to low moods. Some of these factors can be prevented or are amendable habits, subject to early detection and
interventions.

A recent review revealed supportive evidence on the effects of psychological interventions for postpartum depression, (Dennis & Dowswell, 2013) suggesting that educational interventions with psychological approach might significantly prevent this condition. It also recommended introducing these interventions in the postpartum period.

1.2 AFFIRMING NEEDS

Postpartum depression is considered as a global public health challenge, as between 13% and 19% of women worldwide developed depression after childbirth. In Hong Kong, the prevalence of postpartum depression is 10.3% at one month postpartum and 11.2% at 3 months postpartum, (Lee et al., 2001) meaning that there is about one in every ten local Chinese women who experience depression after delivery, which is comparable to the global rate. However, from a more recent prospective cohort study conducted from 1 August 2009 to 31 August 2010, the prevalence of postpartum depression was found to be higher at 15.7%. (Siu, Leung, Ip, Hung, & O’Hara, 2012) By comparing the figures from 2001 and 2012, there is a significant rise in the rate of postpartum depression among Chinese women in Hong Kong.
Comprehensive Child Development Service (CCDS) was launched in 2005 in Maternal and Child Health Centres (MCHCs) of the Department of Health in Hong Kong. It is a collaborative services with the Hospital Authority (HA) and Social Welfare Department. One of the main services provided by CCDS is postpartum emotion screening programme, the Edinburgh Postnatal Depression Scale (EPDS) in which [Chinese version] is used as an assessment tool. (Lee, Yip, Chiu, Leung, Chan, Chau, Leung, & Chung, 1998) This is a questionnaire containing ten items, and was developed to identify women with depressive symptoms after giving birth. Items of the scale correspond to various clinical depression symptoms, such as sleep disturbance, low energy, guilt feeling, and suicidal ideation, with the overall assessment is done by calculating total score, determined by adding the scores together for each of the ten items with higher scores referring to more depressive symptoms. EPDS may be used within 8 weeks postpartum and it can also be applied for depression screening during pregnancy. (Cox, Holden, & Sagovsky, 1987) The full score of the scale is 30 and by convention, a total score of thirteen or above warrants further evaluation or assessment of the client’s psychological status. In MCHCs, the cut-off score is ten (≥ten means positive). During clinical interviews in MCHCs, trained MCHC nurses use the EPDS to assess
mothers’ mood routinely. Then, MCHC nurses provide initial assessment of mood and counselling to the mothers who are screened positive. During the counselling, MCHC nurses give advice for coping with postpartum depressive symptoms and childcare-related stress to the mothers. Through the screening programme, those mothers who need social support are identified and will be referred to social workers via the Integrated Family Service Centre (IFSC) of the Social Welfare Department. Those mothers who have depression or psychiatric symptoms are also identified and are referred to psychiatric service of HA for further management.

During the postpartum period, the only education programme provided by MCHCs is a parenting programme, which is focused on information and knowledge about childcare, child growth and child development. There is a lack of psychoeducational interventions suitable for Hong Kong mothers to improve maternal mental health outcomes.

By observation, a growing number of depressed mothers are being identified by MCHCs through the postpartum depression screening programme. Mothers who develop postpartum depression reported they were suffering from low mood, loss of interest, sleeplessness or loss of appetite. They also felt fatigue, anxious and helpless. Some of them may even develop
postpartum psychosis with hallucination, delusion and thoughts of suicide or harming their babies.

1.3 OBJECTIVES & SIGNIFICANCE

As the vision of MCHC is to lead the community in promoting the health and well-being of children, women and families in Hong Kong, further development on postpartum care service is necessary to prevent women from having postpartum depression. As we know, a complementary relationship exists in a family among each family member. If the mother appreciates the joys of motherhood and enjoys the taking care of her infant, it will sustain a stronger mother-infant bonding, enhancing the parents’ competence in their role changes. As discussed earlier, the mental well-being of mothers is crucial to the infant’s development and maintenance of family harmony.

Research studies have consistently identified that postpartum depression is treatable, and early detection and treatment are highly important to help cure this disorder. (Lee, Yip, Leung, & Chung, 2000) In the findings of various literatures (Dennis & Dowswell, 2013), psychoeducational interventions were found to be effective in improving parental attitudes, self esteem and emotional health. These can lead to reduction in parental anxiety, depression,
stress and marital conflict. Thus, psychoeducational programmes may help reduce postpartum depression rate among women.

Preventive approach is suggested to develop the interventions of postpartum depression by Dennis, (2005), who found that intensive, professionally-based postpartum support will likely be beneficial for reducing postpartum depression among women. Hence, MCHC as a primary care unit would be a preferable setting to implement such a postpartum psychoeducational programme.

There is evidence from numerous studies to suggest psychoeducational interventions have significant effect in improving mental health outcomes for postpartum mothers. For generating an evidence based guideline for postpartum psychoeducation programme, a systematic review is necessary. The objective of this review is to collect the evidence about effectiveness on the psychoeducational programmes for reducing maternal postpartum depressive symptoms.

The PICO are listed as follow:

P = Mothers at postpartum period

I = Psycho-educational programme

C = No psycho-educational programme
O = Depressive symptoms

A research question and PICO were set up to help collecting evidence. The question is “Is postpartum psychoeducation programme in MCHCs effective at reducing postpartum depressive symptoms compare to no postpartum psychoeducation programme.”
CHAPTER 2: CRITICAL APPRAISAL

2.1 SEARCH & APPRAISAL STRATEGIES

In order to search the corresponding articles for this study, two electronic databases PubMed and CINAHL are used. PubMed which is held by US National Library of Medicine of National Institutes of Health comprises a range of biomedical literature from MEDLINE, life science journals, and online books. CINAHL via EBSCO provides broad content coverage of nursing, allied health and medicine journals.

Inclusion criteria were all randomised controlled trials of psycho-educational interventions in which the primary or secondary outcome was a reduction in the depressive symptoms, with full-text available and be written in English. Articles were excluded if they were not focused on maternal education programme. Articles without a standardized measuring method were also removed from the selections, as were those which were included in the previous systematic review. The last search date was 20 November 2015.

Two sets of keywords were applied, one was related to the outcome which was depressive symptoms and another one was related to the intervention which was psycho-educational programme. Various combinations
of keywords were used in searching articles through the databases mentioned above. For the outcome, the keywords used were “postpartum depression”, “postnatal depression”, and “maternal depression”. For the intervention, the keywords used were “education”, “psychoeducation”, “programme”, “program”, “education programme”, “education program”, “psychoeducation programme”, “psychoeducation program”, “postpartum programme”, “postpartum program”, “postnatal programme” and “postnatal program”. After manual searching with these keywords, 443 articles were found from PubMed and 361 articles were found from CINAHL.

Limitations were set for selecting the articles that suited the criteria of this review. Firstly, the duplication between the articles from PubMed and CINAHL were removed. Then, the articles were limited to randomized-controlled trials only since they provide higher quality of evidence. Lastly, only the articles written in English with full text available were selected. 65 articles from PubMed and 32 articles from CINAHL were left.

Next, the 97 articles combined from the two databases were screened with the exclusion criteria which were mentioned above. At last, five articles resulted after the search strategies, one from PubMed and four from CINAHL.
2.2 RESULTS

Five journal articles from 2010 to 2015 were yielded from two electronic databases. No additional studies were found from searching the reference lists of the five journal articles. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flowchart was used to describe the flow of information through the different phases of the review. (Moher, Liberati, Tetzlaff, Altman & The PRISMA Group, 2009) It projects the number of articles identified, included and excluded. Details of PRISMA flowchart are shown in Appendix A.

Four of the eligible studies were randomized controlled trials, the other one was a before and after controlled trial. Two of the randomized controlled trials were studies from China (Guangzhou), the other two randomized controlled trials were studies from Singapore and Australia. The before and after controlled trial was also a study from Australia. A table of evidence included the evidence from all the eligible studies is showed in Appendix B. The table of evidence summarized the critical information such as study characteristics and study findings from the five eligible studies. It provided an overview of the studies and helped to compare the similarity and differences among the data. The following paragraphs are the summary of the important
information grasped from the five studies.

Participants

Postpartum women were recruited from medical settings in all of the five eligible studies. Four of the studies invited participants from hospitals. The before and after controlled trial invited participants from primary care units. Three of the five studies recruited first-time mothers. One of the five studies recruited couples with firstborn infants, the rest one recruited both primiparous and multiparous women. The range of sample size was between 122 and 399. All of the studies excluded participants if they had psychiatric history, except one study which recruited couples.

Intervention and Control

In all of the five studies, the intervention groups attended a postpartum programme which contained a psychoeducation section. During the section, midwife provided the new mothers information about maternal postpartum care and infant care. Also, the nature and course of postpartum depression was given. Last but not least, midwife discussed with the new mothers how to cope with the difficulties they would meet in the postpartum period. Routine care
was delivered to both intervention groups and control groups. Thus, all eligible studies compared the groups receiving postpartum psychoeducational intervention with no postpartum psychoeducational intervention as their control. Participants from three of the five studies received the intervention programme in hospitals, whereas the other two studies were carried out in MCHC or a home visit setting.

Outcome

All of the five eligible studies used EPDS as the tool for measuring the presence of depressive symptoms. EPDS is a standardised psychometric instrument used to assess depressive symptoms (Cox, Holden, & Sagovsky, 1987) and is valid and reliable. In all the studies, the scoring of the tool was well explained. Scores of 13 and above were classified by the criteria as depression. In all of the five studies, pre- and post-tests were performed to gain data before and after intervention. One of the studies contained two time point measurements; post-tests were performed at eight weeks follow up and 12 weeks follow up. The differences in score of EPDS were compared. The data was presented as 95% confidence interval (CI). Statistical significance was set as p<0.05. Four of the reviewed studies achieved a medium effect size.
of 0.35. The other one achieved a large effect size of 0.60.

2.3 QUALITY ASSESSMENT

Scottish Intercollegiate Guidelines Networks (SIGN) methodology checklist 2 was used as the tool of appraising for the five eligible studies. (Appendix C) This checklist is specifically for appraising randomised controlled trials. SIGN established evidence based clinical practice guidelines for the National Health Service (NHS) in Scotland. SIGN guidelines were derived from a systematic review of the scientific literature and were designed as a vehicle for accelerating the translation of new knowledge into action to meet our aim of reducing variations in practice, and improving patient-important outcomes. Therefore, the SIGN checklist is a reliable tool for appraising studies. All of the five eligible studies for this thesis addressed well defined and clearly focused research questions.

