

Sport Participation Trajectories and Adolescent Mental Health

Evidence from a Dutch prospective cohort study

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Introduction

Sport participation is associated with better youth mental health (Biddle et al., 2019), yet most evidence remains cross-sectional. This longitudinal study examined whether sport participation trajectories and sport type predict adolescent mental health in a Dutch prospective cohort.

Methods

Study	Longitudinal ABCD prospective cohort (Netherlands)
Participants	Adolescents (trajectory classification: N = 1,629)
Measures	Strengths and Difficulties Questionnaire (SDQ) and sport participation
Analysis	Baseline-adjusted longitudinal linear regression
Adjusted for	Baseline SDQ, age, sex, socioeconomic status
Longitudinal Sample	<i>4-year follow-up</i> T1 Childhood (Mean age = 11.5 y) T2 Adolescence (Mean age = 15.9 y)

Sport Participation Trajectories

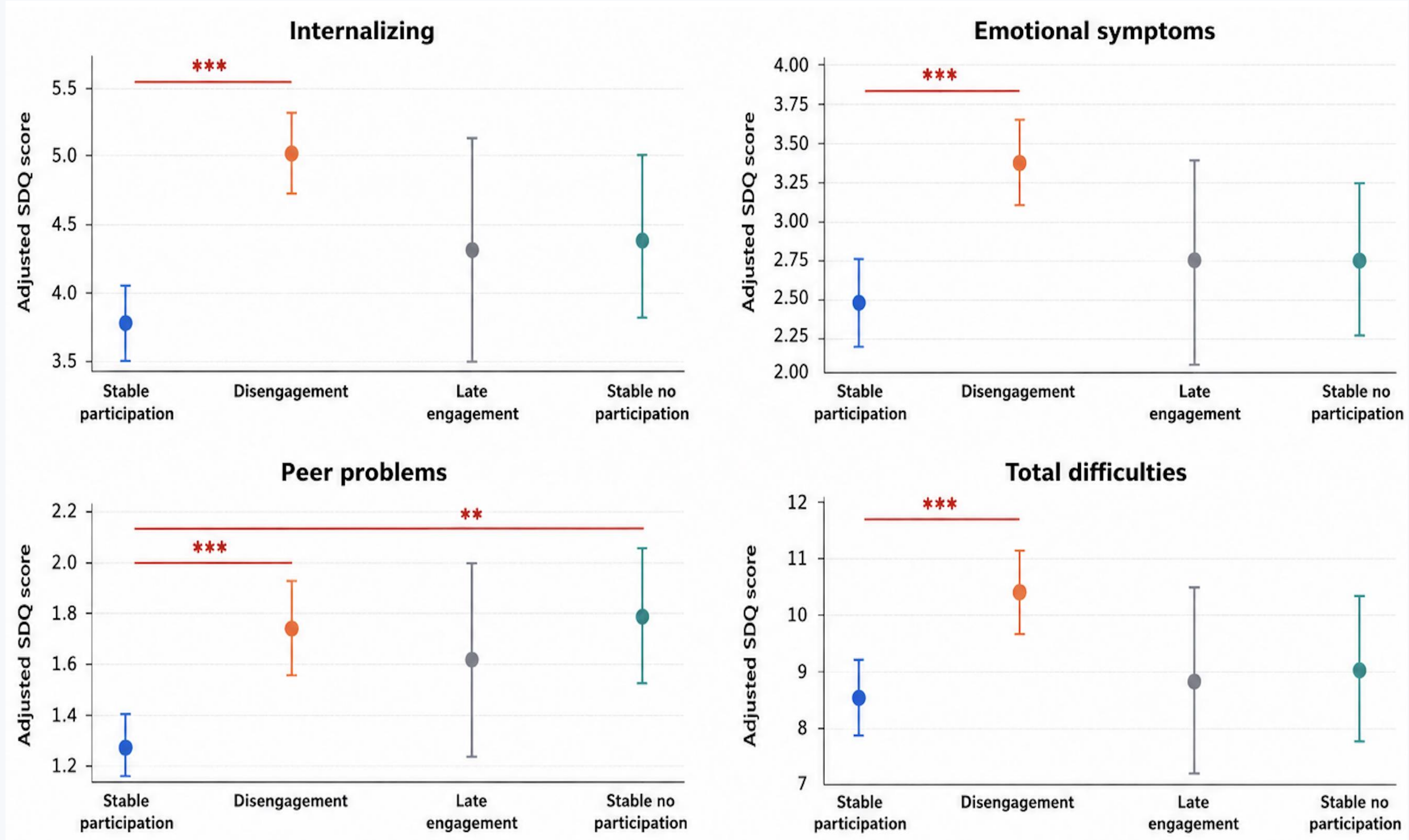
	Childhood	Adolescence
Stable participation (n = 1311)	Sport	Sport
Disengagement (n = 193)	Sport	No Sport
Late engagement (n = 43)	No Sport	Sport
Stable no participation (n = 82)	No Sport	No Sport

Key Findings

- Maintaining sport participation from childhood to adolescence was associated with the most favorable mental health outcomes across all SDQ domains.
- No significant differences were observed between stable participation and late engagement, although the late engagement group was small (n = 43).
- Team sport participation predicted more favorable internalizing, emotional, and peer outcomes than individual sport.

