45th ASSID Conference
29 Sep-1 Oct 2010
Hilton, Brisbane Queensland

Autism, Behavioural Flexibility, and Play-Based Functional Assessment

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Behavioural Flexibility and autism

- Restricted and repetitive behaviours and interests
- Insistence on sameness and resistance to change

Cartoon by Nick Duharte

Manifestations of the behaviour

- Often results in challenging behaviour
  - ranging from mild, e.g. fussing or complaining; to moderate, e.g. mild tantrums; or severe, e.g. major tantrums, aggression and screaming
- Usually occurs when the environmental context does not meet up with the child's expectations
- Impacts on general wellbeing

Function of problem behaviour

- Often motivated by
  - A desire for attention
  - A desire for access to tangibles
  - A desire to escape
  - sensory

Investigating the function of sameness behaviour in children with autism

- Ongoing study (since August 2009):
  - Aims
    - Identify the functional characteristics of a lack of flexibility
    - Extend a play based assessment
  - 43 participants
- Pilot study: Play-based functional assessment
  - Single subject

Function of the behaviour

- Functional analysis
  - aims to identify variables that motivate problem behaviour
- Different motivating factors for different situations
- Multi-element functional analysis

Methodological Considerations

- Ecological validity
  - Natural environment and context

Cartoon by Nick Duharte

Pilot study: A multi-element play- based functional assessment

- Three situations arousing problem behaviour presented
  - Item missing
  - Mistake
  - Activity interrupted
- Counterbalanced with four motivating variables
  - Attention
  - Escape
  - Tangible
  - Sensory
- A preference assessment was conducted prior to play sessions to establish preferred tangible items

    Inter-rater reliability was obtained on 50% of item presentations with 100% agreement

Play-based assessment

Play data

- Play
  - Experimenters toys (choice of 5 games)
  - Natural play: outside/inside play of own choice; i.e. using child's own toys or spontaneous play
  - Other's included in play: e.g. parent/carer, sibling