Randomization

Randomization is the basis of randomized controlled trials, to which belonged four out of the five studies, where randomization methods were used to allocate participants to the intervention or the control groups, and the
mechanism of randomization were clearly stated. Three of them used a computer programme to generate random number lists to assign participants to the intervention or control groups randomly, which can be considered a trustworthy method of randomization. The other one of them used table of random numbers to do random allocation. Only one of the five studies, which is a before and after controlled trial, that did not employ a randomization method. The reliability of evidence for this controlled trial was limited.

**Concealment**

Allocation concealment is important for the randomization process. It ensures that the participants are kept from knowledge of the allocation before the intervention started. Adequate allocation concealment can minimize selection bias. Three of the five studies sealed the allocation in opaque envelopes. For the other two studies, one did not specific the concealment method, while the other reported no concealment method was used.

**Blinding**

Blinding refers to avoiding people, such as participants and investigators, from knowing which interventions the study participants are receiving. For
single blinding, only the study participants are blinded to which treatment they are receiving, whereas for double blinding both the study participants and investigators are blinded from knowing treatment the allocation. Blinding was not mentioned in two of the five studies, and another two studies reported no blinding method used. Only one study stated that the researcher conducting data analysis was blinded from the study protocol.

**Baseline characteristics**

In each of the five studies, the baseline characteristics of intervention groups in comparison to control groups such as age, gestation weeks and education level had been clearly listed with figures. Four of them had commented on that there was no significant difference between intervention group and control group at the beginning of the trial. Adjustments in the analysis were made in one of the studies to prevent any such differences from affecting the outcomes. Furthermore, no additional treatments were given to both intervention and control groups in all studies, indicating that the postpartum programme would be the only difference between the intervention and control groups.
**Outcome measure**

As mentioned above, depressive symptoms were measured by EPDS using a cut-off score of thirteen in all of the five studies. As the scores for EPDS range from 0 to 30, at or above the cut-off score refers to the presence of depressive symptoms. Detailed outcome measures were reported in all the studies with explanation on how scoring tool was utilized. Four of the studies took depressive symptoms as their primary outcomes, while another took it as its secondary outcome. Some of the studies also explained the validity and reliability of EPDS. Apart from depressive symptoms, other outcome measures such as social support, maternal self-efficacy and maternal role competency had also been assessed in these studies.

**Drop-out rate**

The drop-out rate of a study represents the number of participants that withdrew from the study. A high drop-out rate may bring about bias. The drop-out rates of both intervention and control groups in three of the five studies were below or around 10%. One study contained 6.6% and 16.4% drop-out rate in intervention and control groups respectively. Only one study contained relatively high drop-out rates which were 14.9% in intervention
group and 22.7% in control group.

**Intention to treat**

In all of the five studies, an intention-to-treat analysis of results was adopted. Intention-to-treat means every participant randomized in the trial is counted to be part of the trial even the participant withdrew from the trial. Using intention-to-treat signifies lower probability of type one error.

**Multisite comparisons**

Four of the five studies conducted the trials at one single site, while the remaining study conducted its trial in the primary care settings of seven local government areas in the Australian state of Victoria. (Fisher, Wynter, & Rowe, 2010), and the authors pointed out that results of the trial were comparable for all sites.

**Level of evidence**

According to the SIGN Grading System 1999 – 2012, the level of evidence of the five eligible studies for this review were graded 1++, 1+ and 1-. After assessing all the items of internal validity of the five studies via SIGN,
the studies for this review were graded according to their strength of results. For the RCT with strong statistical power and well-validated measurements and very low risk of bias, it is graded as 1++. In this review, three studies were graded as 1++. (Gao et al., 2015, Shorey et al., 2015, Norman et al., 2010) For the RCT with some uncertainty of effect is graded as 1+. One study for this review was graded as 1+. (Gao et al., 2012) In this study, allocation concealment was not mentioned and the drop-out rate was relatively high. For the RCT with high risk of bias due to poor methodology is graded 1-. One study for this review was graded as 1- since it did not employ randomization. (Fisher et al., 2010)

Application to the targeted population

In all of the five studies, women were recruited during their early postpartum period to be their target population. The population of these five studies is same as the target population of this review. One study recruited couples to participate the trial. (Fisher et al., 2010) All of these studies adopted a postpartum programme which contained a psychoeducation section in postpartum care settings as their intervention. This intervention was proved by all the studies that it is effective in reducing depressive symptoms.
Summary and synthesis

All the five studies concluded with positive results agreeing that psychoeducational programme improved maternal psychological well-being. All the studies demonstrated with evidence that such psychoeducation programme is effective in minimizing women’s postpartum depressive symptoms with. However, for one of the studies rated as 1+ (Gao et al., 2012) that adopted a perinatal programme consisting antenatal and postnatal sections instead of just the postnatal section, the result from this study may be considered less significant towards supporting the objective of this review since its intervention not only focused to the postnatal section.

In two of the studies which were rated as 1++ (Gao et al., 2015, Shorey et al., 2015), postnatal psychoeducation programme was applied to postnatal care. These two studies indicated that the psychoeducation programme was effective in decreasing maternal depressive symptoms. In the study conducted by Gao et al. (2015), the psychoeducation programme consisted of one-hour education session in the postnatal ward and one follow-up telephone call. In the study conducted by Shorey et al. (2015), the psychoeducation programme consisted of a 90-minute education session during postnatal home visit and three follow-up telephone calls. These two studies provided higher level of
evidence towards this review.

The study conducted by Norman et al. (2010) was rated as 1++, a weekly psychoeducation programme was used as the intervention for eight weeks. The programme consisted of a 30-minute psycho-educational session and a one-hour group exercise with babies. Since this psychoeducation programme was combined with exercise session, the positive result obtained from this study was probably associated with the effect of the exercise session. The evidence provided by this study was not as strong as the previous two.

In the study with 1- rating conducted by Fisher et al. (2010), the intervention was a half-day psychoeducation programme. The programme consisted of a face-to-face session in MCHC. As this study was not randomized, the quality of the evidence provided by it is considered to be lower than the other four studies.

Conclusion

In summary, two of the five eligible studies, both ranked as good quality, furnished strong evidence in support of the effectiveness that a psychoeducation programme provides reducing postpartum symptoms. The other three studies also contributed some evidence to sustain the objective of
this review. Meanwhile, further studies on this topic should be carried out to develop further recommendation.
CHAPTER 3: IMPLEMENTATION POTENTIAL & CLINICAL GUIDELINE

From the results of the critical appraisal, postpartum psychoeducation programme is effective in reducing postpartum depressive symptoms. It helps to minimize postpartum depression among mothers. The five selected studies provided supporting evidence to the effectiveness and feasibility of having the psychoeducation programme in postpartum care for mothers. (Fisher, Wynter, & Rowe, 2010; Gao, Chan, & Sun, 2012; Gao, Xie, & Chan, 2015; Norman, Sherbum, Osborne, & Galea, 2010; Shorey, Chan, Chong, & He, 2015)

In this chapter, the potential implementation and the clinical guideline of the proposed innovation will be discussed. The innovation is planned to be a weekly programme to be run for 6 months. The programme will be organised in Maternal and Child Health Centre (MCHC) with a 90-minute education session every Friday afternoon and one follow-up telephone call within one week after the programme. A group of around 20 mothers in each session has been estimated. Participants of the programme will be recruited in MCHC during the new registration of newborn. At the new registration, nurses will interview the parents and collect the medical history of the child and parents and record it in their individual files. Nurses will recruit the postpartum
mothers as participants of the programme during these new case interviews.

The innovation is proposed to be a psychoeducational programme for postpartum mothers in MCHC. The aim of the programme is to reduce mothers’ postpartum depressive symptoms and to provide support for mothers during their early postpartum period.

3.1 TRANSFERABILITY OF THE FINDINGS

Target population

The target population of the innovation is Chinese postpartum mothers who have no psychiatric history. Postpartum mothers will be recruited with consents in MCHC during their first visit. Mothers in Hong Kong normally give birth in hospitals under the Hospital Authority or private hospitals, who are usually discharged from hospitals around two to three days after delivery. After being discharged from hospital, the postnatal mothers bring their newborn babies to attend MCHCs for new registration. MCHCs will then offer postnatal check-ups to the mothers, and growth and development monitoring and an immunisation programme for their babies. Most of the mothers will bring their babies to MCHCs regularly for vaccination. It is considered to be the most appropriate time to recruit postpartum mothers during their first visit
to MCHC because this can help mothers to be well equipped with knowledge and information about managing child-care and their postpartum mood problem as soon as possible.

**Setting**

The proposed setting is MCHC of Department of Health. The setting of one of the reviewed studies was MCHC, and no difficulty was found in arranging the innovation in MCHC by the researcher. The settings of three out of the five reviewed studies were hospitals. Although the clinical setting of hospitals is different from MCHC, the innovations in all of the five studies were performed by midwives or nurses. Similarly, the tasks of the innovation will be performed by midwives and nurses in MCHC. MCHCs in Hong Kong are operated by Family Health Service of the Department of Health. The Department of Health is a government department in Hong Kong. MCHCs provide multiple services and support for mothers and their children. For the proposed innovation, midwives and nurses from MCHC are needed to assist the recruitment of participants and to take charge of the postpartum psychoeducation programme.
Proposed population & population from evidence

The proposed population is Chinese mothers who are in the period shortly after giving birth. In all of the reviewed studies, postpartum mothers were also recruited as their target population. In three of the five studies, the target population was Asian. In spite of the fact that the other two studies were focused on non-Asian, the characteristic of their target population were similar to the proposed population, since both of their mothers were of child-bearing age and without pregnancy or labour complication. As a result of this, the innovation suggested by the studies is applicable to the proposed setting.

Philosophy of care

MCHCs in Hong Kong are operated by the Department of Health which is a government department. The vision of MCHC is to lead the community in promoting the health and well-being of children, women and families in Hong Kong. One of the missions of MCHCs is to develop evidence-based strategies and programmes to meet the changing needs of the community. Likewise, the philosophy of care of the innovation coordinates with that of the proposed setting.

The principle of the postpartum psychoeducation programme is to promote mental health among postpartum mothers in Hong Kong. By the
implementation of the education programme, postpartum depression among mothers can be diminished. Mothers are able to get intensive postpartum support from health professionals, and they become better at managing their infant care and become more capable of building a satisfactory relation with their infants. Strong parent-infant bonding benefits the child’s growth and development.

