Clinical Trial Protocol
Iranian Registry of Clinical Trials

22 Nov 2026

Evaluation of the effectiveness of maternal Forward-Leaning Positions during labor on rotation of posterior fetal occipital position and Maternal and Neonatal Outcomes

Protocol summary

Study aim

Evaluation of the effectiveness of maternal Forward-Leaning Positions during labor on rotation of posterior fetal occipital position and Maternal and Neonatal Outcomes

Design

A randomized controlled clinical trial with parallel groups and a control group, no blinding, 208 participants, allocated to intervention and control groups using block randomization with a block size of four.

Settings and conduct

This study will be conducted in the maternity ward of Ganjavian Hospital, Dezful, Iran. Pregnant women with occiput posterior in active labor, after informed consent, will be randomly assigned to intervention (forward-leaning positions + routine care) or control (routine care) groups, and maternal and neonatal outcomes will be compared.

Participants/Inclusion and exclusion criteria

Inclusion criteria: Pregnant women aged 18–40 years; term pregnancy (37–42 weeks); singleton cephalic gestation; spontaneous labor; estimated fetal weight 2500–4000 g; confirmed OP position; active phase of labor (cervical dilation ≥4 cm); parity 1–3; body mass index 18–30. Exclusion criteria: High-risk pregnancy (preeclampsia, gestational diabetes, cardiovascular or respiratory disease); previous cesarean section; severe vaginal bleeding; contraindication to maternal mobility during labor; development of indication for labor induction.

Intervention groups

For allocation concealment, a unique code was assigned to each participant and placed in an opaque envelope. In addition to routine midwifery care, the intervention group adopted forward-leaning positions for 15–20 minutes per hour during the active phase of labor. The control group received routine care only

Main outcome variables

Mean duration of active and second stage of labor; labor pain intensity; type of delivery; Apgar score; maternal satisfaction; number of episiotomies; third- and fourth-degree perineal tears; fetal head position at birth

General information

Reason for update

Acronym

OP- occiput posterior

IRCT registration information

IRCT registration number: **IRCT20251229068486N1**
Registration date: **2026-02-15, 1404/11/26**
Registration timing: **prospective**

Last update: **2026-02-15, 1404/11/26**
Update count: **0**

Registration date

2026-02-15, 1404/11/26

Registrant information

Name

Masome KHabazkhob

Name of organization / entity

Country

Iran (Islamic Republic of)

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+98 61 4224 4134

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masomekhabaz2@gmail.com

Recruitment status

Recruitment complete

Funding source

Expected recruitment start date

2026-04-04, 1405/01/15

Expected recruitment end date

2026-10-07, 1405/07/15

Actual recruitment start date

empty

Actual recruitment end date

empty

Trial completion date

empty

Scientific title

Evaluation of the effectiveness of maternal Forward-Leaning Positions during labor on rotation of posterior fetal occipital position and Maternal and Neonatal Outcomes

Public title

effectiveness of maternal Forward-Leaning Positions on rotation of posterior fetal occipital position and Maternal and Neonatal Outcomes

Purpose

Supportive

Inclusion/Exclusion criteria

Inclusion criteria:

Maternal age between 18 and 40 years. Term pregnancy (37–42 weeks gestation). Singleton pregnancy. Cephalic presentation. Spontaneous onset of labor. Estimated fetal weight between 2500 and 4000 grams. Fetus in occiput posterior (OP) position on initial examination or ultrasound. Women in active phase of labor (cervical dilation ≥4 cm). Women with parity 1 to 3. Maternal body mass index (BMI) between 18 and 30.

Exclusion criteria:

High-risk pregnancies (preeclampsia, diabetes, maternal cardiac or respiratory disease). History of previous cesarean delivery. Presence of severe vaginal bleeding in the mother. Maternal contraindication to movement during labor. Indication for labor induction.

Age

From **18 years** old to **40 years** old

Gender

Female

Phase

N/A

Groups that have been masked

No information

Sample size

Target sample size: **208**

Randomization (investigator's opinion)

Randomized

Randomization description

27 blocks will be used. In each block of 4, 2 people will be assigned to the intervention group and 3 people to the control group, which will be arranged randomly. Thus, at the end of each block, there will be two balancing groups.

