

Janiszewska et al., 2025). Among these, abdominal binders, corsets, and elastic bandages are commonly used in the early postpartum period to provide proprioceptive feedback, enhance subjective stability, and temporarily reduce stress on the abdominal wall during activity. Randomized controlled trials and meta-analyses suggest that abdominal support alone can improve IRD, pain, and functional performance, but its effects are greater when combined with core stabilization exercises (Kaya and Menek, 2023). Network meta-analyses further indicate that abdominal support combined with core training performs particularly well in improving IRD below the umbilicus, whereas binders alone show only moderate effects (Abdullah et al., 2025; Zhu et al., 2025).

Postural guidance and modification of daily behaviors are also important components of comprehensive management. Improper movement patterns during getting in and out of bed, carrying an infant, lifting, and performing household activities may continuously increase intra-abdominal pressure and aggravate stress on the linea alba. Therefore, rehabilitation programs should generally include maintenance of neutral spine alignment, breathing coordination, load management, self-monitoring of abdominal doming, and retraining of functional movement patterns. For example, using a “side-lying to push-up” technique instead of directly sitting up from supine, and avoiding breath-holding during lifting and childcare tasks, may help reduce midline stress and promote long-term behavioral change (Skoura et al., 2024; Fajar et al., 2025). Although this component is often categorized as “education,” it is in fact of substantial clinical value for symptom control, improving adherence, and preventing recurrence.

For patients with poor response to conservative treatment or severe separation, surgery may serve as the final option within comprehensive management. Surgical intervention is generally indicated for cases with large separation (e.g., >3-5 cm), marked functional impairment, associated abdominal wall hernia, or persistent symptoms despite adequate conservative treatment. Common procedures include linea alba plication, retromuscular repair, and minimally invasive endoscopic repair. The main goals are to reconstruct abdominal wall continuity, restore mechanical stability, and relieve associated symptoms. Previous reviews suggest that surgery can significantly improve core function, pain, urinary symptoms, and quality of life, particularly when followed by structured postoperative rehabilitation, which appears to enhance long-term outcomes (Skoura et al., 2024; Janiszewska et al., 2025). Nevertheless, surgery still carries risks of complications and recurrence, and should therefore be considered cautiously only after sufficient conservative treatment, clear indications, and informed shared decision-making.

5 Comparison of Different Intervention Approaches

5.1 Differences between single exercise interventions and comprehensive rehabilitation

In rehabilitation research on diastasis recti abdominis (DRA), comparing single exercise interventions with comprehensive rehabilitation programs has become a key focus of evidence-based evaluation. Single exercise interventions typically emphasize selective activation and strengthening of specific muscle groups, such as transversus abdominis activation, curl-up training, or basic core stabilization exercises. Existing systematic reviews and meta-analyses suggest that these interventions can produce modest improvements in inter-recti distance (IRD), particularly in mild to moderate DRA, but the overall effect size is small and the quality of evidence is generally low (Beamish et al., 2024; De Oliveira et al., 2025). For example, a meta-analysis by Gluppe et al. (2021) reported that isolated transversus abdominis training reduced IRD by approximately 0.6 cm compared with minimal intervention; however, this conclusion was based on studies with small sample sizes and a high risk of bias. Similarly, a randomized controlled trial found that a 12-week curl-up program increased abdominal muscle thickness and strength without worsening DRA, but did not significantly reduce IRD compared with no intervention (Gluppe et al., 2023).

In contrast, comprehensive rehabilitation emphasizes a multidimensional approach, typically integrating active exercise training, neuromuscular electrical stimulation (NMES), breathing and postural control, pelvic floor muscle coordination, abdominal support, taping, and manual therapy. Network meta-analyses and systematic reviews consistently indicate that multimodal interventions are more effective than single exercise approaches in reducing IRD. Combinations such as “exercise+NMES,” “core training+abdominal support,” and