

Cognitive behavioral therapy for insomnia among shift workers - a protocol

Järnefelt Heli¹, Hublin Christer¹; Härmä Mikko¹, Martimo Kari-Pekka¹, Paajanen Teemu¹, Paunio Tiina^{1,2,3}, Sallinen Mikael^{1,4}, Virkkala Jussi¹

¹Finnish Institute of Occupational Health (FIOH), Helsinki, Finland

²University of Helsinki

³National Institute for Health and Welfare

⁴Agora Center, University of Jyväskylä

heli.jarnefelt@ttl.fi

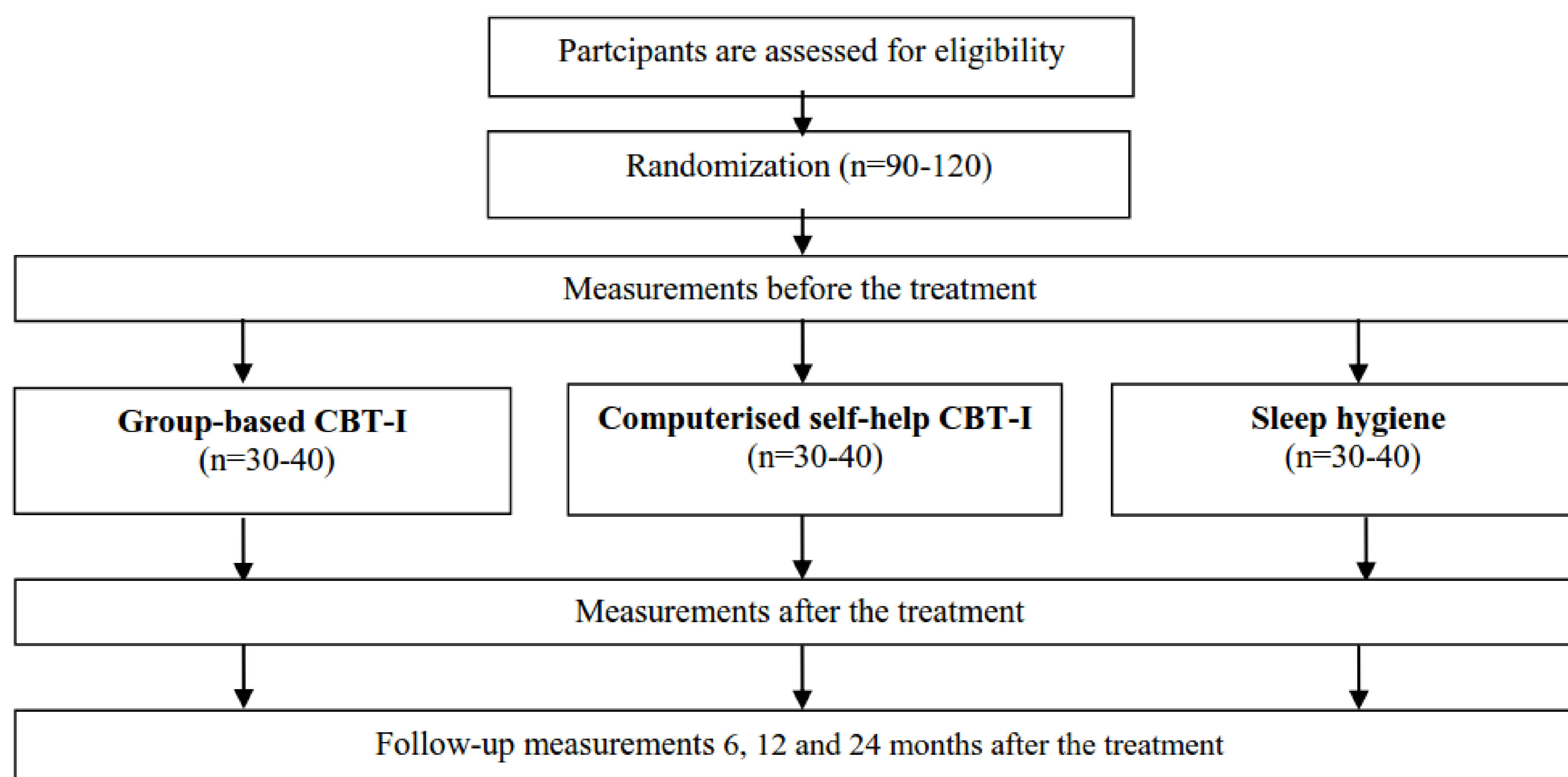
Introduction and objectives

- Because of irregular sleep-wake pattern shift work is a challenge in the screening and treatment of chronic insomnia.
- The aim of the present RCT is to investigate and compare the implementation and effectiveness of group and computerised self-help based cognitive behavioral therapies for insomnia (CBT-I) delivered by occupational health (OH) professionals among shift workers.
- In addition, the aim is to study whether baseline or treatment related factors predict response to treatment.

Methods

- Participants are shift workers with insomnia disorder that has lasted at least three months.
- Participants are recruited from three Finnish OH units: cities of Helsinki and Turku and Finnair.
- OH physicians decide on inclusion/exclusion.
- The participants are randomized to three interventions as illustrated below.
- The interventions are delivered by OH nurses or OH psychologists after they have participated in a short course on methods of CBT-I.
- Outcomes are assessed using a sleep diary, questionnaires, actigraphy, and cognitive performance tests. Blood samples are gathered to study potential reversibility of epigenetic markers.
- The measurements are conducted at five time points.

Participants flowchart



Discussion

- We expect to find that both group and self-help based CBT-I among shift workers are effective as low-intensity treatments of chronic insomnia compared to control intervention (sleep hygiene).
- CBT-I can be made more accessible in primary care services to insomniacs with different working hours using group and computerised self-help interventions and, hereby, probably decrease unfavourable consequences of insomnia to the health and performance capacity.

ClinicalTrials.gov ID NCT02523079



Finnish Institute of
Occupational Health

This work has been supported by grants from Finnish Work Environment Fund and NordForsk.