Jewish religious lifestyle as a sleep health disparity factor

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Background

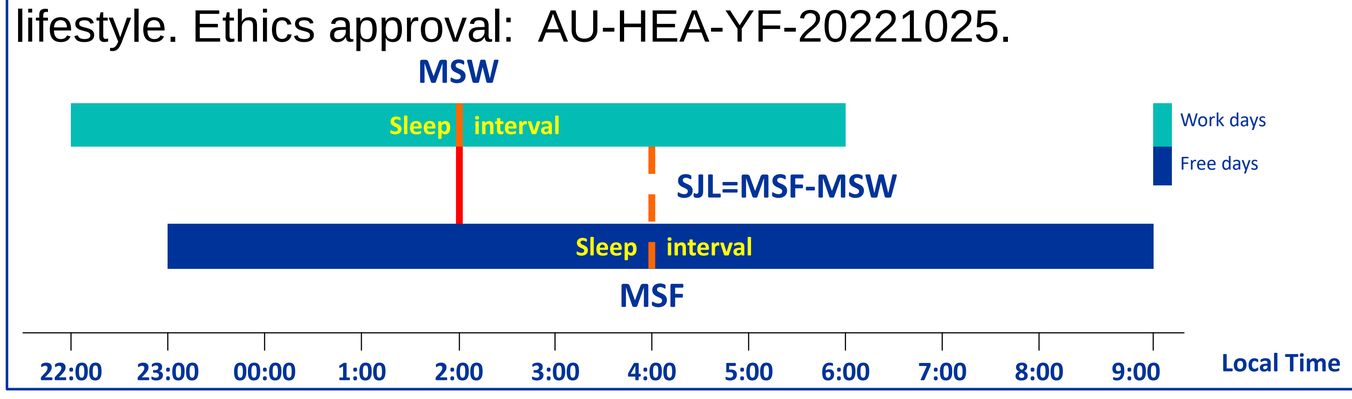
Addressing sleep and circadian disparities in seniors is warranted given their link with physical and mental wellbeing, as well as the mounting health-care costs with which they are associated[1]. Jewish religious lifestyle is associated with regular practices and commitments profoundly affecting daily sleep-meals-activity cycles [2,3].

Objectives

The aim of the current study was to map the associations between religious lifestyle, circadian behaviors and sleep in community-dwelling seniors, in the context of their physical and mental health.

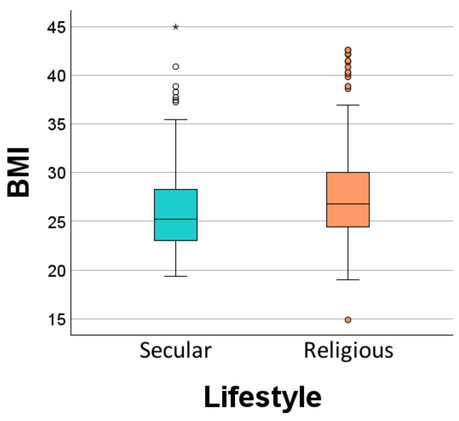
Methods

The data was collected between May 2022 and February 2023 using the digital Circadian-Light-Executive Function questionnaire for the elderly, the CLISEF+, that combines the following tools: the Munich ChronoType Questionnaire (MCTQ)[4], the Epworth Sleepiness Scale (ESS)[5] and the Global Health Short Form questionnaire PROMIS-10[6]. Additional separate questions assessed: Sleep Quality reported using a Likert scale, sleep latency in min, and religious or secular lifestyle. Ethics approval: AU-HEA-YF-20221025.

