

**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

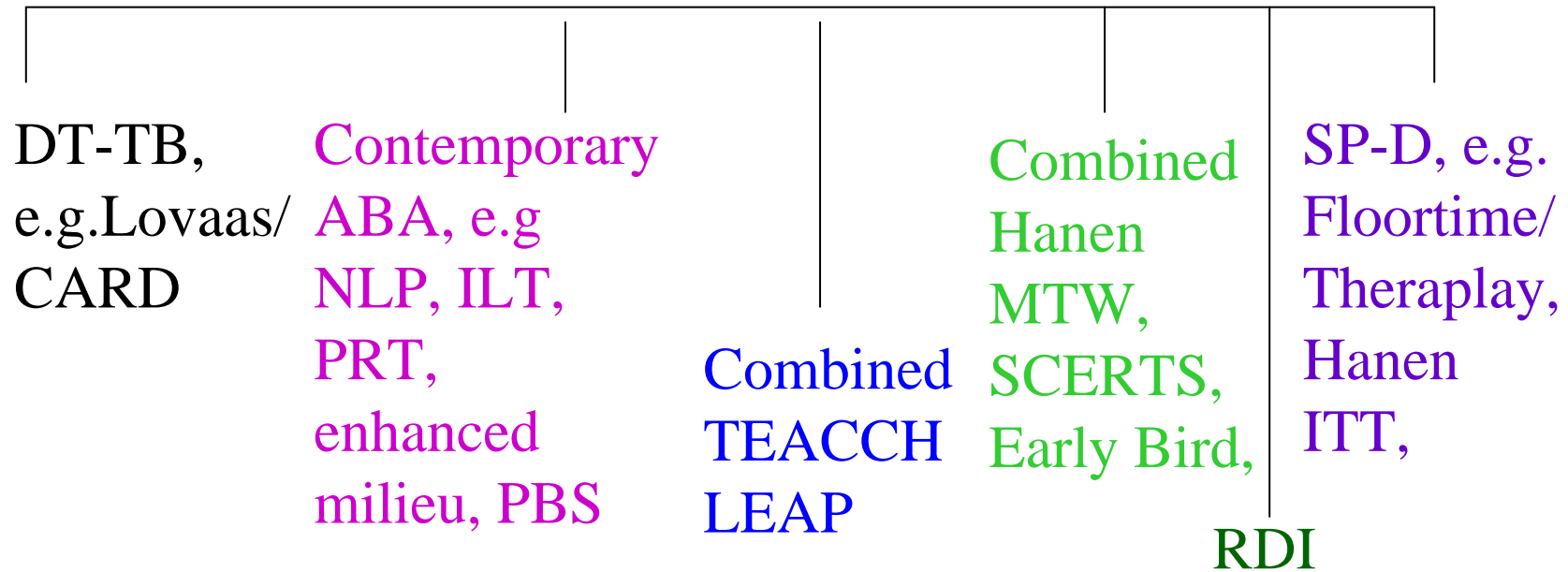
- Hanen
- The Help Program
- NAS Early Bird Program
- Family Centred Positive Behaviour Support Programs
- Preschoolers with Autism: An Education and Skills Training Programme for Parents (Monash)

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



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

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