

Centre for Clinical Neuropsychological Research

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Building the bridge between academic and clinical neuropsychology



NHS

Hemiplegia, behaviour, and the amazing brain

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Behaviour and neurodisability

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Behaviour and neurodisability

- Do children with neurodevelopmental disabilities have an increased rate of behavioural problems?
- If so, why?
 - Is it the parents' fault?
 - Is it the child's fault?
- What are the best strategies and environmental changes to support behaviour?

Do children with neurodisability have more behaviour problems?

- Yes

Is it the parents' fault?

- No

Is it the child's fault?

- No

What are the best strategies?

- We don't know
- (but we do have some ideas)

Is it the child's fault?

- No!
- (but it's something in their brain)
- How to build a brain
- What is cerebral palsy anyway?

How to build a brain

- build a brain with 10^{14} connections
- capable of sophisticated cognitive processing
- self-assembly: manufacture own parts
- manual - 10^5 genes

How to build a brain - hints

- a lot of genes are only involved in the brain - about 30,000
- build a simple structure first
- add more complexity as you go

What is cerebral palsy anyway?

- an 'insult' to the developing brain
- early - neuronal migration defects
- middle - structural defects and heterotopias
- late - cerebral vascular events
- The costs of neuroplasticity

What can we do about it?

- Early intervention
- Behaviour management
- Hyperactivity
- Specific learning difficulties
- Strategies

Early intervention

- Scallywags
- SCOPE Early Years
- ... but we need to provide ongoing support for parents...

Behaviour management

- Change the world not the child (sometimes!)
- Social Skills training
- Support for parents
- Behaviour management (the behaviour isn't the child's fault, but they need to develop skills to live in a social world)

Hyperactivity

- Comprehensive ADHD assessment
- medication trial
- psychological adjuncts

Specific Learning Difficulties

- How to get a Statement?
- How to use the Statementing process?
- Support from Lindsay and SCOPE
- Educating teachers about the increased rate of specific learning difficulties in children with neurodisability

Strategies

- Assessment
- Formulation
- Intervention
- Evaluation

A word about assessment

- When in doubt, measure it.
- Functional analysis
- ABC charts

Formulation: The function of children's behaviour - I

- what is behaviour for?

Formulation: The function of children's behaviour - II

- learning
- trying out skills
- exploring
- trying to solve other problems

Solving problems through behaviour

- the 'problem' behaviour might be an imperfect solution to another problem the child is trying to solve.

Defining problem behaviours

- Stop
- Caution
- Go! Go!

Changing behaviour

- increasing positive behaviour
- reducing negative behaviour

Increasing positive behaviours

- identifying
- labelling
- praising
- rewards

Praise rules

- specific, contingent on behaviour
- praise immediately
- use it consistently when you see the target behaviour

Positive reinforcement (bribery)

- outcome rewards
- contingent rewards
- when... then...
- “drive-by” instructions

Reducing negative behaviours

- (only works in the context of the above)
- clear limits
- clear consequences

Limits... and rules

- are the rules simple?
- are the rules fair?
- does your child understand them?
- does your child know what the consequences are?
- are rules applied fairly and consistently?

Testing Limits

- how often do children fail to comply with parental requests?

Consequences

- ignore
- punishment
- response cost
- negative reinforcement
- natural consequences
- time out

Ignoring

- the most powerful reinforcer for small problems
- (when linked to praise)
- useful for preventing bad habits developing

Punishment

- reasons for
- reasons against
- research evidence

Response cost

- if... then...
- gives the child some degree of 'choice'

Negative reinforcement

- coming to the clinic!
- negotiating tool with older children

Natural consequences

- kids learn fast!

Timeout

- brief (3-5 minutes)
- immediate
- non-rewarding
- activity timeout
- room timeout

Discipline models

- authoritarian
- permissive
- democratic

Authoritarian models

- if it's not hurting, it isn't working
- parents have all the power
- win-lose problem solving (parents win)
- children learn that parents are responsible for problem solving

Permissive models

- my job is to serve my children and keep them happy
- children need to understand why they should do the right thing
- win-lose problem solving (children win)
- parents serve children

Democratic models

- children are capable of solving problems
- encouragement is a good way to get co-operation
- win-win problem solving (parents and children win)
- children given choices within limits, and allowed to learn from the consequences

So much for the theory....

A positive note

- "... As parents you might need to help your child's physiotherapists and teachers remember that cerebral palsy can be about more than the physical disability, and that your child is learning how to cope with some stresses that can't be seen. The good news is evident in every edition of the HemiHelp newsletter: as they grow, like all children with your support they learn ways to cope, to achieve amazing things and to grow into adults that as parents you can justifiably be proud of."