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Repetitive Behaviours in Cri du Chat syndrome

'Repetitive behaviour' is an umbrella term given to a number of different types of behaviours.

Research Papers

Ross Collins and Cornish (2002) looked at repetitive behaviours in CdC syndrome and reported the presence of repetitive behaviours in 66 individuals with CdC.

* *18% showed no repetitive behaviours*
* *24% showed one behaviour*
* *58% displayed two or more behaviours*

In 2009, Jo Moss and colleagues looked at the profile of repetitive behaviours in 58 individuals with CdC syndrome and other genetic syndromes. Below you can see the percentage of individuals with CdC syndrome who showed each behaviour.

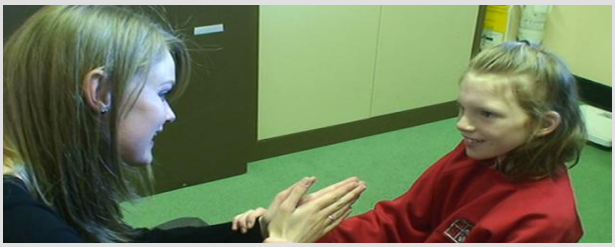
67.2%	**Preference to particular objects**
51.7%	**Repetitive movement of objects**
41.4%	**Repetitive movement of body**
38.5%	**Repetitive questions**
37.9%	**Repetitive movement of hands**
34.5%	**Repetition of phrases/sounds/signs**
32.8%	**Insistence on the sameness of routines**
23.1%	**Attachment to particular persons**
13.8%	**Completion behaviour** – insistence on having objects or activities 'complete' or 'whole' (e.g. open or closed not in between)
12.1%	**Just right behaviour** – insistence objects always remain in the same place
12.1%	**Hoarding**
10.3%	**Echolalia** – repetition of speech that has just been recently heard (e.g. Mum: "Jack don't do that", Jack: "Jack don't do that")
10.3%	**Restricted conversation** - preference for particular topics of conversation (e.g. cars)
Occurrence of less than 10%	**Other** – Spotless behaviour, Rituals, Organising objects, Lining up or arranging of objects, Tidying up

Key Facts

★ Studies show that approximately ***60% - 80%*** of individuals with CdC show repetitive behaviours on a daily basis.

★ Although individuals with CdC can show a number of repetitive behaviours, ***attachment to specific objects*** appears to be highly characteristic of CdC syndrome as it occurs far less often in other syndromes.

★ There are a number of theories about why repetitive behaviour occurs.



Theories

➢**Executive dysfunction theory** – one theory is that these behaviours occur because of problems with executive functions (cognitive processes). Difficulties with these processes may mean individuals find it hard to stop behaviours once they start, or find it difficult to start something new by generating a different behaviour. This theory is still in its early stages but evidence is accumulating to support it from other genetic syndromes, such as Rubinstein-Taybi and Prader Willi syndromes.

➢**Problems with the cortical-basal ganglia circuitry** – this is a pathway in the brain. Changes have been linked to repetitive behaviour, however, mainly in mice.

Other theories about the causes of repetitive behaviour have been proposed but evidence for them is fairly limited. Some of these theories are:

➢**Homeostatic theory** –behaviours serve to regulate levels of arousal. In situations where stimulation is low behaviours serve to increase arousal and when stimulation is high decrease arousal.

➢**Perceptual reinforcement theory** - behaviour is rewarded by the sensory feedback the person receives from the behaviour.

➢**Environmental reinforcement theory** - repetitive behaviours are maintained by rewarding consequences associated with the behaviour, for example, access to attention.

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