Health Professionals' Perceptions of Training to Identify Infants with Early Signs of ASD in New Zealand.

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Background

- Current estimations suggest that 1 in 62 (1.6%) of children in New Zealand have a diagnosis of autism. (Ministry of Health, 2018).
- There is persuasive evidence to suggest that the symptoms of autism – especially those of communication and social attention – are present in infancy. (Camarata, 2014; Fäldt, Nordlund, Holmqvist, Lucas, & Fabian, 2019).
- Despite this, the average age of diagnosis in New Zealand is 6.6 years old. (Eggleston, Thabrew, Frampton, Eggleston, & Hennig, 2019).
- In order to maximise the opportunity for early intervention, early detection and diagnosis of autism are imperative.
- The American Academy of Pediatrics (AAP) has recommended a universal screening approach for optimal, earliest detection of infants with signs of ASD.
- They promote a combination of developmental surveillance at wellness checks for children aged 12-24 months, with the use of autism specific instruments when a child's development is of concern (Pinto-Martin et al., 2008; Robins, 2008; Zwaigenbaum et al., 2015).

What's in the literature?

- A limited number of international studies evaluating the effects of implementing a developmental surveillance model at child wellness checks.
  - Most showing very positive results.
- Two studies evaluating nurse perceptions of the model.
  - Fäldt et al. (2019)
  - Barbaro, Ridgway and Dissanayake (2011)
- No studies evaluating the efficacy, or feasibility of such a model in New Zealand.

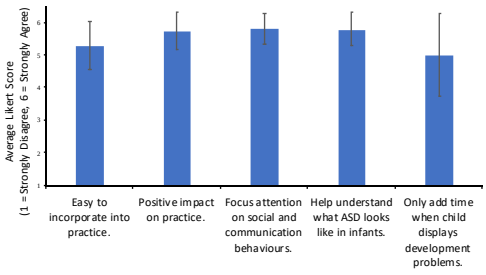
The Current Study

- Analysed appropriateness, usefulness, and feasibility of a developmental surveillance model to detect autism in New Zealand.
- Ran concurrently with a study analysing the efficacy of the training.
- Asked four questions:
  - Do health professionals perceive the SACS-NZ to be a useful developmental surveillance tool to use in NZ?
  - Do they perceive its widespread implementation to be feasible?
  - Do they think that the tool is appropriate for use with families of all ethnicities, especially Māori whānau?
  - Does the training, and the use of the SACS-NZ in well-child checks, enable the health professionals to feel confident that they can identify the early signs of autism in children aged 12, 18, 24, and 30 months old?

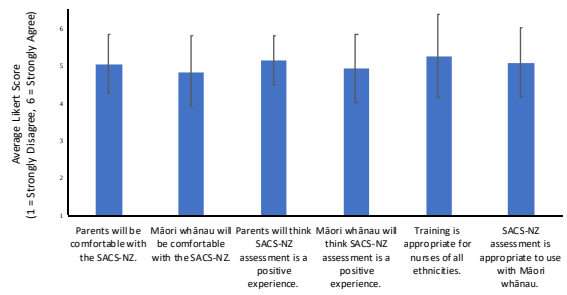
Method

- **Participants:** 53 Well-Child Tamariki Ora professionals from the Wellington region with one of the following roles: nurse, health worker, clinic leader, Plunketline nurse, community Karitane, and Plunket Kaiawhina.
- **Training:** A one-day workshop, facilitated by Dr Josephine Barbaro, on typical development, the early signs of autism, misconceptions about autism, and the use of the SACS-NZ as an autism-specific surveillance tool.
- **Questionnaires:** Pre and post-workshop questionnaires were collected at the one day training.
  - Participants rated statements pertaining to usefulness, perceived feasibility, appropriateness, and confidence on a 6 point likert scale.
  - Qualitative questions about appropriateness for use with all ethnicities.