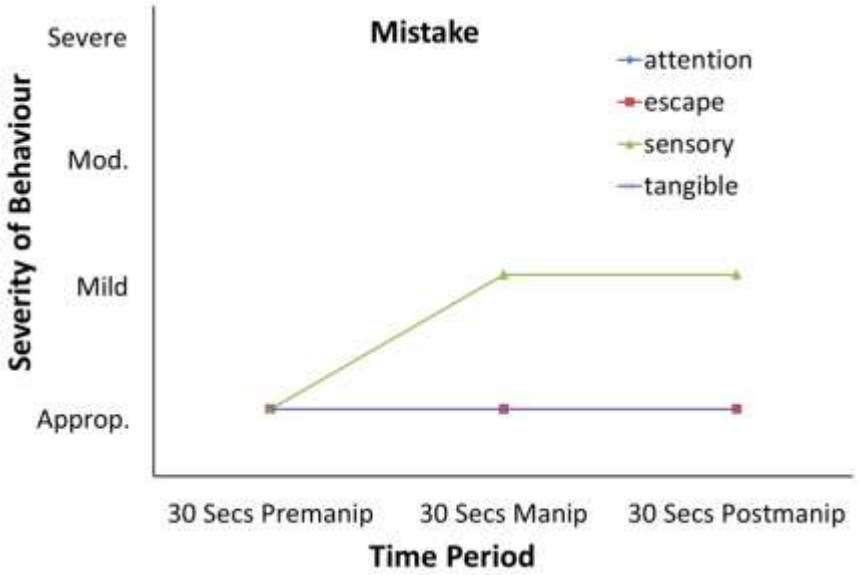
Behavioural data

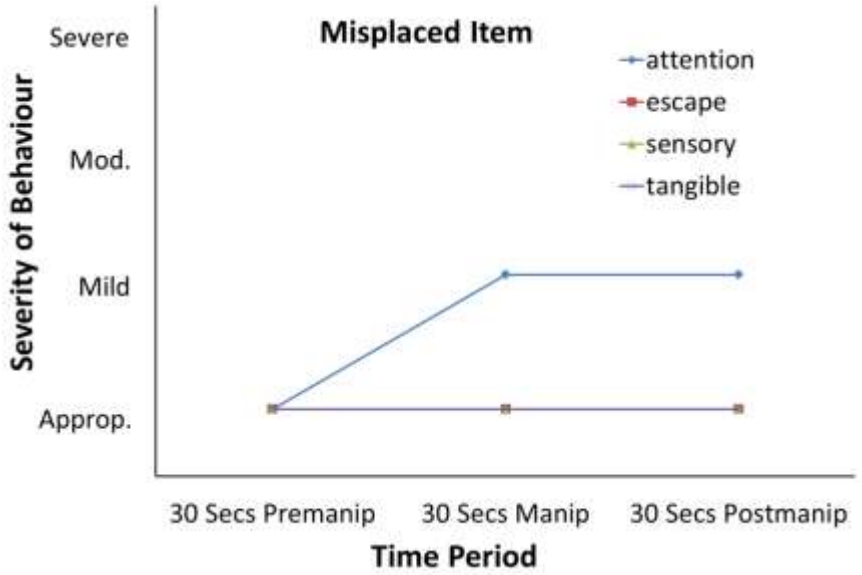
- Behaviour
  - No problem – not a problem at all
  - mild problem – short lived fussing or complaining
  - moderate problem – mild tantrum
  - severe problem – major tantrum
- Tactic
  - Tolerance/problem solving

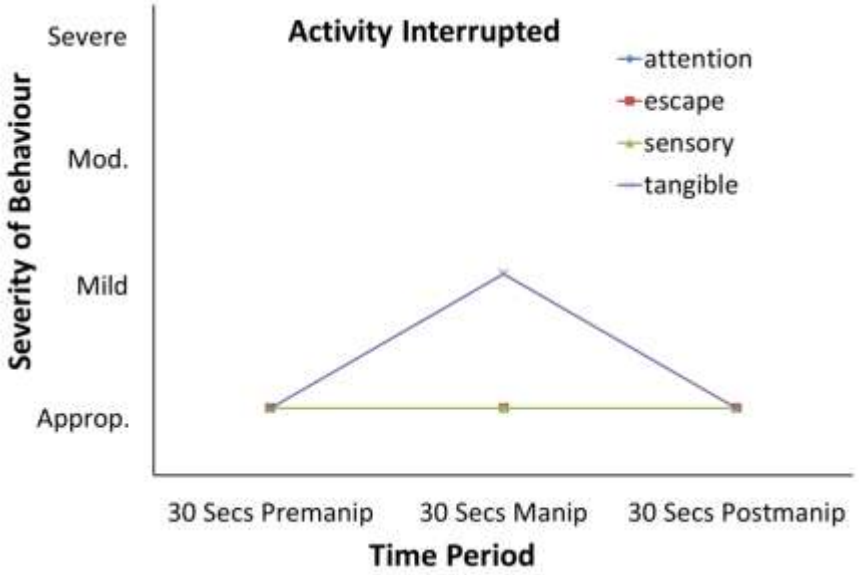
Results: Indirect assessments (single subject)

- Vineland Adaptive Behavior Scale (2nd Ed) *adaptive behaviour composite*: 95
  - Strengths = written language, coping skills
  - Weaknesses = receptive language, socialisation
- Sensory Profile
  - Mainly typical performance
  - Probable difference – auditory filtering
- Aberrant Behavior Checklist *subscale scores*
- Irritability (4); lethargy (5); stereotypy (0); hyperactivity (15); inappropriate speech (0)
- Childhood Autism Rating Scale: 24.5
- Behavioural Flexibility Rating Scale: *severity of problem*
  - Mild = 5 items
  - Moderate = 6 items
- Sameness Questionnaire: *extent of behaviour*
  - To some degree = 3 items
  - To a considerable degree = 1 item
- Motivation Assessment Scale: *insistence on sameness, resistance to change*
  - Self stimulatory/sensory (15); escape/avoidance (15); attention (8); tangible (15)
- Gilliam Autism Rating Scale (2nd Ed) *autism index:* 70

Results: Play-based assessment







- ¾ manipulations tolerated
- No problem solving observed
- Inter-rater reliability obtained on 25% of situations with 100% agreement

Limitations

- Procedural integrity possibly compromised by inclusion of others in play

  (Hanley et al., 2003)

  - Reduced control over manipulation
  - Places questions on accuracy of identification of motivating variables
- Duration of assessment
  - Duration of natural play
  - Individual gains control via added choice-making
  - longer assessment protocols required in future

Conclusions

- Play-based assessment
  - Ease of use
  - Ecological validity
- Potential as a useful tool to identify the function of a lack of behavioural flexibility
- More cases required
  - Greater problems with inflexible behaviour
  - High and low functioning
  - Typical development

Thank you