Parents' brains are in sync when looking after children together says new study

Couples who spend time with their parents together show similar brain activity according to new research.

A new small-scale Singaporean study has found that parents' brains may be in sync when looking after children together, which could lead to better parenting.

Led by Nanyang Technological University, Singapore (NTU Singapore), the new research analyzed the brain activity of 24 husband-and-wife pairs in their prefrontal cortex, which is associated with complex behavior and emotional states, in various situations.

The couples were first asked to complete a questionnaire on how often the mother or father takes the lead in co-parenting before being exposed to various sounds, including infant and adult laughter and crying, in two different conditions: together in the same room at the same time and separately in different rooms at different times.

The findings, published in the journal *Nature Scientific Reports*, showed that the couples' brains demonstrated greater synchrony, which is similar brain activity in the same area of the brain, when they were exposed to the sounds together not separately.

Moreover, the similar brain activity was only found in real couples, not randomly matched study participants.

When greater synchrony is seen in two people, it suggests that both are tuned into each other's emotions and behaviors say the researchers, who add that the results suggest that spending more time together while looking after children could help couples with parenting.

"Our study indicates that when spouses are physically together, there is greater synchrony in their attentional and cognitive control mechanisms when parenting," said senior author of the study, Associate Professor Gianluca Esposito.

"Since the brain response of parents may be shaped by the presence of the spouse, then it is likely that spouses who do not spend much time together while attending their children may find it harder to understand each other's viewpoint and have reduced ability to coordinate co-parenting responsibilities. This may undermine the quality of parental care in the long run."
"This finding is particularly useful for parents who are working from home during this 'circuit breaker' period, as families spend more time together at home as part of social distancing measures in the fight against COVID-19. The entire family interacting together for an extended period may be stressful, but parents can take this time to tune into each other's behavior and emotions while caring for their children," said Ass Prof Esposito.

The paper's co-first author Ms Mengyu Lim, also added that, "The findings of this study may be empowering for those who experience parenting stress -- that we should not think of parenting as an individual task, but a shared responsibility with the spouse. Co-parenting requires active teamwork, communication, and trust in each other."