

Determining the minimal clinically important difference and psychometric properties of Obstetric Quality of Recovery-10: a systematic review and network meta-analysis

Moe Takenoshita, MBBChir, MRCS; Satyam Ghimire, MBBS; Lu Tian, PhD; Aleesha Jethwa, MBBS, MS; Phillip Callihan, MD, PhD; Fatine Karkri, MD; Pervez Sultan, MBChB, MD(Res), FRCA

Background & Aims

Obstetric Quality of Recovery-10 (ObsQoR-10)

- **10 items** encompassing **physical, mental, infant-related and psychosocial** domains
- **Total score** ranging from **0 to 100** – **higher** scores = **better** recovery.
- Validated in **multiple languages**
- Used **globally** in **clinical** and **research** settings

MCID: the **smallest change in score** that is perceived as **clinically relevant**

- MCID of ObsQoR-10 not yet established

Obstetric Quality of Recovery-10 (ObsQoR-10®) Scoring Tool

Instructions: Below is a list of problems that women can experience after childbirth. Please read each problem carefully and indicate how much you have been bothered by that problem in the in the **past 24 hours**:

Questions 1 – 4

Please score the **severity** of the below symptoms in the past 24 hours: (Please choose one score (0-10) for each symptom)

		 Worst Imaginable		 Moderate		 None
		10	9	8	7	6
1	Pain					
2	Nausea or vomiting					
3	Dizziness					
4	Shivering					

ANESTHESIOLOGY

Expert Consensus Regarding Core Outcomes for Enhanced Recovery after Cesarean Delivery Studies: A Delphi Study

Primary aim: to estimate **MCID** of ObsQoR-10 scores

Secondary aim: summarize **psychometric properties** of ObsQoR-10 across different languages and contexts.

*“The Obstetric Quality of Recovery-10 item composite measure was also included in the **final core outcome set**”*



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Study Design and Methods

Systematic review and network meta-analysis

Search strategy

- Six databases
- Key words related to “Obstetric Quality of Recovery”
- Studies published up to 02/2026
- Without date or language limiters



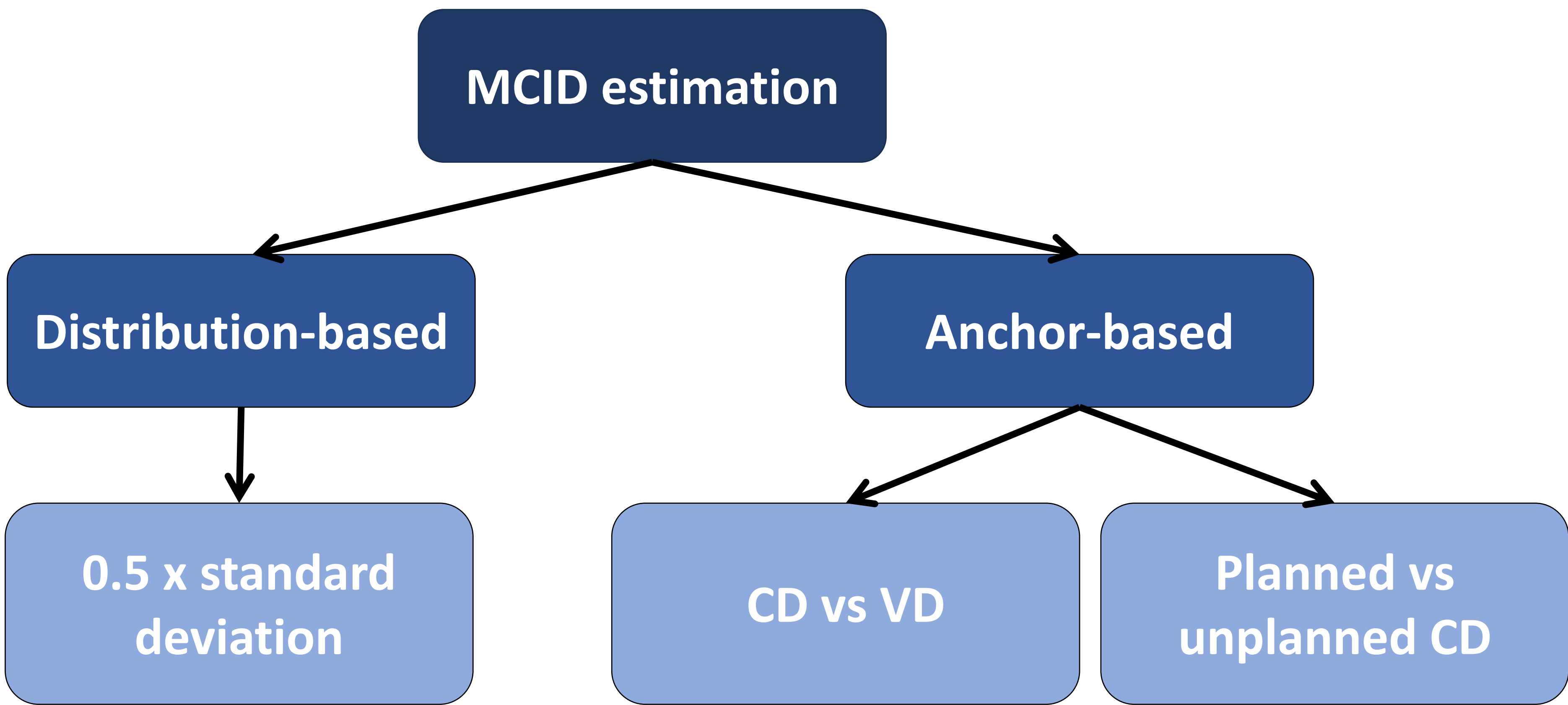
Two reviewers independently screened and evaluated study quality using the COSMIN Risk of Bias Checklist.

