



Special Interest Group



Burwood Park Foundation

# UPDATE ON RESEARCH AND INFORMATION 2019



Search of last 3 years – thanks to Dom at the  
Action on Hearing Loss Library London

## **SOME KEY STUDIES AND A PERSONAL SELECTION**



# 2016

Borders et al (2016) **A review of educational practices for deaf/hard of hearing students with comorbid autism;**  
Deafness and Education International 2016 vol 18 no 4  
p189-205)

- Highlighted a similar picture in USA as we experience in UK
- Need for single case study design research - as individuals vary so and the cohort is so small

# 2017

- **Michele Friedner & Pamela Block (2017) Deaf studies meets autistic studies**, The Senses and Society, 12:3, 282-300 (Chicago/New York)

<http://dx.doi.org/10.1080/17458927.2017.1369716>

- Studies working in isolation
  - each..analysed differently-one linguistic and cultural, and one pathological
- Looking at sensory solidarities in both side by side offers insights into:
  - sociality, identity and community;
  - interdependent and multi modal communication

# Jessica A. Scott & Sarah Grace Hansen 2018 USA

## Working with Dual Diagnoses: A Survey of Teachers Serving Deaf or Hard of Hearing Children Who Have Autism Spectrum Disorder

- Explored teachers' feelings and aptitude to teach
  1. What was education and training?
  2. Did they feel prepared, resourced, supported?
  3. What strategies were used in teaching?
- Few novel practices mostly adaptations
- Each using strategies known in their specific field
  - Labelling and visual support
- Under resourced, under prepared and under supported, impacting delivery
- Need cross training and research applicable in both fields

# Lachowska et al 2016 Poland

## Cochlear Implantation in autistic children with a profound sensorineural hearing loss

- To assess the benefits of implantation
- 6 boys unilateral implants on right; Implanted av age 1.8years
- Study 43 months post implant
  - Medical history, reaction to music and environmental sounds, Ling six sounds, onomatopaeic word test
  - Questionnaire for parents
  - Sound processor fitting sessions and data
- Poor eye contact, no gestures, screaming, few words, no willingness to follow therapist, slowly improving receptive skills
- All liked wearing device, reduced anxiety, benefits in family interaction
- Mapping and sensitivity, more time, wider outcome measures, realistic prep

# Wiley et al 2018 USA

- Understanding the Needs of Families of Children Who Are Deaf/Hard of Hearing with an Autism Spectrum Disorder
- Looking for factors re carer's stress and needs
- 6 families with dual, 4 deaf, 3 ASD
- Qualitative questionnaires
- Not feeling connected to support family networks for deaf; not fitting in with families of ASD leading to isolation
- Professionals need to
  - Know specific stressors and recognise resilience too
  - Understand communication and behaviour needs
  - Integrate services

# Tanya Denmark et al 2018 UCL London

## **Signing with the Face: Emotional Expression in Narrative Production in Deaf Children with Autism Spectrum Disorder**

- 12 TD from deaf schools, 10 deaf and ASD from NDCAMHS
- All severe or profound, similar amplification
- At least at phrasal level, all in bilingual settings
- BSL Production Test-3 minute language free story re tell
- Scoring template of emotional facial expressions, videoed for analysis
- Two raters scored the narratives
- Scores based on number of productions and how many facial actions against target
- Deaf/ASD show subtle differences in production, reflecting difficulties of hearing ASD
- Deficit in motor skills might be contributory
- More research needed-linguistic facial expressions might be easier as rule based



# MESHGUIDE

Mapping Educational Specialist knowHow

STEPH DAWSON AND JOYCE SEWELL-RUTTER



# AUTISM AND DEAFNESS

- <http://www.meshguides.org/autism-and-deafness/>
- BATOD Foundation initiated the topic and funded the work
- Evidence based on line information...
- Where is the evidence? Case studies /snapshots of practice..
- Small group - hard to get contributions
- Populated certain topics to get started
  - ✓ Seeking more case studies and interest

