The Role of Parents' Negative Emotional Symptoms. Time Homebound, and Parent-Infant Interactions During the COVID-19 Pandemic

Kolbie Vincent
Under the direction of Cara H. Cashon and Katie G. Golway
Department of Psychological and Brain Studies, University of Louisville.

Introduction

Parent-child interaction plays a vital role in child development.[1] Previous research has shown that parents' negative emotional symptoms are related to the quality of parent-child interactions.[2] Parents with depression have been found to be less engaged and spend less time playing with their babies at 3 months of age compared to parents without depression.[3] While depression has been researched extensively, there is a scarcity in the literature on other negative emotions, such as anxiety and general stress and their relation to parent-child interaction.

The COVID-19 pandemic has led to significant changes in the daily lives of caregivers and their infants (e.g., changes in childcare, employment, time spent at home, finances, etc.). The purpose of this study is to investigate whether parents' emotional well-being is related to the amount of time parents interact with their infants and young children during the COVID-19 pandemic. I anticipate that greater number of negative symptoms reported by parents will be associated with less time spent engaging with their infants. I also predict that as the length of time parents have been homebound (e.g., 3 months) increases, the frequency of parent-child interaction will decrease.

Methodology & Results

One-hundred families residing in Kentucky with infants between 3-34 months of age were recruited to participate in a larger online study conducted by the UofL Infant Cognition Lab during the summer of 2020, about family life during the COVID-19 pandemic. The final dataset for the current project consists only of participants who completed all questions related to the present study ($N = 60$).

The current study focused on a subset of questions from the larger study that related to time homebound since the pandemic began, the emotional well-being of parents, and how parents interacted with their children. Parents' symptoms of depression, anxiety, and stress were

[1] K E Barnard, and J F. Kelly. "Assessment of parent-child interaction." In S. J. Meisels & J. P. Shonkoff (Eds.) (1990)
[2] Elizabeth A. Howell et al., "An Intervention to Reduce Postpartum Depressive Symptoms: a Randomized Controlled Trial," *Archives of Women's Mental Health* 17, no. 1 (October 2013): pp. 57-63, https://doi.org/10.1007/s00737-013-0381-8.
[3] M. Lovejoy et al., "[PDF] Maternal Depression and Parenting Behavior: a Meta-Analytic Review.: Semantic Scholar," undefined, January 1, 1970, https://www.semanticscholar.org/paper/Maternal-depression-and-parenting- behavior:-a-Lovejoy-Graczyk/f42e701602118626fb21e8ed44f310717aa2b03d.

measured using the Depression Anxiety Stress Scales 21 (DASS-21), which consists of 21 self-report items on a Likert-type scale.[4] Parent-infant interaction was measured using five questions related to how often parents had engaged in various interactive activities with their infants over the last two weeks. The five parent-child interaction behaviors measured in the current study were: reading, singing, free play with no set goal, engaging in a meaningful way through play and direct conversation, and speaking about feelings and emotions. The frequency for each parent-child interaction activity was measured on a 1-to-10 scale with 1 representing "Did not do this activity with my child at all," and 10 representing "More than 4 hours most days." Time homebound was measured by asking parents to report the number of days they had been homebound since the COVID-19 pandemic began in mid-March in Kentucky. Data analysis for this project will include calculating Pearson correlations between all the variables of interest. Additionally, separate multiple regressions will be conducted to predict the frequency of each type of parent-child interaction based on the parents' DASS scores and time homebound.

Conclusions & Discussion

The results of this study will provide valuable insight into the emotional well-being of parents of infants and toddlers during the COVID-19 pandemic and whether negative emotional symptoms may be related to parent-infant interactions during the pandemic.

The implications of this research will come from our understanding of what life is like for these parents during the pandemic. If parents' negative emotional symptoms are found to be related to less time interacting with their children, efforts should be taken to help reduce these negative symptoms, potentially improving parent-child interaction. If negative emotional symptoms are found to be related to more time interacting with their children, it could show the importance of having more remote/hybrid options for parents to spend time interacting with their infants. These inferences are the same if time homebound is related to interaction frequency.

There are many opportunities for future research involving parent's negative emotions, parent-infant interaction, and time homebound. With this data being collected during the early months of COVID-19, this gives opportunities to replicate this research after the pandemic is over to compare the results. Other avenues for further research is to investigate more data that was collected by the Infant Cognition Lab via the same survey in September to October 2020. These results could show if anything had changed in these variables later on during the pandemic.

This study will add to the body of research surrounding these variables. Because of the scarcity of research about negative symptoms and quantity of parent-infant interaction, along with the shortage of research about pandemic life, these results will provide insight into how COVID-19 is impacting parents across the state of Kentucky.

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[4] S. H. Lovibond and Peter F. Lovibond, *Manual for the Depression Anxiety Stress Scales* (Sydney: Psychology Foundation of Australia, 1996).

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