

2nd trimester During pregnancy is a critical period

- Marked decline in physical activity (PA)
- Clinically significant drop in self-esteem
- Early intervention during the 2nd trimester may be pivotal for maternal mental health.

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Influence of Physical Activity on Self-Esteem and Anxiety during Pregnancy: A Longitudinal Prospective Study

Background: Pregnancy is a transformative period often accompanied by psychological changes. Evidence shows **increased susceptibility to anxiety, depression, and low self-esteem during this period. Physical activity (PA)** has been shown to alleviate maternal mental health disorders and improve postpartum outcomes.

Purpose: To evaluate self-esteem, anxiety, and PA patterns across the three gestational trimesters (GTs) in healthy pregnant women.

Results

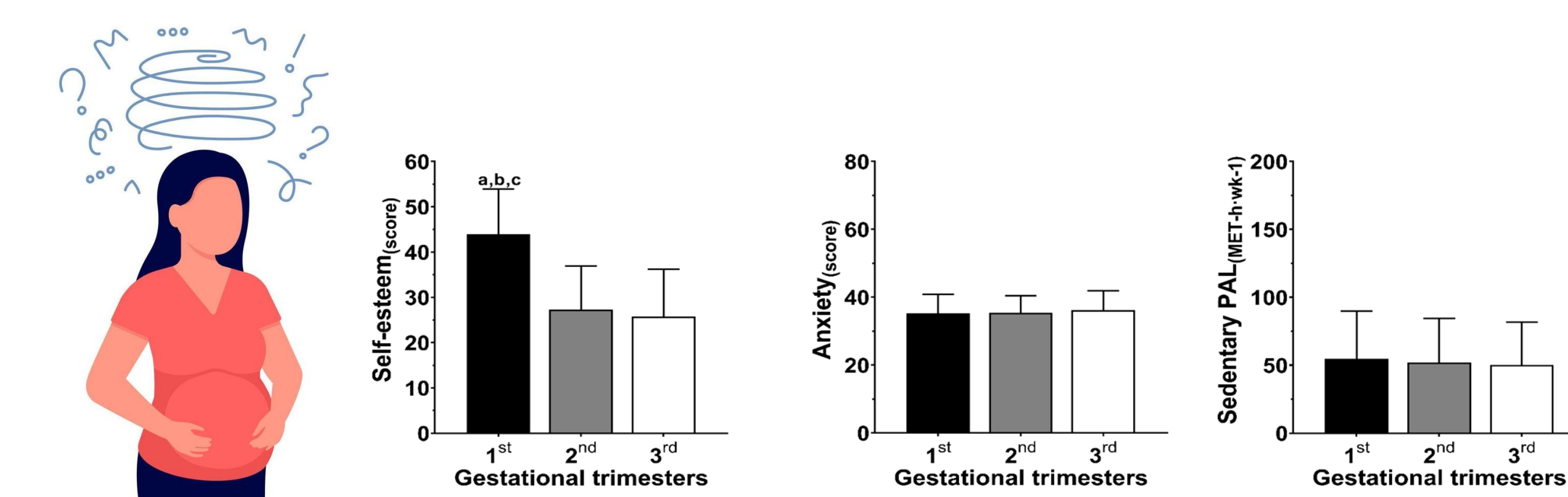


Figure 1. Comparison of three gestational trimesters' (GT) self-esteem, anxiety scores and sedentary (PAL) : a = significant difference alongside GTN (p < 0.05); b = significant difference compared to 2nd GT (p < 0.05); c = significant difference compared to 3rd GTn (p < 0.05).

