Parent and carer ratings of the self-regulation skills of their children with Down syndrome

What we were interested in

We are a group of researchers at the University of Bristol who are interested in understanding the self-regulation skills of children with a range of different developmental conditions, including Down syndrome. By 'self-regulation' we mean a child's ability to control their own behaviour and to act in line with their own goals and what they have been encouraged to do by other responsible adults, rather than being distracted or over-impulsive.

What we did

We developed a questionnaire containing 84 items that asked parents/carers questions about their child's ability to self-regulate in four different areas. These areas were:

Cognitive regulation – managing thoughts, including focussing attention, planning, and problem-solving.

Emotional regulation – managing emotions and one's response to emotional situations.

Social regulation – managing behaviour in a social setting, including understanding and reacting to social cues and expectations.

Sensory regulation – managing sensations, including seeking out or avoiding certain types of sensory stimulation.

This questionnaire was completed by parents/carers of 41 children with Down syndrome, 41 children with a condition known as Williams syndrome, 42 autistic children, and 122 neurotypical children.

What we found

We looked at the results of our questionnaire in two ways:

First, we found that the responses for neurotypical children could be organised into three different groupings, rather than the four types of regulation we aimed to measure. We named these groupings 'being reactive', regulating sensory information', and 'being proactive'. When we applied these groupings to the other participants with different

development conditions, we found that children with Down showed less good regulation in each area than neurotypical children, but were more proactive (able to take initiative) and better at regulating sensory challenges than autistic children.

Second, we looked at the grouping of responses in all participants with a developmental condition and found that children with Down syndrome had comparable social regulation skills to neurotypical children and similar cognitive regulation skills to children with Williams syndrome and autistic children. Their emotional regulation abilities were superior to those reported for autistic children.

If you want to know more

We have written up this project as an academic report and are in the process of submitting this for potential publication in a suitable academic journal. However, you can access a preliminary copy of that academic report here: https://osf.io/preprints/psyarxiv/5taj3_v1

If you have any questions, feel free to contact Prof. Chris Jarrold on C.Jarrold@bristol.ac.uk

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