

Discovering Individual Differences in Infant Activity Through Ecological Momentary Assessment

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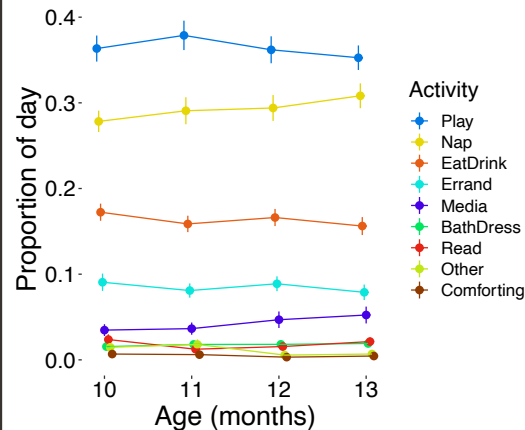
Background

- Naturalistic observation in laboratory settings fails to capture the various activities infants experience in daily life.
- Ecological Momentary Assessment (EMA) has measured everyday motor and postural behavior (Franchak, 2019), but has not been used to measure activity.
- Research Aim:** To understand how much time infants spend in different activities across the day.

Method

- We measured infants (N=62) in sessions conducted at 10, 11, 12, and 13 months.
- Parents selected 4 days each month to receive text message surveys.
- Infant activities and restraint (by device/furniture or by caregiver) were reported by parents.

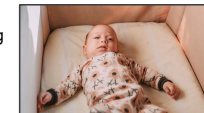
Age Did Not Impact Daily Activities



Infants spent the most time...



36% Playing



29% Napping



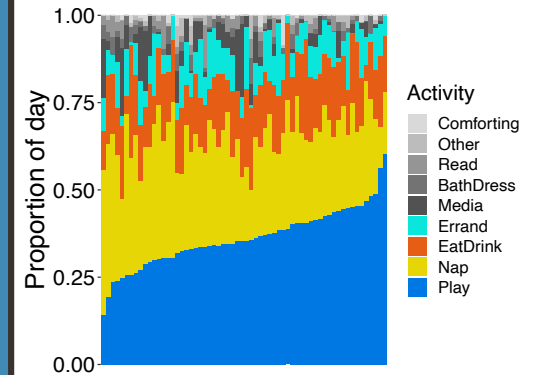
16% Eating/Drinking



8% Errands

- We calculated the proportion of the day spent in each activity by summing the survey responses in each activity by the total number of responses.
- The proportion of time infants spent in different activities during the day did not significantly change with age.

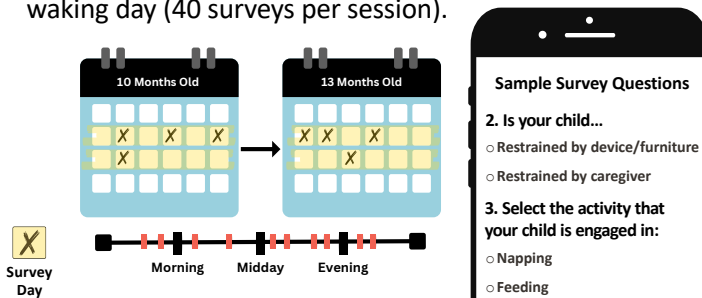
Large Individual Differences



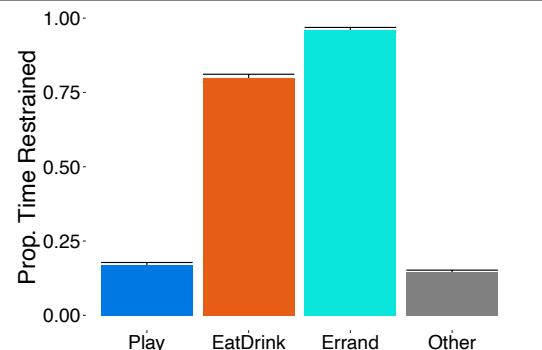
- The proportion of time spent in different activities varied greatly from infant to infant (each bar represents 1 infant's data across all 4 sessions).
- Some infants spent as little as 14.2% of their time playing and others spent well over half of their day playing (60.4%).

Longitudinal Design

- Parents received 10 surveys each day during the infants' waking day (40 surveys per session).



Restraint Was Rare During Play



Conclusion and Future Directions

- Opportunities to acquire valuable skills and knowledge through activities like playing and feeding vary from infant to infant.
- Documenting how infants spend their time is essential for understanding development, which cannot be done in a brief laboratory observation.
- An ongoing study is investigating the daily activities of infants in a younger age demographic (4 to 7 months old) using ecological momentary assessment.