



HEALTH

Parenting stress may affect mother's and child's ability to tune in to each other

The specific brain region monitored for synchrony was the prefrontal cortex, which is associated with the ability to understand others' point of view.



PRANJAL MEHAR 15 HOURS AGO

In mother-child relationships, a synchronous pattern of interaction demonstrates parental sensitivity. Parenting stress has been appeared to undermine mother-child behavioral synchrony. In any case, it does not seem to be perceived in the case of parenting pressure influences the brain to brain synchrony during regular joint activities.

Now a new study demonstrates the effects of parenting stress on the brains of both mothers and their children.

Conducted by the [Nanyang Technological University, Singapore](#) (NTU Singapore), scientists analyzed the brain activity of 31 pairs of mother and child from Singapore while they were watching children's animation clips together. They found that mothers who reported higher levels of parenting stress had less synchrony in brain activity with their child (all aged around three years old) than those who reported lower levels of parenting stress.

Parenting stress happens when the requests of parenting surpass the adapting assets that a parent sees they have accessible. Excessive parenting pressure can block maternal sensitivity lead to reactions that punish the kid and negatively affect the parent-child relationship as long as possible.

Senior author of the research Assistant Professor Gianluca Esposito, from the School of Social Sciences who leads the Social and Affective Neuroscience Lab (SAN-Lab) at NTU Singapore, [said](#), "Our study shows that parenting stress may very well weaken mother-child

communication early in the process of social interaction. Our observations likely stem from the stressed mother's reduced ability to share her child's perspective. This inability to appreciate the child's viewpoint may reduce the quality of parental engagement and undermine the mother-child relationship in the long run."

Scientists used functional Near-infrared Spectroscopy (fNIRS) caps as a non-invasive way to measure brain activation based on blood concentration levels in the brain. They then combined the use of the caps with a recently developed method called tandem hyper scanning that simultaneously records the brain activity of two people.

Ms. Atiqah Azhari, a Ph.D. candidate at the SAN-Lab at NTU, [said](#), *"Our study brings us a step closer to uncovering how parenting stress weakens the mother-child relationship on a day-to-day basis. We did not expect to find a clear relationship between parenting stress and brain synchrony when the mother and child did something as simple as watching animation together. This suggests that the mother's mental wellbeing is important for optimal mother-child engagement at the cognitive level."*

The [study](#) is published in the journal Nature Scientific Reports.

REFERENCE [NTU Singapore](#)

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