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Post-caesarean abdominal binder use: a study assessing maternal acceptability, satisfaction and body confidence

Submission date
15/03/2026

Recruitment status
No longer recruiting

Registration date
13/04/2026

Overall study status
Ongoing

Last Edited
10/04/2026

Condition category
Pregnancy and Childbirth

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
Caesarean delivery is one of the most common surgical procedures performed worldwide. In Malaysia, about one in five women gives birth by Caesarean section. Although the operation is generally safe, many women experience pain, discomfort, and reduced mobility after surgery, which can affect recovery and daily activities.

An abdominal binder is a supportive elastic belt that is wrapped around the abdomen after surgery. It is sometimes used after Caesarean delivery to support the abdominal muscles and surgical wound. Some doctors believe that abdominal binders may help reduce pain, improve mobility, and increase comfort when women start moving after surgery. However, there is limited research on how acceptable or comfortable women find these binders and whether they improve confidence in movement during early recovery.

This study aims to evaluate whether wearing an abdominal binder after Caesarean delivery improves women's satisfaction, comfort, and confidence in using their bodies during the first day after surgery.

Who can participate?
Women undergoing planned Caesarean delivery at the University Malaya Medical Centre.

What does the study involve?
Participants who agree will be randomly assigned to one of two groups. One group will wear a standard abdominal binder for the first 24 hours after surgery. The other group will wear a similar binder that does not apply pressure (a sham binder). Both groups will receive the same standard postoperative care and pain relief.

Researchers will ask participants about their comfort, satisfaction, and confidence in moving around 24 hours after surgery using simple questionnaires. Pain levels and the time taken to first walk after surgery will also be recorded. Participants will return for follow-up around seven days after surgery to assess wound healing and whether they continued using the binder.

What are the possible benefits and risks of participating?
The results of this study will help doctors understand whether abdominal binders are helpful and acceptable to women recovering from Caesarean delivery. This may help improve postoperative care and recovery for mothers after surgery.

Risks not provided at time of registration

Where is the study run from?
University of Malaysia.

When is the study starting and how long is it expected to run for?
April 2026 to December 2026

Who is funding the study?
University of Malaysia.

Who is the main contact?
Dr Khaulahradhiah Sahid, khaulahradhiah@ummc.edu.my, radhi_keir88@yahoo.com

Contact information

Type(s)
Principal investigator, Public, Scientific

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Additional identifiers

Study information

Scientific Title
Postoperative satisfaction and acceptability following caesarean delivery: a randomized controlled trial comparing abdominal binder with sham binder use

Acronym
ABCD

Study objectives
To determine the impact of post-Caesarean application of abdominal binder based on patient-reported outcome measures of acceptability, satisfaction and confidence.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 25/02/2026, Medical Research Ethics Committee Unversity of Malaya Medical Center (Lembah Pantai, Kuala Lumpur, 59100, Malaysia; +60 0379493209; ummc-mrec@ummc.edu.my), ref: 2025723-15382

Primary study design
Interventional

Allocation
Randomized controlled trial

Masking
Blinded (masking used)

Control
Placebo

Assignment
Parallel

Purpose
Supportive care

Study type(s)

Health condition(s) or problem(s) studied
Post cesarean delivery

Interventions
Eligible participants will be fitted with an appropriately sized abdominal binder (elastic, breathable, latex-free binder size S/ M/L/XL) after transfer out from the operating theatre. For the application of the appropriate abdominal binder according to the abdominal circumference, the abdomen will be measured with a standard measuring tape. Participants will be instructed to wear the binder continuously for the first 24 hours, only removing it for hygiene or clinical indications. Nursing staff will check binder fit and ask for symptoms of irritation or discomfort, and document any removals.

The method of randomisation will be by sealed envelopes.

Control/ Sham group: Participants allocated to the control group will receive a sham binder (tension-free binder). Binders will be pre-marked, and patients will be instructed to fasten the binder only up to the marked site to prevent tension application. The type and quality of the binder will be identical to that of the intervention group.

Standard care: Both groups will continue to receive routine postoperative care and standard analgesia according to hospital protocols. Compliance with the abdominal binder will be monitored, and time off from the use of the abdominal binder will be recorded. Any skin changes while on the abdominal binder will be assessed and recorded.

Intervention Type
Other

Primary outcome(s)
1. Patient's acceptability of the binder use measured using a 3-point Likert scale at 24 h, once only

2. Patient satisfaction with binder use measured using a Verbal Numerical Rating Scale (VNRS) 0–10 (0 = not satisfied at all, 10 = very satisfied) at 24 h, once only

3. Body confidence measured using a 2-item questionnaire: 1. “How well supported does your abdomen feel when you move around?” 2. How confident do you feel about using your body (standing, walking, and sitting) since surgery?” rated on a 5-point Likert scale: 1 = Not at all, 5 = completely at 24 h, once only

Key secondary outcome(s)
1. Pain measured using VNRS 0–10 at first ambulation and at 24 h

2. Time to first ambulation measured using data collected from Electronic Medical Records (EMR) at one time point

3. Continued use of binder and wound assessment measured using the Redness (Hyperemia), Edema, Ecchymosis, Discharge, Approximation (Coaptation) (REEDA) at the postnatal clinic follow-up at day 7, once only

4. Reason for early discontinuation measured using data collected from Electronic Medical Records (EMR) at 24 h before and after discharge

Completion date
31/12/2026

Eligibility

Key inclusion criteria
1. Age ≥18 years
2. Gestational age ≥36 weeks
3. Able to provide informed consent

Healthy volunteers allowed
No

Age group
Adult

Lower age limit

18 Years

Upper age limit
45 Years

Sex
Female

Total final enrolment
0

Key exclusion criteria
1. Caesarean delivery performed under general anaesthesia
2. Intraoperative blood loss >1 litre
3. Presence of abdominal drain or additional surgical procedures
4. History of chronic pelvic pain
5. Inability to fit the abdominal binder
6. Unable to attend physical clinic follow-up

Date of first enrolment
13/04/2026

Date of final enrolment
06/11/2026

Locations

Countries of recruitment
Malaysia

Sponsor information

Organisation
University of Malaya

ROR
https://ror.org/00rzspn62

Funder(s)

Funder type

Funder Name
Universiti Malaya

Alternative Name(s)
University of Malaya, University Malaya, Malayan University, King Edward VII College of Medicine, Raffles College, University of Malaya in Singapore, , , , UM

Funding Body Type
Government organisation

Funding Body Subtype
Universities (academic only)

Location
Malaysia

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other files	version 2.0	07/11/2025	16/03/2026	No	No
Participant information sheet	version 4.0	30/12/2025	16/03/2026	No	Yes
Protocol file	version 4.0	30/12/2025	16/03/2026	No	No