**Sufficiency of number of clients in the practise setting**

In all of the studies reviewed in the previous chapter, the target population was postpartum mothers, which is the same as the target population of the proposed innovation. The proposed innovation will be put into action in one particular MCHC in Kowloon. In Hong Kong, about 59,900 babies were born during the year of 2015, (Census and Statistics Department, 2015) and the yearly statistics of the particular MCHC shared that there were over 2,000 postpartum mothers registered in this MCHC in 2015, breaking down into around 200 newly registered postpartum mothers per week. The statistics shows that there is a sufficiently large number of potential clients for the innovation in that MCHC.
Time frame of the pospartum psychoeducation programme

In total, a year is required for the preparation, implementation and evaluation of the postpartum psychoeducation programme. For the preparation, three months is estimated for preparing the programme which includes printing pamphlets, arranging the duty of nursing staff and producing visual aids such as PowerPoint presentation and videos for the education session. For the implementation, the education session of the programme will be held by midwives on every Friday afternoon. One follow-up phone call by midwives will then be arranged within one week after the education session. Four education sessions will be run in a month. The programme will be run for 6 months with 24 education sessions to obtain sufficient data for evaluation. An evaluation of the effectiveness of the psychoeducation programme will be conducted at the end of the innovation. A comprehensive evaluation and report will be finished within three months. 12 months will be needed for the entire process including the preparation, 24 education sessions with follow-up phone calls, and evaluation.

If the innovation brings positive impact, it will be introduced to all MCHCs in Hong Kong.
3.2 FEASIBILITY

Promoting maternal mental health is one of the main roles of MCHC of the Department of Health. The postpartum psychoeducation programme will fit into this main role as it aims at assisting mothers to maintain mental health in their postpartum period. Obtaining the approval from the service head of Family Health Service of the Department of Health is necessary. Gaining the support from the nursing officer in charge is also required to administer the innovation in MCHC.

The innovation will be lead and monitored closely by the proposer. The involved staff can discuss with the proposer if there are anything that they are unclear of. The nursing staff will be free to join or to withdraw from participating in the innovation. If the innovation is found to be undesirable to the participants, the involved nurses have the freedom to terminate the innovation.

The innovation will be carried out in the MCHC. Since there are existing regular education programmes such as “Happy Parenting Workshop” and “Positive Parenting Programme” organised by MCHC, the nurses from MCHC are experienced in holding education programmes. A half-day orientation programme with training session will be held by the proposer of the
innovation for the involved nurses. A clinical psychologist from the Family Health Service of the Department of Health and a psychiatrist from HA will be invited to be the lecturers. Benefits of the innovation and details of the postpartum psychoeducation programme will be explained through this orientation programme, which will be held on non-service Saturday, so that it will be not necessary to release the nursing staff for the orientation programme during office hours. Consensus among the staff and among the administrators will be obtained before applying the innovation to the postpartum service of MCHC.

The implementation of the innovation will not interfere inordinately with current staff functions. During the non-infant session on Friday afternoon, one midwife will be the lecturer of the education session; another midwife will make the follow-up phone calls to the participants. The administration in the MCHC fully supports the innovation. Nurses help to recruit participants through the new case interview and to obtain their consents. The first EPDS questionnaire will be filled out by the participants during the interview as pre-test for the programme. Then, a second EPDS questionnaire as a post-test will be done by the participants at the postpartum check-up. Maternal postpartum check-up is the current service provided by MCHCs at six weeks
after childbirth. As usual, postpartum mothers are invited to complete an EPDS questionnaire during the postpartum check-up session. Edinburgh Postnatal Depression Scale (EPDS) has been used to assess the depressive symptoms of postpartum mothers in MCHC since 2005. The outcomes of the five studies reviewed were measured by EPDS as well. Thus, EPDS would be the most suitable tool for measuring the outcome of this innovation.

Resistance or uncooperativeness should be minimal. A detailed proposal of the proposed innovation will be given to the MCHC. It is envisaged that not much extra workload will be added to the current service: For the involved nursing staff, there will be a need to revise and improve the knowledge of postpartum depression. Nurses in the MCHC are well trained to offer counselling and support to depressive postpartum mothers, which is an in-service training. Therefore, nurses in the MCHC are already equipped with plenty of knowledge on how to cope with depressive moods during postpartum period and about the resources available for supporting postpartum mothers in the community. Latest information and knowledge of postpartum depression will be provided to the nursing staff with written materials in the orientation programme. The midwives for teaching the education sessions will be needed to assist the proposer to establish the PowerPoint for the education sessions of
the postpartum psychoeducation programme. When nursing staff need to be released from other practice activities to prepare and implement the innovation, part-time nurses will be called to replace them.

A large and well-equipped education room is available in the MCHC. It can accommodate more than 50 people. Desktop, audio equipment, projector and screen are prepared in the room. Also, pamphlets about postpartum depression and infant care are available in the MCHC. The now existing facilities enhance the feasibility of the innovation.

3.3 COST-BENEFIT RATIO OF THE INNOVATION

Potential Risk To Clients

There are no potential risks to both the participants and the involved staff of the innovation. The postpartum psychoeducation programme will be implemented in the designated MCHC where is a safe environment.

Potential benefits to clients

Postpartum mothers who have undergone the postpartum psychoeducation programme would experience less depressive symptoms during the postpartum period. Intensive postpartum support by health
professional and exclusively postpartum interventions in early postpartum period bring a clear effect on decreasing depressive symptoms. (Dennis, & Dowswell, 2013) The innovation will be introduced to mothers during their early postpartum period. It will help postpartum mothers to reduce the risk of having postpartum depression. At the same time, postpartum mothers will gain more knowledge on infant care through the programme, which will help them to be better at managing and in taking care of their infants.

**Risk of maintaining the current practices**

The figures mentioned in Chapter 1.2 indicated a significant rise in the rate of postpartum depression among Chinese women in Hong Kong. If the proposed innovation was not carried out, it is expected that there will be an increasing number of mothers having postpartum depression. Some of the postpartum depression may even deteriorate to a stage of postpartum psychosis with hallucination, delusion and thoughts of suicide or harming babies. According to the WHO, mental health problems in mothers can lead to increased maternal mortality, both through adversely affecting their physical health as well as more directly through suicides. (WHO, 2008) Moreover, adverse maternal psychosocial health can cause an impact on the mother-infant
bonding and potentially causing adverse impact on child outcomes in long term. (Barlow, & Coren, 2003)

**Costs of implementing the innovation**

The weekly postpartum psychoeducation programme will be set to run for six months. There will be 24 education sessions lasting 90 minutes per session. Each client will participate in one education session. A nurse will provide a follow-up phone call to each participant.

For material costs, the well-equipped education room, software of PowerPoint, pamphlets and EPDS questionnaire in Chinese version are already available in the MCHC. Extra copies of pamphlets and EPDS questionnaire are needed for the innovation. The material cost for the additional printing materials is about $1,000.

For non-material costs, the main expenditure for the innovation is the costs of manpower. The salary for the clinical psychologist and the psychiatrist holding the four-hour-long orientation programme of the innovation will be about $1,280 and $1,600 respectively. A part-time nurse will be needed to relieve the manpower of the MCHC for the Friday afternoon sessions for six months. The total salary for the part-time nurse will be about $8,000. The
nurses will hold the education session and make follow-up phone calls while on duty. Hence, the salaries of the nurses are not included in the costs of the innovation. In conclusion, the total of the non-material costs will be about $10,880. The budget plan with detailed calculation of material and non-material costs is listed in Appendix E.

**Potential non-material benefits**

For the mothers who have participated in the innovation, they are likely to gain an alleviation of their postpartum depressive symptoms. An improvement in postpartum mothers’ mental well-being may help to strengthen the parent-infant bonding.

For the involved nursing staff of the innovation, they may have a reduction in workload. As the mental health of postpartum mothers may be improved through the psychoeducation programme, less mood problem of mothers need to be handled by healthcare professionals, thus a decrease in financial burden to healthcare system in Hong Kong may be resulted. It is difficult to find evidences suggest significant economic benefits with promoting maternal mental health in Hong Kong. According to Legislative Council Secretariat, government expenditure on mental health service in the
Hospital Authority was more than 4 billion dollars in Hong Kong 2014-2015. Comparing to the huge cost of treating mental illness, the innovation is in reasonable price. After assessing the costs and the benefits of the proposed innovation, the postpartum psychoeducation programme is worth to implement in MCHC.

3.4 EVIDENCE-BASED PRACTICE GUIDELINE

As a conclusion, the proposed innovation is cost-effective. Simultaneously, it is transferable and feasible in MCHC according to the analysis in this chapter. In order to apply the innovation as current service in all the 31 MCHCs in Hong Kong, developing an evidence-based practice guideline is necessary. An integrated evidence-based practice guideline with recommendations is found in Appendix F. The guideline is developed based on the findings of the five reviewed studies.
CHAPTER 4: IMPLEMENTATION PLAN

In this chapter, the implementation plan of the innovation will be illustrated. To facilitate the implementation of the innovation, the stakeholders of the programme will be identified with a detailed communication plan.

A pilot study plan will be set up to promote the innovation running smoothly. An evaluation plan will be prepared as well to improve the implementation of the programme.

4.1 COMMINICATION PLAN

In the proposed innovation, the stakeholders include the administrators such as Cluster Senior Medical Officer, Regional Senior Nursing Officer, and Nursing Officer in charge of the designated MCHC. The midwives and registered nurses of the MCHC and potential participants of the innovation are also included as the stakeholders. It is essential to obtain their support to the implementation of the innovation in MCHC. In order to obtain their support for the innovation, effective communication is essential. Better communication with all the stakeholders can facilitate the running of the innovation.

Administrators
Head office of the Family Health Service of Department of Health is playing the role of decision maker, as they are responsible for putting polices into action among all MCHCs. They manage the budget, manpower and material resources of MCHCs. Thus, it is necessary to obtain approval from the head office before implementing the innovation in MCHC. In the designated MCHC, there are three Nursing Officers and one Nursing Officer in charge. The daily operation of a MCHC is managed by the Nursing Officer in charge and she is assisted by other Nursing Officers.

A detailed proposal of the innovation will be prepared and sent to the head office. The proposal will consist of the objectives, aims, supporting evidence, implementation potential, budget plan, pilot study plan and evaluation plan. The proposer of the innovation will take charge of the writing up of the proposal.

Firstly, a series of meetings with the Cluster Senior Medical Officer, Regional Senior Nursing Officer, and all the nursing staff of the designated MCHC will be arranged. The meetings will be arranged by the innovation proposer. During the meetings, the innovation proposer will introduce the programme exhaustively and presenting the detail proposal. Simultaneously, comments and advice from the administrators will be collected. The
innovation will be modified based on their valuable feedback. After gaining the support from them, the Nursing Officer in charge will be invited to be the bridge of communication between the designated MCHC, the administrators and the head office.

