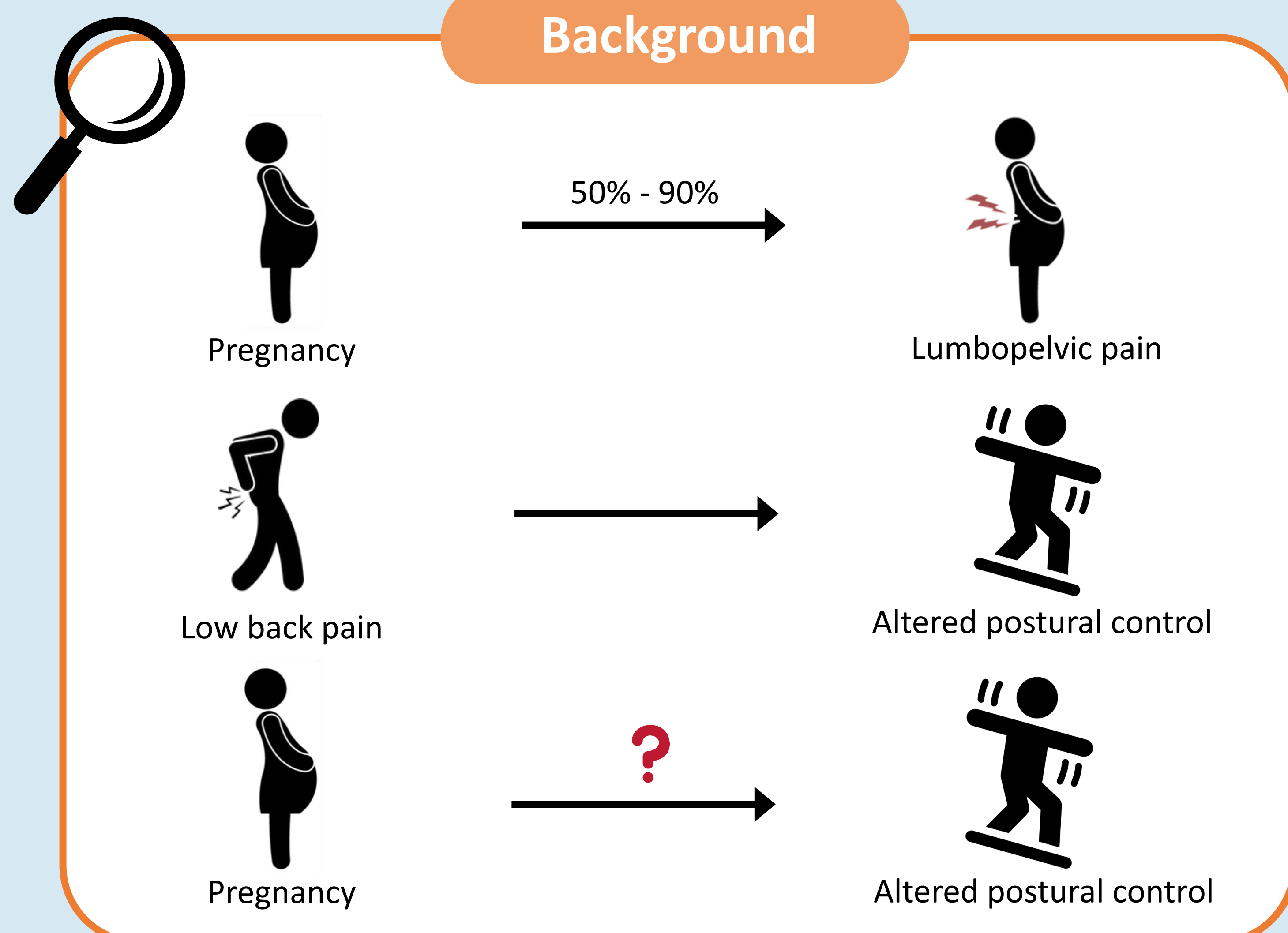


Postural control and its Relation with Pregnancy-Related Lumbopelvic Pain in Multigravid Pregnant Women

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Background



Aims

- To compare postural control between:
 - Multigravid vs. non-pregnant women
 - Early vs. late pregnancy
- To investigate the relationship between postural control and pregnancy-related lumbopelvic pain



