

Risk factors for levator ani muscle avulsion in primiparous women:
a systematic review and meta-analysis

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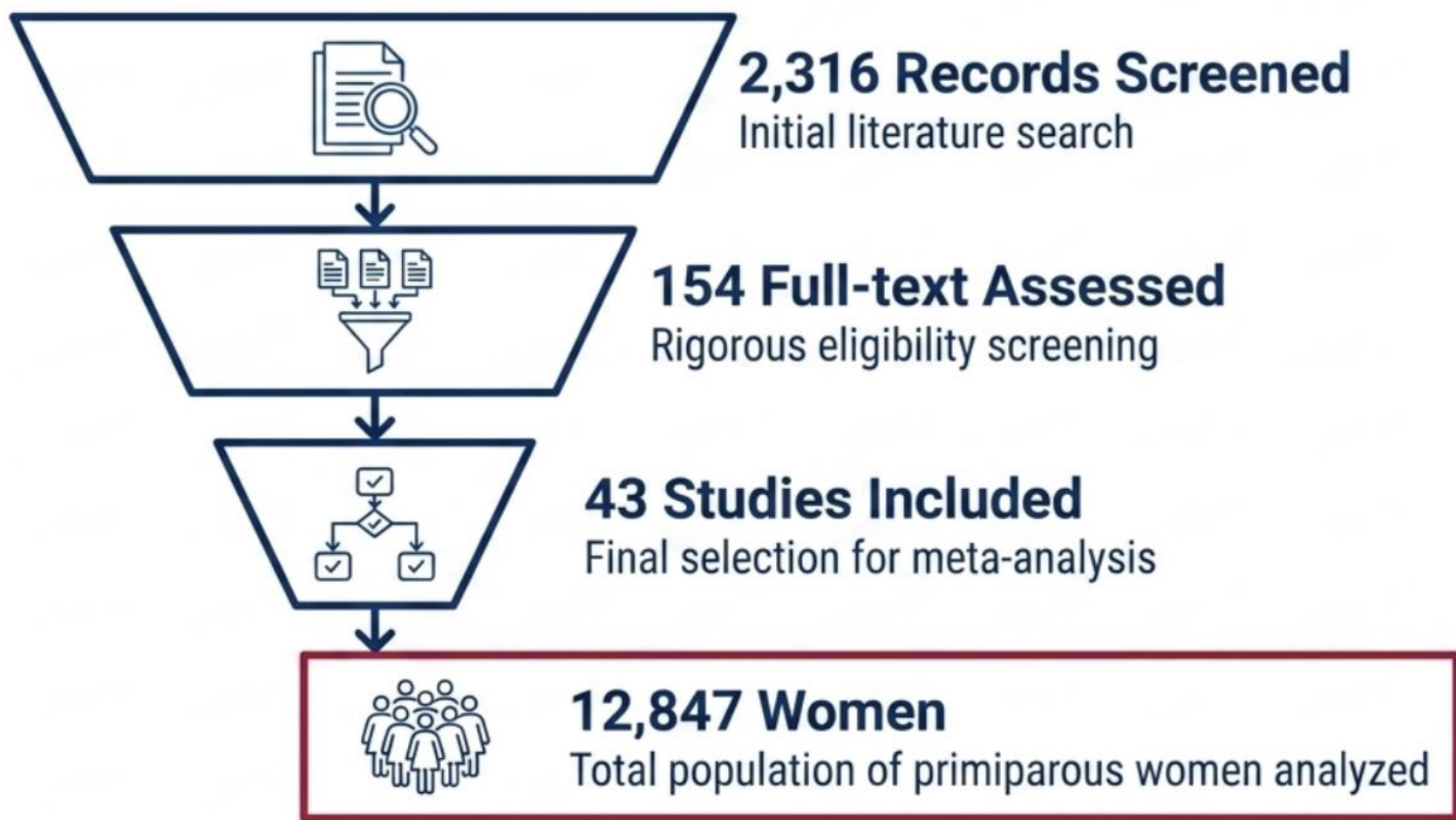
Objectives

Primary Aim: To identify risk factors for *major* levator ani muscle (LAM) avulsion;
Secondary Aim: To perform factor-specific meta-analyses for maternal, fetal, and labor-related risk factors for *any type* of LAM avulsion.

