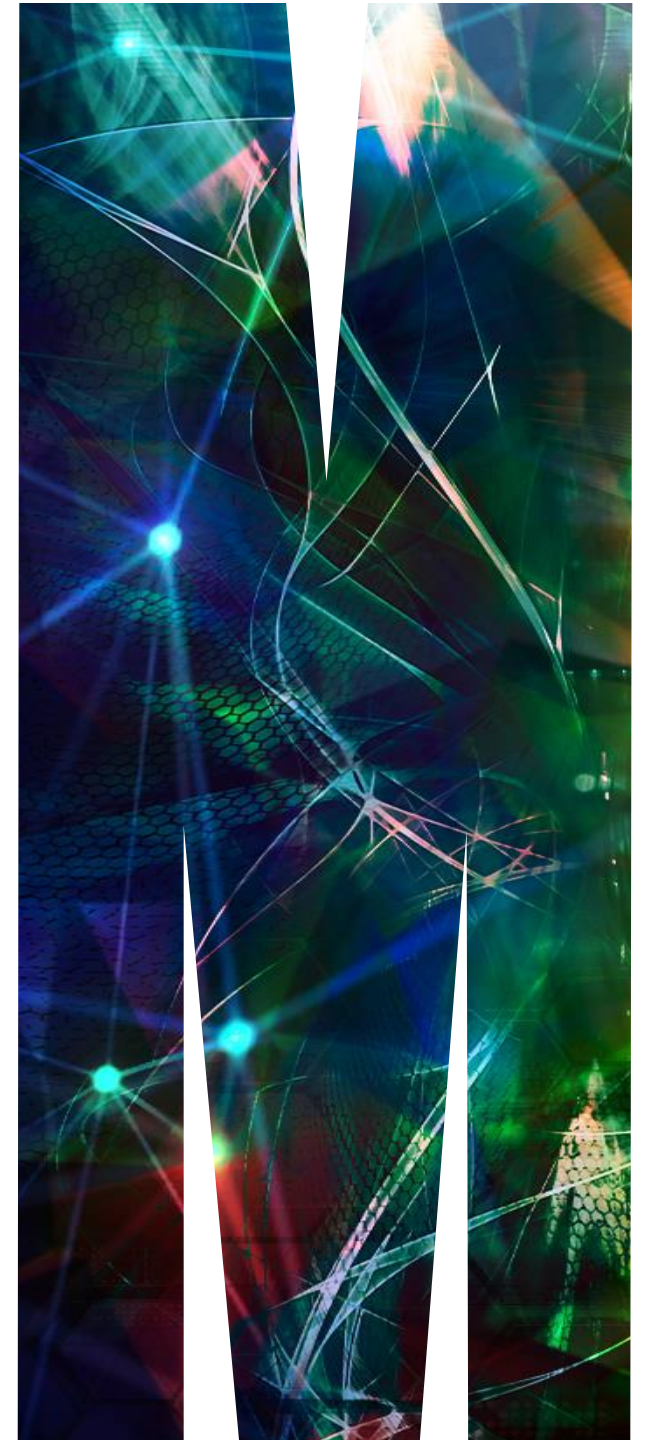


Comparison of spatiotemporal measures of gait in soft versus hard soled footwear in children

Simone Cranage, Luke Perraton, Kelly-Ann Bowles, Cylie Williams

Aim:

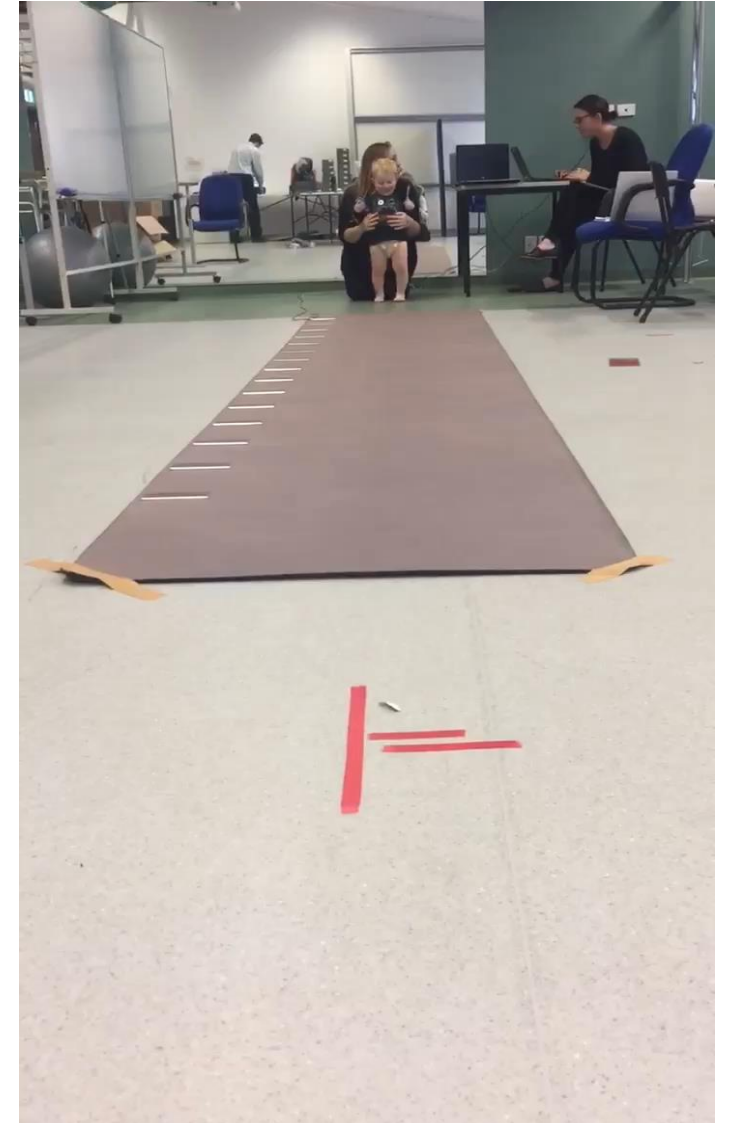
To determine the difference in spatiotemporal measures of gait in young children during walking and running in soft and hard soled footwear



Methods

GAITrite walkway 4.3m

- 47 children recruited (2, 3 and 4 years)
- Anthropometric data
- Condition order randomised
- Linear regression
- Barefoot: walking and running
- Soft soled (boot, sandal, runner)
- Hard soled (boot, sandal, runner)
- Variables (Cadence, Step time, Swing %, Stance %, Double support, Toe in/out)



Results: Soft Vs Hard Soled Footwear

Walking

Soft Sandals

Stride length \uparrow ($p < 0.05$)



Running



Minimal **clinically significant** differences in gait parameters

Guide clinician and industry recommendations

Consider comfort levels for child

Unknown pressure changes (distribution)