Methods

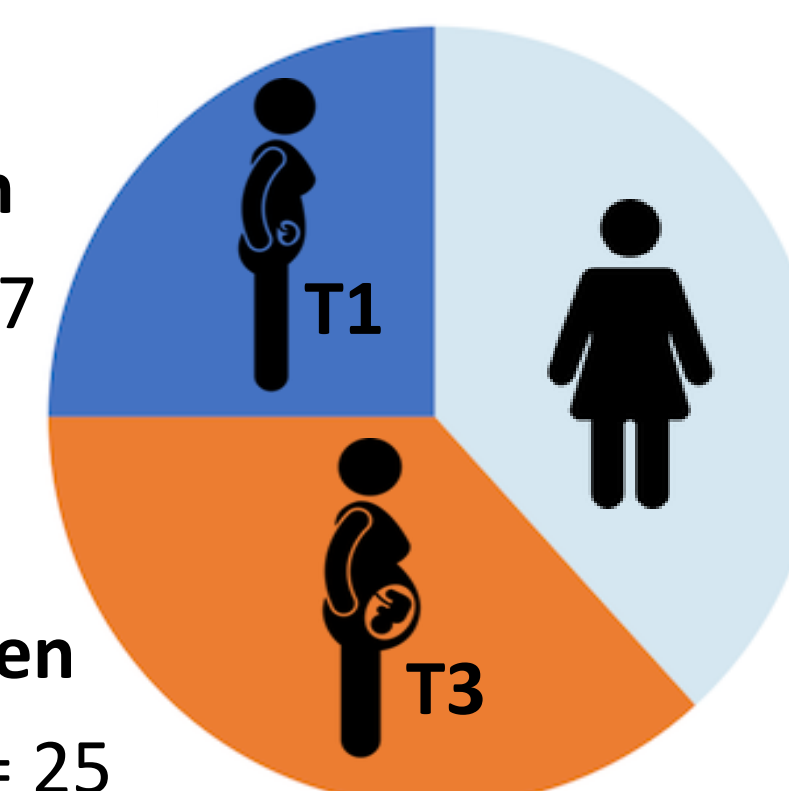
Participants

Multigravid women

First trimester: n = 17

Multigravid women

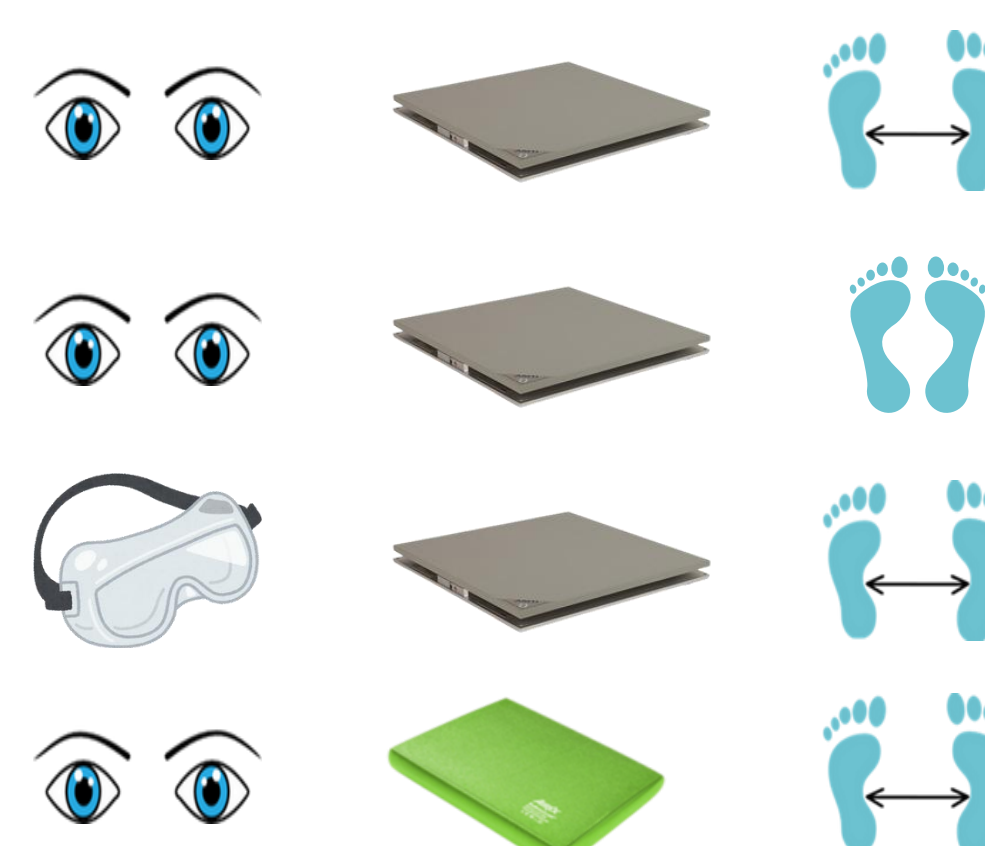
Third trimester: n = 25



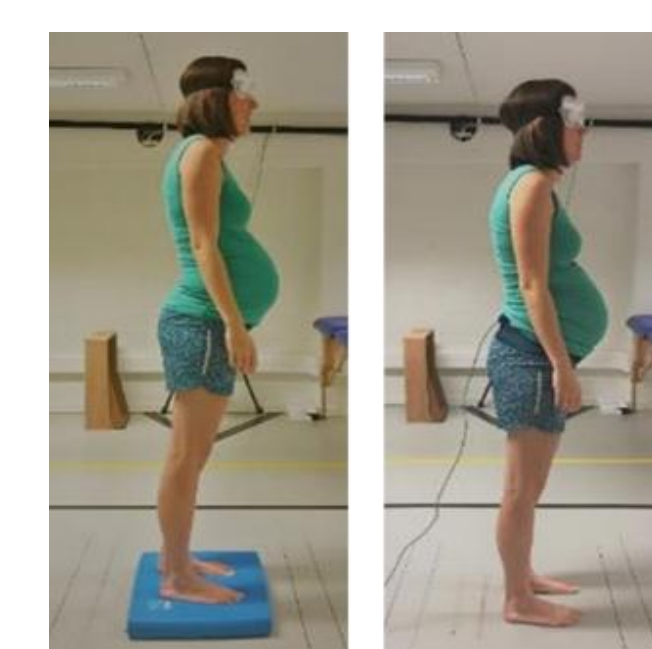
Non-pregnant women
n = 26

Postural control

- Force plate
- Different postural conditions

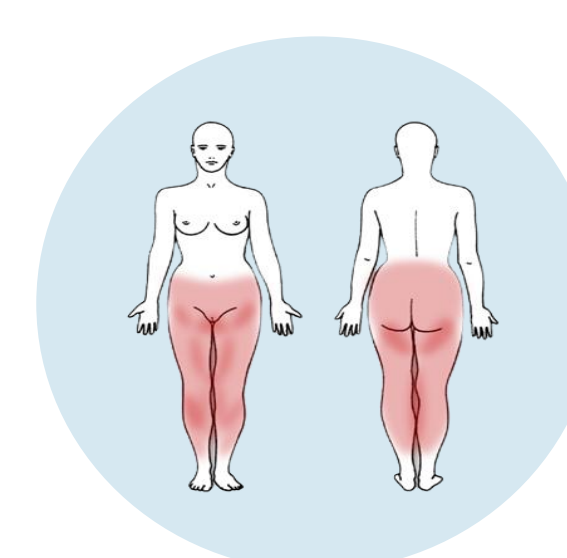


- Centre of pressure (CoP) variables
 - Sway amplitude anteroposterior (AP)
 - Sway velocity AP
 - 95% confidence ellipse area

