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The effectiveness of a postnatal psychoeducation programme on outcomes of first-time mothers in Singapore

Submission date
17/03/2014

Recruitment status
No longer recruiting

Registration date
25/03/2014

Overall study status
Completed

Last Edited
13/01/2015

Condition category
Pregnancy and Childbirth

[_] Prospectively registered
[_] Protocol
[_] Statistical analysis plan
[X] Results
[_] Individual participant data

Plain English summary of protocol

Background and study aims
The early postpartum period (after giving birth) is a stressful transitional period for new mothers. There can be a lack of support from healthcare professionals due to early hospital discharge. It is therefore important to provide continuity of care after hospital discharge, especially for first-time mothers. A structured psychoeducation programme could facilitate continuity of care and smooth adaptation to motherhood in the early postpartum period. There is not a lot of research about this approach and there is no study involving multiracial Singaporean mothers. The aim of this study is to assess whether a Postnatal Psychoeducation Programme (PPP) will help first-time mothers in Singapore.

Who can participate?
122 first-time mothers who deliver their baby in the participating hospital, are able to read and speak English and are 21 years old.

What does this study involve?
Participants are randomly allocated to an intervention or a control group. The control group will receive the routine postnatal support while mothers are in hospital and a follow-up visit at their doctors around six weeks after giving birth. The intervention group will receive both the routine care and the intervention. The intervention involves a 90 minute face-to-face educational session during a home visit, three telephone follow-ups on a weekly basis and an educational booklet especially designed and based on existing literature and local needs of the mothers. The intervention will be provided by the researcher who is a trained midwife.

What are the possible benefits and risks of participating?
Participants in the intervention group will receive an educational intervention. Information obtained from this study may help new mothers improve their self-efficacy, social support and postnatal depression and this may be of benefit to their families. There are no risks or any discomfort for the participants. The only inconvenience will be the time spent in filling in the questionnaire and receiving face-to-face information.

Where is the study run from?
National University Hospital, Singapore.

When is the study starting and how long is it expected to run for?
The study started in June 2012 and was completed in December 2012.

Who is funding the study?
Sigma Theta Tau International Upsilon Eta Chapter (Singapore).

Who is the main contact person?
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Type(s)
Scientific

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Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers
NHG DSRB Ref: 2012/00182

Study information

Scientific Title
The effectiveness of a postnatal psychoeducation programme on outcomes of first-time mothers in Singapore: a randomized controlled trial

Study objectives
The study hypothesis are as follows:
When compared with the control group, mothers in the intervention group would have statistically significant:
1. improved composite outcomes of maternal parental self-efficacy, social support and postnatal depression between groups over time (baseline, posttest-1 (6 weeks postpartum) and posttest-2

(12 weeks postpartum).
2. enhanced maternal parental self-efficacy between groups over time (baseline, posttest-1 and posttest-2).
3. enhanced social support across the three time periods (baseline, posttest-1 and posttest-2).
4. reduced postnatal depression across the three time periods (baseline, posttest-1 and posttest-2).
5. improved maternal parental self-efficacy, social support, and reduced postnatal depression at six weeks postpartum (posttest-1).
6. improved maternal parental self-efficacy, social support, and reduced postnatal depression at 12 weeks postpartum (posttest-2).
7. There will be statistically significant difference in the satisfaction level among first time mothers who receive PPP and postnatal routine care and those only receiving the postnatal routine care.

Ethics approval required
Old ethics approval format

Ethics approval(s)
National Health Group Institutional Review Board (IRB), 18/05/2012, Ref: 2012/00182

Study design
Randomized controlled two group pretest and posttest experimental design

Primary study design
Interventional

Secondary study design
Randomised controlled trial

Study setting(s)
Hospital

Study type(s)
Treatment

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

Health condition(s) or problem(s) studied
Women Health Clinical trial

Interventions
Routine Care

Both the intervention and control group received the routine care provided by the hospital. The routine care involved postnatal support by nurses and midwives while they stayed in the hospital and follow-up hospital visit with the doctor after the hospital discharge. The postnatal support consisted of a one-hour session of parent craft teaching, which mainly focused on baby bathing and breastfeeding support by the lactation consultants during office hours. After office hours, however, ward nurses would then provide this breastfeeding support (anecdotal evidence). The

only kind of support available for the mothers after hospital discharge was in the form of follow-up appointments to see the doctor around one to six weeks post delivery. There were no opportunities for mothers to have return demonstrations on baby care tasks such as baby bathing and mingling and learning from other new mothers in the postnatal wards. There are currently no follow-up home visits and education that is provided to the mothers by midwives or community nurses in Singapore.

