

RESEARCH FINDINGS SUMMARY

How Parent-Child Interactions Relate to Inflammation in Children



QUICK SUMMARY

This study focused on how interactions between children and parents relate to the way in which children's immune cells function. 123 parents recorded information on the quality and timing of their interactions with their children over 14 days. One year later, children's immune cells were tested from blood samples. We found that increased variability and inconsistency in daily interactions between children and their parents were linked to heightened inflammatory profiles in the child. In turn, inflammation has been linked to a number of chronic diseases later in life. These findings suggest that inconsistency in parent-child interactions may be a factor in inflammation and health risks in children.

WHAT IS THE RESEARCH ABOUT?

Inflammation is linked to mental and physical health risks. Inflammation occurs when immune cells are activated to destroy invading organisms like viruses or to repair tissue damage in the body. In the short term, these processes can protect the body. However, persistent inflammation over time has been linked to illnesses such as heart disease and psychiatric disorders such as depression. Stressful life experiences are also linked to inflammation. This study investigates whether inconsistency in parent child interactions relates to inflammation in children.

WHAT DID WE DO?

123 parents recorded their quality of interactions and timing of leisure activities with their children in daily surveys for 2 weeks. We calculated how often interactions changed from being positive to negative from day to day (variability in quality of interactions), and how often leisure activities happened at different times across days (variability in timing of interactions). After one year, inflammation was assessed by taking blood samples, exposing the blood to a bacterial product, and measuring immune cell responses.

WHAT DID WE FIND?

We found that greater variability in both the quality and timing of parent-child interactions corresponded to heightened inflammatory profiles in children.

WHAT SHOULD YOU REMEMBER?



Variability in the frequency and timing of parent-child interactions independently corresponded to inflammatory responses in children. In turn, inflammation is associated with an increased risk of a number of diseases later in life. One possible explanation is that inconsistent parent-child daily interactions may result in less psychological predictability and increased stress for children. These findings highlight the link between daily family interactions and inflammation in children.



PUBLICATIONS

1. Manczak, E. M., Leigh, A., Chin, C. P., & Chen, E. (2018). Consistency matters: Consistency in the timing and quality of daily interactions between parents and adolescents predicts production of proinflammatory cytokines in youths. *Development and psychopathology*, 30(2), 373–382.

ABOUT THIS SUMMARY

This summary was prepared by Samira Asseh on behalf of the Foundations of Health Research Center at Northwestern University. You can access all of our research for free at our website, www.foundationsofhealth.org/publications.