UNIVERSITÄT ZU LÜBECK
PRÄVENTION UND UNIVERSITÄRES GESUNDHEITSMANAGEMENT

Lübeck University Students Trial

Running from burnout? Investigating the role of physical activity in students' health patterns

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Research question

How are physical activity (PA) and sedentary time (ST) associated with transitions between academic coping behavior and experience patterns in students over time?

Method

Longitudinal cohort design (2022 – 2025)

N_{T1} = 1411 → N_{T2} = 474 → N_{T3} = 227 → N_{T4} = 84

- **PA:** Moderate to vigorous intensity PA in metabolic equivalent of task minutes per week (IPAQ, Craig et al., 2003)
- **ST:** Daily sitting time in minutes (IPAQ, Craig et al., 2003)
- **Academic coping behavior and experience patterns:**

G **Good health:** Health promoting attitutde to work, optimal professional motivation, no health risks

S **Sparing personal investment:** Resource efficient attitude to work, protection, no health risk

A **Ambitious:** Excessive engagement, workaholism, over-motivation, vulnerability to health risks

B **Burnout:** Burnout syndrome, low motivation, resignation, high vulnerability and health risks

(WCEP, Schaarschmidt & Fischer, 1997, 2008)

Results

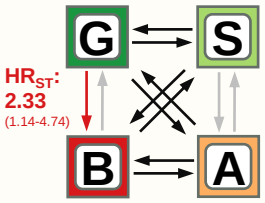

Figure 2. Transition HR corresponding to ST effects. Gray transitions were not estimated.

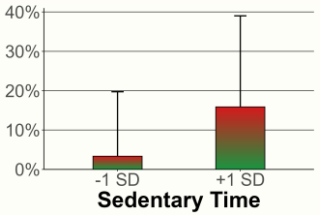

Figure 3. Probability of B being the next pattern after G for low (-1 SD) and high (+1 SD) ST.

Sedentary time increases the risk of direct transition from healthy to burnout-related coping patterns within one year of study.

Reducing sedentary time could support academic well-being.

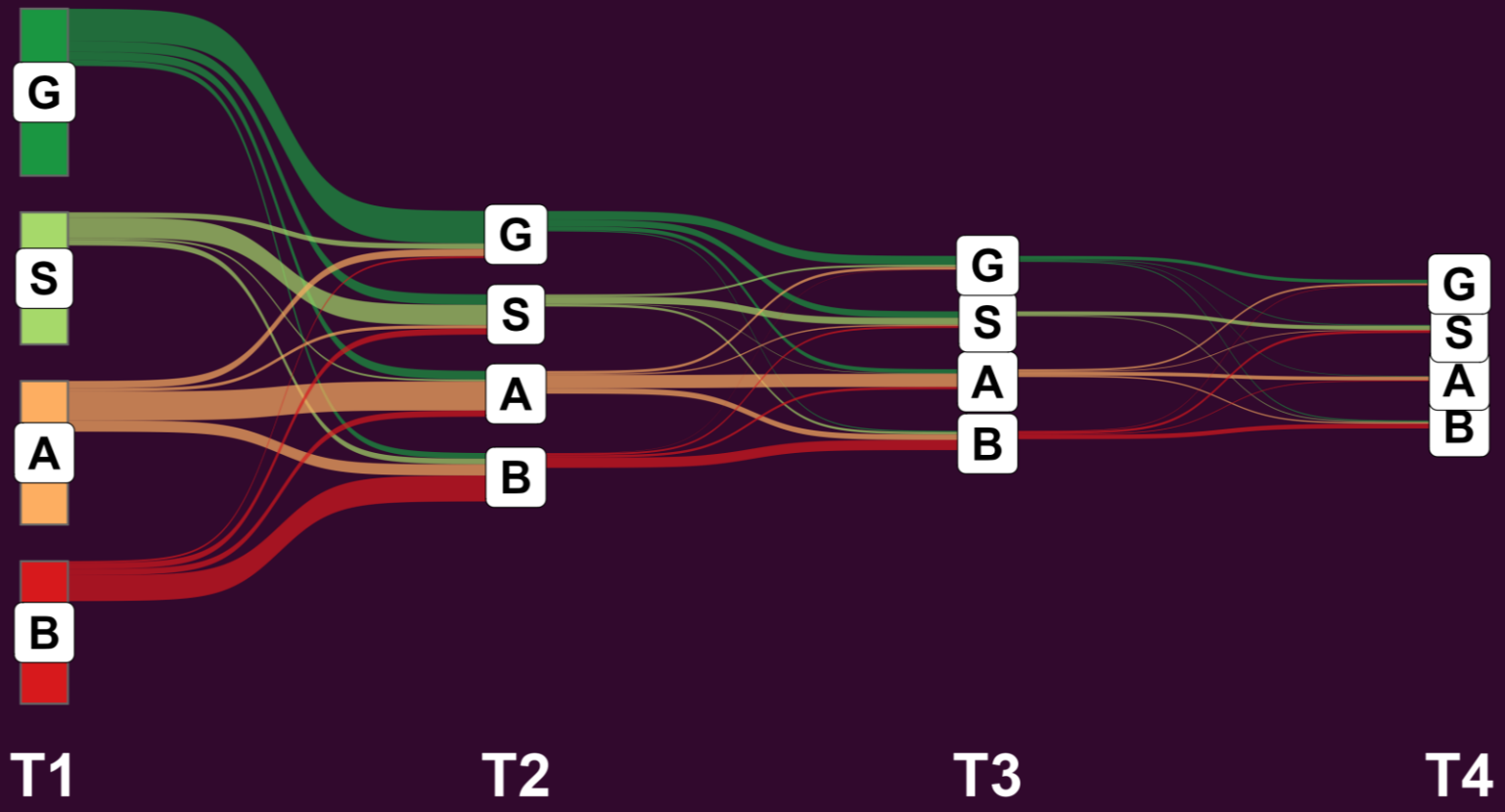

Figure 1. Proportion of students in each academic coping behavior and experience pattern at T1–T4 (person-centered time points aligned with each participant's first participation between 2022 - 2025), indicated by node widths, and their proportional transitions across consecutive years, indicated by flow widths.