Study Design of the Motorik-Modul-Study (MoMo)

Background and Structure
The Motorik-Modul-Study (MoMo) aims to assess and describe the development of physical fitness (PF) and physical activity (PA) and its impact on health parameters of children, adolescents, and young adults on a representative basis for Germany. The focus is on its change over time, the impact of personal, social, and environmental determinants on the development of PF and PA as well as the impact of PF and PA on physical and mental health.

MoMo is a submodule of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS) conducted by the Robert Koch-Institute (RKI) in Berlin and a joint project of the Karlsruhe Institute of Technology, the University of Education Karlsruhe, and the RKI. MoMo is funded by the Federal Ministry of Education and Research.

Methods and Concepts

Physical fitness (PF)
- **Aerobic endurance** (ergometric endurance testing), **strength** (push-ups, standing long jump, side-steps, sit-ups), **gross motor coordination** (static stand, balancing backwards), **fine motor skills** (reaction time, inserting pins (MLS), line tracking (MLS)), **flexibility** (stand and reach)

Physical activity (PA)
- **Questionnaire**: Overall PA, everyday PA, PA in age-specific settings (kindergarten, school, workplace), PA in leisure time in and outside of organized clubs, social determinants (e.g. social support), psychological determinants (e.g. enjoyment of PA), environmental determinants (e.g. access to sport facilities)

Children, adolescents & young adults
- **Socio-demographic variables**: age, sex, socioeconomic and migrant status; **Lifestyle variables**: consumption of tobacco, media use, alcohol consumption

Health (selected parameters)
- Obesity (e.g. BMI), anthropometry (e.g. BIA), cardiovascular risk factors (e.g. high blood pressure), chronic diseases (e.g. asthma), pain (e.g. headache), hyperkinetic disorder (e.g. ADHD), Resources for the mental development (e.g. family cohesion), subjective health (e.g. quality of life)

Cohort-Sequence Design

- **A** Published results of the MoMo Baseline can be found in [1] (Ref. 2–8).
- **B** Current survey wave, additional accelerometry to assess PA; the description of the field work will be summarized in an extra fact sheet.
- **C** Further planned survey wave.
- **D** The selected sample will be itemized separately in every fact sheet.

Details on the exact implementation of the physical fitness test are described in [2] and on the PA questionnaire in [3]. First results on MoMo wave 1 are published in [1].

Reference:

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