

# Web-based and home-based postnatal psychoeducational interventions for first-time mothers

<b>Submission date</b> 01/02/2016	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 02/02/2016	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 05/10/2022	<b>Condition category</b> Not Applicable	<input type="checkbox"/> Individual participant data

## Plain English Summary

### Background and study aims

Having a baby can be a frightening and exciting time for first time mothers. It can be a challenging time, negotiating the pressures and expectations of motherhood. Studies have shown that many first-time mothers can greatly benefit from coaching and education in the time after they have had their baby, as it can help them to become happier and more confident. This study is going to look at an online educational program and a home-based educational program, to see if they are able to help to improve maternal wellbeing and self-efficiency compared to routine care. These programs aim to provide post-natal (the time after giving birth) support in order to find the most effective way of helping new mothers to feel more confident in caring for their newborn babies.

### Who can participate?

First time mothers aged 21 and over, who have given birth to a healthy baby.

### What does the study involve?

Participants are randomly allocated to one of three groups. Participants in the first group are given access to the web-based post-natal program for one month as well as continuing to receive routine care. This involves being able to access audio and video materials about post-natal care, as well as being able to get advice from an expert forum. Participants also receive three weekly telephone calls which aim to encourage them to use the website more. Participants in the second group receive the home-based post-natal program as well as continuing to receive routine care. This involves hour-long face-to-face sessions with a research assistant who is a midwife (RA) as well as receiving an information booklet giving advice about post-natal care. These participants are visited at home by the RA 5-10 days after they have had their baby and also receive three telephone follow ups in the second and fourth weeks after delivery. Participants in the third group receive routine post-natal care only. At the start of the study, and then 1, 3 and 6 months after discharge from hospital, the mothers' are observed and complete a number of questionnaires to measure their parenting ability (self-efficiency) and mental wellbeing. Participants in the web-based post-natal program group are also interviewed at one month in order to find out how effective they think the program is

What are the possible benefits and risks of participating?

Participants with access to the post-natal program may benefit from improved parenting skills and a greater mental wellbeing. There are no risks to participants taking part in the study.

Where is the study run from?

The study is run from the National University of Singapore and takes place online and in participants' homes (Singapore).

When is the study starting and how long is it expected to run for?

November 2012 to June 2018

Who is funding the study?

Ministry of Health – Singapore (Singapore)

Who is the main contact?

Dr Honggu He

## Contact information

**Type(s)**

Scientific

**Contact name**

Dr Honggu He

**Contact details**

Level 2, Clinical Research Centre

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Singapore

Singapore

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## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**

N/A

## Study information

**Scientific Title**

The effectiveness and cost-effectiveness of web-based and home-based postnatal psychoeducational interventions for first-time mothers: A randomized controlled trial

## **Study hypothesis**

1. When compared with those in the control group receiving routine care, first-time mothers in both web-based and home-based psychoeducational intervention groups will report a significantly:

- 1.1. Higher level of self-efficacy in newborn care
- 1.2. Higher level of social support received
- 1.3. Lower level of anxiety and depression
- 1.4. Higher level of satisfaction with postnatal services

2. When compared with those in the home-based psychoeducational intervention group, mothers in the web-based psychoeducational intervention group will not report significantly poorer aforementioned maternal outcomes

3. It is more cost-effective to provide web-based psychoeducational intervention than home-based intervention and routine care

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

NHG Domain Specific Review Board (DSRB), 25/01/2016, ref: 2015/01189

## **Study design**

Single-blind randomized controlled trial

## **Primary study design**

Interventional

## **Secondary study design**

Randomised controlled trial

## **Study setting(s)**

Hospital

## **Study type(s)**

Other

## **Participant information sheet**

Not available in web format, please use the contact details below to request a patient information sheet.

## **Condition**

Parenting

## **Interventions**

Participants are randomly allocated to one of three groups:

Intervention group 1: Participants will receive access to the web-based postnatal psychoeducational intervention for one month as well as routine care. This involves provision of online access to the website information together with audio and video materials, peer discussion forum, expert advice at the forum and three weekly telephone follow-ups. Participants also receive three weekly telephone follow-ups at the second to fourth weeks post delivery to reinforce usage of website. They will also be able to communicate at the peer

discussion forum (The RA1 will provide expert advice). Each telephone session will last for about 3 minutes.

**Intervention group 2:** Participants will receive the home-based postnatal psychoeducational intervention as well as routine care. This includes one-hour face-to-face education through home visit by a research assistant (RA1) who is a midwife, provision of an educational booklet and three weekly telephone follow-ups. The intervention will be delivered around 5-10 days post-delivery. The three telephone follow-ups will be delivered second to fourth weeks post-delivery. The approximate hours the mother referred to the booklet in the previous month will be asked at the end of the third telephone session.

