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SOEP-IS 2013 – Application for the inclusion of additional batteries of questions

Andreas Stang and Melanie Zinkhan

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SOEP-IS 2013 – Application for the inclusion of additional batteries of questions

Module Title in SOEP Documentation: Sleep Characteristics

Andreas Stang and Melanie Zinkhan



APPLICATION FOR THE INCLUSION OF ADDITIONAL BATTERIES OF QUESTIONS IN SOEP-IS

Applicants

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on behalf of the National Cohort Study

Scientific rationale

During the pretests of the National Cohort Study (NatKo), the working group for the assessment of sleep characteristics, headed by the principal investigator Prof. Dr. Andreas Stang, developed a compiled questionnaire that assesses several relevant sleep characteristics. Acceptability was assessed among 100 probands. The compiled questionnaire instrument contains parts of the following validated questionnaire instruments: D-MEQ – a questionnaire related to the chronotype (Griefahn et al., Somnologie 2001), Berlin questionnaire – a questionnaire to identify patients at risk for sleep apnea syndrome (Netzer et al., Ann Intern Med 1999), Recall questionnaire – related for sleep disturbances at night and midday naps (Stang et al., 2007; Stang et al. 2012), Pittsburgh sleep quality index – a questionnaire related to sleep quality (Backhaus et al., J Psychosom Res 2002), Shift work questionnaire – ambient light in sleeping room (Davis et al, J Natl Cancer Inst 2001). This compiled instrument allows the assessment of the following characteristics:

• sleep quality	• sleep disturbances at night	• chronotype
• sleep onset latency	• daytime sleepiness	• sleep efficiency
• sleep duration	• sleep-related breathing disorders	• daytime naps

The instrument has been tested within a convenience sample of 100 subjects who also underwent polysomnography. The assessment of sleep characteristics will be conducted within **level 1** (200.000 probands) and Somnowatch actimetry only among **level 2** probands (40.000) of the National Cohort Study.

At **level 3** in Halle, additional characteristics will be assessed including sleep hygiene, sleep environment, and reasons for daytime naps.

• sleep hygiene	• sleep environment	• reasons for daytime naps and start of regular naps
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The SOEP-IS provides an ideal study platform to address sleep characteristics with this compiled questionnaire instrument including the level 3 items for several reasons:

1. the SOEP-IS enables the assessment of sleep characteristics not only among index persons but also among their partners, which is especially important for the assessment of sleep-related breathing disorders (frequency and loudness of snoring, disturbances of partners due to loud snoring, apnea periods);

2. the assessment of the index person and the partner allows to study clustering of sleep disorders and shared factors related to sleep hygiene and sleep environment;
3. A re-assessment of sleep characteristics at year 2 and 5 after the first assessment allows the estimation of incidences of sleep disturbances and sleep habits.

Basic research questions (Study questions)

1. What is the prevalence (cross-sectional) and incidence (follow-up after 2 and 5 years) of sleep disturbances at night and daytime napping in the general population (SOEP-IS)?
2. What is the prevalence of unfavorable factors related to sleep hygiene and sleep environment?
3. What is the strength of association between unfavorable factors related to sleep hygiene, sleep environment, and sleep disturbances (cross-sectionally)?
4. How much does unfavorable sleep hygiene among subjects without the presence of sleep disturbances affect the incidence of sleep disturbances at follow-up after 2 and 5 years?
5. Do partners share similar sleep-related habits with regard to sleep hygiene and sleep environment (cross-sectionally) and is unfavorable sleep hygiene associated with self-reported sleep disturbances within partners of the same household (follow up after 2 and 5 years)?

Desired sample size

About 4.100 adults of the SOEP-IS, 4th quarter 2013 (up to March 2014)

Preferred type of sample

Representative population-based sample including index persons and their partners.

Mode of data collection

Computer-assisted personal interview (CAPI).

Additional questions on comorbidity: we suggest including additional questions on pre-existing diseases within the index persons, especially with regard to diseases that may have an influence on the sleep parameters of interest. It is important to have more detailed information on those diseases (e. g. coronary heart disease) to account for them as potential confounders in the analysis of the data.

Total number of minutes required to answer the questions

Based on experiences of the NatKo pretest I, the average number of minutes for the interview is 7 min.

Repetition of the survey

To estimate incidences as mentioned above, subjects undergo a follow-up assessment 2 and 5 years after the first assessment.



Prof. Dr. med. Andreas Stang, MPH

Direktor des Instituts für Klinische Epidemiologie, Halle, November 22, 2012

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Appendix:

- Questionnaire on sleep
- Additional questions on comorbidity