

ESTABLISHING BEST PRACTICE PRINCIPLES FOR THE CONSERVATIVE MANAGEMENT OF PREGNANCY-RELATED DIASTASIS RECTUS ABDOMINIS: RESULTS FROM PHASE 1 OF A CONSENSUS STUDY.

Hypothesis / aims of study:

Pregnancy-related diastasis rectus abdominis (DRA) is a highly prevalent condition in women during the perinatal period. It is estimated that 32 % to 53 % of women present with a persistent DRA at 1-year post-delivery (1). To date, knowledge remains limited on risk factors or long-term sequelae of a widened linea alba (LA) in postpartum women, but many suggest implications for trunk control and pelvic floor support function (2,3). Current evidence is conflicting regarding the conservative management of DRA, which presently creates much debate amongst health care providers and women seeking care. Practitioners working with pregnant women would benefit from greater understanding of how to prevent and care conservatively for this condition. Given that what presently constitutes the best approaches to this condition needs further research to support them, we sought to bring together key stakeholders regarding this condition to develop a set of consensus-based practice principles for the conservative management of pregnancy-related DRA. The main objective of this 3-Phases study is to establish a set of practice principles to support a cohesive evidence-informed approach to DRA that can be used across disciplines. The specific aim of Phase 1 was to develop a preliminary set of consensus-based statements regarding the conservative management of pregnancy-related DRA.

Study design, materials and methods

This study followed Delphi consensus methodology and was informed by the Knowledge to Action (K2A) framework for knowledge translation. The Delphi process commenced with a comprehensive literature review. Following Ethics approval, an expert panel (n=28) was purposively assembled and invited to participate in this study. Experts were identified nationally as credentialed clinical specialists from different backgrounds and with varied experience in women's health, or determined as qualified experts from their academic and research accomplishments, to ensure the requisite diversity and expertise of the panel. All participants provided informed consent before enrollment in the study. For this initial phase, participants were invited to answer an online survey where their perspectives on various topics related to DRA were collected. A total of 82 questions related to prevention, management and assessment of DRA through the different phases of the perinatal period composed the survey. Participants had to answer each question using a 5-point scale to indicate their agreement with the statement (1=Strongly disagree to 5=Strongly agree). For the analyses, it was considered that a participant agreed with a statement if a "4" (agree) or a "5" (strongly agree) was answered. Simple proportion analysis was calculated for each statement, and consensus was established when there was at least 75% of agreement between respondents. For the upcoming Phase 2 and 3 of this study, a practice principle will be derived from the statements reaching consensus, and will be defined as an actionable item that a health care professional could enact. If less than 55 % of agreement was found between the experts, disagreement was considered for these statements and will not be included in the subsequent Phases (2 and 3) of the study.

Results

For Phase 1, 21 out of the 28 invited experts participated and completed the survey (participation rate = 75 %). Preliminary analysis show that the answers from the participants generated 38 consensus-statements, 20 of which a high percentage of agreement was achieved and presented in **Table 1**. Preliminary results also highlight lack of agreement (less than 55% agreement) between experts on 4 statements from the survey, most of which corroborate perspectives of statements which achieved consensus (see **Table 1**). The remaining statements of the survey have yet to generate agreement or disagreement from the participants, and will be explored further during Phase 2 of the consensus process.

Table 1. Statements from Phase 1 survey with high percentage of agreement.	Agree- ment (%)
<u>Statements related to the prenatal period</u>	
Avoid exercises that concentrically engage the superficial abdominal muscles.	83.2
Facilitate optimal co-activation of the inner unit muscles during exercises.	87.4
Promote effective tension-free diaphragmatic breathing.	82.2
Emphasize postures that reduce excessive sustained intra-abdominal pressure.	90.6
Encourage optimal elimination habits to reduce straining.	86.4
<u>Statements related to the early postpartum period</u>	
Avoid exercises that concentrically engage the superficial abdominal muscles.	83.2
Avoid front loaded exercises (planks, push-ups).	76.8
Avoid exercises in which continence mechanism is not maintained.	94.8
Avoid high impact exercise.	86.4
Facilitate optimal co-activation of the inner unit muscles during exercises.	87.4
<u>Statements related to the presence of DRA in postpartum period</u>	
Avoid exercises that cause doming or invagination of the LA.	93.6
Introduce front loaded exercises if tension through the LA is maintained.	90.0
Avoid exercises in which continence mechanism is not maintained.	87.8
Progress core training if appropriate tension through the LA is achieved.	90.0
Address contributing pelvic girdle and thoracic movement impairments.	86.6
<u>Statements related to the assessment of DRA</u>	
Palpate for depth and quality of tissue integrity (LA) at rest.	76.6
Assess development of tension through the LA with voluntary pelvic floor and transverse abdominis co-contraction.	88.8
Ensure optimal pelvic floor contraction through a digital exam.	84.4
Assess for doming or invagination of LA during exercises.	82.2
A non-functional DRA is determined when tension of LA cannot be developed voluntarily.	81.2
<u>Statements with a lack of agreement (less than 55%)</u>	
DRA does not appear to be related to the pelvic floor	38.4
The severity of DRA does not impact my approach	33.6
Emphasize “closing of the gap” via “Noble Technique” (head lift)	38.8
DRA is a cosmetic issue, not a functional issue	24.0

Interpretation of results

To our knowledge, this is the first study to establish consensus across key stakeholders to bridge the gap in both evidence and clinical practice approaches regarding pregnancy-related DRA. Findings from Phase 1 determined 38 practice statements that achieved consensus between experts, with 20 statements achieving high percentage of agreement. Further, answers to Phase 1 of this study show that there is agreement amongst experts that the tissue of the LA is intrinsic to the thoraco-pelvic abdominal manometric system. As such, they agree that compromised integrity of the LA after pregnancy needs to be considered within the context of this system when assessing and intervening for this condition. These statements will be further developed and prioritized in the next two Phases of this study to form a final list of practice principles will be both evidence-informed, and deemed to be feasible and usable. As some of these principles will corroborate with the scientific literature, and some will not, our findings will help point out important practice gaps that will require further study. The 40 statements that required further exploration in Phase 2 are also of interest, as they highlight the need for further exploration to increase understanding of these phenomenon.

Concluding message

As nationally recognized experts in women’s health, the participants in Phase 1 of this study agree that the impairments and dysfunctions related to DRA are multi-dimensional and multifactorial. The consensus-statements established during Phase 1 of this study emphasize the need for a global care approach when addressing DRA. From Phase 1 and its subsequent phases, it is hoped that the results of this study will facilitate the development of further research and to enhance care regarding pregnancy-related DRA.

References

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Disclosures

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