Blinding (investigator's opinion)

Not blinded

Blinding description

Placebo

Not used

Assignment

Parallel

Other design features

The forward-leaning position involves the mother standing, on hands-and-knees, or leaning forward over a table, chair, or birthing ball, so that her body weight shifts forward and the pelvis is positioned to facilitate correction of the fetal head. The mother remains in this position during the active phase of labor, with free movement of arms and legs allowed.

Secondary Ids

empty

Ethics committees

1

Ethics committee

Name of ethics committee

Ahvaz Jundishapur University of Medical Sciences

Street address

Farvardin Street, Golestan

City

Ahvaz

Province

Khouzestan

Postal code

6135715794

Approval date

2026-01-10, 1404/10/20

Ethics committee reference number

IR.AJUMS.REC.1404.553

Health conditions studied

1

Description of health condition studied

Normal Delivery Manangment

ICD-10 code

O80

ICD-10 code description

Vaginal delivery

Primary outcomes

1

Description

Rotation of the fetal head from posterior occiput position

Timepoint

At delivery

Method of measurement

Observation and record in check list

2

Description

Type of delivery

Timepoint

After delivery

Method of measurement

Observation and record in check list

Secondary outcomes

1

Description
Duration of active phase and second stage of labor
Timepoint
Cervix dilatation from 4 centimeter to 10 centimeter for active phase of labor and cervix dilatation from 10 centimeter to delivery of newborn for second stage of labor
Method of measurement
Clinical examination/ Measurement by digital chronometer / record in check list

2

Description
Apgar score
Timepoint
At 1 and 5 minutes after birth
Method of measurement
Observation and examination

3

Description
Mother satisfaction from delivery
Timepoint
After delivery
Method of measurement
Asking the mother and record in check list

4

Description
Frequency use of episiotomy
Timepoint
After delivery
Method of measurement
Observation and record in check list

5

Description
Labor Pain intensity
Timepoint
Measurement severity of pain for dilatation of 4; 6; 8 and 10 centimeter and second stage
Method of measurement
By visual analog scale

Intervention groups

1

Description
Intervention group: The intervention group, in addition to routine midwifery care (examination, vital signs, and fetal heart rate monitoring), will assume forward-leaning positions alternately for 15–20 minutes per hour during the active phase of labor. Forward-leaning includes standing, hands-and-knees, or leaning over a table, chair, or birthing ball to shift weight forward and align the pelvis for fetal head correction, with free movement of arms and legs.
Category
Other

2

Description
The control group will receive routine care.
Category
Other

Recruitment centers

1

Recruitment center
Name of recruitment center
Ganjavian Hospital Dezful
Full name of responsible person
Masoumeh Khabazkhoub
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Opposite the 292nd Armored Brigade of the Army, Dezful-Andimeshk road
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Sponsors / Funding sources

1

Sponsor
Name of organization / entity
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Abdollah Rafiei
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Web page address
http://vchresearch.ajums.ac.ir
Grant name

RHPRC-0410

Grant code / Reference number
RHPRC-0410

Is the source of funding the same sponsor organization/entity?
Yes

Title of funding source
Ahvaz University of Medical Sciences

Proportion provided by this source
100

Public or private sector
Public

Domestic or foreign origin
Domestic

Category of foreign source of funding
empty

Country of origin

Type of organization providing the funding
Academic

Person responsible for general inquiries

Contact

Name of organization / entity
Ahvaz University of Medical Sciences

Full name of responsible person
Masoumeh Khabazkhoub

Position
MS midwifery student

Latest degree
Master

Other areas of specialty/work
Midwifery

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Sharing plan

Deidentified Individual Participant Data Set (IPD)
No - There is not a plan to make this available

Justification/reason for indecision/not sharing IPD
There are currently no plans to publish it.

Study Protocol
Undecided - It is not yet known if there will be a plan to make this available

Statistical Analysis Plan
Undecided - It is not yet known if there will be a plan to make this available

Informed Consent Form
No - There is not a plan to make this available

Clinical Study Report
Undecided - It is not yet known if there will be a plan to make this available

Analytic Code

No - There is not a plan to make this available

Data Dictionary

No - There is not a plan to make this available