

# What About The Children?

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## RESEARCH SUMMARY

### **Technoference: longitudinal associations between parent technology use, parenting stress, and child behaviour problems.**

B.T. McDaniel and J. S. Radesky.

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McDaniel and Coyne (2016) and Radesky (2014, 2015) have been studying the role of the mobile device on human relationships for several years, firstly in relationships between couples and now between parents and their children. The term technoference was given to interruptions that occur due to use of digital and mobile technology devices during time spent together with another person.

The use of mobile devices by parents has been analysed because the portability of the devices has allowed their use in many family activities, such as meals, playtime and bedtime. In home settings, Radesky *et al* noticed that there was more hostility from parents when their child tried to get their attention whilst the parent was absorbed with their mobile device. Parents reported that when they were using their mobile device, it was harder for them both to read their child's behavioural cues and respond to them. McDaniel and Radesky found that there were associations between the degree of technoference and higher child externalizing behaviour (tantrums/aggression) as well as internalizing behaviour (anxiety/signs of withdrawal) especially for mother-child activity interactions. They wanted to do further research to find out whether the child's behaviour caused the parents to be stressed and to use their device more, or whether the disruption of mother-child interactions by the parent caused an increase in the child's externalising or internalising behaviour.

The 176 families were from the U.S.A., mainly in the North East, but also from other areas of the U.S.A. Most parents were married, 72% had a Bachelor's degree and 91% were Caucasian. The average age of the child was 3 years (children under 1 were excluded). The couples were asked questions on the first meeting, and then after approximately one, three and six months. Each parent was asked: "On a typical day, how many times do the following devices interrupt a conversation or activity you are engaged in with your child?" The 6 items included cell phone/smartphone, television, computer, tablet, iPod and video game console. The scale was from 0 (none) to 6 (more than 20 times per day). Scores were averaged for the 6 devices. Parents were also asked about parenting stress, depressive symptoms and success of co-parenting. The authors found that:

- 1) Greater child externalising behaviour predicted greater technology interference, via greater parenting stress
- 2) Technology interference often predicted greater externalising behaviour.

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3) Associations between child internalising behaviour and technology interference were relatively weaker than for externalising behaviours. However, child withdrawal behaviours gave more consistent bidirectional associations.

The evidence of the association of technoferece and child externalising symptoms in this study is consistent with public observations of children trying to get the attention of parents who were absorbed in their mobile device. Investigators described children acting in a silly manner, raising their voices and showing more impulsive behaviours while their care-givers attention was attuned with a mobile device, for example during fast food meals. Children are often frustrated by the sudden withdrawal of parental attention when responding to a notification on a mobile device, especially if the reason for the interruption is unclear.

When mobile device use interrupts verbal and non-verbal interaction between parent and child, it is possible that this has the effect of children receiving less parent scaffolding (the parent's ability to give the child just enough positive support to perform a new skill on their own) particularly in developing behaviour regulation. Parents need to understand the child's mental state and motivations for their externalising behaviour in order to help their child calm down, identify feelings and problem-solve. This is harder to do when the parent is spending less time engaging with their child because of technoferece. Parents who have found it difficult to split their time between work-associated mobile phone use and attention to their children said that they found it challenging to read and respond to their child's behavioural and emotional clues when distracted by their mobile device.

Conversely, the higher externalising behaviour of the child was associated with later higher levels of stress in the parents, and this in turn was associated with higher technology use during parent-child activities. It has been known that adults relieve stress, regulate boredom or anxiety, or withdraw from social interactions by mobile and traditional media use. The researchers of mobile communication suggest that the interactions with the mobile device act on brain reward circuits to induce pleasure and habit-formation. Mothers reported that digital technology was a way to regulate their emotions, reach out to friends, catch up on news or play games to take a break from home-based chores.

The authors suggest that there may have been a reason that their research showed that technoferece had a smaller effect on a child's internalizing behaviour than on externalising behaviour. The parents had to self-report in this study and it may be that a parent distracted on their phone would be less likely to notice the withdrawal behaviour of their child than a louder or more disruptive response.

This is the first study which has measured, over several time points, the effect of digital and mobile technology devices on the behaviour of young children, when their normal social interactions with either mother or father are interrupted. There are measurable effects on the child's behaviour, which when it becomes disruptive, in turn increases stress in their parents and leads them to a higher level of technology use. The less time that a parent is spending fully engaged with their child, the less they will be able to read their child's cues to help guide them to self-regulate their behaviour.

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