# Ear Foundation event March 2018

## Presentations from

- Hetty Malcolm-Smith A Parents' Perspective
- Christi Yoshinaga-Itano Considerations in Assessment
- Amy Stephens Sensory Strategies
- Julie Kosaner CI users with ASD
- Amelia Ralph-Lewis DIADS research
- Hannah Ager Importance of Multi Disciplinary Team
- Chris Rocca-Music for Communication

# Ear Foundation event March 2018

- Early Predictors of Autism in Young Children Who Are Deaf or Hard of Hearing: Three Longitudinal Case Studies 2014
- Elizabeth Cameron Kellogg, M.A., Amy Thrasher, M.A., CCC-SLP,<sup>1</sup> and Christine Yoshinaga-Itano, Ph.D.
  - Using 3 case studies –analysed early assessment data (starting at 9 months) for three children who were deaf and later diagnosed with autism
  - Showed early warning signs-suggested as ‘red flags’ for dual diagnosis in other cases

# Focus of Christine's presentation

## **Based on Expert Experience & Literature, we will address:**

Epidemiology of the dual diagnosis

"Red flags" for recognizing/screening ASD in D/hh children

Assessment considerations

Implications of dual diagnosis for intervention

Resources for family support

Educational advancement of providers

# Articles linked with next slides

## **Seminars in Speech and Language (2014)**

- **Screening, Diagnosing and Implementing Interventions for Children who are deaf or hard of hearing with autism spectrum disorder**
- **Co-Editors: Christine Yoshinaga-Itano, Ph.D. & Amy Thrasher, M.A.**

# Current practice in Colorado USA

- Emerging work on deafness and autism
- Still only 3 clinics across USA with joint diagnosing facilities
- Have sufficient data to track normal development in deaf children
- Alerting professionals and families to any atypical development
- Use of LENA

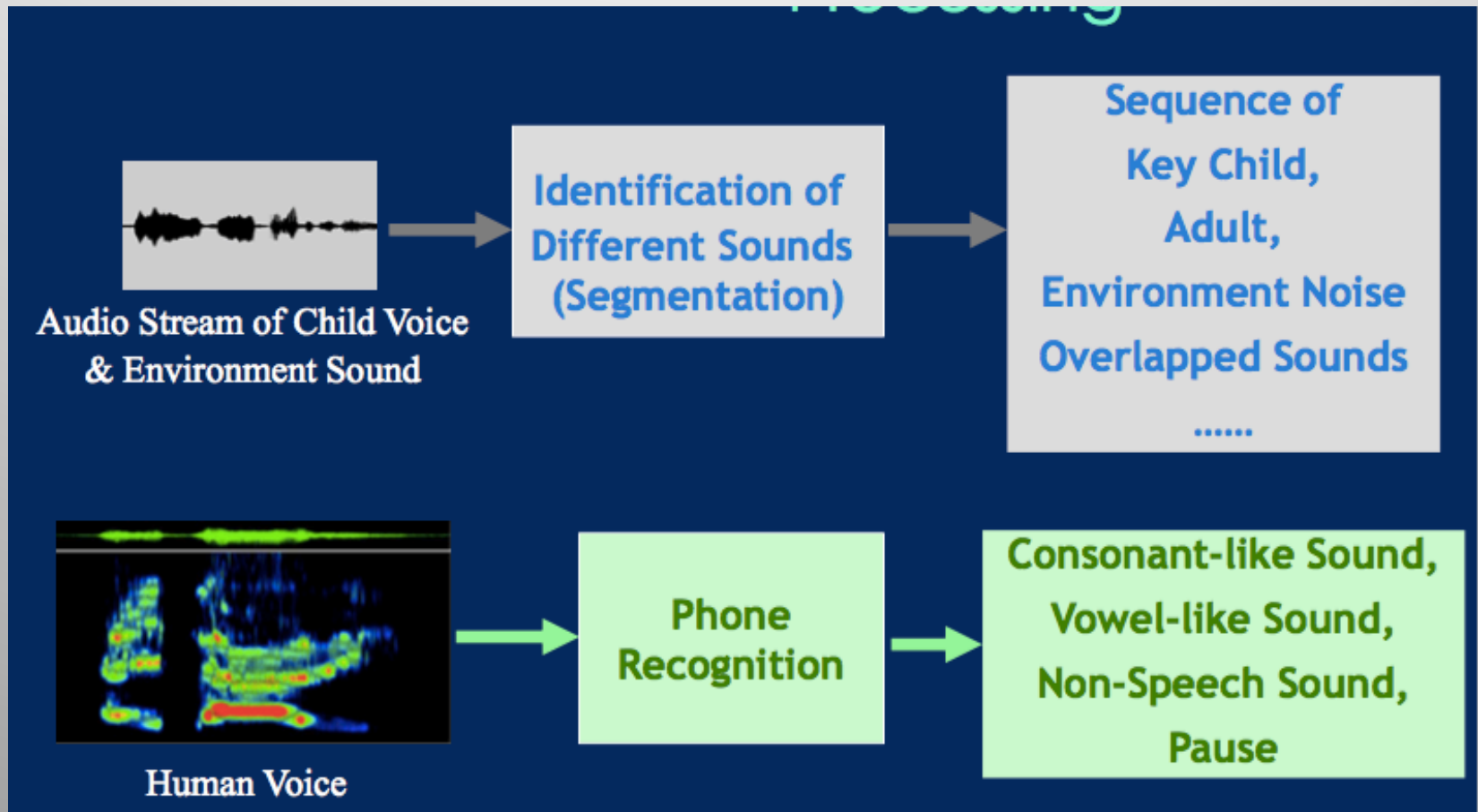
# What is LENA?