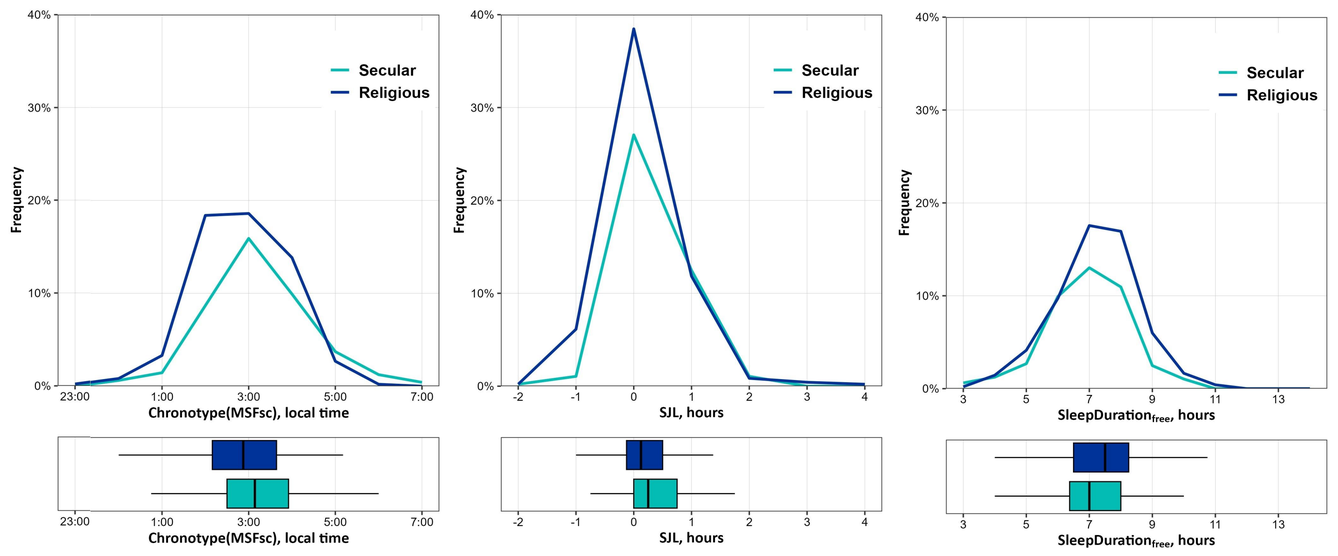


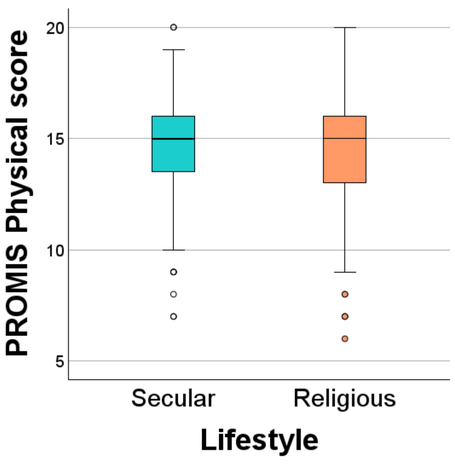
A total of 1008 participants opened the link to the CLISEF+ survey. The analytic sample consisted of **484** subjects, 60-88 years old (69±5.7, 74.4% women), after exclusion of shift-workers, participants with sleep duration MCTQ less than 120 and more than 720 minutes, and partial data.

Results

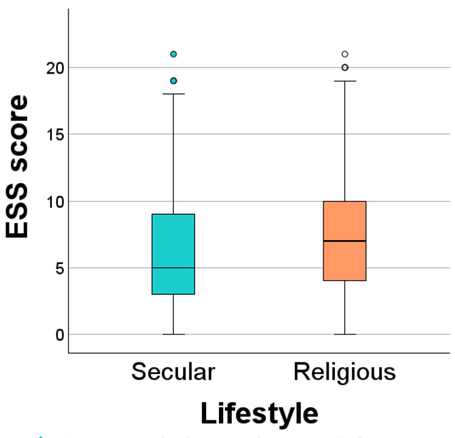


- ✓ The Religious group exhibited on average a higher BMI (t-test, p=0.01), note however, that the mean BMI of both groups was above the norm range ($M_{Religious}$=27.9±5.4, $M_{Secular}$=26.1±4.7).



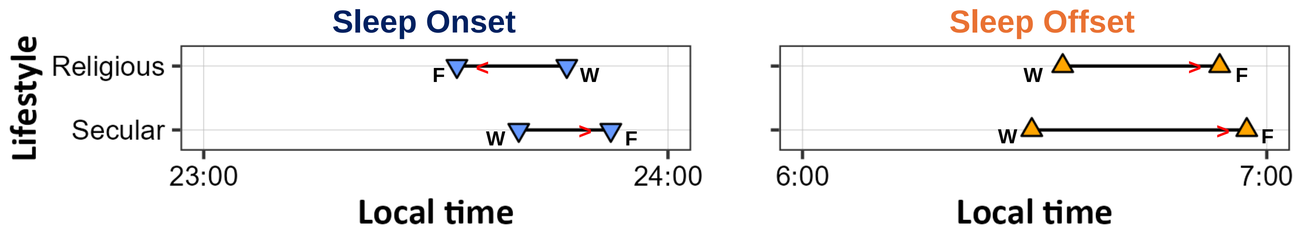


- ✓ The Religious group had lower Global Physical Health PROMIS scores (u = 19742.0, p=0.009).
- ✓ Notably, no differences were found in the Global Mental Health PROMIS scores between the groups.



- ✓ The Religious group reported on average higher subjective daytime sleepiness scores (ESS) (u = 14758.5, p=0.044).
- ✓ In subjective Sleep Quality and Sleep Latency, no difference between the groups were observed.

- ✓ On average, participants from the Religious group demonstrated better performance in the following sleep parameters: lower Social Jetlag (t-test, p=0.001), earlier sleep timing on free days (Chronotype) (t-test, p=0.005), longer Habitual Sleep Duration on free days (t-test, p=0.02).



- ✓ The differences between groups stemmed from the fact that the Secular group participants delayed the Sleep Onset on free days, while the Religious groups participants advanced it (group*time-point interaction F(1, 482)=14.3, p<0.001).
- ✓ Both groups delayed Sleep Offset timing on free days (no interaction).

Conclusions

- ✓ The obtained data confirmed the core assumption that religious and secular older adults may differ in daily behaviors (presumably, due to differences in social schedules) and that these differences may underlie disparities in sleep, circadian and general health metrics.
- ✓ A large-scale field study, including quantification of regularity of the core daily behaviors, is required to enable identification of religious/secular lifestyle factors predicting disparities in sleep, circadian and general health of the Jewish Israeli older adults.

References

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