Main Result: Stable sport participation showed better mental health outcomes

Adjusted mental health scores by sport participation trajectory

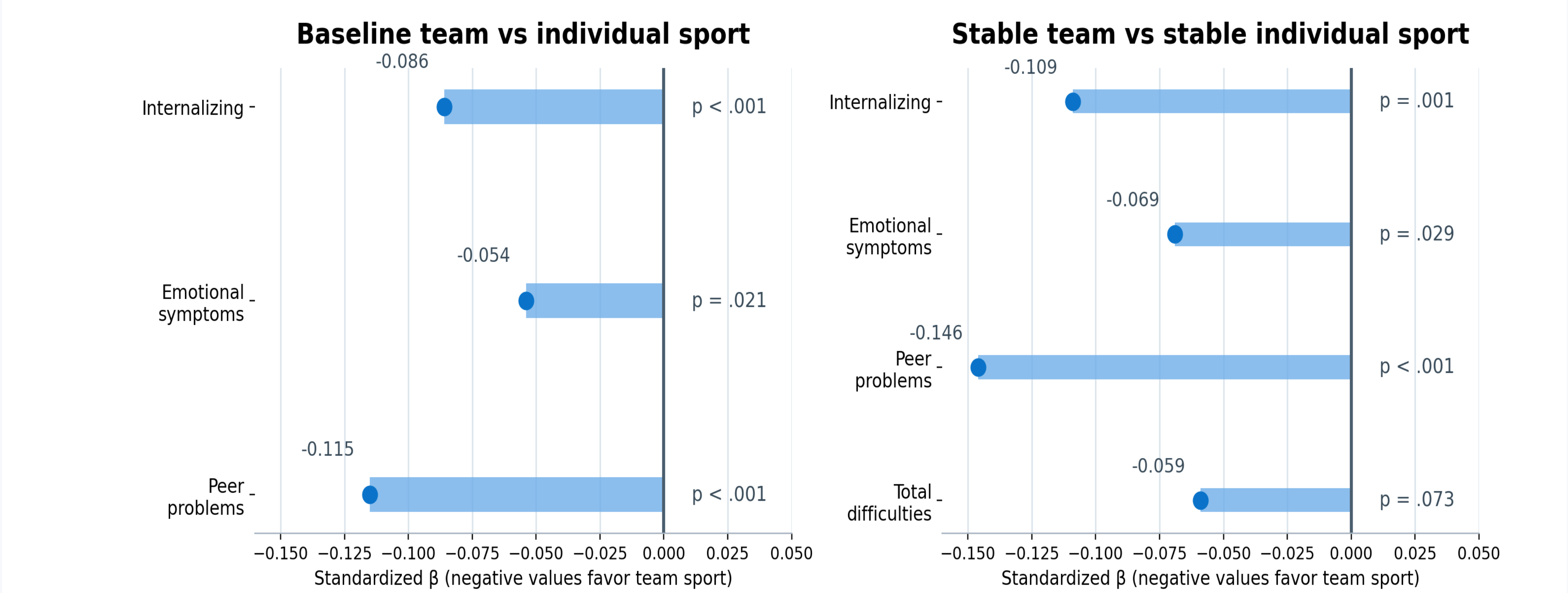


Estimated marginal means adjusted for baseline SDQ, age, sex, and socioeconomic status (SES). Error bars represent 95% confidence intervals (CIs). *** $p < .001$ for Stable Participation vs. Disengagement. ** $p < .01$ for Stable Participation vs. Stable No Participation (peer problems only).

Key comparison: Stable sport participation was associated with significantly better mental health than disengagement across all SDQ outcomes (all $p < .001$). Stable participation differed from stable non-participation only for peer problems ($p = .001$).

Secondary Result: Team sports showed additional benefits

Sport type: team sports vs individual sports



Standardized regression coefficients (β) from baseline-adjusted linear regression models. Models adjusted for baseline SDQ, age, sex, and SES. Baseline model: n = 1,525 team vs. n = 847 individual; stable model: n = 626 stable team vs. n = 256 stable individual.

Key comparison: Team sport participation was associated with significantly better mental health than individual sport participation for internalizing symptoms, emotional symptoms, and peer problems. Similar findings were observed among stable participants, except for total difficulties.

Implications

- Encouraging adolescents to maintain sport participation may support mental health.
- Supportive team sport environments may provide additional emotional and social benefits.
- Future longitudinal studies with additional follow-up waves are needed to clarify causal relationships and address potential reverse causality.