Interventions For Children with Autism and their Families: From cattle prods to chelation

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Interventions, treatment and management for autism: “fad magnets for off the wall treatments” (Matson 2007)
- Treatment management and intervention for children with autism spectrum disorders and their families.
- A review of the range of interventions available for children with autism in their families focusing on Australia.
- Discussion of what we know about outcomes of interventions from the research literature.

What Type of Intervention?
- Biologically based (medications)
- Complimentary and Alternative Medicines (CAMS)
- Psychodynamic Interventions
- Educational (learning based)

Educational Programs
Significant debate re relative merits of different theoretical approaches
- Primarily Behavioural (based on learning theory)
- Contemporary ABA
- Integrative/Combined
- Developmentally Based/Naturalistic
- Therapy based
- Other

What differentiates Educational programs from each other?
- skill versus relationship development focus
- adult directed versus child centered
- emphasis on child initiation or child response
- naturalness/social context of learning context,
- generalisation to other environments,
- utilisation of child strengths,
- treatment of challenging behaviour,

Traditional Behavioural
- Learning theory
- Applied Behavioural Analysis (ABA)
- Discrete trial training (DTT)
- Early Intensive Behavioural Interventions (EIBI/IBI)
- Example The Young Autism Project (Lovaas, 1987)
### Contemporary ABA
- ABA, + developmental pragmatics, + info re care-giver/child interaction; tend to account for characteristics of autism
- Natural Language Paradigm NLP, including Pivotal Response Training (Koegel et al., 1989)
- Incidental Language Teaching, (Hart, 1985)
- Enhanced milieu approaches (Kaiser et al., 1992)
- PBS (Horner)
- PECS (Bondy & Frost)

### Integrative/Combined programs
- Combination of developmental, social-cognitive, behavioural and neuropsychological perspectives
- Based on functional assessment
- Focus on individual characteristics of autism
- Use behavioural methods e.g. structured teaching
- Example TEACCH (Schopler, Mesibov), SCERTS (Prizant and Wetherby)

### Developmentally based/Naturalistic Programs
- Focus on understanding social-emotional variables
- Follow child’s lead
- Build relationships
- Formulate individual programs to promote development in critical areas of functioning
- Example ‘Floortime’ or DIR model (Greenspan, 1998), RDI (Gutstien & Sheedy, 2005)

### Therapy based
- Communication (Speech Pathology)
  - PECS
  - Facilitated Communication
  - AAC
- Sensory/motor (Occupational Therapy)
  - AIT
  - Sensory integration

### Family Based Interventions
- Hanen
- The Help Program
- NAS Early Bird Program
- Family Centred Positive Behaviour Support Programs
- Preschoolers with Autism: An Education and Skills Training Programme for Parents (Monash)

### Other Interventions
Examples
- Daily Life/Higashi
- Option Approach (Son Rise)
- Music Interaction Therapy
- SPELL
The Continuum of Discrete-trial Traditional Behavioural to Social-Pragmatic Developmental Approaches

- DT-TB, e.g. Lovaas/CARD
- Contemporary ABA, e.g. NLP, ILT, PRT, enhanced milieu, PBS
- Combined TEACCH LEAP
- Combined Hanen MTW, SCERTS, Early Bird, ITT, RD
- SP-D, e.g. Floortime/Theraplay, Hanen ITT

Critical issues for outcomes research
- Lack of consensus on definition of intensity
- Inconsistent diagnosis
- Overlap in approaches, lack of clarity, e.g. some contemporary ABA close in practice to SP-D approaches
- Lack of clarity re fidelity of treatment
- Failure to account for variables outside of treatment
- Definition of outcome measures
- Lack of control groups
- Conflict of interest

Research findings; what do we know about outcomes?
- Research suffers from methodological shortcomings
- Programs effective regardless of theoretical basis provided the program is adapted to the individual child and family (Webster et al., 2002)
- Prognostic indicators re outcomes
- Support substantial benefits of programs that are: early intensive family based

Reviews of research evaluating educational programs
- Dawson and Osterling (1997)
- Marcus et al., (2001)
- Rogers, (1996)
- National Research Council (2001)
- All review a range of programs with differing philosophical approaches
- Found agreement on essential elements for a successful program regardless of theoretical orientation.

What makes a successful program?
- Autism specific curriculum content
- Highly supportive teaching environment
- Generalisation strategies
- Predictability and routine
- Functional approach to problem behaviour
- Transition support
- Family involvement

Additional strategies common to many programs reviewed
- At least 15 hours treatment per week - NRC 25hrs (usual 1-2hrs)
- Provision of OT services
- Inclusion of typically developing peers, natural contexts (Woods & Wetherby 2003)
- Emphasis on child independence, initiative and choice making. (Dawson & Osterling, 1997)
- Augmentative communication; Visual supports (Quill, 1997)
“If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music he hears, however measured or far away”.

Henry David Thoreau
1854

References


References