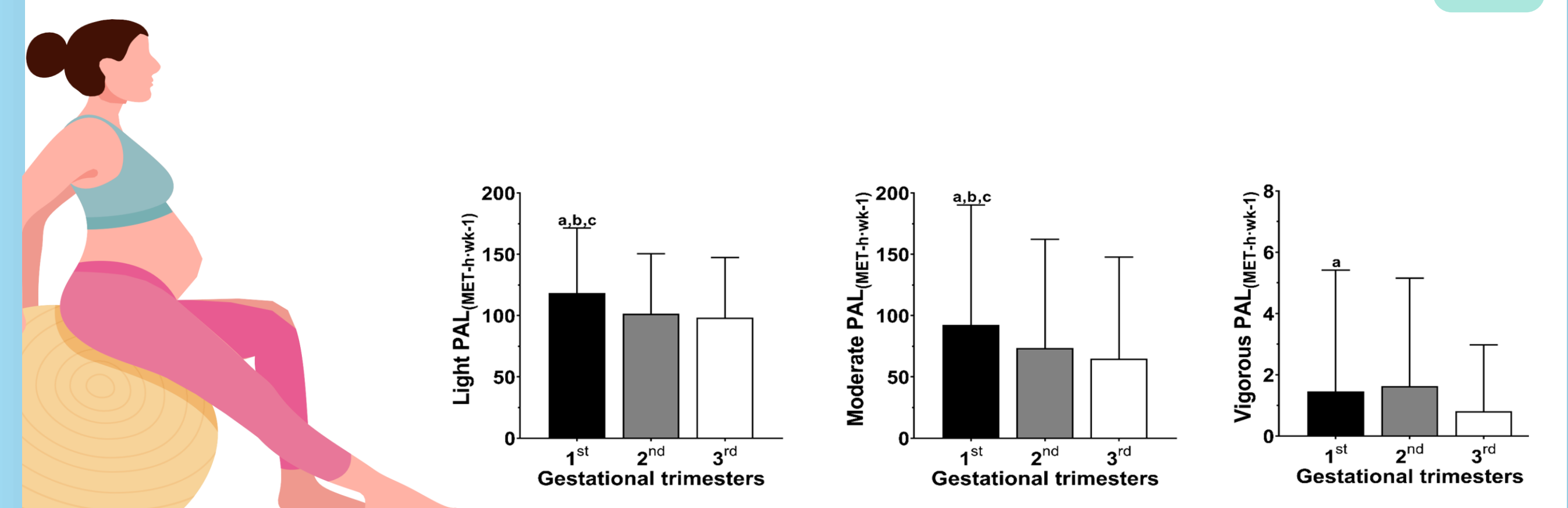


Figure 2. Comparison of three gestational trimesters' physical activity level: a = significant difference alongside gestational trimester (GT) (p < 0.05); b = significant difference compared to 2nd GT (p < 0.05); c = significant difference compared to 3rd GT (p < 0.05).

