

# Improving outcomes for young children with disabilities: what works best?

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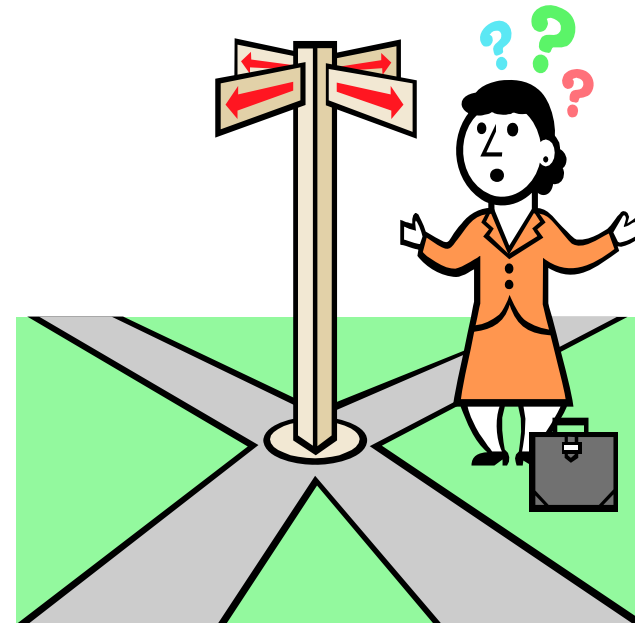
**Murdoch Childrens**  
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# Achieving the best outcomes

- Many unanswered questions
  - Intensity (hours per week)
  - Type of program (centre or home based)
  - How best to engage families





# Aims

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- To assess whether provision of a home program, in addition to a centre based program,
  - improves outcomes for children (better development and behaviour)
  - Improves outcomes for families (for example, reduced family stress)
- To determine which children and families benefit most from the intervention

# Methods

## Participants

- 59 children aged 3-5 years
- Attending one of two early childhood intervention centres in Melbourne





# Methods

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## Inclusions

- Children with:
  - Autism spectrum disorders
  - Global developmental delay

## Exclusions

- Children with:
  - primarily a physical disability
  - families with limited English

# Methods

- All children attended the centre-based program – two sessions per week with a total of five hours



# Methods

- All children assessed at baseline
- Paired according to developmental quotient
- One of each pair randomised to receive extra home-based program





# Principles of home based program (intervention group only)

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- Specialist pre-school teacher visited each family for 1 hour/week for 40 weeks
- Generalisation of skills to home environment
- Worked on issues identified by family

# Methods

Children assessed by  
experienced  
psychologist

- At baseline (Time 1)
- At the conclusion of  
the intervention  
(Time 2)
- 12 months later  
(Time 3)





# Measures of cognition/ developmental level

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- Bayley Scales of Infant Development
  - if functioning < 3.5 yrs
- Wechsler Preschool and Primary Scale of Intelligence (WPPSI-R)
  - if functioning > 3.5 yrs

# Measures of children's behaviour

- Bayley Behaviour Rating Scale (psychologist)
- Behaviour Screening Questionnaire (maternal interview)
- Preschool Behaviour Checklist (teacher observations)



# Family measures

- Questionnaire of Resources and Stress (QRS)
- Family Support Scale (FSS)
- Family Empowerment Scale (FES)