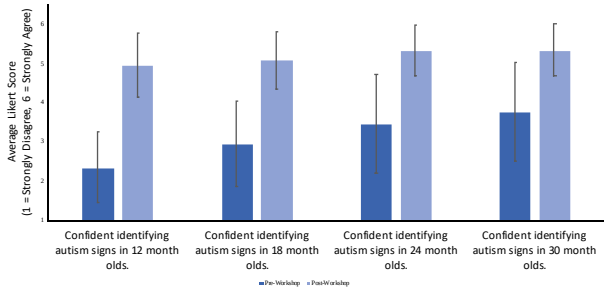
Usefulness and Feasibility



Appropriateness



Confidence



Challenges/Limitations

- **Challenges:**
  - Workshop clash
  - Response fatigue
  - Missing data
  - Attrition
- **Limitations:**
  - Current lack of follow up analysis – purely initial perceptions
  - Pākehā participants unwilling to evaluate appropriateness for Māori/other cultures
  - Small sample size
  - Generalisability

Future Directions

- Follow up data – do perceptions change with the opportunity to practice?
- More: trainings, nurses, diversity of sample.
- Consider the perceptions of parents
  - With developmental concerns
  - Without developmental concerns

Practical Implications

- Shaping a successful developmental surveillance model for ASD in New Zealand.
  - (Ideally) decreasing age of diagnosis.
  - Decreasing familial stress associated with 'waiting'.
  - Increasing possibility of early intervention
  - Providing opportunity for autistic children to reach their potential.

References

1. Barbaro, J., & Dissanayake, C. (2009). Autism spectrum disorders in infancy and toddlerhood: a review of the evidence on early signs, early identification tools, and early diagnosis. *Journal of Developmental & Behavioral Pediatrics, 30*, 447-459. doi: 10.1097/DBP.0b013e3181ba0f9f
2. Barbaro, J., & Dissanayake, C. (2010). Prospective identification of autism spectrum disorders in infancy and toddlerhood using developmental surveillance: the social attention and communication study. *Journal of Developmental & Behavioral Pediatrics, 31*, 376-385. doi: 10.1097/DBP.0b013e3181df7f3c
3. Barbaro, J., Ridgway, L., & Dissanayake, C. (2011). Developmental surveillance of infants and toddlers by maternal and child health nurses in an Australian community-based setting: promoting the early identification of autism spectrum disorders. *Journal of Pediatric Nursing, 26*, 334-347. doi: 10.1016/j.pedn.2010.04.007
4. Camarata, S. (2014). Early identification and early intervention in autism spectrum disorders: Accurate and effective?. *International Journal of Speech-Language Pathology, 16*, 1-10. doi: 10.3109/17549507.2013.858773
5. Eggleston, M. J., Thabrew, H., Frampton, C. M., Eggleston, K. H., & Hennig, S. C. (2019). Obtaining an autism spectrum disorder diagnosis and supports: New Zealand parents' experiences. *Research in Autism Spectrum Disorders, 62*, 18-25. doi: 10.1016/j.rasd.2019.02.004
6. Fäldt, A., Nordlund, H., Holmqvist, U., Lucas, S., & Fabian, H. (2019). Nurses' experiences of screening for communication difficulties at 18 months of age. *Acta Paediatrica, 108*, 662-669. doi: 10.1111/apa.14557
7. Ministry of Health (2018). Annual Data Explorer 2017/18: New Zealand Health Survey [Data File]. URL: https://minhealthnz.shinyapps.io/nz-health-survey-2017-18-annual-data-explorer/_w_0811ceee/_w_a015cc1b/#!/explore-topics
8. Pinto-Martin, J. A., Young, L. M., Mandell, D. S., Poghosyan, L., Giarelli, E., & Levy, S. E. (2008). Screening strategies for autism spectrum disorders in pediatric primary care. *Journal of Developmental & Behavioral Pediatrics, 29*, 345-350. doi: 10.1097/DBP.0b013e31818914cf
9. Robins, D. L. (2008). Screening for autism spectrum disorders in primary care settings. *Autism, 12*, 537-556. doi: 10.1177/1362361308094502
10. Zwaigenbaum, L., Bauman, M.L., Fein, D., Pierce, K., Buie, T., Davis, P.A., Newschaffer, C., Robins, D.L., Wetherby, A., Choueiri, R. and Kasari, C. (2015). Early screening of autism spectrum disorder: recommendations for practice and research. *Pediatrics, 136*, S41-S59. doi: 10.1542/peds.2014-3667D