Secondly, with the approval of the administrators and nursing staff, regional senior nursing officer and nursing officer in charge will convince the head office to support the innovation. The proposal of the innovation will be discussed during the officers’ meeting which is held regularly by the head office. Lastly, after gaining the approval of the head office, various resources required for implementing the innovation will be arranged and supplied by the head office to the designated MCHC. Contact information of the innovation proposer will be left with the head office and the administrators to facilitate direct communication.

**Programme staff**

The frontline nursing staff in the designated MCHC consist of six midwives and four registered nurses, who are responsible for providing nursing care, health assessment and health education to the clients of MCHC. They all are experienced and professional in interviewing postpartum mothers.
and in delivering health talks. A half-day orientation program to be organised by the innovation proposer will be offered to all the nursing staffs in the MCHC. In this orientation programme, the rationale behind the change will be explained to them. There is a weekly clinical meeting in the MCHC, during which all the staffs involved in the innovation are free to raise questions, give feedback or share cases. There will be two out of the ten frontline nursing staffs assigned to be link persons. They will help to gather feedbacks from all the nursing staffs and convey them to the innovation proposer to smooth out the communication.

**Postpartum mothers**

Potential participants are part of the stakeholders of the innovation. Some cost-efficient promotional tools such as flyers and eye-catching posters will be used to make communication with them. The details of the postpartum psychoeducation programme including the name of the programme “產後心湯”, aim, date, time, venue and target audience of the programme will be printed on the flyers and posters. Flyers will be given to every postpartum mother at their first visit to the designated MCHC. Three A3 size colourful posters will be posted in different areas of the MCHC to draw attention of
postpartum mothers. Suggestion boxes and forms will be set up in the waiting area of the MCHC to collect the opinions from clients as usual.

4.2 PILOT STUDY PLAN

Before the full implementation of the proposed innovation, a pilot study will first be conducted to experiment the feasibility of the guideline in an actual clinical setting. The proposer of the innovation will evaluate whether or not the workflow will obstruct the normal operation of the designated MCHC. Furthermore, carrying out the pilot test also aims at finding out the barriers and weaknesses of the programme.

Primiparous Chinese mothers without pregnancy or labour complication and psychiatric history will be selected as potential participants of the pilot study. For the postpartum psychoeducation programme, a 90-minute education session will be held weekly, at every Friday afternoon from 2:30pm to 4pm. A group of 20 participants is expected for each session. For the pilot study in the designated MCHC, two education sessions will be organised and around 40 participants will be recruited within two weeks. The first EPDS will be completed by the participants before attending the education session as a pre-test, while the second EPDS as post-test will be done by the participants
six weeks later after attending the education session, usually during their postpartum check-up. Therefore, the pilot study itself will last for two months. Additionally, two weeks will be needed for preparing the pilot test, and another two weeks for evaluation of the pilot test. Therefore, three months in total will be spent on the preparation work, the pilot test and the evaluation. The half-day orientation programme which consists of training session will be completed before the pilot study initiated.

Opinion from participants of the pilot study will be collected during individual interview during postnatal check up session. Also, a short meeting will be held in the MCHC by the innovation proposer with all the nursing staffs to gather their comments and suggestions. Amendment to the innovation will be made based on the feedback. The capability of the midwives delivering the 90-minute education session of the programme will be evaluated. Through casual conversation, the innovation proposer hopes to get the midwives to voice their views on holding the education session and the difficulties they met.
4.3 EVALUATION PLAN

For the evaluation of the innovation, four short term evaluations and one long term evaluation are planned in order to assess the effectiveness of the postpartum psychoeducation programme. A short term evaluation will be done every two months throughout the eight-month innovation, and there will be four short term evaluations in total. A long term evaluation will be performed at the end of the innovation.

Participant outcome

The primary outcome will be the occurrence of maternal postpartum depressive symptoms at six weeks after the intervention. It will be measured by using Edinburg Postnatal Depression Scale (EPDS) which contains 10 questions. It is a self-report instrument and its score ranges from zero to 30. Postpartum depression is identified using a cut-off point of 13 or above. EPDS is commonly used in the world to screen mothers for their postpartum depressive symptoms. As the target population of the intervention is Chinese mothers, a Chinese version of the EPDS, which has been validated since 1998, (Lee, Yip, Chiu, Leung, Chan, Chau, Leung, & Chung, 1998) is used. Both versions are attached in Appendix G. Pre-test and pro-test will be performed.
Based on the evidence from the five eligible studies, a decrease in score of EPDS at six weeks after the intervention will be anticipated. Decrease in scores of EPDS represents a reduction in postpartum depressive symptoms observed and the improvement of mothers’ postpartum depressive state.

**Healthcare professional outcome**

The healthcare professional outcomes are the levels of satisfaction and the competency in delivering psychoeducation programme. Level of satisfaction will be measured with a self-reported scale with six items scoring from one to five (Appendix H), where one is unsatisfactory and five is most satisfactory, a higher score represents a more satisfactory feeling. Questionnaires of the self-reported scale will be distributed during the short term evaluation meetings which will be held every two months.

The competency in delivering psychoeducation programme will be surveyed by face-to-face interviews. The innovation proposer will interview the midwives who are responsible for delivering the education session of the programme. It will be a short interview and will be held regularly once a month.
**System outcome**

To assess the effectiveness of the programme, manpower, total expenditure, participating compliance and occurrence of adverse events will be considered. The proposer of the innovation will be the leader during the pilot study. All nursing staff joining the innovation will be free to contact the innovation proposer with any questions.

An extra workload will be added to nursing staff in the designated MCHC. There is monthly or two-monthly parenting workshop for the parents of zero to four months old child. For the psychoeducation programme, its education session will be organised every week. Midwives will hold additional education sessions compared to the current practice. Furthermore, midwives will undertake extra preparation work for the programme and spend extra time on making follow up phone calls. Also, nurses will need to spend extra time to invite potential participants to join the programme and to explain the details of the programme for them. The Nursing Officer in charge will need to redistribute the manpower of the MCHC. This situation will be evaluated via discussion with the Nursing Officer in charge and the midwives in the long term evaluation meeting at the end of the innovation.

Extra workload will probably be the main factor that will affect the
compliance of the programme among nursing staff in the MCHC. Since all nursing staffs have autonomy to join the programme, it is estimated that some of the nursing staff may refuse to join or will withdraw from the programme because of the extra workload involved. The innovation proposer will maintain close communication with the involved nursing staff during the innovation. The situation will also be evaluated through discussion with the involved nursing staff in the long term evaluation meeting at the end of the innovation.

It is expected that there will be no big discrepancy between the total expenditure and the budget plan. No expenditure is required for the cost of facilities. The salaries of clinical psychologist, psychiatrist and part time nurse, and the price of printing materials are not expected to fluctuate from day to day. Thus, there should be minimal difference in expenditure for the cost of human resources and printing materials in comparison to the budget plan. The comparison will be summarized and evaluated by the proposer with a financial report at the end of the innovation.

Adverse events such as complaints from participants are anticipated. These adverse events will be mainly handled by the proposer of the innovation. Nursing officer in charge of the designated MCHC will assist in managing complaint cases as well.
**Nature and number of participants to be involved**

The inclusion criteria will be listed clearly by the innovation proposer. The printout of the inclusion criteria will be given to all involved nursing staff. The participant must be postpartum mother with firstborn healthy infant. The clients who meet the criteria will be invited to join the programme by nurses during the new case interview. Those mothers who have psychiatric history will be excluded. The group of potential participants will be first-time mother and without any psychiatric disorders.

**Data analysis**

The pre-test and pro-test will be done for measuring the effectiveness of the intervention. The questionnaire of EPDS will be the only measuring tool in the innovation. After completing the questionnaire of EPDS, participants will hand in the questionnaires to the nurses. The nurses will calculate the scores and mark it down on the questionnaires. All the pre-test and pro-test questionnaires will be kept in Kardexs. The innovation proposer will collect the scores and proceed with data analysis. The data will be entered into a computer calculating programme; one sample t-test for paired t will be used. Sample size will be calculated with using, a free programme on internet,
Piface by Renth (Renth, 2006). With a setting of the power to 0.8 at the significant level of 0.05, the minimum number of participants will be 296 to achieve a large effect size of 0.60.

4.4 BASIS FOR IMPLEMENTATION

The effectiveness of the intervention will be determined by the postpartum depression state of mothers. Postpartum psychoeducation programme will then be identified as effective if it is demonstrated to reduce maternal postpartum depressive symptoms. Based on the evidence from the five reviewed studies, the score of EPDS in post-test will be reduced when comparing to the score of EPDS in pre-test. Four of the five reviewed studies achieved a medium effect size of 0.35. If the mean of the EPDS score in the post-test is less in comparison to the pre-test with meeting a medium effect size of 0.35, the programme will be considered effective.
CONCLUSION

In this thesis, the feasibility and effectiveness of the postpartum psychoeducation programme to improve postpartum depressive symptoms among first-mothers was reviewed. Five studies were selected from searching two electronic databases. Supportive evidence was gained from the five eligible studies through critical appraisal. Postpartum psychoeducation programme was recommended by the studies for reducing maternal postpartum depressive symptoms. An evidence-based guideline with five recommendations was developed for the programme, while a comprehensive implementation plan and a detailed evaluation plan were prepared. To conclude, postpartum psychoeducation programme is worth for being implemented in MCHCs to promote maternal mental health in Hong Kong.
Appendix

Appendix A - PRISMA 2009 Flow Diagram

Records identified through database searching
(n = 804)

Additional records identified through other sources
(n = 0)

Records after duplicates removed
(n = 181)

Records screened
(n = 123)

Full-text articles assessed for eligibility (n = 25)

Studies included in qualitative synthesis
(n = 0)

Studies included in quantitative synthesis
(n = 5)

Records excluded:
• Full-text not a/v (n = 98)

Full-text articles excluded, with reasons:
• not RCT
• not focused on psychoeducation (n = 20)
# Appendix B - Table of Evidence

