Approaches to Supporting Children with ASD in Inclusive School Settings*

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Background

• Range of options exist for transition and support in mainstream schools
  – regular class without additional support
  – generic special education support (within school or itinerant)
  – autism specific itinerant support services (Autism SA)
  – Satellite class placement prior to regular class placement (Aspect, NSW)
Aim

• Compare progress of high functioning children with ASD using two autism specific models of transition and support in mainstream schools
  – Autism SA Consultative Support Model
  – Aspect Satellite Class Model
Autism SA Outreach Model

• Multidisciplinary autism specific team providing support services using on-demand outreach model
• Services provided through this program include:
  – consultancy and specialist advice to teachers and educators of students with ASD within the school setting
  – support with the development of individualised educational plans
  – specific assessment and intervention services from specialised disciplines (speech pathology, occupational therapy, psychology)
  – training and development for educators
  – time-limited direct student support
Possible Advantages of Regular Class Support

• Exposure to social and communication models
• Context for the development of social/communicative skills
• Higher performance expectations
Aspect Satellite Class Model

• Placement in an autism specific class (5-6 children) in a mainstream “host” school, prior to planned transition into regular classroom

• Programs incorporate individual education goals within a framework based on the regular school curriculum with carefully planned schedule of integrated activities

• The key elements of the program are:
  – the collaboratively planned establishment and operation of small classes with high levels of student support by Aspect’s trained staff
  – specialised intervention addressing core deficits and adaptive teaching
  – preparation for transition, which involves the regular school curriculum, collaboration with parents, host school staff and includes planned integrated activities
  – carefully planned transitions from Satellite Classes and follow-up support

• Students remain in a Satellite Class for an average of 22 months prior to transition
Possible Advantages of Satellite Class Support

• Higher initial level of structure may be advantageous given core deficits in ASD
• More gradual adjustment to school and transition to regular class
• Autism-specific teaching strategies in order to deliver mainstream curriculum
• Gradual exposure to models for social and communication skills
Extant Research

• Preliminary follow up evaluation of Satellite Class model (e.g., Keane et al., 2012; Roberts et al., 2008)
• UK research suggests features of placements identified as important more likely to be found in schools with an ASD unit than in schools receiving consultative support (Frederickson et al., 2010)
• No comparative data in Australian context
Method

• A non-equivalent comparison group design used to compare NSW Satellite Class model to SA Consultative model
• 3 year study, 2 rounds of assessment per year
• Inclusion criteria:
  – A formal diagnosis of Asperger’s disorder or autistic disorder (DSM-IV)
  – Intellectual functioning within or above mild range of intellectual disability
  – Placed in K/R -Year 3 and receiving consultative support in SA or placed in Satellite Class in NSW

• Primary child dependent variables relate to continuity of placement, social behaviour, school engagement and adjustment.
• Primary dependent variables for school staff and parents relate to satisfaction with service delivery and perception of the success of placement in regular class
Measures

Pretest Measures:
- WISC
- Vineland Adaptive Behaviour Scale II (VABS)
- Social Responsiveness Scale (SRS)
- Social Skills Improvement System (SSIS) - parent completed

Outcome Measures
- Continuity of placement
- Level of support (e.g., teacher assistant)
- School Function Assessment (SFA) - relevant components
- SSIS – teacher completed
- Child Behavior Checklist (CBCL) - parent completed
- playground social interaction measure
- friendship questionnaires conducted with target child and friend
- parents, the classroom teacher and principal questionnaires examining perception of success of placement, satisfaction with services, child academic and social performance
Recruitment and Consent

- Applications to 11 HRECs
  - Round 1
    - Parent Acceptances: 38/125 in NSW, 39/178 in SA
    - Principal Acceptances: 14/20 in NSW, 25/37* in SA
    - Teacher Acceptances: 21/24 in NSW, 22/38# in SA
  - Round 2
    - Additional Parent Acceptances: 4/29 in NSW, 9/35 in SA

NOTE:
* 2 schools had 2 participating children
# 1 teacher taught 2 children
# Recruitment and Consent

- **Round 3**
  - Principal Acceptances
    - Children: 18/21 (35) vs. 30/41 (30)
  - Teacher Acceptances
    - Children: 23/26 (35) vs. 29/44 (33)