Postnatal Psychoeducation Programme

The intervention in this study was a postnatal pychoeducation programme (PPP), which was planned to provide follow-up care to the first-time mothers after the hospital discharge from as early as day five to two weeks post- delivery. The interactive educational programme was based on literature (Fisher et al., 2010; Rowe & Fisher, 2010), Banduras self-efficacy theory and the Social exchange theory (Blau, 1964; Homans, 1961).

The PPP was an additional support, which was provided to the mothers in the intervention group in addition to the routine care.PPP involved a postnatal home visit by a midwife (the researcher herself); three follow-up phone calls on a weekly basis and an educational booklet. A single home visit of approximately 90 minutes duration was conducted between days 5 to 14 post-deliveries, as the first two weeks are the most stressful periods for the first-time mothers after childbirth (Kapp, 1998).

The home visit consisted of a 90 minutes session of face-to-face delivery of PPP focusing on maternal parental self-efficacy, social support and postnatal depression. Mothers were educated on the importance and factors affecting maternal parental self-efficacy and the ways of enhancing it. The importance of both formal and informal social support was highlighted and the ways of seeking social support was discussed. As far as possible, the visit was conducted in the presence of a care provider for the mothers such as husbands, maternal mothers and mothers-in law. To promote the emotional well-being of new mothers, the risk and symptoms of postnatal depression were emphasised. It also involved the exploration of major stressors in the early postnatal period so that individualised care could be provided to the mothers according to their problems. The hands-on demonstrations on newborn care tasks such as baby bathing and breastfeeding were delivered according to the specific needs of the mothers.

The contents of the educational booklet were then introduced to the mothers. The topics of various chapters such as maternal self-care and newborn care were presented. How to navigate through the booklet and special features in the booklet such as summary statements, list of further readings and important contacts were explained to the mothers. Although the booklet included various information mothers may need till first 12 weeks post delivery, mothers were also advised on further readings via internet. Some of the examples of the further readings included information on newborn vaccination via local Health Promotion Board and breastfeeding.The same researcher made three phone follow-up calls on a weekly basis and up to six weeks post delivery. The main purpose of the phone follow-up was to explore if there were new stressors and queries after the home visit as per their weekly journals and to answer the mothers queries according to their individual needs. Any doubts from the booklet were addressed and the mothers were reinforced to continue to read the booklet. Each phone session lasted for about 30 minutes so that the mothers were not rushed and all their queries were answered. An outline on what need to be covered during phone follow-ups was developed to ensure standardisation.A detailed intervention protocol was developed for the PPP, and both the protocol and the contents of the booklet were validated by an expert panel of seven people such as a nursing professor who is experienced in psychoeducation, a Professor in pediatric nursing, a Senior Consultant-Obstetrician, two experienced Midwives in postnatal education and two mothers. They were asked to assess the feasibility and suitability of the programme in the local context. Based on their feedbacks minor amendments were made in the protocol, and a

few new topics such as sleeping habits of newborn and coping strategies to combat stress were added to the booklet.

Intervention Type
Other

Phase
Not Applicable

Primary outcome measure
The primary outcome measure was the maternal parental self-efficacy. It was measured by Perceived Maternal Parental Self-Efficacy (PMP S-E) scale. It is a domain specific 20-item scale developed by Barnes and Adamson-Macedo (2007) based on the Banduras self-efficacy theory (1997). A local expert panel validated the instrument and the original 20-item scale was reduced to 17 items because of repetition. Each item was rated on a four-point Likert scale ranging from 1 (Strongly disagree) to 4 (Strongly agree). The modified PMPS-E scale total score ranged between 17 and 68, where a higher score means higher level of self-efficacy in newborn care. This instrument had Cronbachs alpha of 0.91 as reported by Barnes and Adamson-Macedo, 2007. In a local study conducted in Singapore context (Shorey et al., 2013), the Cronbachs alpha value was 0.95 which indicated a good internal consistency (Nunnally and Berstein, 1994).