<table>
<thead>
<tr>
<th>Citation/ Design</th>
<th>Patient characteristics</th>
<th>Intervention(s)</th>
<th>Comparison</th>
<th>Length of follow-up</th>
<th>Outcome measures</th>
<th>Effect size</th>
</tr>
</thead>
</table>
| Gao et al., (2015) / RCT (1++) | 1. First-time mother  
2. Gestational age 37-40 wks  
3. No personal or family histories of psychiatric disorders or pregnancy complications | Routine care and IPT oriented postnatal psychoeducation programme consisted of  
1. 1-hr education session before discharge from postnatal ward  
2. One telephone FU within 2 wks after discharge (n=90) | Routine care (Brief visit from a nurse in a postnatal ward and pamphlet on source of assistance for mothers) | 6 wks | Primary:  
1. Postpartum depressive symptoms \( \rightarrow \) EPDS | 1. Mean = -1.35, p=0.026 |
| Shorey et al., (2014) / RCT (1++) | 1. First-time mothers  
2. No medical or psychiatric history  
3. No complicated assisted delivery | Routine care and postnatal psychoeducation program consisted of  
1. 90-min education session during home visit  
2. Educational booklet  
3. 3 FU telephone calls (n = 61) | Routine care | 12 wks | 1. Postnatal depression \( \rightarrow \) EPDS | 1. F = 8.8, p=0.004 |
<table>
<thead>
<tr>
<th>Study</th>
<th>Criteria</th>
<th>Intervention</th>
<th>Follow-up</th>
<th>Primary Outcomes</th>
<th>Outcome Measures</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gao et al., (2012) / RCT (1+)</td>
<td>1. First-time mother&lt;br&gt;2. Gestational age &gt; 28 wks&lt;br&gt;3. No personal or family histories of psychiatric disorders or pregnancy complications</td>
<td>Standard care and IPT oriented childbirth education programme consisted of&lt;br&gt;1. two 90-min group antenatal education sessions&lt;br&gt;2. one telephone FU</td>
<td>3 months</td>
<td>1. Presence of depressive symptoms &lt;br&gt;EPDS</td>
<td>Mean = -1.26, p=0.018</td>
<td></td>
</tr>
<tr>
<td>Fisher et al., (2010) / RCT (1-)</td>
<td>1. All couples with healthy firstborn infants&lt;br&gt;2. Age &gt; 18</td>
<td>Usual care and a half-day psychoeducational group programme called “What Were We Think” which consisted of&lt;br&gt;1. Half day face-to-face session in MCHC&lt;br&gt;2. Take home materials</td>
<td>6 months</td>
<td>1. Depressive symptoms &lt;br&gt;EPDS</td>
<td>OR = 1.14, p=0.00</td>
<td></td>
</tr>
<tr>
<td>Norman et al., (2010) / RCT (1++)</td>
<td>1. Ready for discharge from postnatal ward&lt;br&gt;2. Not receiving psychiatric care</td>
<td>Written educational material and once per week for 8 wks “Mother &amp; Baby Program” consisted of&lt;br&gt;1. Eight 8-wk educational sessions&lt;br&gt;2. Once per week for 8 wks</td>
<td>8 wks &amp; 12 wks</td>
<td>1. Depressive symptoms &lt;br&gt;EPDS&lt;br&gt;At 8 wks</td>
<td>Mean = -1.28, p&lt;0.001</td>
<td></td>
</tr>
</tbody>
</table>
1. 30-min education session included psychological education
2. 1 hr of group exercise

(n=80)

Footnote: FU = Follow up; RCT = Randomized controlled trial; PSSS = Perceived Social Support Scale; PSOC-E = Parenting Sense of Competence Scale – Efficacy subscale; EPDS = Edinburgh Postnatal Depression Scale (EPDS); GHQ = General Health Questionnaire; IPT = Interpersonal Psychotherapy; BA = Behavioural Activation; GAD-7 = Generalized Anxiety Disorder Screener; WASAS = Work and Social Adjustment Scale; SPS = Social Provision Scale; PBQ = Postnatal Bonding Questionnaire; AD-SUS = Adult Service Use Schedule; PABS = Positive Affect Balance Scale; PMPS-E = Perceived Maternal Parental Self-efficacy; PICSS = Perinatal Infant Care Social Support; VPSQ = Vulnerable Personality Style Questionnaire; IBM = Intimate Bonds Measure
### METHODOLOGY CHECKLIST 2: CONTROLLED TRIALS

**Study identification**  
(Include author, title, year of publication, journal title, pages)


**Guideline topic:**  
The evidence-based guideline of psycho-educational programme for improving maternal postpartum depression

<table>
<thead>
<tr>
<th>Key Question No:</th>
</tr>
</thead>
</table>

**Before** completing this checklist, consider:

1. Is the paper a **randomised controlled trial** or a **controlled clinical trial**? If in doubt, check the study design algorithm available from SIGN and make sure you have the correct checklist. If it is a **controlled clinical trial** questions 1.2, 1.3, and 1.4 are not relevant, and the study cannot be rated higher than 1+

2. Is the paper relevant to key question? Analyse using PICO (Patient or Population Intervention Comparison Outcome). IF NO REJECT (give reason below). IF YES complete the checklist.

**Reason for rejection:**
1. Paper not relevant to key question □
2. Other reason □  (please specify):

### SECTION 1: INTERNAL VALIDITY

**In a well conducted RCT study...**

<table>
<thead>
<tr>
<th>Does this study do it?</th>
</tr>
</thead>
</table>

1.1 The study addresses an appropriate and clearly focused question.

- **P** = Primiparous women
- **I** = Innovative psycho-educational program
- **C** = Control group
- **O** = absence of depression, or anxiety or adjustment disorders in the first six months postpartum

<p>| Yes ☑ | No □ |
| Can’t say □ |</p>
<table>
<thead>
<tr>
<th></th>
<th>The assignment of subjects to treatment groups is randomised.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td><em>The strength of this evidence is limited by potential selection bias because couples were not randomised to intervention or control condition.</em></td>
</tr>
<tr>
<td></td>
<td><strong>Can't say</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>An adequate concealment method is used.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.3</td>
<td>No concealment method was used in this study.</td>
</tr>
<tr>
<td></td>
<td><strong>Can't say</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Subjects and investigators are kept ‘blind’ about treatment allocation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4</td>
<td><em>Blinding was not mentioned in this study</em></td>
</tr>
<tr>
<td></td>
<td><strong>Can't say</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>The treatment and control groups are similar at the start of the trial.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td><em>About the baseline characteristics of participants, there was no significant difference between intervention and control groups.</em></td>
</tr>
<tr>
<td></td>
<td><strong>Can't say</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>The only difference between groups is the treatment under investigation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6</td>
<td><em>No additional treatment</em></td>
</tr>
<tr>
<td></td>
<td><strong>Can't say</strong></td>
</tr>
</tbody>
</table>
### 1.7 All relevant outcomes are measured in a standard, valid and reliable way.

*Standardized psychometric instruments were used to assess personality; depressive symptoms, infant behaviour and quality of relationship with the intimate partner.*  
*Personality factors → Vulnerable personality style questionnaire (VPSQ)*  
*Depressive symptoms → EPDS*  
*Quality of relationship with intimate partner → intimate bonds measure (IBM)*  
*subscale*

<table>
<thead>
<tr>
<th>Yes □</th>
<th>No □</th>
<th>Can’t say □</th>
</tr>
</thead>
</table>

### 1.8 What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed?  
*For intervention group: 6.7%*  
*For control group: 11.1%*

<table>
<thead>
<tr>
<th>Yes □</th>
<th>No □</th>
<th>Can’t say □</th>
</tr>
</thead>
</table>

### 1.9 All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention to treat analysis).  
*Analysis was by intention to treat*

<table>
<thead>
<tr>
<th>Yes □</th>
<th>No □</th>
<th>Can’t say □</th>
</tr>
</thead>
</table>

### 1.10 Where the study is carried out at more than one site, results are comparable for all sites.  
*The study was conducted in seven local government areas in the Australian state of Victoria.*

<table>
<thead>
<tr>
<th>Yes □</th>
<th>No □</th>
<th>Can’t say □</th>
</tr>
</thead>
</table>

### SECTION 2: OVERALL ASSESSMENT OF THE STUDY

#### 2.1 How well was the study done to minimise bias?  
Code as follows:  
*High quality (++)*  
*Acceptable (+)*  
*Low quality (-)*  
*Unacceptable – reject 0*  

<table>
<thead>
<tr>
<th>High quality (++)</th>
<th>Acceptable (+)</th>
<th>Low quality (-)</th>
<th>Unacceptable – reject 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Section</td>
<td>Question</td>
<td>Answer</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Taking into account clinical considerations, your evaluation of the methodology used, and the statistical power of the study, are you certain that the overall effect is due to the study intervention?</td>
<td>Yes, a two group continuity corrected chi-sq test with a 0.05 two sided significance level with have 80% power to detect the difference between a control group proportion of 0.2 and a intervention group proportion of 0.1</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Are the results of this study directly applicable to the patient group targeted by this guideline?</td>
<td>Yes.</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Notes. Summarise the authors’ conclusions. Add any comments on your own assessment of the study, and the extent to which it answers your question and mention any areas of uncertainty raised above.</td>
<td>A universal, brief psycho-educational group program for English-speaking, first-time parents and babies in primary care appears to reduce common postpartum mental health problems in women.</td>
<td></td>
</tr>
</tbody>
</table>
**Study identification**  
*Include author, title, year of publication, journal title, pages*


**Guideline topic:**  
The evidence-based guideline of psycho-educational programme for improving maternal postpartum depression in Hong Kong.

**Key Question No:**

**Reviewer:**

**Before** completing this checklist, consider:

1. Is the paper a **randomised controlled trial** or a **controlled clinical trial**? If in doubt, check the study design algorithm available from SIGN and make sure you have the correct checklist. If it is a **controlled clinical trial** questions 1.2, 1.3, and 1.4 are not relevant, and the study cannot be rated higher than 1+.

2. Is the paper relevant to key question? Analyse using PICO (Patient or Population Intervention Comparison Outcome). IF NO REJECT (give reason below). IF YES complete the checklist.