Inclusion	Exclusion
Observational and interventional	Use of ObsQoR-11
Inpatient studies	Outpatient studies
>1 psychometric properties reported	

MCID estimated through **triangulation** of:

- (i) **distribution-based** (primary evidence), and
- (ii) **anchor-based** approaches

ObsQoR-10 scores collected **within 24 ± 6 hours** of delivery



CD: caesarean delivery, VD: vaginal delivery

Taber KS. *Res. Sci. Educ.* 2018; **48**: 1273–96.
Koo TK, Li MY. *J. Chiropr. Med.* 2016; **15**: 155–63.
Wyrwich KW, et al., *Quality of Life Research* 2005; **14**: 285–95.
Mokkink LB, et al. *Quality of Life Research* 2018; **27**: 1171–9.



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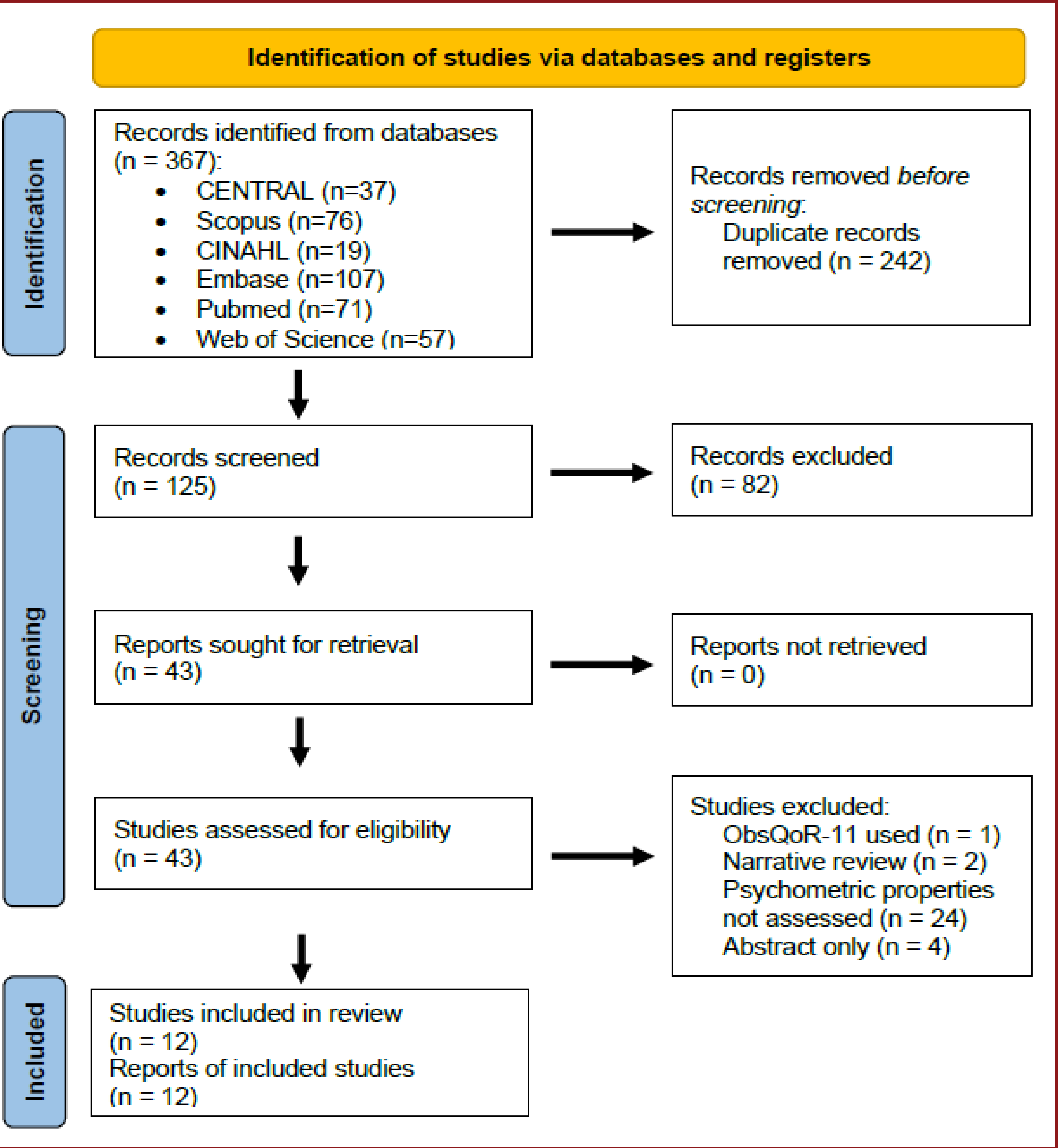
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Results



12 studies (2,017 patients) included in systematic review.

Risk of bias:

- **Moderate** quality evidence for **sufficient construct validity, reliability** and **responsiveness**
- **Low** quality evidence for **insufficient cross-cultural validity**.

Mean ObsQoR-10 scores ranged from 48.0 (16.3) (CD) to 89.1 (9.3) (VD).

Meta-analysis

10 studies (1,426 patients) included in meta-analysis

Distribution-based estimates ranged from **6.7 to 8.7**

Anchor-based estimates ranged from **9.7 to 12.4**

Anchor-based MCID (ObsQoR-10 score differences between delivery modes)

Known group comparisons	Between group difference in median (95% CI)
Planned CD vs VD	-9.70 (-16.5, -2.7)
