

PHYSICAL EDUCATION IS FEASIBLE WHILE WEARING A TLSO FUNCTIONAL AND PSYCHOSOCIAL ASPECTS IN AIS

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Adolescents with AIS can participate in Physical Education while wearing a TLSO, but some specific activities remain challenging and may impact psychosocial experience.

BACKGROUND

- PE (Physical education) recommended during bracing
- Benefits: pulmonary, psychological, treatment success
- Gap: no data on perceived difficulty

METHODS

30 adolescents with AIS (10–18 years) wearing a full-time TLSO.

Questionnaire assessing perceived difficulty in 82 school-based PE activities:

- WOD = no difficulty
- WD = with difficulty
- NA = not achievable

Psychosocial variables

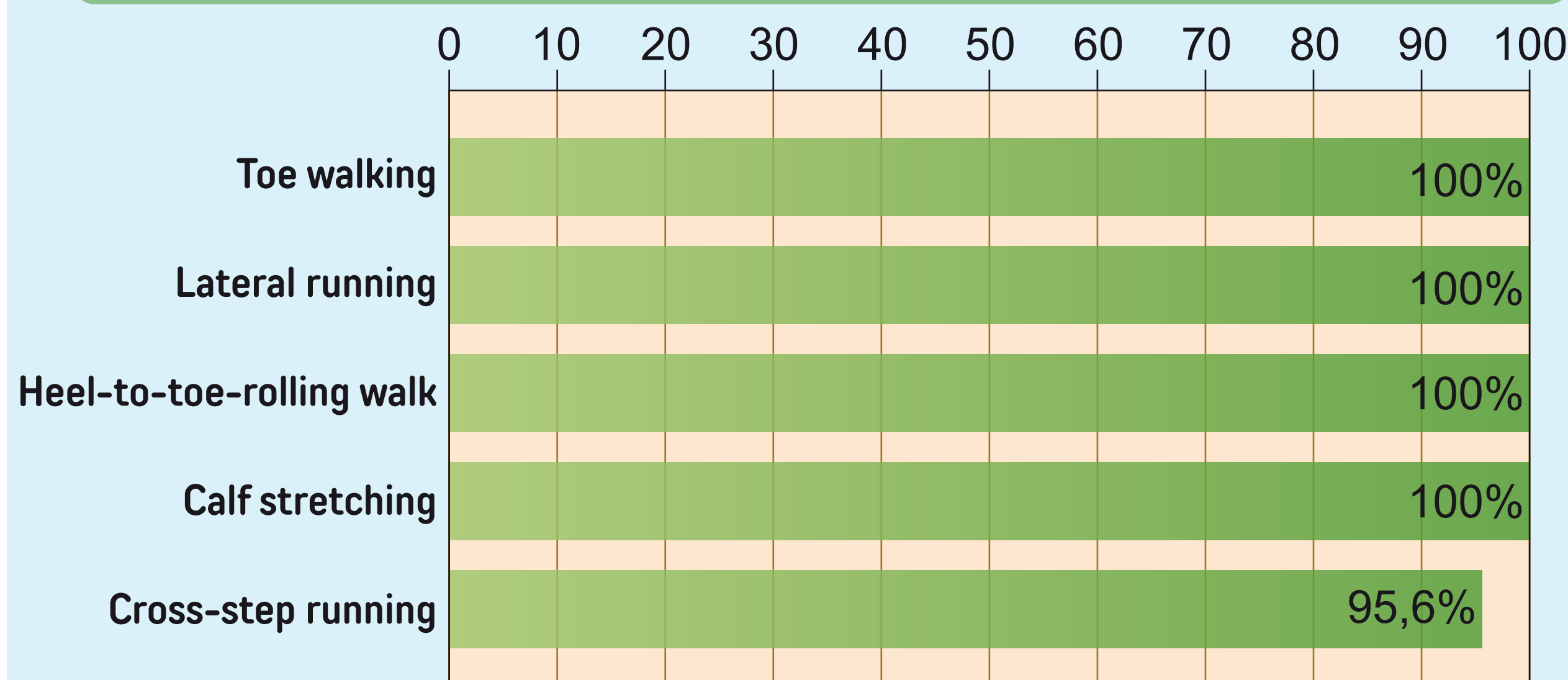
- Enjoyment
- Perceived social exclusion
- Self-consciousness