**Reason for rejection:** 1. Paper not relevant to key question □ 2. Other reason □ (please specify):

**SECTION 1: INTERNAL VALIDITY**

*In a well conducted RCT study…*

<table>
<thead>
<tr>
<th></th>
<th>Does this study do it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The study addresses an appropriate and clearly focused question.</td>
</tr>
<tr>
<td></td>
<td><em>P = Chinese first-time mother</em></td>
</tr>
<tr>
<td></td>
<td><em>I = Interpersonal-psychotherapy(IPT)-oriented childbirth education programme</em></td>
</tr>
<tr>
<td></td>
<td><em>C = Control group</em></td>
</tr>
<tr>
<td></td>
<td><em>O = Less depressive symptoms, higher levels of social support, and</em></td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
<tr>
<td></td>
<td>better maternal role competence</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>1.2</td>
<td>The assignment of subjects to treatment groups is randomised.</td>
</tr>
<tr>
<td></td>
<td>The randomization sequence was generated using a computerized random number generator</td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
<tr>
<td>1.3</td>
<td>An adequate concealment method is used.</td>
</tr>
<tr>
<td></td>
<td>The allocation was kept in sealed opaque consecutively numbered envelopes.</td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
<tr>
<td>1.4</td>
<td>The design keeps subjects and investigators ‘blind’ about treatment allocation.</td>
</tr>
<tr>
<td></td>
<td>This simple randomization scheme was independently prepared by a research assistant who was not involved in determining eligibility, providing care, or assessing outcome.</td>
</tr>
<tr>
<td></td>
<td>Data analysis was conducted by a research assistant who was blinded to the study protocol.</td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
<tr>
<td>1.5</td>
<td>The treatment and control groups are similar at the start of the trial.</td>
</tr>
<tr>
<td></td>
<td>There were no significant differences between the two groups in their demographic, obstetric and related characteristics. ($p &gt; 0.05$)</td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
<tr>
<td>1.6</td>
<td>The only difference between groups is the treatment under investigation.</td>
</tr>
<tr>
<td></td>
<td>No additional treatment</td>
</tr>
<tr>
<td></td>
<td>Yes ☑ No □ Can’t say □</td>
</tr>
</tbody>
</table>
| 1.7 | All relevant outcomes are measured in a standard, valid and reliable way.  
Outcomes were measured before the intervention during pregnancy, six weeks and three months postpartum with using PSSS, PSOC, EPDS and GHQ. | Yes ☑️ No ☐ Can’t say ☐ |
| 1.8 | What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed? | For the study group: 5.6%  
For the control group: 10% |
| 1.9 | All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention to treat analysis).  
Buck’s method of conditional mean imputation was used for intent-to-treat analysis. All of the participants were included in the data analysis. | Yes ☑️ No ☐ Can’t say ☐ Does not apply ☐ |
| 1.10 | Where the study is carried out at more than one site, results are comparable for all sites.  
RCT was conducted in the postnatal unit of a regional teaching hospital in Guangzhou. | Yes ☐ No ☐ Can’t say ☐ Does not apply ☑️ |

**SECTION 2: OVERALL ASSESSMENT OF THE STUDY**

| 2.1 | How well was the study done to minimise bias?  
Code as follows: | High quality (++) ☑️  
Acceptable (+) ☐  
Low quality (-) ☐  
Unacceptable – reject 0 ☐ |

| 2.2 | Taking into account clinical considerations, your evaluation of the methodology used, and the statistical power of the study, are you certain that the overall effect is due to the study | Sample size estimation was based on our previous study with a medium- to small-effect size.  
*With an effect size of 0.35 for the primary outcome of postpartum depression, an alpha set at 0.05* |
| 2.3 | Are the results of this study directly applicable to the patient group targeted by this guideline? | Yes. The patient group targeted by this guideline is Chinese first-time mother also. |
| 2.4 | **Notes.** Summarise the authors' conclusions. Add any comments on your own assessment of the study, and the extent to which it answers your question and mention any areas of uncertainty raised above. | This study demonstrated an initiation to apply the principles of IPT into postnatal care in Chinese first-time mothers. The findings of this study indicated that the IPT-oriented postnatal psychoeducation programme was effective in decreasing depressive symptoms and promoting social support and maternal role competence in Chinese first-time mothers. |
### Study identification

Include author, title, year of publication, journal title, pages


### Guideline topic:
The evidence-based guideline of psycho-educational programme for improving maternal postpartum depression

### Key Question No: 1

### Reviewer:

---

**Before** completing this checklist, consider:

3. Is the paper a [randomised controlled trial](#) or a [controlled clinical trial](#)? If in doubt, check the study design algorithm available from SIGN and make sure you have the correct checklist. If it is a [controlled clinical trial](#) questions 1.2, 1.3, and 1.4 are not relevant, and the study cannot be rated higher than 1+

4. Is the paper relevant to key question? Analyse using PICO (Patient or Population Intervention Comparison Outcome). IF NO REJECT (give reason below). IF YES complete the checklist.

---

**Reason for rejection:**

1. Paper not relevant to key question □
2. Other reason □ (please specify):

---

### SECTION 1: INTERNAL VALIDITY

**In a well conducted RCT study...**

<table>
<thead>
<tr>
<th>Question</th>
<th>Does this study do it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The study addresses an appropriate and clearly focused question</td>
</tr>
<tr>
<td></td>
<td>Yes ☑  No □  Can’t say □</td>
</tr>
<tr>
<td></td>
<td>( P = ) Chinese first-time mother</td>
</tr>
<tr>
<td></td>
<td>( I = ) Interpersonal-psychotherapy-oriented childbirth education programme</td>
</tr>
<tr>
<td></td>
<td>( C = ) Control group</td>
</tr>
<tr>
<td></td>
<td>( O = ) Less depressive symptoms, higher levels of social support, and better maternal role competence</td>
</tr>
</tbody>
</table>
| 1.2 | The assignment of subjects to treatment groups is randomised.  
*Randomisation to the study group or control group by table of random numbers.* | Yes ☑️  No ☐  Can’t say ☐ |
| 1.3 | *An adequate concealment method is used.*  
No concealment method was reported. The women were informed of their allocation by a telephone call from the research assistant. | Yes ☐  No ☐  Can’t say ☑ |
| 1.4 | Subjects and investigators are kept ‘blind’ about treatment allocation.  
Subjects were informed their allocation by a telephone call from the research assistant. The presence of blinding was not mentioned. | Yes ☐  No ☐  Can’t say ☑ |
| 1.5 | The treatment and control groups are similar at the start of the trial.  
*There were no significant differences between the two groups in their demographic, obstetric and related characteristics.* ($p > 0.05$) | Yes ☑️  No ☐  Can’t say ☐ |
| 1.6 | The only difference between groups is the treatment under investigation.  
*No additional treatment* | Yes ☑️  No ☐  Can’t say ☐ |
| 1.7 | All relevant outcomes are measured in a standard, valid and reliable way.  
*Outcomes were measured before the intervention during pregnancy, six weeks and three months postpartum with using PSSS, PSOC, EPDS and GHQ.* | Yes ☑️  No ☐  Can’t say ☐ |
1.8 What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed?

<table>
<thead>
<tr>
<th></th>
<th>For the study group: 14.9% (at 3 mths postpartum)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For the control group: 22.7% (at 3 mths postpartum)</td>
</tr>
</tbody>
</table>

1.9 All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention to treat analysis).

*Data were analysed by intention to treat*

<table>
<thead>
<tr>
<th></th>
<th>Yes ☑</th>
<th>No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can’t say ☐</td>
<td>Does not apply ☐</td>
</tr>
</tbody>
</table>

1.10 Where the study is carried out at more than one site, results are comparable for all sites.

*The participants were recruited from one of the regional teaching hospitals in Guangzhou.*

<table>
<thead>
<tr>
<th></th>
<th>Yes ☐</th>
<th>No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can’t say ☐</td>
<td>Does not apply ☑</td>
</tr>
</tbody>
</table>

### SECTION 2: OVERALL ASSESSMENT OF THE STUDY

2.1 How well was the study done to minimise bias?  
Code as follows:

<table>
<thead>
<tr>
<th></th>
<th>High quality (++) ☑</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acceptable (+) ☐</td>
</tr>
<tr>
<td></td>
<td>Low quality (-) ☐</td>
</tr>
<tr>
<td></td>
<td>Unacceptable – reject 0 ☐</td>
</tr>
</tbody>
</table>

2.2 Taking into account clinical considerations, your evaluation of the methodology used, and the statistical power of the study, are you certain that the overall effect is due to the study intervention?

<table>
<thead>
<tr>
<th>Yes</th>
</tr>
</thead>
</table>

*Sample size estimation was based on our past studies with a medium to small effect size. With a power of 0.80, an alpha set at 0.05 and an effect size of 0.35 for the primary outcome of postpartum depression, each group required 90 women.*

2.3 Are the results of this study directly applicable to the patient group targeted by this guideline?

| Yes |

2.4 Notes. Summarise the authors’ conclusions. Add any comments on your own assessment of the study, and the extent to which it answers your question and mention any areas of uncertainty raised above.

*The findings of this study provided evidence to support that IPT oriented childbirth education programme is effective in reducing depressive symptoms and promoting psychological well-being*
amongst first-time mothers and the effects could be sustained until three-month postpartum.
# METHODOLOGY CHECKLIST 2: CONTROLLED TRIALS

**Study identification**  
*(Include author, title, year of publication, journal title, pages)*


**Guideline topic:**  
The evidence-based guideline of psycho-educational programme for improving maternal postpartum depression in Hong Kong.

**Key Question No:**  
Reviewer:

**Before** completing this checklist, consider:

1. Is the paper a **randomised controlled trial** or a **controlled clinical trial**? If in doubt, check the study design algorithm available from SIGN and make sure you have the correct checklist. If it is a **controlled clinical trial** questions 1.2, 1.3, and 1.4 are not relevant, and the study cannot be rated higher than 1+

2. Is the paper relevant to key question? Analyse using PICO (Patient or Population Intervention Comparison Outcome). IF NO REJECT (give reason below). IF YES complete the checklist.

**Reason for rejection:** 1. Paper not relevant to key question □   2. Other reason □ (please specify):

## SECTION 1: INTERNAL VALIDITY

**In a well conducted RCT study...**

<table>
<thead>
<tr>
<th>Does this study do it?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes  ☑</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.1</th>
<th>The study addresses an appropriate and clearly focused question.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>P = Primiparous and mutiparous women ready for discharge from</em></td>
</tr>
<tr>
<td></td>
<td><em>The Anglies Hospital postnatal ward</em></td>
</tr>
<tr>
<td></td>
<td><em>I = The Mother &amp; Baby (M&amp;B) program</em></td>
</tr>
<tr>
<td></td>
<td><em>C = Control group</em></td>
</tr>
</tbody>
</table>

Can’t say □
<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Yes</th>
<th>No</th>
<th>Can’t say</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2</td>
<td>The assignment of subjects to treatment groups is randomised.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>Women were assigned randomly using a computer-generated random numbers list.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>An adequate concealment method is used.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>Group allocation was concealed in consecutively numbers, sealed, opaque envelopes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Subjects and investigators are kept ‘blind’ about treatment allocation.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>Due to the nature of the intervention, blinding of participants was not possible.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.5</td>
<td>The treatment and control groups are similar at the start of the trial.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>There was no significant difference between two groups.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6</td>
<td>The only difference between groups is the treatment under investigation.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>There was no additional treatment to study group.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.7</td>
<td>All relevant outcomes are measured in a standard, valid and reliable way.</td>
<td>Yes</td>
<td>No</td>
<td>Can’t say</td>
</tr>
<tr>
<td></td>
<td>Psychological well-being was measured by Positive Affect Balance Scale (PABS). Depressive symptoms were measured by EPDS.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>What percentage of the individuals or clusters recruited into each treatment arm of the study dropped out before the study was completed?</td>
<td>For the study group: 2.5% For the control group: 3.7%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ O = \text{Have higher well-being scores and lower risk for postnatal depression} \]
1. All the subjects are analysed in the groups to which they were randomly allocated (often referred to as intention to treat analysis).