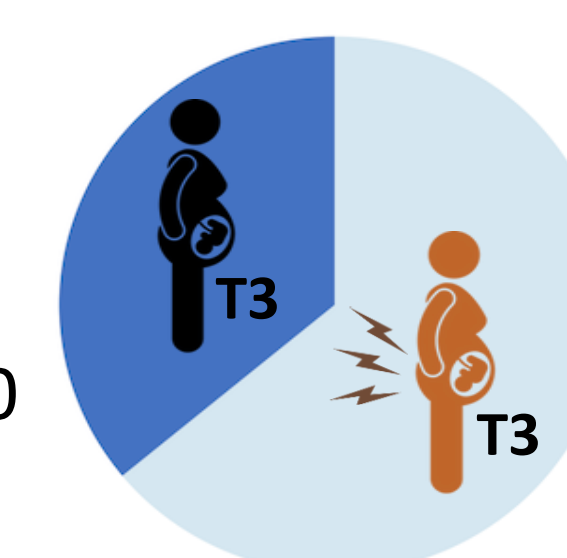


Pregnancy-related lumbopelvic pain in T3 (PLPP)

- Self-reported lumbopelvic pain
- Numeric pain rating scale (NPRS)



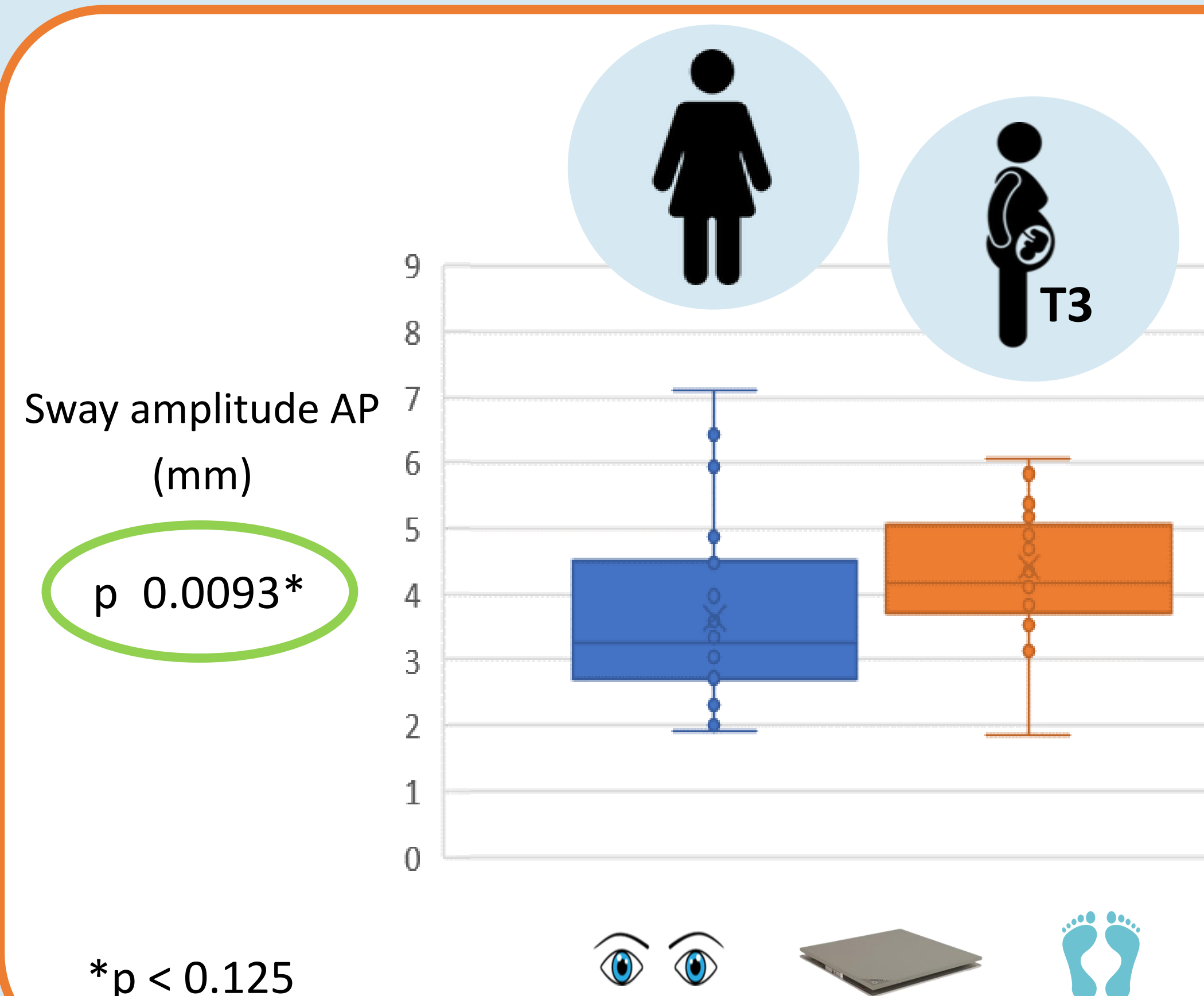
No PLPP
n = 9
NPRS: 0/10



