

UC Irvine

UC Irvine Previously Published Works

Title

PRENATAL EXPOSURE TO MATERNAL DEPRESSION PREDICTS BOYS SELECTIVE ATTENTION TO THREAT

Permalink

<https://escholarship.org/uc/item/2mp347rg>

Journal

PSYCHOSOMATIC MEDICINE, 78(3)

ISSN

0033-3174

Authors

Gildersleeve, Kelly A
Glynn, Laura M
Sandman, Curt A
[et al.](#)

Publication Date

2016

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

196) Abstract 1667

PRENATAL EXPOSURE TO MATERNAL DEPRESSION PREDICTS BOYS SELECTIVE ATTENTION TO THREAT

Kelly A. Gildersleeve, Ph.D., Laura M. Glynn, Ph.D., Psychology, Chapman University, Orange, CA, Curt A. Sandman, Ph.D., Psychiatry & Human Behavior, University of California, Irvine, Orange, CA, Elysia P. Davis, Ph.D., Psychology, University of Denver, Denver, CO

A growing body of evidence indicates that maternal depressive symptoms during pregnancy are associated with their children's later cognitive and affective development. In parallel, animal models have identified neurodevelopmental pathways through which prenatal exposure to maternal adversity could alter offspring psychological development. Both the human and animal literatures have documented sex-differences in responses to prenatal adversity. This prospective study longitudinally examined links between maternal depressive symptoms during pregnancy and their children's later attentional bias to angry faces, as assessed using the dot probe paradigm. Attentional bias to angry faces has been linked to risk for anxiety and is thought to reflect selective attention to social threats. The sample included 210 mother-child dyads (51% male children). Maternal depressive symptoms were assessed prenatally at 15, 19, 25, 31, and 37 weeks' of gestation. Children completed the dot probe task at age 8-16 ($M = 11.0$, $SD = 2.3$). In this task, each trial begins with a 500-ms presentation of a central fixation cross, followed by a 500-ms presentation of a face pair (angry/neutral or neutral/neutral) selected from the NimStim Face Stimulus Set. Immediately after the face pair disappears, an asterisk probe appears on the right or left, and participants press a button as quickly as they can to indicate the side on which the probe appeared. Attentional bias to angry faces is scored as faster responses when the asterisk appears behind the angry than the neutral face. Results revealed that maternal depressive symptoms at 25 and 31 weeks of gestation predicted greater attentional bias to angry faces among boys ($p = .04$ and $.01$) but not girls. Our findings suggest that prenatal exposure to maternal depression in the second and third trimesters increases selective attention to social threats among boys but not girls. An intriguing possible explanation is that fetal exposure to maternal adversity alters neural development to prepare boys for a harsh environment in which, relative to girls, they are particularly likely to encounter aggressive conspecifics.