Analysis was by intention-to-treat. The remaining participants who commenced the intervention were all included in the analysis, including those who dropped out at 8 weeks and 12 weeks.

1.10 Where the study is carried out at more than one site, results are comparable for all sites.

The Angliss Hospital postnatal ward

### SECTION 2: OVERALL ASSESSMENT OF THE STUDY

2.1 How well was the study done to minimise bias? Code as follows:

- High quality (++)
- Acceptable (+)
- Low quality (-)
- Unacceptable – reject 0

2.2 Taking into account clinical considerations, your evaluation of the methodology used, and the statistical power of the study, are you certain that the overall effect is due to the study intervention?

A sample size calculation based on a pilot study of the M&B Program indicated that a total of 134 participants would be sufficient to detect a clinically important difference of 1.3 units on the PABS with 80% power and an alpha level of 0.05.

2.3 Are the results of this study directly applicable to the patient group targeted by this guideline?

No. Excerise sessions were included in the programme of this study

2.4 **Notes.** Summarise the authors’ conclusions. Add any comments on your own assessment of the study, and the extent to which it answers your question and mention any areas of uncertainty raised above.

A physical therapy exercise and health education program is effective in improving postnatal well-being. Routine use of this program may reduce longer-term problems such as postnatal depression.
METHODOLOGY CHECKLIST 2: CONTROLLED TRIALS

Study identification  *(Include author, title, year of publication, journal title, pages)*


Guideline topic:  
The evidence-based guideline of psycho-educational programme for improving maternal postpartum depression in Hong Kong.

<table>
<thead>
<tr>
<th>Key Question No:</th>
<th>Reviewer:</th>
</tr>
</thead>
</table>

Before completing this checklist, consider:

1. Is the paper a randomised controlled trial or a controlled clinical trial? If in doubt, check the study design algorithm available from SIGN and make sure you have the correct checklist. If it is a controlled clinical trial questions 1.2, 1.3, and 1.4 are not relevant, and the study cannot be rated higher than 1+

2. Is the paper relevant to key question? Analyse using PICO (Patient or Population Intervention Comparison Outcome). IF NO REJECT (give reason below). IF YES complete the checklist.

Reason for rejection: 1. Paper not relevant to key question □ 2. Other reason □ (please specify):

<table>
<thead>
<tr>
<th>SECTION 1: INTERNAL VALIDITY</th>
</tr>
</thead>
</table>

*In a well conducted RCT study...*  

<table>
<thead>
<tr>
<th></th>
<th>Does this study do it?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.1</strong></td>
<td>The study addresses an appropriate and clearly focused question.</td>
</tr>
<tr>
<td>$P = \text{Primiparas}$</td>
<td>Yes ☑</td>
</tr>
<tr>
<td>$I = \text{Postnatal psychoeducation program}$</td>
<td></td>
</tr>
<tr>
<td>$C = \text{Control group}$</td>
<td>No □</td>
</tr>
<tr>
<td>$O = \text{Enhancing maternal parental self-efficacy (MPSE)}$</td>
<td>Can't say □</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1.2</td>
<td><strong>The assignment of subjects to treatment groups is randomised.</strong>&lt;br&gt;They were then randomised to either the intervention or the control group based on the set of 61 unique random numbers generated by the last author using the Research Randomizer.</td>
</tr>
<tr>
<td>1.3</td>
<td><strong>An adequate concealment method is used.</strong>&lt;br&gt;The mothers were asked to pick colour-coded slips with numbers from 1-122 from an opaque envelope.</td>
</tr>
<tr>
<td>1.4</td>
<td><strong>Subjects and investigators are kept ‘blind’ about treatment allocation.</strong>&lt;br&gt;The researcher was not blinded to the post intervention data collection.</td>
</tr>
<tr>
<td>1.5</td>
<td><strong>The treatment and control groups are similar at the start of the trial.</strong>&lt;br&gt;Baseline scores were normalized to zero when performing the repeated measure MANCOVA.</td>
</tr>
<tr>
<td>1.6</td>
<td><strong>The only difference between groups is the treatment under investigation.</strong>&lt;br&gt;No additional treatment to intervention or control group</td>
</tr>
<tr>
<td>1.7</td>
<td><strong>All relevant outcomes are measured in a standard, valid and reliable way.</strong>&lt;br&gt;The primary outcome MPSE was measured by the Perceived MPSE scale; Social support was measured by Perinatal Infant CRE Social Support (PICSS) scale; Postnatal depression was measured by EPDS. All instruments were valid and reliable.</td>
</tr>
<tr>
<td>1.8</td>
<td><strong>What percentage of the individuals or clusters recruited into each</strong>&lt;br&gt;For the study group: 6.6%&lt;br&gt;For the control group: 16.4%</td>
</tr>
</tbody>
</table>
### Section 2: Overall Assessment of the Study

#### 2.1 How well was the study done to minimise bias?

Code as follows:

- High quality (++)
- Acceptable (+)
- Unacceptable – reject 0

**Code:** High quality (++)

#### 2.2 Taking into account clinical considerations, your evaluation of the methodology used, and the statistical power of the study, are you certain that the overall effect is due to the study intervention?

*Power analysis of independent t-test for the primary outcome of self-efficacy was used to calculate the sample size. To achieve a medium effect size at 0.60 on the primary outcome of self-efficacy, power of 80% at the significance level of 0.05, a minimum of 44 participants in each group was required. Considering 30% attrition rate, a total of 114 primiparas were needed. This study recruited 122 mothers.*

#### 2.3 Are the results of this study directly applicable to the patient group targeted by this guideline?

**Code:** Yes.

*Both targeted clients are first-time mothers.*

#### 2.4 Notes. Summarise the authors’ conclusions. Add any comments on your own assessment of the study, and the extent to which it answers your question and mention any areas of uncertainty raised above.

*The postnatal psychoeducation programme was effective in ongoing maternal outcomes and hence could be introduced as routine care with ongoing evaluation in the postnatal period.*
## Appendix D - Quality Assessment Using SIGN Methodology Checklist for Controlled Trials

### Section 1: Internal Validity

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearly Focused Question</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Randomization</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Allocation</td>
<td>N</td>
<td>Y</td>
<td>Can’t say</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Concealment</td>
<td>Can’t say</td>
<td>Y</td>
<td>Can’t say</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Comparable Groups</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Treatment is the Only Difference</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Valid and Reliable Outcome Measures</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Drop-Out Rate</td>
<td>I = 6.7%</td>
<td>I = 5.6%</td>
<td>I = 14.9%</td>
<td>I = 2.5%</td>
<td>I = 6.6%</td>
</tr>
<tr>
<td></td>
<td>C = 11.1%</td>
<td>C = 10%</td>
<td>C = 22.7%</td>
<td>C = 3.7%</td>
<td>C = 16.4%</td>
</tr>
<tr>
<td>Intention to Treat Analysis</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Comparable Results from All Sites</td>
<td>Y</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### Section 2: Overall Assessment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+</td>
<td>++</td>
<td>++</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Overall Effect due to Intervention Alone</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Result Applicable to Target Group</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A universal, brief psycho-educational group program for English-speaking, first-time parents and babies in primary care appears to reduce common postpartum mental health problems in women.</td>
</tr>
<tr>
<td>This study demonstrated an initiation to apply the principles of IPT into postnatal care in Chinese first-time mothers. The findings of this study indicated that the IPT-oriented postnatal psychoeducation programme was effective in decreasing depressive symptoms and promoting social well-being amongst first-time mothers and the effects could be sustained until three-month postpartum.</td>
</tr>
<tr>
<td>The findings of this study provided evidence to support that IPT oriented childbirth education programme is effective in reducing depressive symptoms and promoting psychological well-being amongst first-time mothers. Routine use of this program may reduce longer-term problems such as postnatal depression.</td>
</tr>
<tr>
<td>A physical therapy exercise and health education program is effective in improving postnatal well-being. Routine use of this program may reduce longer-term problems such as postnatal depression.</td>
</tr>
<tr>
<td>The postnatal psychoeducation programme was effective in ongoing maternal outcomes and hence could be introduced as routine care with ongoing evaluation in the postnatal period.</td>
</tr>
</tbody>
</table>
support and maternal role competence in Chinese first-time mothers.

<table>
<thead>
<tr>
<th>Level of Evidence</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y = Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N = No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A = not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I = For intervention group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C = For control group</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix E - Budget Plan

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimated Cost (HKD) per Year</th>
<th>Innovation</th>
<th>Existing practice</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of facilities</strong></td>
<td></td>
<td></td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>(Education room available in MCHC)</td>
<td></td>
<td></td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Clinical psychologist</td>
<td>$320/hour</td>
<td>$0</td>
<td>$320x4 = $1,280</td>
<td>+1280%</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>$400/hour</td>
<td>$0</td>
<td>$400x4 = $1,600</td>
<td>+1600%</td>
</tr>
<tr>
<td>Part-time nurse</td>
<td>$110/hr</td>
<td>$0</td>
<td>$110x3 = $330/session</td>
<td>+7920%</td>
</tr>
<tr>
<td>Printing material</td>
<td>$1000</td>
<td>$500</td>
<td>+50%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$10,800</td>
<td>$500</td>
<td>+10,300%</td>
<td></td>
</tr>
</tbody>
</table>

According to the statistics from Legislative Council Secretariat, government expenditure on mental health service in the Hospital Authority was more than 4 billion dollars in Hong Kong 2014-2015. Comparing to the huge cost of treating mental illness, the innovation is in reasonable price.
Appendix F - Evidence-based Practice Guideline

Title

Postpartum psychoeducation programme for reducing maternal postpartum depressive symptoms

Purpose

To support nurses to promote mental health among postpartum mothers with evidence.

Objectives

1. To reduce maternal postpartum depressive symptoms
2. To prevent mothers from developing postpartum depression
3. To support mothers with professional knowledge during the early postpartum period.

Target Group

Postpartum Chinese mothers who attend the maternal and child health centres during the early postpartum period.

The Guideline

The grading of recommendation is based on the Scottish Intercollegiate Guidelines Network (SING) guideline (SING, 2012).

