

CHRD 2024: Abstract Submission Form

Presenter Name

Kenzie Bremner

Presenter Status

Undergraduate Students

Role in the project

Design

Analyze Data

Write Abstract

Research Category

Clinical

Title

Links between heart rate physiology and parenting in mothers with heightened mental health symptoms: a replication and extension study

Background

Parenting behaviours and maternal sensitivity are positively associated with a child's socioemotional skills, cognitive development, and emotion regulation. Extant literature has linked maternal physiological factors, such as heart rate, to both positive and negative parenting behaviours. Maternal sensitivity, however, has not been extensively examined.

Objective

The present study aimed to replicate and extend previous work on the association between maternal physiology and parenting behaviours through the use of wearable technology in a population of mothers experiencing elevated symptoms of depression (Sitka et al., 2024). Consistent with this work, we hypothesized that a higher average heart rate would be associated with increased parenting stress, more over-reactive discipline, less effective coping with children's negative emotions, and lower levels of maternal sensitivity.

Methods

During a one-week baseline of the larger Building Regulation in Dual Generations (BRIDGE) intervention for mothers experiencing elevated symptoms of depression, participants self-reported on their parenting behaviours and wore Fitbit devices that tracked their heart rate ($n = 110$). Maternal sensitivity was observed and coded through video-recorded parent-child interactions within a baseline Zoom assessment. Linear regression will be used to investigate how maternal heart rate may be linked to parenting behaviours and maternal sensitivity.

Results

Based on existing literature (e.g., Sitka et al., 2024), we expect that mothers with a higher average heart rate will have higher levels of parenting stress, increased over-reactive discipline, a decreased ability to cope with children's negative emotions, and lower levels of maternal sensitivity. We expect that preliminary results will be obtained in time for presentation at Child Health Research Days (CHRD).

Conclusion

This replication and extension of previous work will further support the association between maternal physiology and parenting behaviours while extending this link to maternal sensitivity. This research carries implications for clinical work, theory advancement, and further validation of Fitbit devices as a physiological measurement tool.

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No

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