Analysis

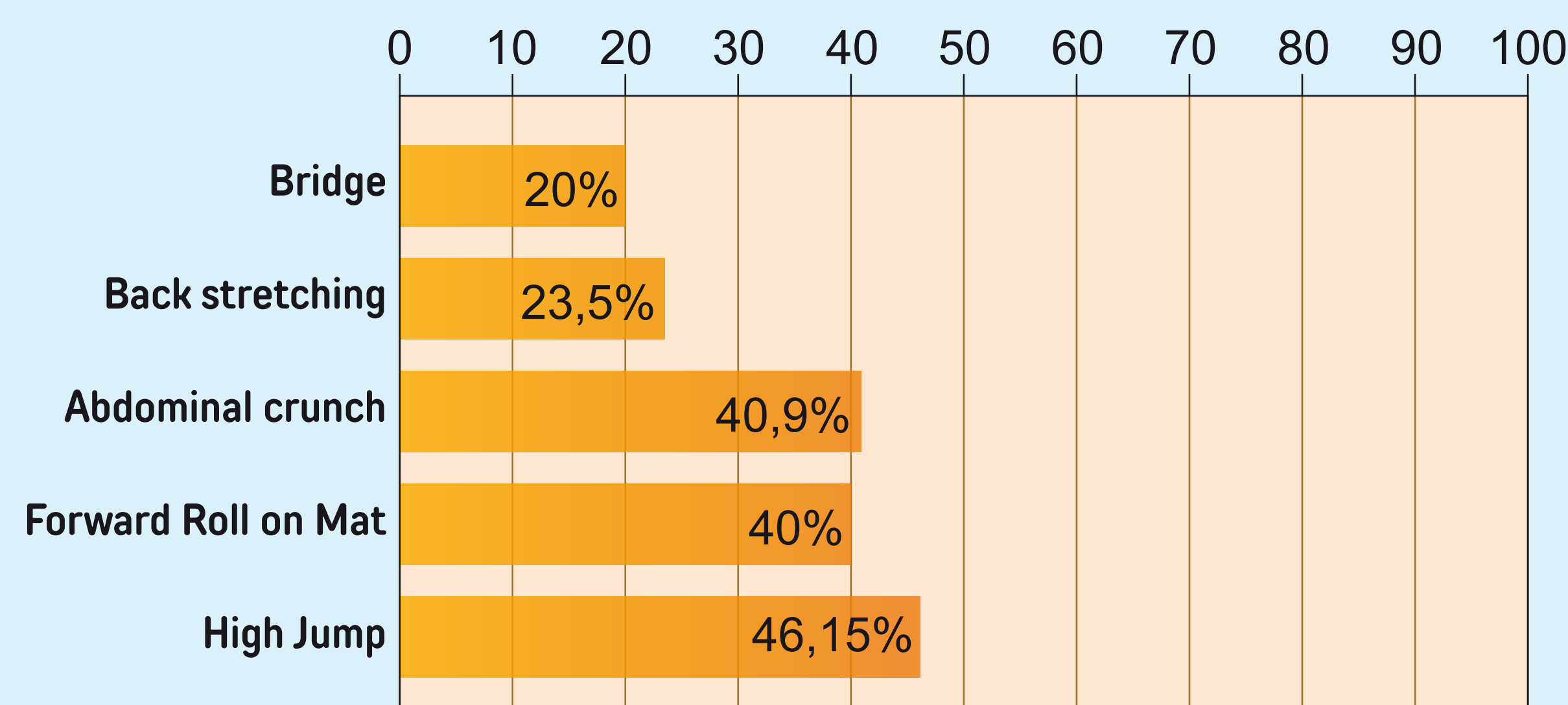
Descriptive statistics, associations between perceived functional difficulty and psychosocial variables were analysed using chi-square (χ^2) tests χ^2

PE is largely feasible with TLSO, but trunk-demanding tasks remain critical

FEASIBLE ACTIVITIES (low trunk demand) %



CHALLENGING ACTIVITIES (high trunk demand)%



Greater perceived difficulty is associated with increased social exclusion and reduced enjoyment during PE ($p < 0.05$)

AIM

- To quantify perceived functional limitations during PE while wearing a TLSO
- To assess their association with psychosocial outcomes (e.g., social exclusion)

RESULTS

- Most activities feasible (WOD 81.2%, WD 11.7%)
- Activities requiring greater trunk mobility, strength, or postural control were perceived as more challenging (up to 41% unable)
- Higher perceived difficulty was significantly associated with increased feelings of social exclusion and reduced enjoyment during PE (χ^2 , $p < 0.05$ for both)

CLINICAL SIGNIFICANCE

Adapting trunk-demanding activities can improve participation and reduce social exclusion during brace treatment.

This may also support collaboration between clinicians and PE teachers.



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Alessandra Negrini and Stefano Negrini own stock of ISICO.
All other authors have no conflicts of interests to declare.