*NOTE:* 2 schools had 2 participating children, #1 teacher taught 2 children.
Results

• Reporting on:
  – Pretest
  – First round of data collection (end of year 2012)
  – Third round (end of year 2013)
Pretest Mean (SD)

* $p < .05$
R1 Perception of Placement Success – Mean (SD)
R3 Perception of Placement Success – Mean (SD)
R1 Satisfaction with Progress – Mean (SD)
R3 Satisfaction with Progress – Mean (SD)
R1 Satisfaction with Support—Mean (SD)
R3 Satisfaction with Support—Mean (SD)
R1 Extent of Bullying – Mean (SD)

** Higher scores indicate less perceived bullying
R3 Extent of Bullying – Mean (SD)

** Higher scores indicate less perceived bullying
<table>
<thead>
<tr>
<th></th>
<th>R1 Mean (SD)</th>
<th>R3 Mean (SD)</th>
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</thead>
<tbody>
<tr>
<td>NSW</td>
<td>66.6 (6.7)</td>
<td>64.8 (7.7)</td>
</tr>
<tr>
<td>SA</td>
<td>69.1 (8.7)</td>
<td>67.8 (7.8)</td>
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</tbody>
</table>
R1 Social Skills Instruction System – Mean (SD)
R1 Social Skills Instruction System – Mean (SD)
R1 School Function Assessment Activity Performance – Mean (SD)
R3 School Function Assessment Activity Performance– Mean (SD)
## R1 School Function Assessment – Cognitive/Behavioral Tasks

<table>
<thead>
<tr>
<th></th>
<th>Assistance Mean (SD)</th>
<th>Criterion Cut-off</th>
<th>Adaptation Mean (SD)</th>
<th>Criterion Cut-off</th>
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</thead>
<tbody>
<tr>
<td>NSW</td>
<td>25.6 (4.1)</td>
<td>2/35</td>
<td>27.6 (4.5)</td>
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<tr>
<td>SA</td>
<td>28.5 (4.1)</td>
<td>4/23</td>
<td>29.2 (4.7)</td>
<td>3/23</td>
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# R3 School Function Assessment – Cognitive/Behavioral Tasks

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<th>Adaptation Mean (SD)</th>
<th>Criterion Cut-off</th>
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<tbody>
<tr>
<td>NSW</td>
<td>25.0 (5.4)</td>
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<td>5/35</td>
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<tr>
<td>SA</td>
<td>27.6 (5.3)</td>
<td>6/30</td>
<td>30.0 (4.5)</td>
<td>7/30</td>
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R1 Playground Interactions

Percentage Peer Interaction

<table>
<thead>
<tr>
<th></th>
<th>Recess</th>
<th>Lunch</th>
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</thead>
<tbody>
<tr>
<td>NSW</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>SA</td>
<td>70</td>
<td>70</td>
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Error bars indicate variability.
R3 Playground Interactions
Factors Contributing to Success of Inclusive Placement (Carter et al., in press)

- Examined factors reported to facilitate and act as barriers to inclusion for 39 children in regular classes (SA=37, NSW=2)
- Data were available from:
  - 39 parents
  - 23 teachers covering 24 children
  - 23 principals covering 25 children
Coding

• Themes developed to categorise responses

• Intercoder reliability on 20% of sample:
  - Parent 81.5%
  - Teacher 88.9%
  - Principal 84%
Facilitators

• Most commonly identified facilitator:
  - Parents (53%): School and/or teacher understanding the child’s needs
  - Teachers (50%): Ability to use appropriate practices
  - Principals (67%): Skilled teachers

• Other commonly mentioned factors:
  - Teacher assistant support
  - Support for social interaction and friendships
Barriers

• Most commonly identified barrier related to specific child characteristics (e.g., anxiety, poor social skills) - Parents (40%), Teachers (21%), Principals (38%):

• Other factors:
  - Parents (34%) - Failure of school to understand child needs
  - Parents (16%) - Handling of behaviour problems
Pragmatic Issues and Recommendations

• Slower rate of transition than expected from satellite classes
• HREC approval
  – 11 ethics committees
  – Streamlining of multi-jurisdiction applications and standardisation of requirements
• Multilevel consents
  – Parent, Principal and teacher consents (re-consents)
  – Incomplete data
  – Solution?
References