# Results





# Characteristics of participants

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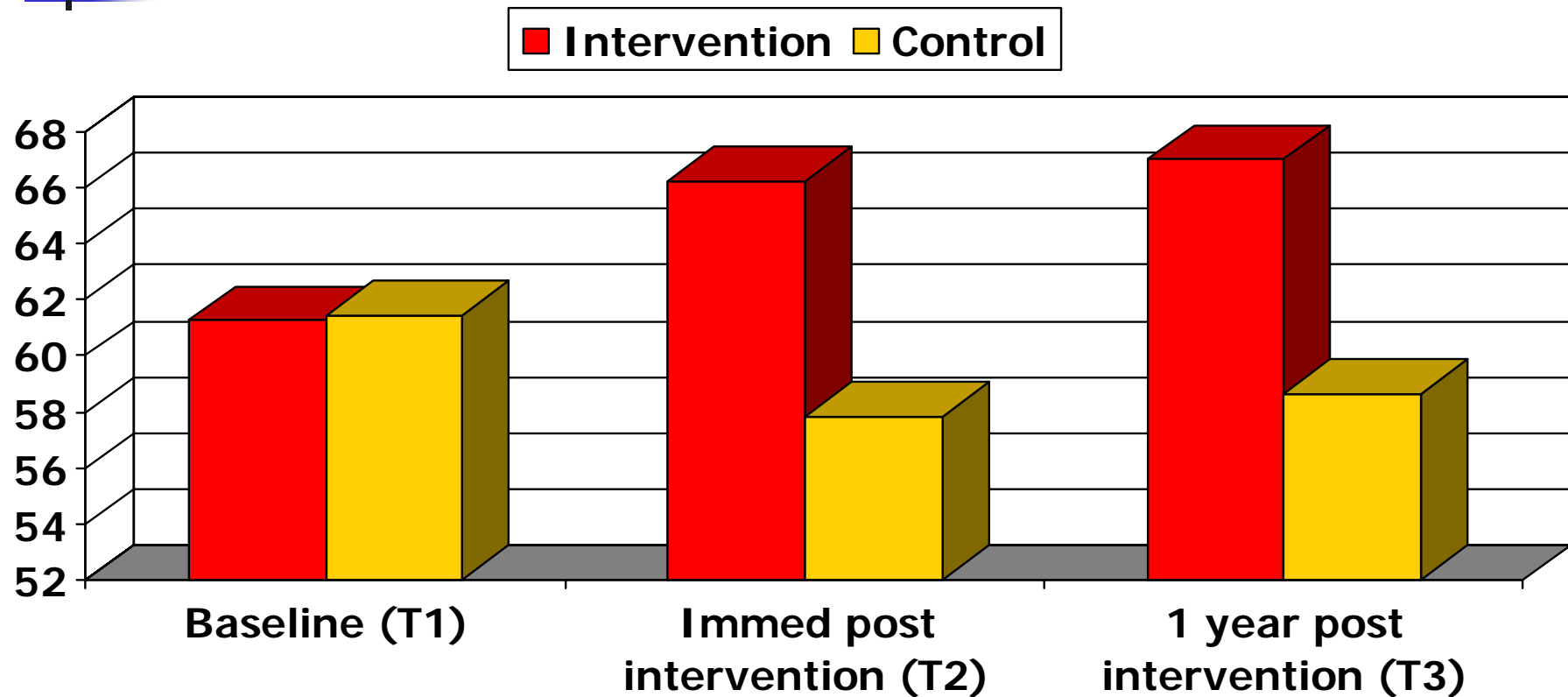
	<b>Intervention (n=28)</b>	<b>Control (n=26)</b>
Children's age	<b>3.7</b>	<b>3.6</b>
Mother's age	<b>34.6</b>	<b>34.8</b>
Father's age	<b>36.4</b>	<b>37.0</b>
Gender (male)	<b>22</b>	<b>21</b>
ASD	<b>15</b>	<b>17</b>
Dev delay	<b>13</b>	<b>9</b>

# Characteristics of participants

- No difference in numbers of first born children
- Intact families
- Social status (measured by Daniel Scale)



