Is double-layer closure with unlocked first-layer associated with better uterine scar healing than locked single-layer closure?

Yes, if uterine scar healing is defined by increased total and residual myometrial thickness.

Details of the study
In their recent RCT, Roberge and colleagues randomly assigned 81 women with singleton pregnancies undergoing elective primary CD (at ≥38 0/7 weeks) and compared the following uterine closure types on residual myometrial thickness during postpartum transvaginal ultrasound at 6 months:
- single-layer locked closure (control)
- double-layer locked closure
- double-layer unlocked closure.

In addition to addressing the single-versus double-layer debate, this study highlights another important aspect of closure technique: locked versus unlocked first-layer...
suture closure. The residual myometrial thickness, a surrogate measure of uterine scar healing, was significantly greater in those women randomly assigned to double-layer (locked or unlocked) closure compared with controls. Additionally, total myometrial thickness significantly increased in the double-layer unlocked closure group. There were no differences in the short-term outcomes of operative time or estimated blood loss among any of the groups.

Based on these findings, the authors advocate for double-layer unlocked uterine closure during CD to maximize uterine scar healing.

**Bottom line**
Double-layer uterine closure with unlocked first-layer at CD appears to maximize postpartum uterine scar thickness compared with other techniques; it remains unclear, however, if this improves short- or long-term outcomes.