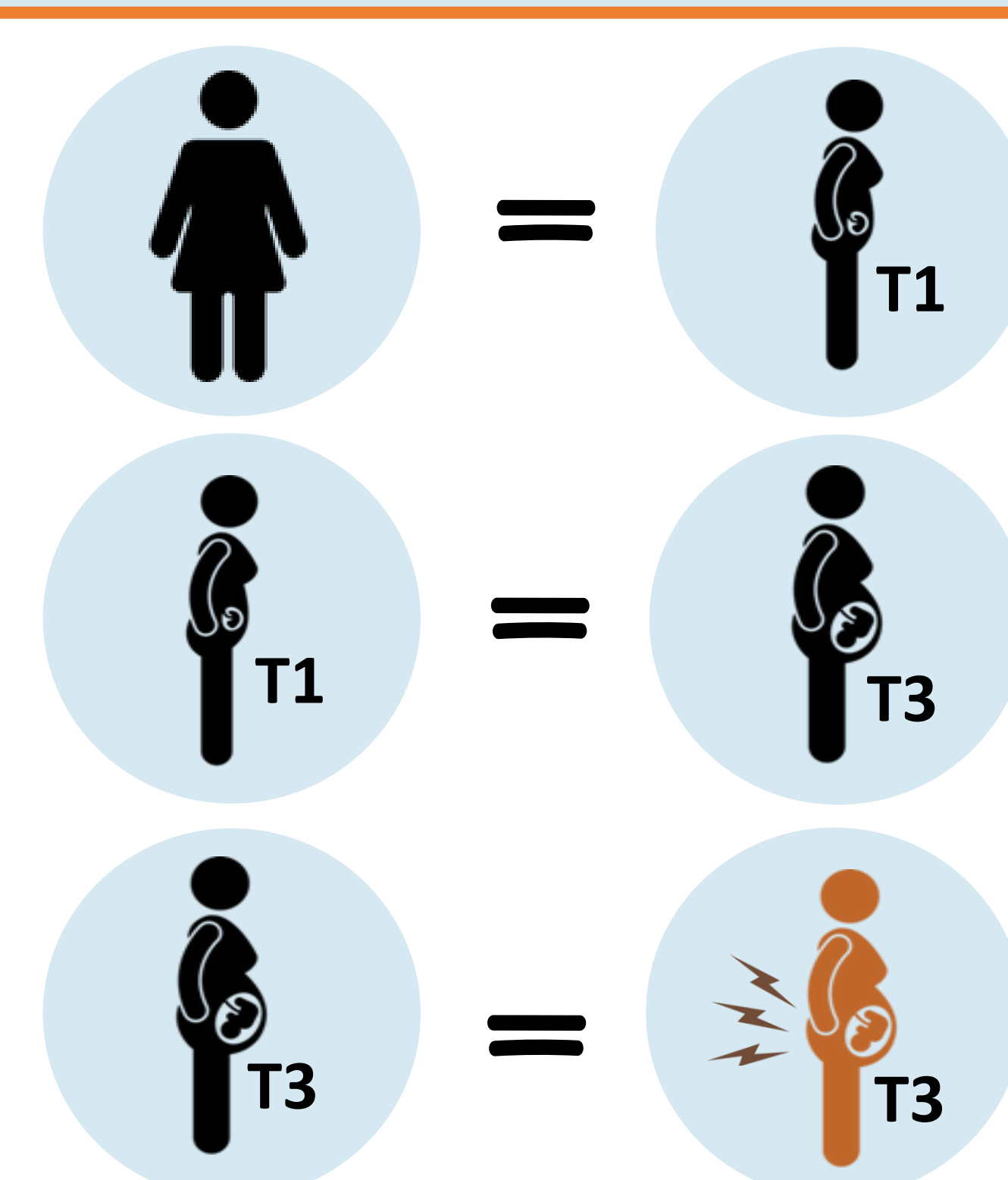
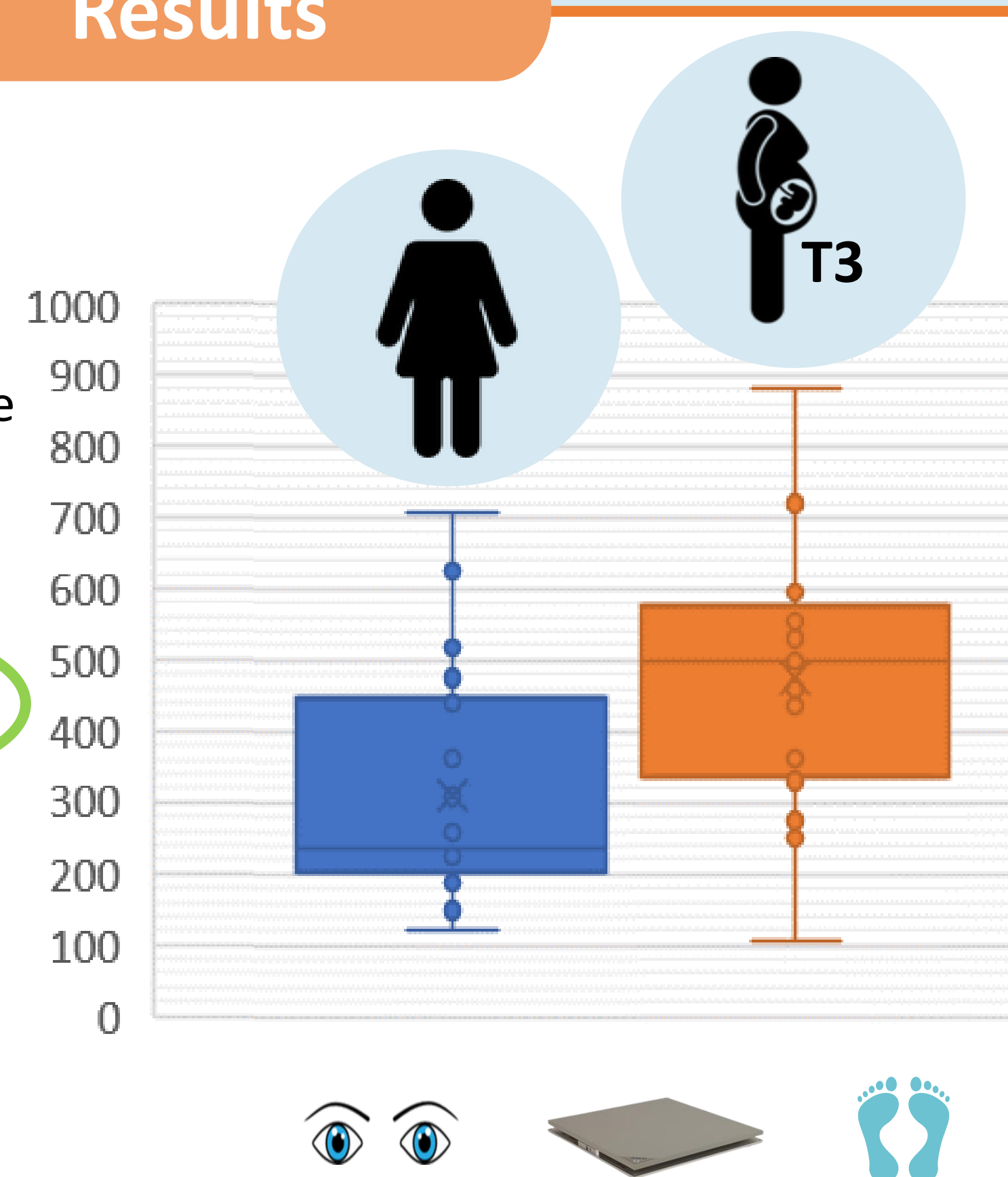
PLPP
n = 16
NPRS: >0/10