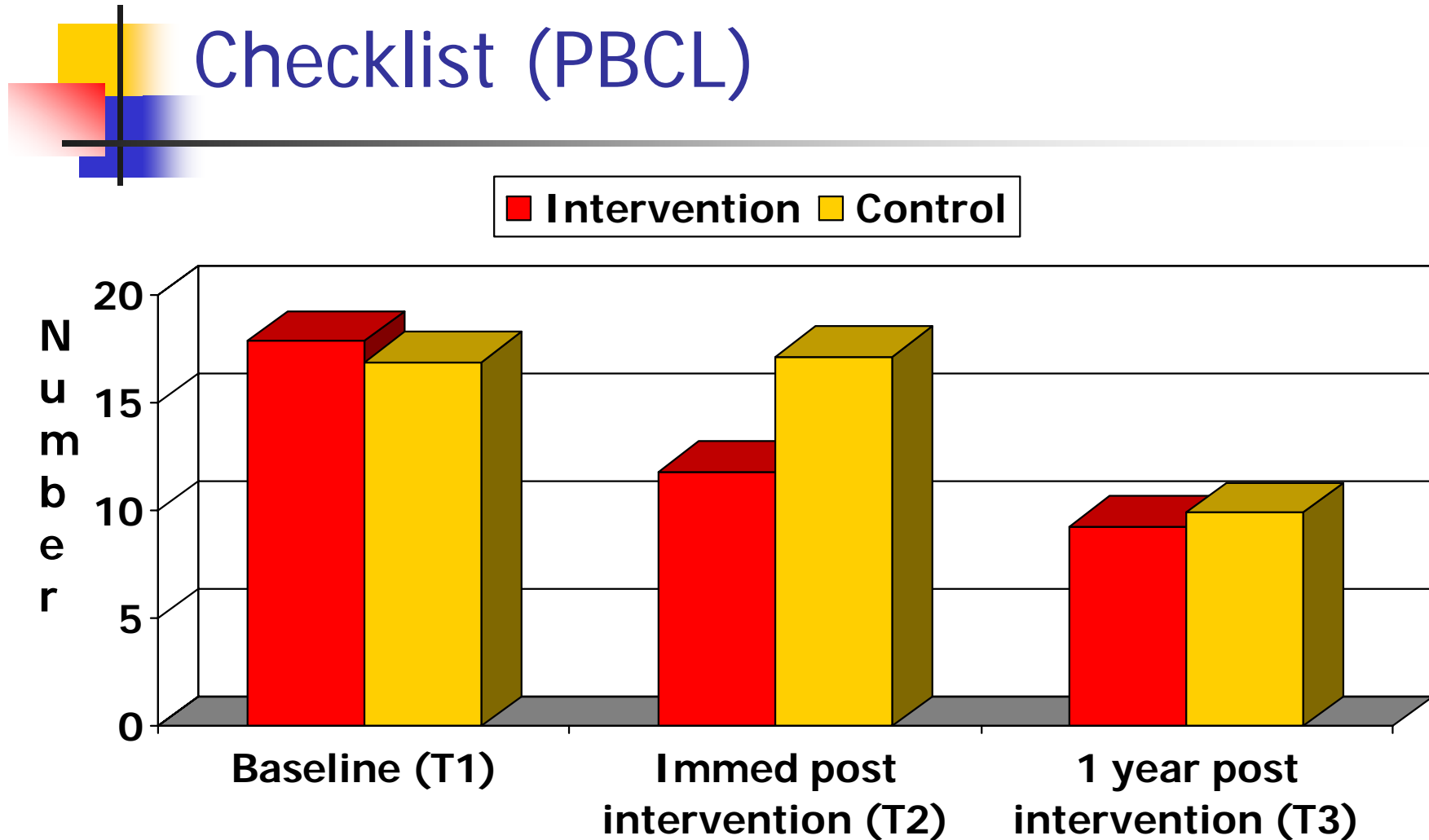
# Mean Intelligence/Developmental Quotient



Mean difference ( T3-T1)      Intervention      Control      P=0.007

5.75      -2.81

# Mean Preschool Behavior Checklist (PBCL)



Mean	Intervention	Control	
Difference (T3-T1)	-8.61	-6.96	P=NS (0.32)