Methods

Inclusion criteria: studies evaluating major and/or partial LAM avulsion and levator hiatal ballooning in primiparous women, diagnosed by **trans-perineal ultrasound (TPUS)** or **Magnetic Resonance imaging (MRI)**.

Figure 1.
Methods



Results

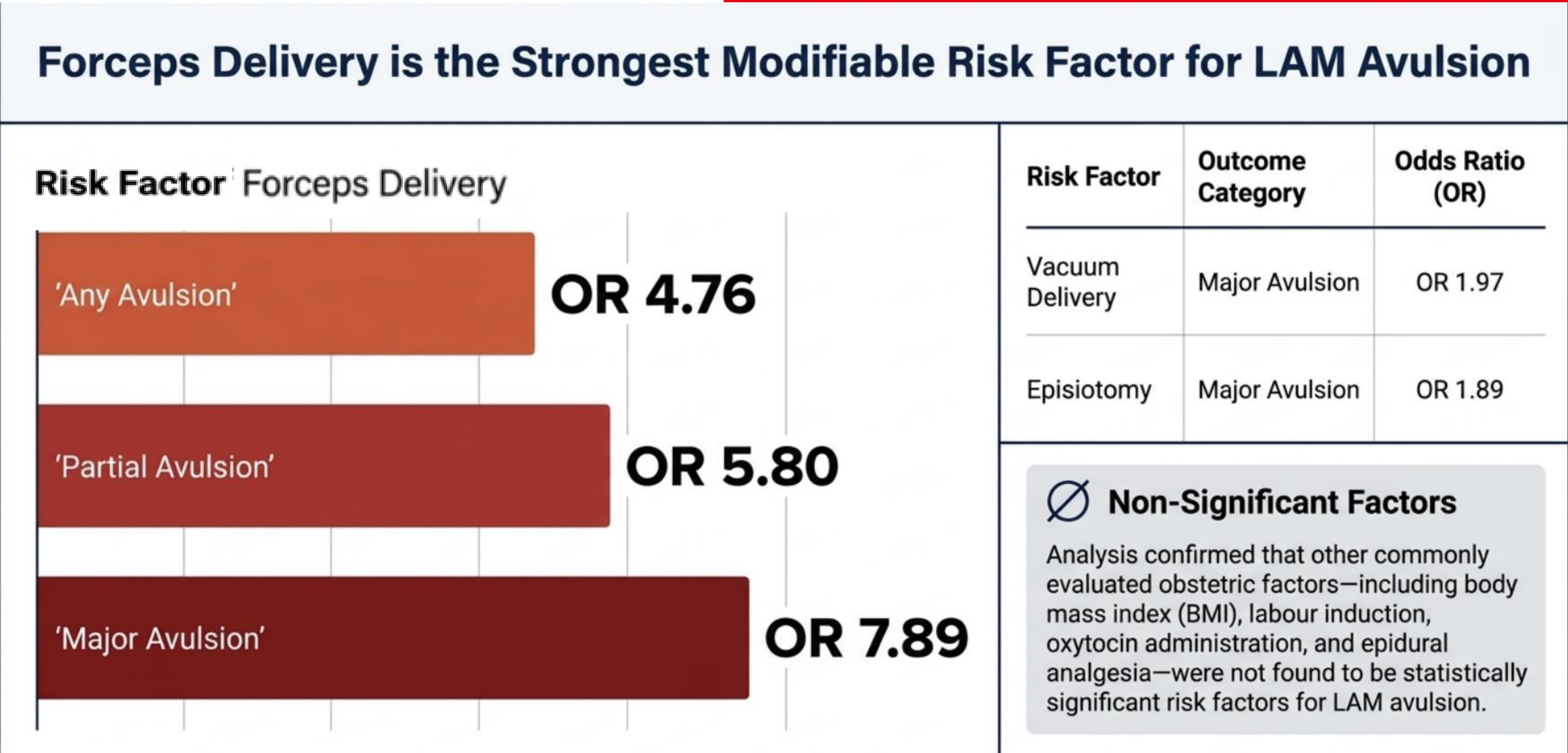


Figure 2.
Risk factors for any type of LAM avulsion

Conclusion

Operative vaginal delivery, particularly forceps, is the strongest modifiable risk factor for LAM avulsion in primiparous women, supporting targeted counselling and intrapartum decision-making to mitigate pelvic floor trauma at first delivery.