Impact of COVID-19 Shelter-in-Place on Infant Sleep

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Introduction

- Infant sleep can be impacted by many environmental factors, such as neighborhood noise, number of people living in the house, pollution, etc. (Grimes et al., 2019; Johnson et al., 2018).
- The study investigated whether sheltering in place changed parent/caregiver and infant routine.
- Infant sleep schedules were influenced by parental education.

Methods

- Participants were caregivers to infants 0-24 months.
- Participants completed an online survey regarding:
  - Infant’s sleep and schedule changes
  - Own schedule changes

Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
<th>Nonbinary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver</td>
<td>125 (52.6%)</td>
<td>91 (6.8%)</td>
<td>21 (4.7%)</td>
</tr>
<tr>
<td>Infant</td>
<td>42 (45.5%)</td>
<td>74 (64.4%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver</td>
<td>4.22 (1.84)</td>
</tr>
<tr>
<td>Infant</td>
<td>11.9 (6.5)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Hispanic/Latinx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caregiver/Infant</td>
<td>16 (6.8%)</td>
<td>3 (1.4%)</td>
<td>98 (62%)</td>
<td>51 (30.9%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Caregiver Education</th>
<th>High School/VEG</th>
<th>Some College</th>
<th>College Degree</th>
<th>Post-Graduate</th>
<th>Professional Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (67.4%)</td>
<td>1 (67.4%)</td>
<td>4 (30.8%)</td>
<td>1 (5.6%)</td>
<td>2 (12.8%)</td>
<td></td>
</tr>
</tbody>
</table>

Routine Changes

- Parent Routine Changes
- Infant Routine Changes

Infant Sleep Schedule Changes

- Earlier bedtime
- Later bedtime
- Earlier morning wake
- Later morning wake
- Longer nap
- Different nap times
- Less settling difficulties
- More settling difficulties

Results

- 88.2% caregivers and 61.8% infants experienced a schedule change.
- 55.9% experienced a sleep schedule change. Out of the 55.9% there were: 4.4% earlier bedtimes, 11.8% later bedtime, 11.8% earlier bedtime, 14% later morning wake, 18.4% longer nap, 23.4% different nap times, 3.7% less settling difficulties, 17.6% more settling difficulties, and 15.4% more settling difficulties.
- There was no significant differences between education level and reported overall infant sleep change. However, a more detailed chi square were performed on the specific kinds of sleep changes, revealed a significant effect of education on whether infants fell asleep ($x^2 (4) = 12.93, p < .05$) and woke up later ($x^2 (4) = 14.339, p < .01$).

Discussion section

- COVID-19 has altered most of our sample’s routines. However, not all infant with routine changes had sleep schedule changes.
- We expected high parental education to positively influence infant sleep since they would have more knowledge about sleep. However, our results showed no difference between the degree of the parents and the infants’ sleep changes.
- Limitation: homogenous sample lacking diversity and mere parental observations.
- Future research should investigate the long-term developmental effects of these sleep changes on infants.

References


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