## No significant difference in family and some child measures

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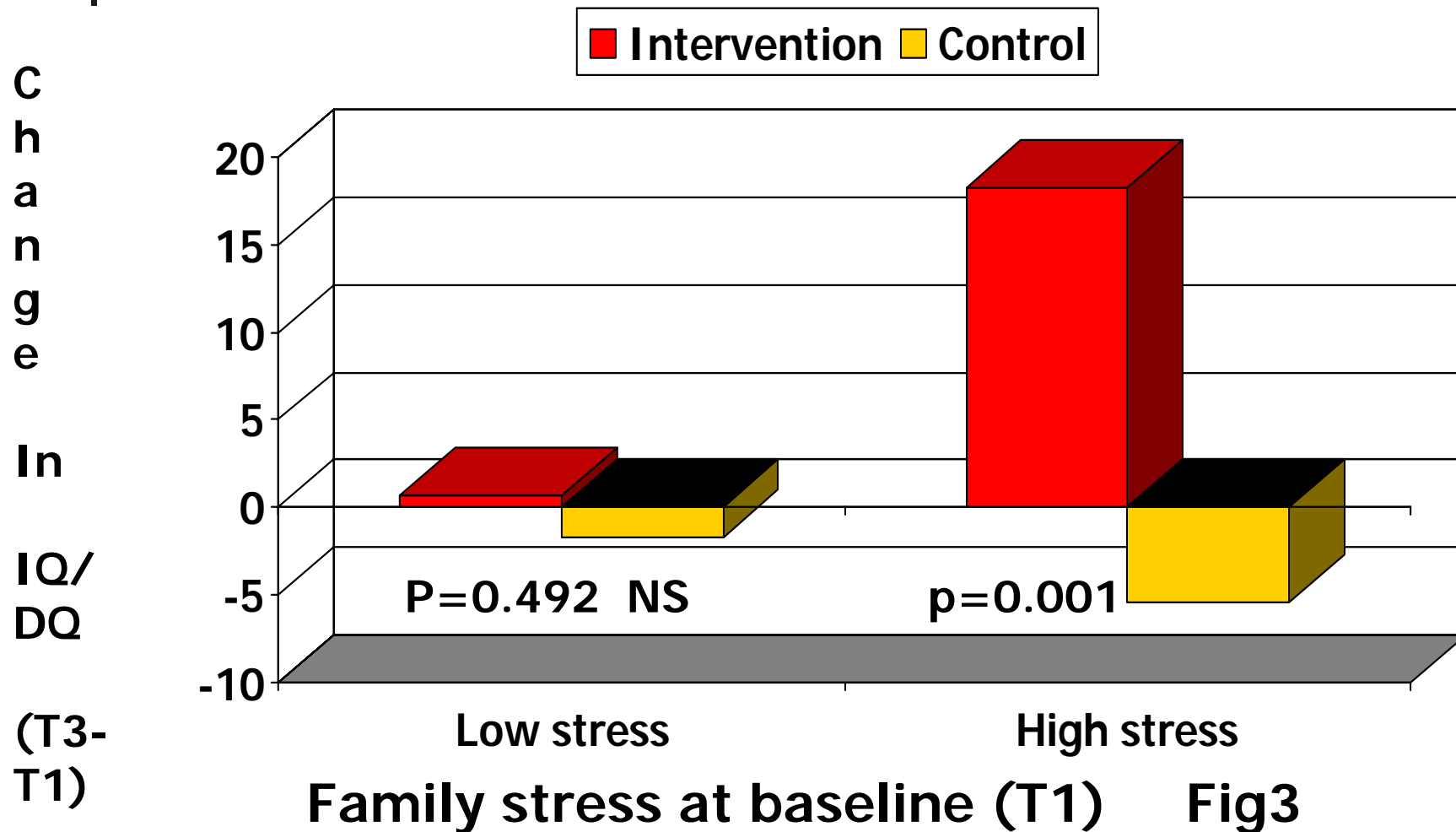
- Children's behaviour observed by psychologist (BRS) and as observed by mother (BSQ)
- Family Support Scale
- Family Empowerment Scale (FES)

# Results

- Improvements in IQ significantly associated with:
  - Low socio-economic status
  - Younger age
  - High family stress (measured by QRS)

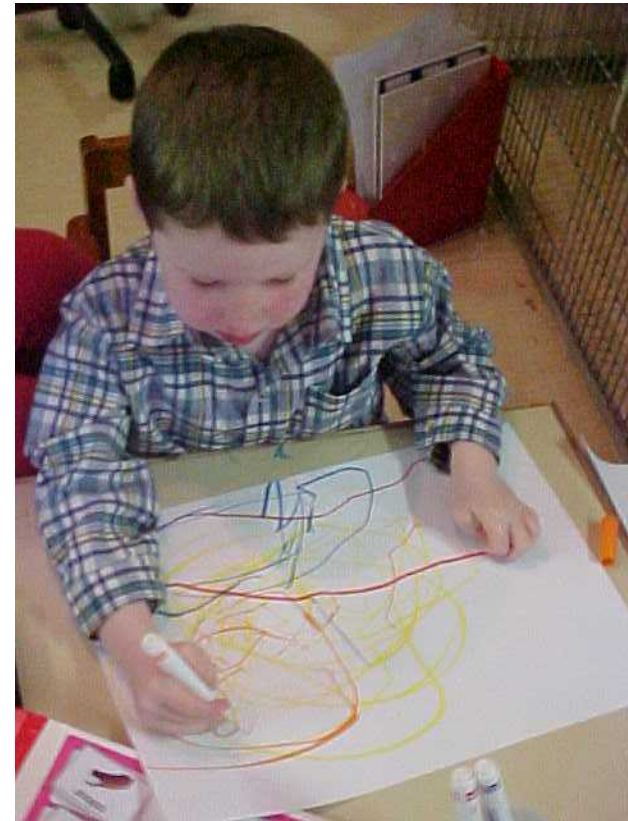


# Change in IQ/DQ (T3-T1) according to family stress (QRS-F) at Time 1



# Limitations

- Study size small
- No group without home or centre based intervention





# Conclusions

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- Home based intervention in addition to centre based significantly improves cognitive and some behavioural outcomes especially for children from families with high stress / low socio-economic status
- Improvement in family functioning associated with home based intervention was not demonstrated in this study



# Conclusions

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- “It made the difference to my child’s future”
- “It was more helpful than I could have imagined”
- “Life saving for me as a parent”
- “I hope that the research project turns into a permanent service”



# Acknowledgements

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