

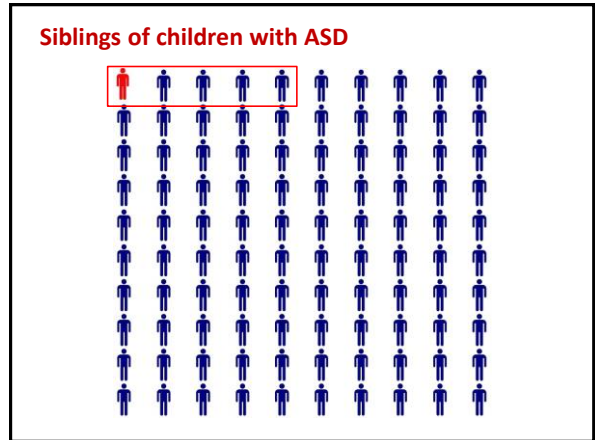
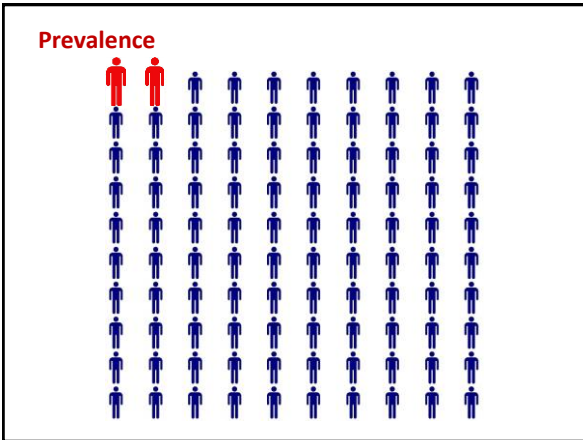
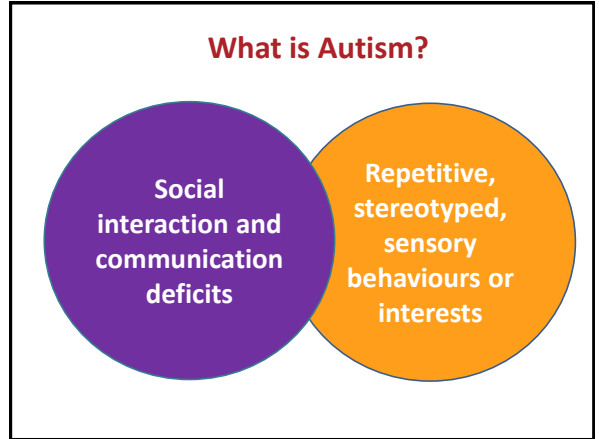


Early identification of Autism in young children: What are the “red flags”?


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Indigenous Allied Health Conference Australia. Professional Development Workshop. Cairns, December 2, 2015.

latrobe.edu.au/otarc





Why early intervention is important?



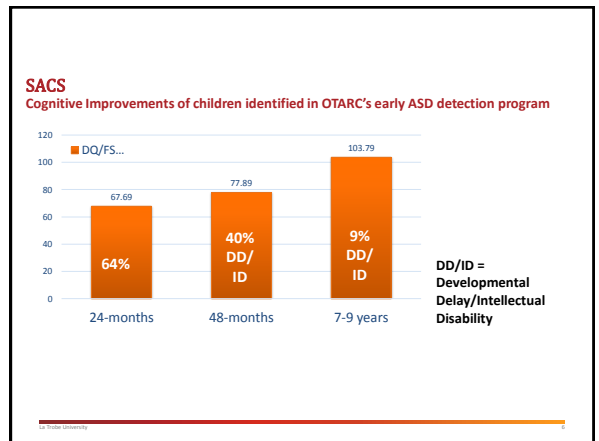
Early intervention

- Maximises [developmental outcomes](#)
- Brain plasticity; move towards more typical developmental trajectory



Parental and family stress

- Main factor associated with parental satisfaction is **early diagnosis**
- Begin seeking services and access professional support earlier
- Better equipped to help their child before symptoms become unmanageable



