Establishing Expert-Based Recommendations for the Conservative Management of Pregnancy-Related Diastasis Rectus Abdominis: A Delphi Consensus Study

Pelvic Floor Distance Journal Club
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Introduction
• Diastasis Rectus Abdominis (DRA) is a dysfunction to the linea alba (LA), often due to the widening and thinning during pregnancy. Defined by the increased inter-recti muscle distance (IRD) from normal values.
• By the end of the third trimester, prevalence rises to 100% of pregnancies and 23-32% of women have a persistent DRA 1 year postpartum.
• There are hypotheses that DRA could affect trunk control due to the relationship to the diaphragm though recent research doesn’t support this.
  o This research is from 2005.
  o 2018 study suggests poorer trunk function associated with larger IRD
• There is no standardization of the treatment or measurement of DRA along with lacking evidence of the functional consequence.
• Currently, research is debating whether exercise is the best conservative treatment approach for DRA and if exercise has the potential to minimize the inter-recti muscle distance (IRD) during pregnancy and postpartum.
  o Study in 2014 states that there is insufficient quality evidence to suggest any particular exercise approach was beneficial during the pre- and postnatal stages.

Aim/Primary Aim
Create an expert based recommendation of DRA assessment on conservative treatment for the first year postpartum

Study Design/Study Format
Expert opinion was conducted with the Delphi methodology through a series of questionnaires with information and opinion feedback. Study used a 3-phase approach on SurveyMonkey, participants gave feedback and was able to reassess their judgement and provide comments to other participants.

Methods
• Participants: Canadian credentialed women’s health physiotherapist whom have achieved clinical and/or academic achievements. 28 experts were identified across Canada with varying clinical and academic backgrounds after working with members of the Executive Committee of the Women’s Health Division of the Canadian Physiotherapy Association to achieve a comprehensive representation.
**Item Development:** Creation of the 82-question survey started with a comprehensive search in 4 databases to review the scientific literature. 4 search strategies were performed as mentioned in the paper for the data. The research determines 6 domains relating to the conservative care spanning different stages: (1) general perceptions of DRA, (2) prenatal care, (3) intrapartum, (4) early postpartum care < 3 months after birth, (5) late postpartum to 1 year, and (6) assessment.

**Data Collection:**
- Phase I: Items were scored with the 5-point Likert scale with 1 being “strong disagree” and 5 being "strongly agree”. > 80% of participants had to agree on a statement for consensus and < 40% score on statements meant the item was removed.
- Phase II: Redundancy of items were collapsed or removed
- Phase III: Consensus items were ranked into two categories: (1) primary importance, meaning to be of high priority of the clinician, and (2) secondary importance, importance but not of primary importance to be included. Procedure for consensus following the same as phase II.
- Each phase lasted 4 to 6 weeks with 2 reminder emails sent to nonrespondents.

**Data Analysis:** The mean score for each individual item was calculated and transformed into a percentage. Agreement was determined with a mean score of 4 or more (> or equal to 80.0%).

**Results**
- *Phase I & II:* 21 out of 28 participants were involved in the study. All responded in phase I and 11 contributed in phase II. Per Table 2, 38 of the 82 items achieved consensus from the group, 9 disagreements, and the other 40 items to be discussed. Phase II results had 28 statements of consensus and 4 disagreements.
- *Phase III:* Summary statements and consensus items is found in Table 3.
  - **General perspectives**
    - Impairments and dysfunction of DRA is multidimensional and multifactorial
    - Global care approach which is then individually tailored
  - **Late Postpartum**
    - Exercise and movement should be embraced
    - Important language emphasizing neuromuscular physiology rather than structure or “gap”
  - **Assessment:**
    - Measuring the DRA may not be a sufficient relevant data and understanding the distance isn’t the end all be all. Deep muscles, engagement of the muscles all put everything together.
  - Items that didn’t make consensus:
    - Avoiding front loading positions in early and late postpartum due to individual variability
    - Counseling regarding nutrition and sleep were close to meeting consensus.
    - Abdominal support due to lack of evidence
    - Eccentrically lengthening exercises did not have enough research to receive support.
• No consensus on items regarding measuring LA doming or invaginating
• No consensus on what a “significant” DRA is

Discussion

- “Emphasis on the need to assess various anatomical and functional aspects of the LA”
  - Palpation at rest of the LA (fascial tension, passive resistance of the LA during contraction
- No discussion on different measurement tools (i.e. calipers, US) due to the anatomical and physiological relationship between the LA and abdominal muscles, trunk, and breathing patterns.
- Agreement with research:
  - Encourage habitual activity when reduces intra-abdominal pressure
  - Favor pelvic floor muscle (PFM) and transverse abdominis exercises early postpartum
    - Working with the co-contraction of the muscles
- Disagreement between research and the experts
  - Cautious of concentric exercises in late postpartum compared to studies that look at the “Noble technique”. Lack of LA tension needs to be corrected
    - Opposes research by Sancho in 2015 that does suggest a small crunch helps reducing IRD
  - Experts also didn’t agree on health promotion including nutrition, sleep, and activity counseling.
    - Research suggests that PTs are effective at counseling patients with respect to lifestyle behavior strategies
- The panel did state that physiotherapists have a clear advocacy role in the intrapartum stage and the need to avoid language which may prompt fear of movement.
- Avoid any language that could prompt a fear of movement

Weaknesses: Level 5 evidence (expert opinion) and reliability of the participants as phase II has a low participation rate, some of the references were > 10 years ago.

Discussion Questions

1. What are your primary importance interventions that you use when patients with during pregnancy and postpartum?
2. Are there any particular exercises that you have found effective in DRA treatment postpartum?
   a. Does that change with early to late stages of postpartum care?