

Preliminary findings from a post caesarean delivery pain core outcome set development study: time to shift our focus?

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Introduction

- Cesarean delivery is the most performed inpatient operation worldwide
- Adequate management of post caesarean delivery pain (PCDP) remains a challenge
- PCDP is associated with increased maternal persistent pain, postpartum depression, opioid use disorder, delays to recovery and impacts the ability to care for a newborn¹
- The aim of this study is to produce a core outcome set for PCDP

Methods

- Study design: Scoping review and qualitative interviews
- Registration: PROSPERO, COMET; following PRISMA guidelines
- Source: 7 database search from May 2016 to 2021
- Inclusion criteria: Effectiveness RCTs for PCDP
- Outcomes: Identify outcome measures used to evaluate PCDP in published RCT and group according to previously published postpartum pain domains²
- Interviews: Focus group interviews with diverse participants from University College London Hospital operative delivery patient and public involvement group were conducted

Results

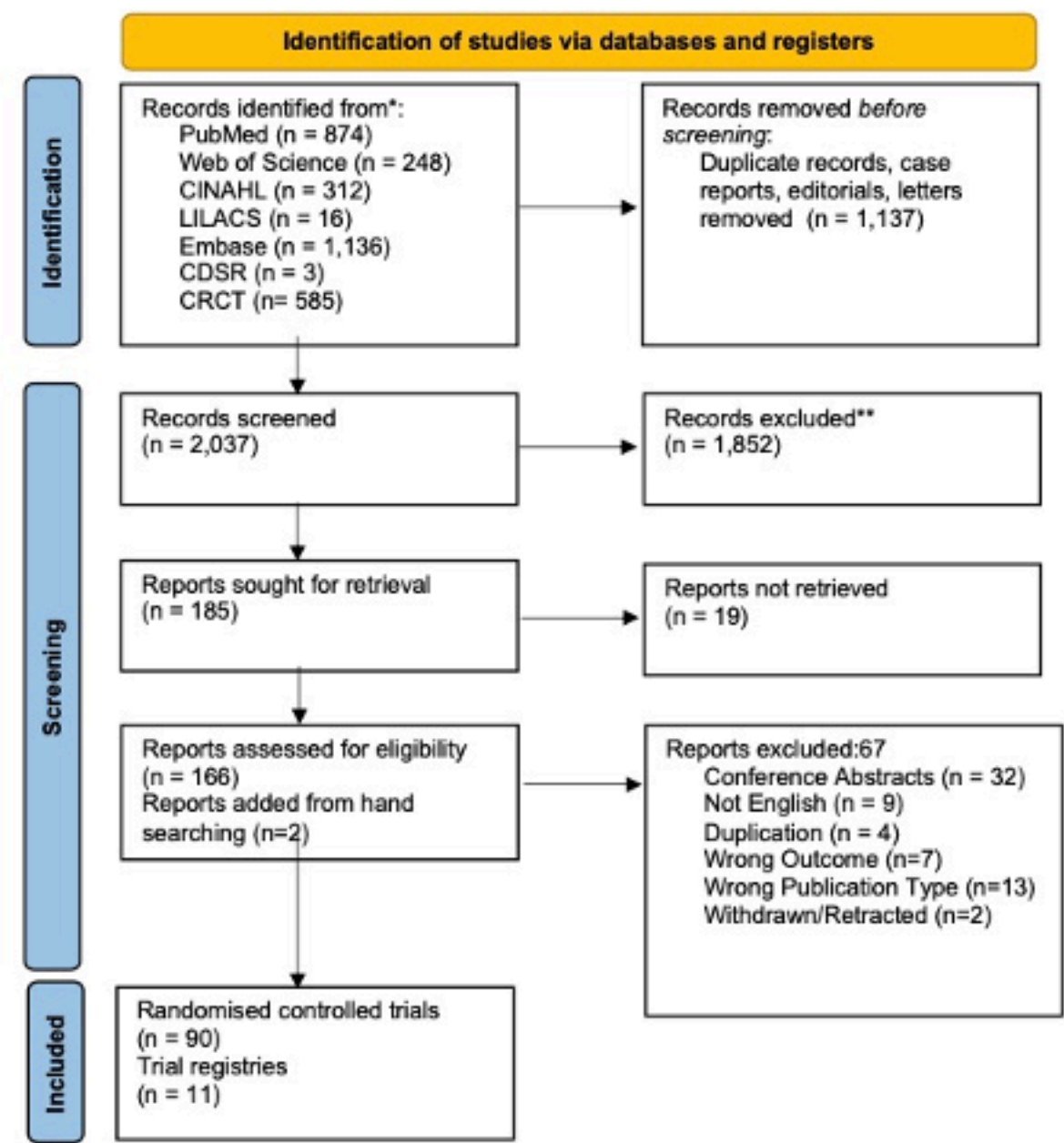
- Scoping review:** 101 RCTs
- 375 inpatient and 17 outpatient outcomes
- The most reported outcome domains were:
 - Analgesia (n=242/375, 64.5%), analgesic consumption - most frequent
 - Pain intensity (n=120/375, 32%), VAS and the NRS - most frequent
 - Maternal and neonatal adverse effects (17.3% and 5.1%, respectively)

Table 1. Content validity of top two most common outcome measurements utilised in included RCTs classified into 14 postpartum pain domains²

Measure	No. of items	PAIN DESCRIPTORS					INTERFERENCE									
		Intensity	Character	Analgesia	Exacerbating/re-leaving	Site	Physical function	Infant care	Sleep	Cognitive function	Psychosocial distress	Fatigue	Psychosocial wellbeing	Infant health	Sexual function	Number of domains
Analgesia consumption (MME, total dose, time to request)	1			X												1
Unidimensional pain scales (VAS, NRS, VRS, VPRD,FRS)*	1	X	X			X										3

*VAS = Visual analogue scale, some studies have also described the site and character of pain with simple VAS e.g. incision pain, cramping pain; NRS = numerical rating scale; VRS = visual rating scale; MME = Milligram morphine equivalents; **yellow** highlights the most common outcomes utilised in RCTs, as identified from scoping review; **pink** highlights the main domains identified from patient focus group discussion on the impact of acute post caesarean delivery pain.

Figure 1. Summary of search



- Focus group discussions** with patients (n=10):



PCDP was reported as a “huge” problem

Little information about severity and persistence

Major themes identified:

- 1) Psychological health
- 2) Impact on care of the newborn, and
- 3) Association of pain severity and lack of midwife support

- By comparison, scoping review of inpatient studies revealed only 2% outcomes related to psychological health and 1% outcomes related to care of the newborn.

Discussion

- Outcomes utilised in PCDP trials vary widely, and are pain intensity and analgesic-use focused
- Patient-centred, functionality-focused assessments could improve postpartum pain evaluation and treatment³
- Standardisation in outcomes is needed to promote research efficiency and identify optimal PCDP management⁴

References

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