

Introduction

Few studies have examined the mutual relationship between day-to-day sleep, mood, and emotions experienced within the workplace or naturalistic settings (Ashkanasy & Humphrey, 2011). The main objective of this project was to explore the bidirectional associations between daily sleep and mood experienced in the context of daily life and in the workplace. Within and between-person variance was examined.

Methods

A one-week smartphone-based experience sampling study (ESM) was conducted with full-time, healthy UK workers (N=30; age $M \pm SD = 28.90 \pm 5.21$ years) on standard schedules (working 9 am to 5 pm, from Monday to Friday).

Across 7 consecutive days, daily measures were completed on the ExpiWell smartphone ESM app including a sleep diary, mood and affect ratings (positive / negative), momentary sleepiness, wellbeing and an emotional events diary. Mood was recorded twice daily (morning and evening) and momentary affect items during the working day; these aimed to capture daily fluctuations in affect and mood. Alcohol and caffeine consumption, exercise, and other lifestyle factors were also recorded.

Retrospective measures of sleep, chronotype, emotional regulation strategies (ERS), affect, work characteristics, work schedule flexibility and recovery activities were completed online at the end of the study.

Results

Multilevel modelling (MLM) of smartphone ESM data using HLM 7 found positive associations between above average sleep quality with next-day increased positive mood (morning), increased positive affect, and lower negative affect. Daytime affect and mood (positive and negative) did not significantly impact subsequent night-time sleep quality (**Fig 1.** for schematic overview).

Conclusions

Findings from this intensive, longitudinal ESM study support prior literature on the temporal relationship between daily sleep, mood, and emotional wellbeing. Utilising digital, ambulatory ESM assessments improve ecological validity and capture sleep-mood dyads in situ.

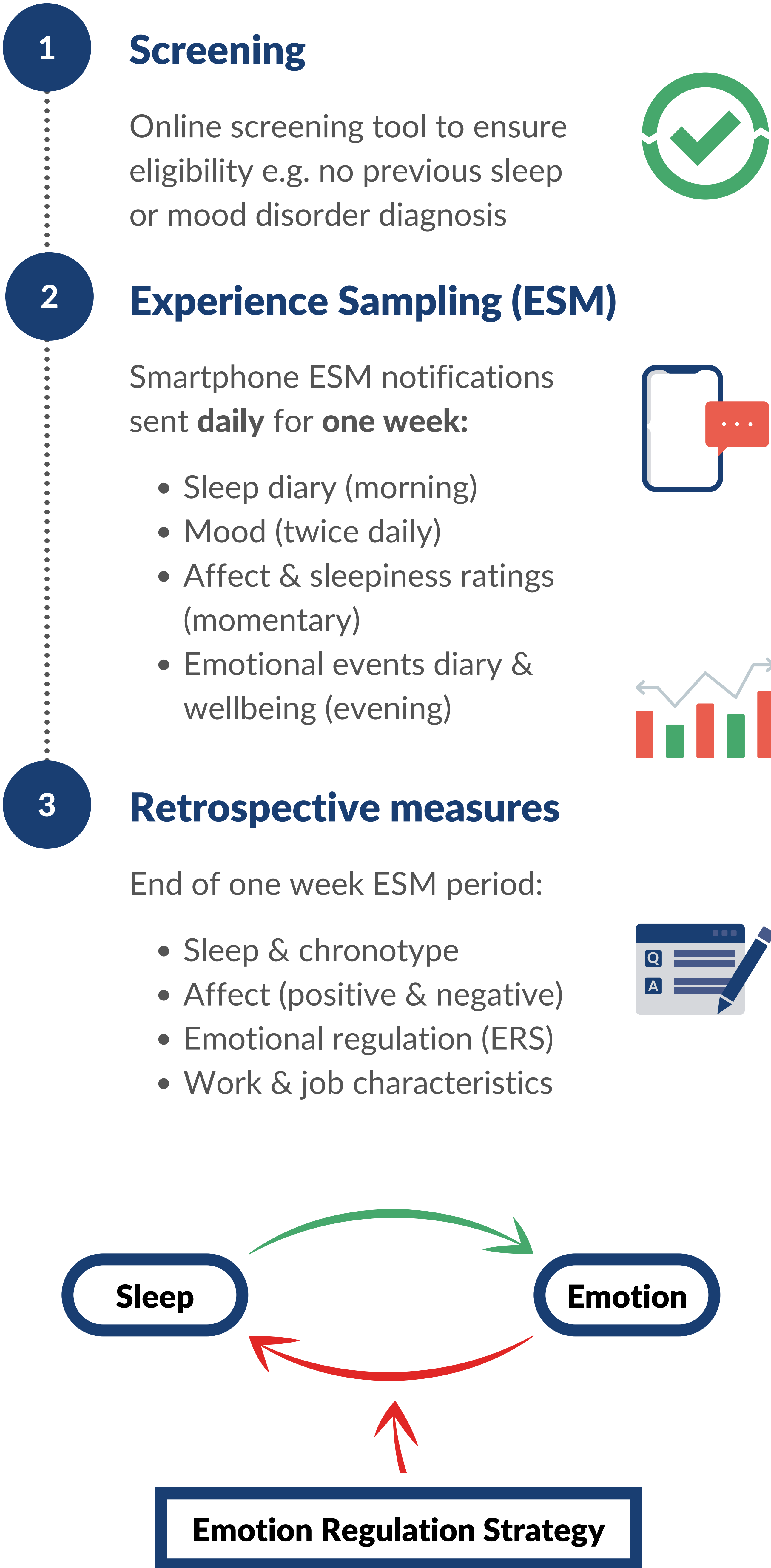


Fig 1. Overview of unidirectional sleep-emotion association and non-significant moderating role of emotion regulation strategy (ERS).