Secondary outcome measures
The secondary outcomes were the social support and the postnatal depression. The instruments used to measure these outcomes are described below:

1. Perinatal Infant Care Social Support Scale

Leahy-Warren (2005) developed the Perinatal Infant Care Social Support Scale (PICSS) based on literature and social exchange theory (Blau, 1964; Homans, 1961). It measures both functional and structural social support. The functional support scale comprised 22 items consisting of four subscales: 7 items for informational support; 7 items for instrumental support; 4 items for emotional support and 4 items for appraisal support where each item is rated on a four-point Likert scale, with 1 means totally disagree and 4 means totally agree. The total functional social support scores ranged between 22 and 88; a range from 7 to 28 depicted informational and instrumental subscales and 4 to 16 depicted the emotional and appraisal subscales. To make fair comparisons, all the four subscales scores were transformed to a common denominator of 100.

The structural social support identified the individuals who provided support to mothers and comprised nine items. Both formal sources (nurses/midwives, doctors and others such as confinement nannies) and informal sources (husband/partner, maternal parents, parents in-laws, siblings, friends and neighbours) were considered on all four functional subscales. Based on the reviews from the local expert panel, originally there were six items including four items of functional social support, and two items of asking The length I have got to know this person, and The frequency I contact with this person were available in the structural social support scale, which were later modified to four items after the validation by the expert panel due to the redundancy of the last two items. If participants answered yes to any of the four items of functional support from at least one source, they are considered to have received the structural support. The total score ranged from 0 to 36. Cronbachs alpha of 0.80 was obtained in the previous study (Leahy-Warren 2005). In the local study (Shorey et al., 2013) the Cronbachs alpha was 0.86 for the total PICSS.

2. Edinburgh Postnatal Depression Scale (EPDS)
EPDS is a 10-item instrument, which is widely used to screen postnatal depression in the perinatal period (Cox et al., 1987). It has a score range from 0 to 30. Cox and Holden (2003) suggested that using a 9/10 cut off is likely to detect postnatal depression. However, it is recommended (Cox et al., 1987; Elliott et al., 2000) that scores of 13 and above have a 60-100% probability of meeting diagnostic criteria of depression. Hence, in this study, a cutoff point of 13 and above was used to screen for postnatal depression. Specificity and sensitivity of this instrument have been assessed in many international studies to detect both the minor and the major depression (Cox and Holden 2003). The EPDS sensitivity ranges from 68-80% and specificity is 77%. The Cronbachs alpha coefficient of EPDS in this study
(based on the baseline data) was 0.78.

3. Demographic and Clinical data
The comprehensive demographic data was collected by a specifically designed questionnaire. The data were collected to permit examination of potential socio-demographic factors that may influence the outcomes. The data collected included mothers age, ethnicity, marital status, highest education level, employment status, and monthly household income, antenatal class attendance and the type of delivery.

Overall study start date
01/06/2012

Completion date
01/06/2013

Eligibility

Key inclusion criteria
The inclusion criteria for participants were first-time mothers who were:
1. 21 years old and above
2. Able to read and speak English.

Participant type(s)
Patient

Age group
Adult

Sex
Female

Target number of participants
122 first-time mothers with 61 mothers in each experiment and control groups.

Key exclusion criteria
The exclusion criteria for participants were first-time mothers who:
1. Hd medical and psychiatric history (including perinatal depression) before and during pregnancy as identified by medical records
2. Had complicated assisted delivery such as vacuum or forceps with 4th degree tear
3. Had delivered a newborn with apparent congenital anomalies or delivered a still-born at birth

4. Had a newborn not to be discharged home with the mother; and/or
5. Were not able to stay in Singapore after hospital discharge in the first 6 weeks post delivery.

Date of first enrolment
01/06/2012

Date of final enrolment
01/06/2013

Locations

Countries of recruitment
Singapore

Study participating centre
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Sponsor type
University/education

ROR
https://ror.org/01tgyzw49

Funder(s)

Funder type
Other

Funder Name
Sigma Theta Tau International Honors Society of Nursing (Singapore) Upsilon Eta Chapter Award
30th April 2012

Results and Publications

Publication and dissemination plan
Not provided at time of registration

Intention to publish date

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not provided at time of registration

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	01/06/2015		Yes	No