Planned vs unplanned CD	2.74 (-5.9, 11.2)
Unplanned CD vs VD	-12.43 (-21.5, -3.1)

Distribution based MCID (ObsQoR-10 scores by delivery mode)

Delivery mode	0.5 SD (95% CI)
VD	6.8 (5.9, 7.8)
Planned CD	6.7 (6.0, 7.6)
Unplanned CD	8.7 (7.9, 9.6)

Table 1. Summary of MCID estimates from anchor- and distribution-based methods.

MCID: Minimum clinically important difference, CI: confidence interval, CD: caesarean delivery, VD: vaginal delivery; ObsQoR-10: Obstetric Quality of Recovery 10, SD: standard deviation, CI: confidence interval.



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Discussion and Conclusion

- **Smallest MCID estimate 6.7 points**
- ObsQoR-10 performed well in most psychometric properties within 48 h of childbirth.
- MCID **unlikely to be universal** - low evidence of cross-cultural validity
- VD associated with highest mean ObsQoR-10 scores (best recovery)
- Unplanned CD associated with lowest mean ObsQoR-10 scores (worst recovery).
- Application:
 - Identification of patients that warrant further clinical review
 - Quality improvement

Next steps

- Prospective multicenter longitudinal studies using multiple independent anchors
- Across multiple countries

Limitations

- Selection of **anchor**
- **Number of studies** eligible for inclusion in the meta-analysis

Conclusion

- Estimated MCID: **6 to10 points**
- **10 points** likely represents an **upper-bound** estimate.



References



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