

PURPOSE

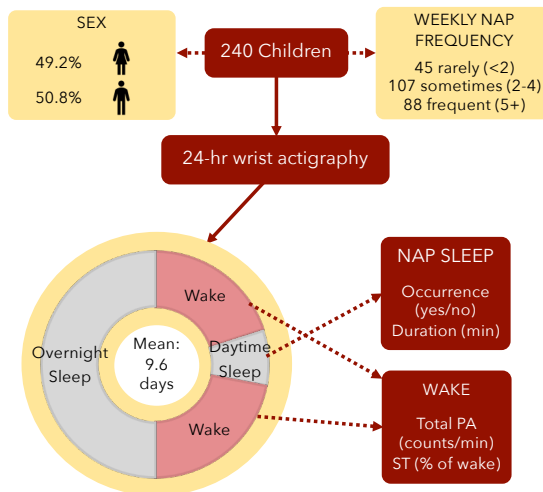
Although napping in early childhood is associated with some cognitive and behavioral outcomes, less is known about relations with physical health measures.¹

Lower levels of sedentary behavior and higher levels of physical activity have been beneficially associated with sleep measures in adults.^{2,3}

Studies exploring sleep and daytime movement behaviors (sedentary time and physical activity: ST & PA) in young children have had inconsistent results and primarily focused on overnight sleep.^{4,5,6}

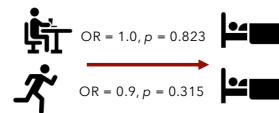
The purpose of this micro-longitudinal analysis was to determine if: 1) daytime movement behaviors predicted the likelihood of napping the next day, 2) daytime movement behaviors predicted next-day nap duration, and 3) the occurrence of a nap predicted next-day movement behaviors.

METHODS



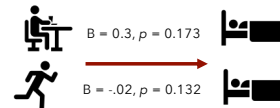
RESULTS

Does a child's sedentary behavior or physical activity level predict their likelihood of napping the next (subsequent) day?



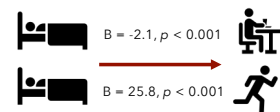
Participating in ST or PA levels that differ from a child's typical day does not increase the likelihood that they will nap the next day. (OR = odds ratio)

When children DO nap, does the sedentary time or activity of their previous day predict their nap duration?



ST or PA levels that differ from a child's typical day are not associated with their next-day nap sleep duration. (B = regression coefficient)

If children nap, are they less sedentary and more active the next (subsequent) day?



When a child naps (compared to not napping), they are more likely to be less sedentary and more active the next day. (B = regression coefficient)

ANALYSES

Multilevel logistic and linear models explored temporal within-person relations between wake behaviors and nap sleep.

Model	Outcome	Time-variant Predictor
1	Nap occurrence (binary)	Previous day ST
2	Nap occurrence (binary)	Previous day total PA
3	Nap duration	Previous day ST
4	Nap duration	Previous day total PA
5	ST	Previous day nap occurrence
6	Total PA	Previous day nap occurrence

All models adjusted for night's sleep duration of nights between days of interest, age, sex, and socioeconomic status.

CONCLUSIONS

Bidirectional associations between nap sleep and daytime wake behaviors were not evident.

While daytime movement behaviors were not predictive of nap sleep, napping was beneficially associated with subsequent-day movement behaviors in preschool children.

Further studies could explore specific nap sleep metrics in samples with more diverse sleep health, as well as consider the reason for daytime napping.

REFERENCES

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