**Control group:** Participants will receive routine postnatal care only.

The effectiveness of the web-based and home-based psychoeducational interventions on the improvement of maternal self-efficacy in newborn care, social support they receive, and enhanced psychological wellbeing, as well as the satisfaction with postnatal services will be examined. The cost-effectiveness of the web-based postnatal psychoeducational intervention as compared with home-based psychoeducational intervention and routine care will also be evaluated.

## **Intervention Type**

Behavioural

## **Primary outcome measure**

Mothers' self-efficacy in newborn care is measured using the revised Perceived Maternal Parental Self-Efficacy (PMP S-E) tool at baseline, 1, 2 and 5 months after the intervention.

## **Secondary outcome measures**

1. Mothers' social support is measured using the 16-item Functional Social Support Measuring Scale (FSSMS) and 6-item Structural Social Support Measuring Scale (SSSMS) at baseline, 1, 2 and 5 months after the intervention
2. Mothers' psychological well-being (anxiety and depression) is measured using the Edinburgh Postnatal Depression Scale (EPDS) and the Anxiety Subscale of Hospital Anxiety and Depression Scale (HADS-A) at baseline, 1, 2 and 5 months after the intervention
3. Maternal satisfaction with postnatal support is measured using a 6-point Ordinal Descriptive Scale (ODS) at 1, 2 and 5 months after the intervention
4. Cost-effectiveness of web-based postnatal psychoeducational programme as compared to home-based postnatal psychoeducational programme and routine postnatal care is determined using the Healthcare Services Utilisation and Programme-related Expenses Sheet (HSUPES) at 1, 2 and 5 months after the intervention
5. Process evaluation is completed using a semi-structured interview immediately after the intervention (1 month)

## **Overall study start date**

30/11/2012

## **Overall study end date**

20/06/2018

## **Eligibility**

**Participant inclusion criteria**

1. Women aged 21 and above
2. First-time mothers with term pregnancy
3. Able to read and speak English
4. Have internet access through computer or smartphone
5. Planned to stay in Singapore for six months post-delivery

**Participant type(s)**

Patient

**Age group**

Adult

**Sex**

Female

**Target number of participants**

A total of 204 first-time mothers will be recruited in this study.

**Participant exclusion criteria**

1. Physical or mental disorders before and during pregnancy as identified from their medical records, which would interfere with their ability to participate in the study
2. Complicated assisted delivery such as vacuum or forceps with fourth degree perineal tear
3. Gave birth to a still-born child or a child with congenital anomalies and/or medical complications, including pathological jaundice, that required special care in hospital

**Recruitment start date**

01/06/2016

**Recruitment end date**

30/12/2017

**Locations****Countries of recruitment**

Singapore

**Study participating centre**

**National University of Singapore**  
Alice Lee Centre for Nursing Studies  
Yong Loo Lin School of Medicine  
Level 2, Clinical Research Centre  
Block MD 11  
10 Medical Drive  
Singapore  
Singapore  
117597

# Sponsor information

## Organisation

Ministry of Health - Singapore

## Sponsor details

16 College Road  
Singapore  
Singapore  
169854

## Sponsor type

Government

## Website

[https://www.moh.gov.sg/content/moh\\_web/home/Fundings\\_and\\_Medical\\_Research/Health\\_Services\\_Research\\_Competitive\\_Research\\_Grant.html](https://www.moh.gov.sg/content/moh_web/home/Fundings_and_Medical_Research/Health_Services_Research_Competitive_Research_Grant.html)

## ROR

<https://ror.org/00mrhvv69>

# Funder(s)

## Funder type

Not defined

## Funder Name

Ministry of Health - Singapore

## Alternative Name(s)

Ministry of Health of Singapore, MOH Singapore, Ministry of Health (Singapore), mohsingapore, Ministry of Health, Singapore, MOH

## Funding Body Type

Government organisation

## Funding Body Subtype

National government

## Location

Singapore

# Results and Publications

## Publication and dissemination plan

Planned publication of a number of papers in peer reviewed journals.

## Intention to publish date

31/12/2018

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study are not expected to be made available.

## IPD sharing plan summary

Not expected to be made available

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol article</a>	results	31/01/2018		Yes	No
<a href="#">Results article</a>		21/07/2019	05/10/2022	Yes	No
<a href="#">Results article</a>	Economic evaluation	11/03/2022	05/10/2022	Yes	No