



## Berlin School of Public Health | BSPH

### Kurzbeschreibung eines Projektthemas

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<b>Projektthema</b>	Resting Heart Rate in relation to postural changes in Systolic Blood pressure in the NAKO-pretest and MetScan studies.
<b>Projektbeschreibung</b>	<p>Increases and decreases in the response of systolic blood pressure (SBP) to a change in body position have been associated with incident hypertension, stroke and all-cause mortality. Information on the predisposing factors for subtle postural changes in SBP is scarce. Resting heart rate (HR) is considered as a marker of autonomic nervous system activity and it is correlated with physical fitness. Subtle postural changes in SBP in relation to resting HR has rarely been described.</p> <p>This project will aim to:</p> <ul style="list-style-type: none"><li>• Estimate the reliability of resting and standing HR measurements in the NAKO pretest and MetScan studies</li><li>• Test the hypothesis that postural changes in SBP differ according to resting HR</li><li>• Characterize the postural SBP and HR responses according to resting HR</li><li>• Describe if postural changes in SBP according to resting HR differ with age and sex</li></ul> <p>NAKO-pretest is a population-based cross-sectional study conducted during the period of May 2012 to April 2013, in order to implement standardized study protocols and build infrastructure in the NAKO cohort. (<a href="https://www.mdc-berlin.de/nako-health-study">https://www.mdc-berlin.de/nako-health-study</a>).</p> <p>The cross-sectional MetScan study was established to investigate whether the metabolic syndrome and its parameters can be better predicted using a 3D body surface scanner, as compared to using traditional recording methods. Participants were recruited between February 2016 and June 2017 (<a href="https://www.nature.com/articles/s41598-020-66095-6">https://www.nature.com/articles/s41598-020-66095-6</a>)</p> <p>The thesis will include data from 653 study participants of the NAKO-pretest (Berlin-Brandenburg cluster area) and 516 participants from the MetScan study, who filled out questionnaires to assess various exposures and underwent physical examination that included an extended blood pressure measurement protocol.</p>

<b>Aufgaben (Umfang 140 Stunden)</b>	Literature research; Development of research question/hypotheses; Preparation of an analysis plan; quality control, data analysis, interpretation and reporting; Familiarization with software (SAS) for data analysis
<b>Anzahl der Projektplätze</b>	1