Recommendation 1
The content of the education session of postpartum psychoeducation programme should consist of

- physical and psychological challenges after birth
- how to cope with the difficulties in transition to motherhood
- knowledge of infant care
- information about postpartum depression
- importance and sources of social support
- communication skill

(Grade A)

During the education session, midwife gave the information about maternal physical recovery, (Gao, Xie, & Chan, 2015) [1++], (Shorey, Chan, Chong, & He) [1++] information about the nature and course of postpartum depression. (Gao, Xie, & Chan, 2015) [1++], (Shorey, Chan, Chong, & He) [1++], (Norman, Sherburn, Osborne, & Galea, 2010) [1++] Maternal role attainment and how to cope with the difficulties the mothers would encounter in the postnatal period were clarified. (Gao, Xie, & Chan, 2015) [1++], (Shorey, Chan, Chong, & He) [1++], (Gao, Chan, & Sun, 2012)[1+] Then the importance and sources of social support were signalized. (Gao, Xie, & Chan, 2015) [1++], (Shorey, Chan, Chong, & He) [1++], (Gao, Chan, & Sun, 2012) [1+] Midwife also taught mothers about the communication skills and skills for
resolving interpersonal conflict. (Gao, Xie, & Chan, 2015) [1++] , (Gao, Chan, & Sun, 2012)[1+] knowledge of infant care were provided to mothers as well. (Norman, Sherburn, Osborne, & Galea, 2010) [1++] , (Fisher, Wynter, & Rowe, 2010)[1-]

Recommendation 2
Each education session of the postpartum psychoeducation programme should last for 90 minutes.
(Grade A)

The psychoeducation programme in Gao, Xie, & Chan’s study was consisted of at least 1-hour education session. (Gao, Xie, & Chan, 2015) [1++] . Both education sessions in Shorey, Chan, Chong, & He’s study and Gao, Chan, & Sun’s study were 90-minute-long. (Shorey, Chan, Chong, & He) [1++] , (Gao, Chan, & Sun, 2012) [1+]

Recommendation 3
The postpartum psychoeducation programme should be held by midwives.
(Grade A)

The education session of the psychoeducation programme for postpartum mothers was held by midwife. (Gao, Xie, & Chan, 2015) [1++] , (Shorey, Chan, Chong, & He) [1++] , (Norman, Sherburn, Osborne, & Galea, 2010) [1++] , (Gao, Chan, & Sun, 2012) [1+]
Recommendation 4
One follow-up phone call should be provided by nurses within one week after the postpartum education programme.

(Grade A)

One telephone follow-up was conducted by midwife within 2 weeks after the education session. Midwife helped the mothers to review what they had gained from the education session and encouraged them to apply the knowledge and skills into their daily lives. (Gao, Xie, & Chan, 2015) [1++], (Gao, Chan, & Sun, 2012) [1+]

Recommendation 5
Relevant pamphlets for the postpartum psychoeducation programme should be provided to the participants after the education session.

(Grade A)

At the end of the education session, the mothers were given the written material such as pamphlets or short books for the psychoeducation programme. (Gao, Xie, & Chan, 2015) [1++], (Norman, Sherbum, Osborne, & Galea, 2010) [1++], (Shorey, Chan, Chong, & He) [1++], (Fisher, Wynter, & Rowe, 2010)[1-]
Appendix G - Chinese version of EPDS being used in MCHCs currently (P.1)

產後精神健康評估

母親姓名: ______________________________ CHSS Label
分娩日期: ______________________________

你好！你剛剛生了孩子，我們想了解你產後情緒的狀況。請你回答以下問題：

你是否於產後六週或以後，填寫有關產後情緒問卷，並已交回醫護人員跟進？

☐ 是 → (不需填寫背頁的問卷，請於面談時交回護士)

☐ 否 → (我們想了解你最近的感受及評估你產後情緒的轉變，請你於見護士前，花數分鐘親自填寫背頁的問卷。為更準確評估你產後情緒的轉變，請於填寫問卷時，留意以下幾項要點：

1. 必須親自填寫
2. 不需與家人／朋友商議問卷內容
3. 請根據你過去七天的感受填寫問卷

請儘量填寫問卷，如你對填寫問卷有困難，可稍後於面談時向護士查詢。你亦可選擇用面談的方式讓我們了解你產後情緒的狀況。

填寫問卷及參與產後情緒的評估，能讓我們更有效了解你的狀況，如有需要，我們會為你建議及提供適當的支援服務，並跟進你的情況。

請把填妥的問卷，於面談時交回護士。謝謝你的合作！

衛生署家庭健康服務

CCDS 01 產後情緒問卷 (繁體版) May 09
Appendix G - Chinese version of EPDS being used in MCHCs currently (P.2)

產後憂鬱-過去七天的情緒

說明：因為您剛生了孩子，我們想了解一下您的感受，請選擇一個最能反映您過去七天感受的答案。

注意：不是您今天的感覺，而是過去七天的感受。例如：

我感到愉快：
- 0 所有時候這樣
- 1 大部份時候這樣
- 2 不經常這樣
- 3 一點也沒有

選擇答案 (1) 表明在上一個星期大部份時間都感到愉快，請照同樣方法完成以下各題。

在過去七天內：

1. 我能看到事物有趣的一面，並且開心。
   - 0 同以前一樣
   - 1 沒有以前那麼多
   - 2 肯定比以前少
   - 3 完全不能

2. 我欣然期待未來的一切。
   - 0 同以前一樣
   - 1 没有以前那麼多
   - 2 肯定比以前少
   - 3 完全不能

3. 當事情出錯時，我會不必必要地責備自己。
   - 0 大部份時候這樣
   - 1 有時候這樣
   - 2 不經常這樣
   - 3 沒有這樣

4. 我無緣無故感到焦慮和擔心。
   - 0 一點也沒有
   - 1 極少這樣
   - 2 有時候這樣
   - 3 經常這樣

5. 我無緣無故感到害怕和驚慌。
   - 0 相當多時候這樣
   - 1 有時候這樣
   - 2 不經常這樣
   - 3 一點也沒有

6. 很多事情衝著我而來，使我感到過度。
   - 0 大多數時候我都不能應付
   - 1 有時候我不能像平時那樣應付得好
   - 2 大部份時候我都不能像平時那樣應付得好
   - 3 我一直都能應付得好

7. 我很不開心，以致失眠。
   - 0 大部份時候這樣
   - 1 有時候這樣
   - 2 不經常這樣
   - 3 一點也沒有

8. 我感到難過和悲傷。
   - 0 大部份時候這樣
   - 1 相當時這樣
   - 2 不經常這樣
   - 3 一點也沒有

9. 我不開心到哭。
   - 0 大部份時候這樣
   - 1 有時候這樣
   - 2 只是開心這樣
   - 3 沒有這樣

10. 我想過要傷害自己。
    - 0 相當多時候這樣
    - 1 有時候這樣
    - 2 不經常這樣
    - 3 一點也沒有


Appendix G - English version of EPDS being used in MCHCs currently (P.1)

Postnatal Mental Health Evaluation
Mother’s Name: ____________________________  CHSS Label
Date of Delivery: ____________________________

Dear mother,
Congratulations on having a new member in your family. Childbirth is a joyful experience for most mothers. As some women might experience mood changes and need support from the professionals. We would like to know more about your feelings after your childbirth. Please answer the following question and response accordingly.

Have you completed and returned to the medical personnel any questionnaire about your postnatal mood conditions at around 6 weeks or more after your delivery?

☐ YES ➔ No need to complete the questionnaire on next page. Please return this sheet to the nurse during the interview.

☐ NO ➔ Please spend a few minutes to complete the questionnaire on next page. In order to collect more information about your mood conditions, please note the following when completing it:

1. Please complete the items with reference to how you feel in the past seven-days
2. Fill in the questionnaire on your own
3. Do not discuss about your responses with your family or friends

With your participation in the evaluation, we are able to know more about your current mood conditions following childbirth. Appropriate services and follow-up care will be offered in case of need. You can be assured that information collected in the evaluation is kept confidential. If you have any difficulty in completing the questionnaire, please feel free to let us know. The nurse will discuss with you during the interview.

Please return the completed questionnaire to the nurse during the interview. Thank you very much for your cooperation!

Family Health Service

CCDS 97 EPDS with pre-screen information(Eng) May 09
<table>
<thead>
<tr>
<th>Name:</th>
<th>Date of Delivery:</th>
<th>Date Today:</th>
<th>CH / FP / PN No.:</th>
<th>MCHC:</th>
<th>EPDS score:</th>
<th>Q10:</th>
</tr>
</thead>
</table>

### Edinburgh Postnatal Depression Scale (EPDS)

As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:  
- Yes, all the time  
- Yes, most of the time  
- No, not very often  
- No, not at all

This would mean: “I have felt happy most of the time” during the past week. Please complete the other questions in the same way.

#### In the past 7 days:

1. I have been able to laugh and see the funny side of things.  
   - As much as I always could  
   - Not quite so much now  
   - Definitely not so much now  
   - Not at all

2. I have looked forward with enjoyment to things.  
   - As much as I ever did  
   - Rather less than I used to  
   - Definitely less than I used to  
   - Hardly at all

3. I have blamed myself unnecessarily when things went wrong.  
   - Yes, most of the time.  
   - Yes, some of the time.  
   - Not very often  
   - No, never

4. I have been anxious or worried for no good reason.  
   - No, not at all  
   - Hardly ever  
   - Yes, sometimes  
   - Yes, very often

5. I have felt scared or panicky for no very good reason.  
   - Yes, quite a lot  
   - Yes, sometimes  
   - No, not much  
   - No, not at all

6. Things have been getting on top of me.  
   - Yes, most of the time I haven’t been able to cope at all  
   - Yes, sometimes I have been coping as well as usual  
   - No, most of the time I have coped quite well  
   - No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping.  
   - Yes, most of the time.  
   - Yes, sometimes  
   - Not very often  
   - No, not at all

8. I have felt sad or miserable.  
   - Yes, most of the time.  
   - Yes, quite often  
   - Not very often  
   - No, not at all

9. I have been so unhappy that I have been crying.  
   - Yes, most of the time.  
   - Yes, quite often  
   - Only occasionally  
   - No, never

10. The thought of harming myself has occurred to me.  
    - Yes, quite often  
    - Sometimes  
    - Hardly ever  
    - Never


LXXXIII
## Appendix H - Healthcare Professional Satisfaction Self-reported Questionnaire

Circle the appropriate answer

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1. The innovation is properly briefed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q2. The professionals feel capable in handling extra workloads.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q3. The professionals feel confident in support postpartum mothers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q4. The program can update the knowledge for the professionals.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q5. Support from the innovation proposer is adequate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Q6. Overall, the program is satisfactory.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Q7. **Strength of this programme:**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Q8. **Weakness of this programme:**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

Q9. **Other Comments:**

______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
Reference


