Sharing information (referencing and commenting) in young children with autism:

Can targeted intervention designed to change caregiver interaction style positively change the quality and quantity of referencing and commenting in young children with autism?

A Collaborative pilot project;
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THE TRIAD OF IMPAIRMENTS IN AUTISM

1. IMPAIRED COMMUNICATION
2. IMPAIRED SOCIAL RELATING
3. REPETITIVE BEHAVIOURS & RESTRICTED INTERESTS

Mismatch between autism and the environment

- Characteristics of autism
  - sensory
  - cognitive
  - communication
  - social relating, empathy

- Characteristics of environment
  - communication and social demands; adults and peers
  - sound, light and touch, taste and texture
  - unpredictability change

Confusion, anxiety and FEAR

Based on DSM IV-R
Developmental processes

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Social Orienting

- Typical children show interest in faces especially eye gaze evident in first 6 weeks (involuntary), Typical children head turn to name 5-7 months
- Social orienting impairment; failure to spontaneously orient to naturally occurring stimuli in environment
- Likely to be earliest sign of impairment in autism. Home video, fail to orient to name
Reciprocity

• Sharing positive affect
• Smiling
• Reciprocal eye gaze
• Evident in first few months of life
• Attention to distress typically evident 4-6mo, reduced or absent in autism

Referencing

• Typical children seek emotional information from an adult's face when presented with a stimulus of uncertain valence
• Children with autism less likely to look at mother's face when presented with a new (scary) toy than typical or ID children, respond directly to toy rather than seek info from Mum
Joint attention

• An attentional state during which the child and partner share a site of interest.
• Tendency to use eye contact affect and gestures for social purpose of sharing experiences with others
• Typically emerge as early as 6 mo, children shown to match direction of mother’s head turn
• In autism shown to be absent or reduced

Cause of JA deficit

• Possibly because: attention deficit results in difficulty rapidly shifting attention between different stimuli (cerebellum)
• +/- or difficulty processing and representing complex stimuli
• +/- or failure to assign reward value to social stimuli. Social reward hypothesis lack of motivation to attend to social stimuli (amygdala)
Instrumental regulation of others

- Social reward hypothesis supported by findings that use of joint attention is less impaired for instrumental regulation;
- for example children with autism more likely to use eye contact and gestures to request desired objects/actions
- Proto-imperative pointing shown to be intact in autism relative to proto-declarative pointing

Joint Attention deficit
expressive and receptive

- Lack of response to other’s attempts to direct attention
- Lack of initiation of attempts to obtain joint attention
- As basis for language development typical children learn new words best in joint attentional interactions.
- Failure to acquire gestural JA impairs language development
Project Objectives

• Compare three models of treatment;
  -Focus on development of referencing (gaze shift between people and objects, gaze/point following, sharing affect or emotion; ‘attunement’) and sharing information with parents
  -Focus on development of referencing (as above) and sharing information with teachers
  -Focus on social/communication/ecological model (enhanced GSS current practice)
• With each other and non-GSS treatment group

In terms of.............

• Outcomes for children, Initial assessment of autism and cognitive development
• pre and post measures of communication and social skills/competence, independent functioning,
• Outcomes for families, pre and post measures of parent confidence, feelings of competence, stress and quality of life
Project Description

- 4 groups
  - Social Interaction Focus with parents
  - Social Interaction Focus with teachers
  - GSS enhanced
  - Control
- 5 child/family per group (20 total) matched for diagnosis, cognition and age as closely as possible
- Criteria
  - diagnosis of an ASD
  - 3 to 5.6 years

Project Measures

- Outcomes; Child (Pre only)
- Diagnosis of autism; ADOS
- Cognition; Griffiths
- (Pre and Post)
- Communication; CSBS, FACS, FAES
- Independent Functioning (ABAS)
- GSS checklists
- Video tape analysis of referencing, sharing information and declarative/imperative communication
Project measures continued

- **Outcomes for families; (pre and post)**
  - Parental Stress (PSI)
  - Quality of Life, (Beach)
  - Parent satisfaction survey including feelings of competence
- **Outcomes for staff; (pre and post)**
  - Staff satisfaction survey including feelings of competence

Project time frame/team

- Recruitment and assessment May/June 07
- Program to commence June 2007.
- Fidelity, reliability, measured on ongoing basis
- Program to run to Jan 08. (Post assessments to be completed Feb 08)