

Risk-taking and inhibitory control in behaviourally inhibited and disinhibited preschool children

What was the aim?

Behavioural Inhibition (BI) has been identified as a risk factor for the development of internalising disorders, such as anxiety, while behavioural disinhibition (BUI) has been identified as a risk factor for externalising disorders, such as attention deficit/hyperactivity disorder (ADHD).

Risk-taking may play an important role in developmental pathways to psychopathology in BI and BUI children. By avoiding risk, a BI child's chance of developing an anxiety disorder may therefore increase. At the other end of the scale, the more a BUI child takes excessive risks, the higher the probability that the behaviour will be inadvertently reinforced.

The aim of this study was to assess risk taking behaviour in behaviourally inhibited and behaviourally disinhibited children to see if there is a relationship between behavioural inhibition, executive functioning (inhibitory control, i.e., the ability to suppress a dominant response) and risk-taking.

How did we do it?

Using the computer based Balloon Analogue Risk Task, we assessed risk taking behaviour in behaviourally inhibited (n = 27) and behaviourally disinhibited (n = 43) children aged 4 years old. The balloon task involved inflating a computerised balloon for a reward. The risk of popping and losing the reward increases with each inflation.

What did we find?

The results indicated Behavioural Inhibition was not related to risk-taking but that inhibitory control predicted reward focused results. Children who are high in inhibitory control are able to take risks but they are able to balance this risk with the chance of a reward.

This suggests that for both temperament extremes (i.e. behaviourally inhibited and behaviourally disinhibited children), inhibitory control may be acting as a protective factor against risk-taking and risk avoidance behaviour. However, further research is needed to examine this possibility.

The lack of group difference on risk-taking was surprising, given research showing behavioural inhibition is associated with reticence. It is possible that these children are not generally risk-averse but instead are averse to risk that is associated specifically with their fears.

What does this mean in practice?

The results suggest that inhibitory control, but not behavioural inhibition impacts preschool children's risk-taking and reward-focused performance. Further studies could examine whether a risk task better tailored to the fears of BI children, such as social situations, will demonstrate a difference in risk-taking and avoidance between these temperament extremes.

Citation

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