Statistics: Linear mixed model or Kruskal-Wallis test

Results

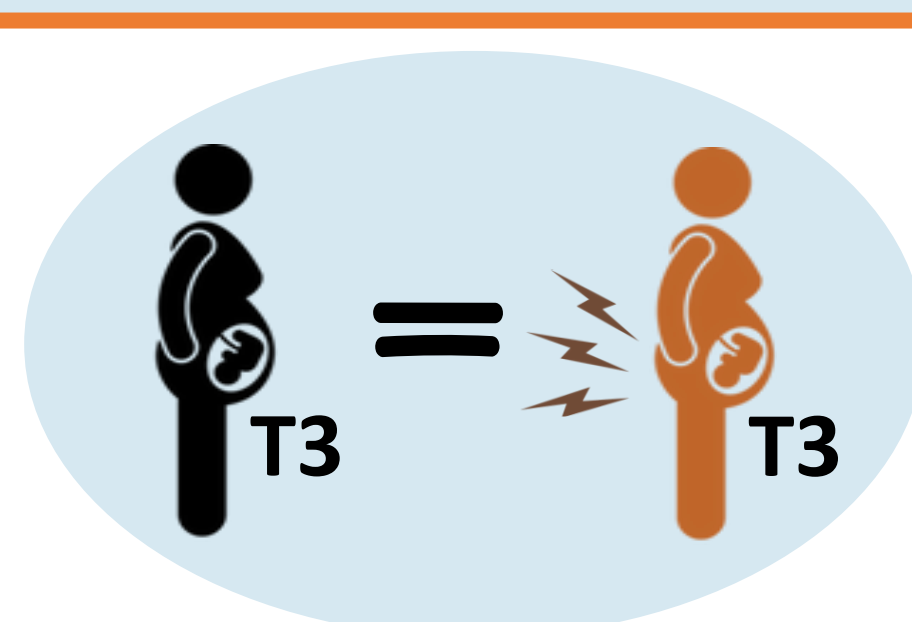
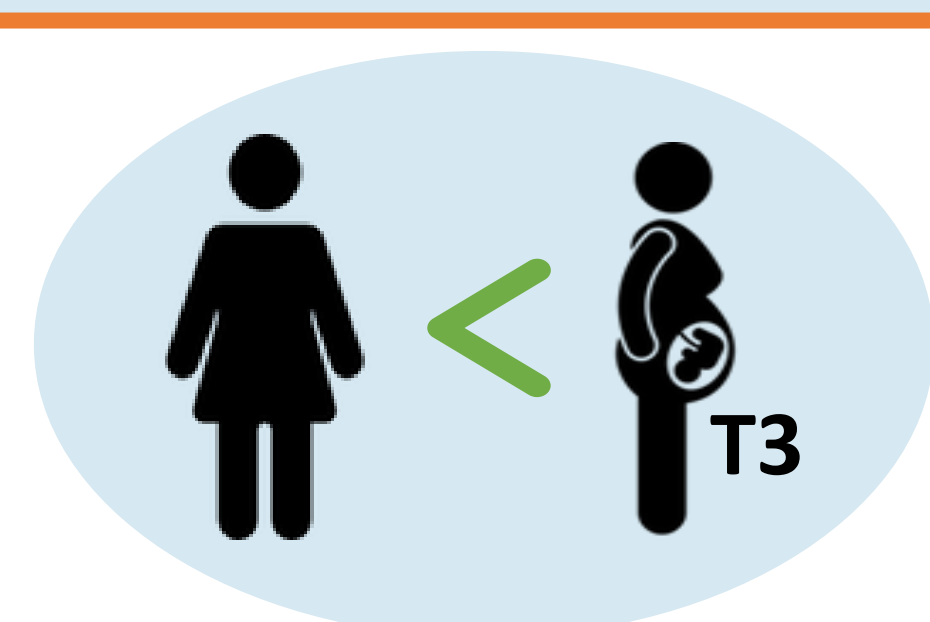


95% confidence ellipse area (mm²)
p 0.0005*



No significant differences in any of the CoP variables across postural conditions

Conclusion



- Displacement variables differed with narrow base of support
- Normal adaptation or impaired postural control?
- More challenging conditions and different CoP variables needed in future studies
- Postural control and PLPP were not related
- Possibly due to limited sample size



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