Current diagnosis and screening for ASD

- Children rarely diagnosed prior to age 3 in Australia
- Average age of diagnosis 4.1 years of age (Bent et al., 2015)
- Current screening tools are inaccurate, missing many children with ASD, and over-identifying children without ASD (Barbaro et al., 2009)
- Social Attention and Communication Surveillance (SACS) developed to identify children with ASD earlier, between 12-24 months (Barbaro & Dissanayake, 2010)



The Social Attention and Communication Study (SACS)

Prospective Identification of Autism Spectrum Disorders in Infancy and Toddlerhood

Dr Josephine Barbaro¹, Ms Lael Ridgway², and Professor Cheryl Dissanayake¹

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Social Attention and Communication Surveillance (SACS)

- Over 350 Maternal and Child Health (MCH) Nurses trained
- Over 30,000 children monitored during routine consultations across 2 large-scale longitudinal studies (2006 & 2013)
- Developmental surveillance of “red flags” of ASD conducted at 12, 18, 24 month check-ups
- Nurses trained to enter behaviours into online database
- Nurses log the items from a SACS assessment which provides an ‘at risk’ profile of each child.
- 81% of all children identified “at risk” for ASD ended up with a diagnosis of ASD between 2 to 3 years of age
- **Most successful screening/surveillance tool for ASD in the world**

“RED FLAGS” OF ASD BETWEEN 12-24 MONTHS

12 MONTHS	18 MONTHS	24 MONTHS
Pointing	Pointing	Pointing
Eye Contact	Eye Contact	Eye Contact
Response to name		
	Showing	Showing
Waving		Waving
Imitation		
		Pretend play

From: Barbaro & Dissanayake (2013). *Autism: International Journal of Research and Practice*, 17, 64 - 86.

INTERNATIONAL DISSEMINATION

2011	2011	2011/14	2013	2013 – 2017
South Korea	Japan	Poland	Bangladesh	China

Future Directions with the SACS

- Implementation in 5 regions of Australia: VIC, WA, QLD, NSW, TAS
- Development of “Family Support Package”
- **ASDetect** – mobile app for Apple and Google Play stores



Assessing infants and toddlers for ASD: The early markers



Digna Terribilo, Autism Research Centre, La Trobe University

Development in the first year: Birth to 12-months

Social disinterest:

- Eye contact
- Response to name
- Responsive smiling
- Social games (e.g., Peek-a-boo)
- Emotional expression
- Conversational babble
- Imitation
- Undemanding / Inconsolable
- Social gestures (clapping, waving)

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Development in the second year: 12- to 24-m

- Same deficits seen in first 12-months (eye contact/response name/social smiling/imitation/social gestures/social games)
- Joint Attention behaviours ('Sharing' of attention with others)
 - **Gaze monitoring** (looking where others look or following another's gaze)
 - **Following a point**
 - **Pointing** to things for the purpose of **sharing** interest. Different to pointing to things for the purpose of **requesting**
 - **Showing toys/objects to others**
- Pretend play
- Use and understanding of language

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Presence of Abnormal Behaviours - first 24 months

- Uses your hand/parent's hand as a tool
- **Echolalia**
- **Repetitive behaviours**
 - lining up toys
 - sorting/spinning objects
 - continuously holding an object in one/both hands,
 - obsession with particular objects
 - repeatedly flicking, switching or pushing buttons
 - opening and closing objects or throwing objects

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Presence of Abnormal Behaviours - first 24 months cont...

- **Stereotyped (motor) behaviours**
 - flapping hands/ arms
 - shuddering/vibrating body (with clenched fists)
 - walking on tip toes
 - spinning on spot
- **Sensory behaviours**
 - Visual examination of objects (peering, using peripheral vision, placing objects very close to face) Smelling/licking objects
 - Distress to everyday sounds (hands over ears)
 - Feeling materials/objects in-between fingers

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Our ultimate objectives of the SACS program of research....

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