

4.29 Are changes in physical activity paralleled by changes in sleep complaints? Latent growth curve analyses over a 6-year period

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Patterns of change in physical activity and sleep complaints are still poorly understood. We therefore examined whether intra-individual changes in physical activity are associated with intra-individual changes in sleep complaints over four measurement time-points across a 6 year-period, adopting a between-person and within-person perspective. Data is based on a longitudinal cohort study carried out in Western Sweden. At baseline, 3187 participants (health care workers) took part in the study (86% women, Mage = 46.9 years). After two years, the response rate was 84% (N = 3136), after four years 60% (N = 2232), and after six years 40% (N = 1498). We used the Saltin's and Grimby's (1968) 4-level physical activity scale (SGPALS) to assess physical activity and three items from the Karolinska Sleep Questionnaire (KSQ) to measure sleep. We employed latent growth curve modelling to examine patterns and correlations of change between physical activity and sleep complaints. Across the 6-year period, changes in physical activity were significantly associated with changes in sleep complaints. Significant associations occurred between baseline levels, correlated (between-person) change, and coupled (within-person change), indicating that increased physical activity over time (either in comparison to others or to one-self) is paralleled by decreased sleep complaints. The fact that changes in physical activity and sleep are associated suggests that it is equally worthwhile to promote more physically active lifestyles in yet physically inactive individuals and to ensure that already physically active individuals maintain their engagement in physical activity over longer periods of time.

4.30 How does motivation for exercise change across the stages of change?

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Changes in motivation, as one persists with exercise, are predicted, but not well-evidenced: especially as integrated regulation is often excluded from validated motivation measures. The present study aimed to assess differences in exercise motivation over four weeks of exercise participation, including the role of integrated regulation in predicting exercise behaviour. Australian adults (N = 148), both active and inactive, were recruited through community samples. Participants completed questionnaires assessing motivation (BREQ-2), behavioural stage-of-change for exercise (SECS), and psychological need satisfaction (PNES) baseline and a four-week follow-up. A significant positive relationship was found between exercise motivation and SoC, where higher autonomous regulation was associated with exercise action and maintenance. No significant differences in motivation were found in participants who progressed exercise participation between Time 1 and Time 2. The addition of integrated regulation contributed to a significant improvement in SECS variance, beyond the five other forms of motivational regulation in existing measures. The final regression model suggested amotivation, identified regulation and integrated regulation as significant predictors of SECS. Perceptions of competence and relatedness support were found to partially mediate the relationship between motivation and exercise behaviour change, while perceived autonomy support had no mediating effect. Findings from this study underscore the need to analyse identified and integrated regulation more closely in exercise contexts. In addition, the results suggest facilitating support for psychological needs may influence exercise motivation and behaviour. Our study allows the characterisation of motivation in those persisting with exercise, with potential implications for supporting sedentary populations to become more active.

4.31 Motivation in German physical education – do boys like being ego orientated?

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Introduction: Physical Education (PE) in school is originally intended to teach pupils the necessary skills to engage in various forms of physical activity outside of the classroom. However, the compulsory character of PE might actually rule out its positive intention, potentially explaining parallel declines in physical activity behaviour in early adolescence in general. In order to tackle declines in PE motivation, it seems reasonable to look more closely at gender-specific motivation-related determinants of PE. The present study intends to investigate differences in intrinsic motivation and in goal orientations between boys and girls.

Methods: A total of 223 students (N = 111 girls; mean age = 15.70, SD = 1.48) from different German secondary schools were asked to complete assessments of intrinsic motivation (enjoyment, perceived competence, perceived choice, pressure; Wilde et al., 2009) and goal orientations (task and ego; Rethorst & Whermann, 1998) in PE. For statistical analysis, a t-test for independent samples was conducted.

Results: Both boys and girls showed moderate scores for perceived competence, perceived enjoyment, perceived choice and task-orientation. Furthermore, boys reported significantly higher ego-orientations compared to girls ($t(216) = -2.808$; $p = .005$). No other gender-specific differences could be detected.

Discussion: Despite its compulsory nature, boys and girls perceived PE as relatively enjoyable, felt competent and perceived to have choices. For future research it could also be interesting to look at relationships between goal orientations and motivation in order to promote intrinsic motivation in PE.