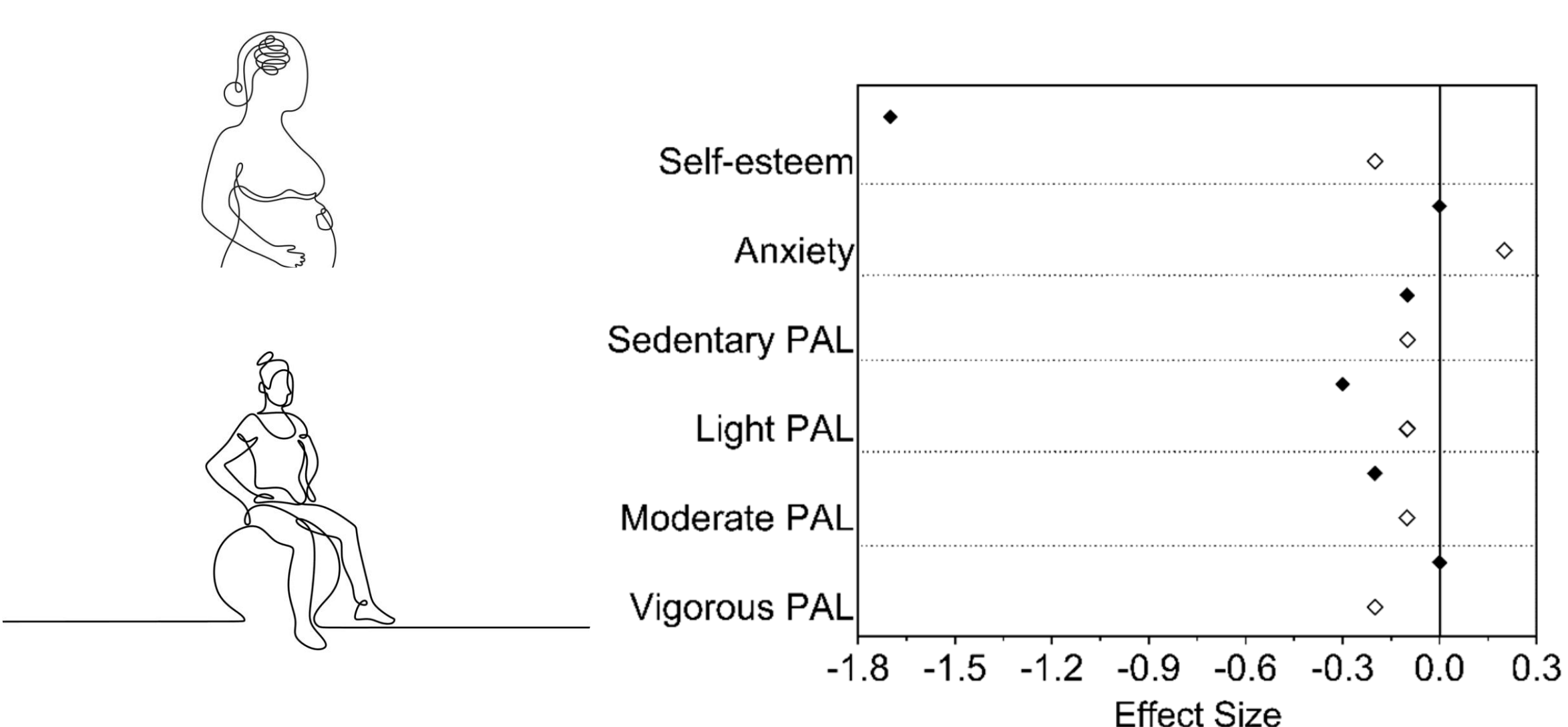


Figure 3. Effect size along gestational trimesters for self-esteem, anxiety, and physical activity levels (PALs). Note: Black diamonds mean the effect size between 1st and 2nd gestational trimesters, whereas the white diamond means the effect size between 2nd and 3rd gestational trimesters.

Methods

METHODS
A longitudinal prospective study followed 248 Portuguese pregnant women across all three GTs.

INSTRUMENTS USED:

- Rosenberg's Self-Esteem Scale
- Zung Self-Rating Anxiety Scale
- Pregnancy Physical Activity Questionnaire (PPAQ)



From the total, 152 participants had complete data and were included in the final analysis.

Inclusion Criteria

- Women aged 18–40 years
- Spontaneous singleton pregnancy
- Gestational age between 10th and 13th weeks

Exclusion Criteria

- Chronic conditions, including:
 - Diabetes
 - Hypertension
 - Heart disease
 - Thyroid disease
 - Any uncontrolled chronic illness
- Persistent bleeding after 12 weeks gestation
- Severe anemia
- Language or cognitive barriers
- Inability to understand Portuguese
- Cognitive impairments affecting comprehension
- Non-completion of study stages or withdrawal from the study

Clinical Implications: Physiotherapists working in women's health should recognize the **2nd trimester as a high-risk period for decreased PA and self-esteem.**

- Tailored **PA interventions** can support maternal wellbeing promoting physical and mental health during pregnancy.
- Contributes to the development of **health policies** that prioritize **preventive** and **holistic care.**

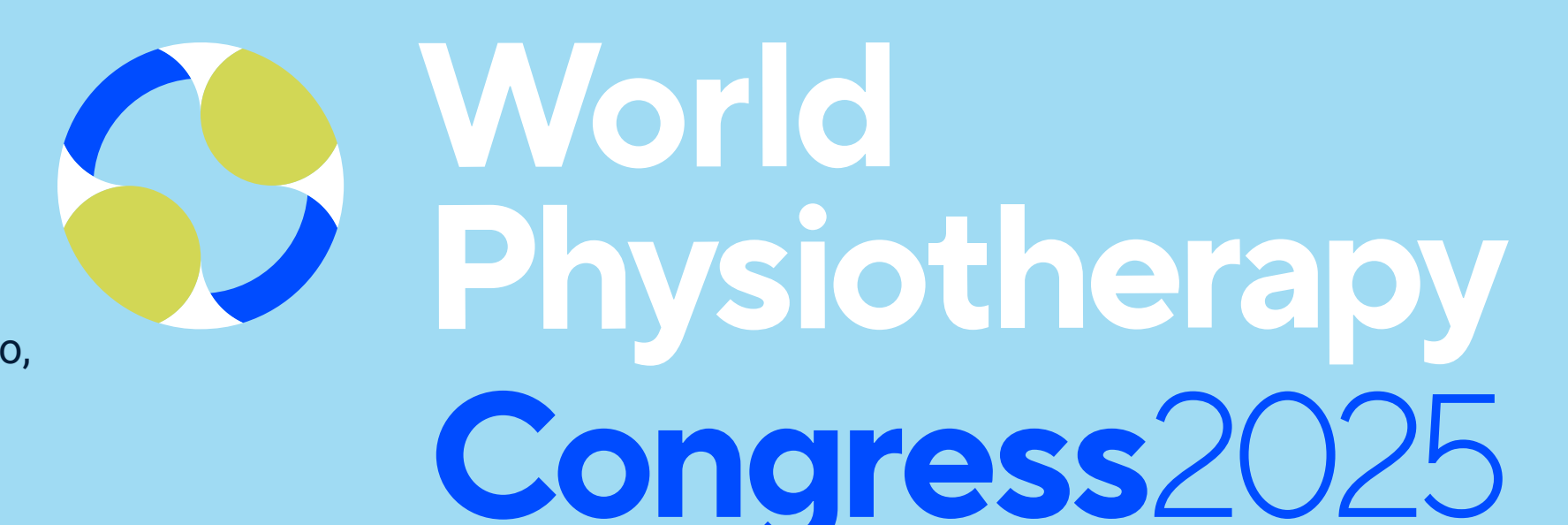


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