## LENA: Language Environment Analysis





# LENA processing



# Use of LENA

- LENA has an autism screen for hearing children now validated
- Audio recordings of both child and adult offer a lot of future potential towards diagnosis of autism in deaf children
- Acoustic analysis by collaborating experts is needed but it can be done remotely
- LENA tends to confirm the subjective opinion
- Over referral and over diagnosis rates but that is better way round

# **“Red Flags” for a possible ASD in children who are Deaf/HH**

- **Atypical preverbal communication**
  - poor eye contact, lack of pointing, poor orientation for communication, poor joint attention
  - delays in language acquisition beyond what one could expect based on hearing loss/etiology/intervention history
- **Atypical language features**
  - echolalia, palm rotation errors, persistent gesture use despite instruction in formal sign and use of formal sign by others in the child's environment (distinct from home signs)
- **Social difficulties**
  - failure to initiate/respond to peers when communication taken into consideration, failure to recognize Deaf cultural norms, etc
- **Repetitive behaviors/restricted interests**

# Language features of ASD in ASL

Features similar to oral language but may present differently in visual language

- **Palm reversals** (Shield, 2014)
- **Pronoun avoidance vs. pronoun reversal** (Shield, 2014)
- **Echolalia**
- **Persistent use of individual's own gestures rather than formally instructed/used sign vs. neologisms (e.g. "red" vs. "ketchup")**
- **Failure to use appropriate sign space**
- **Mixed results regarding use of facial aspects of sign language and impact of ASD** (Denmark, 2011,2014)

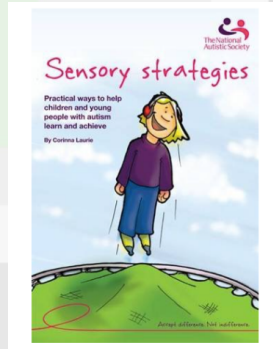
# **Interventions for Dual Diagnosis**

- Evidence of effectiveness of interventions is lacking (mostly case studies).
- It is reasonable to take interventions which have been successful for hearing children to modify/adapt for children who are deaf/HH

# Signposting resources

# Books

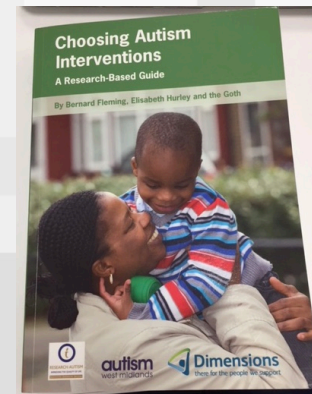
## Sensory Strategies



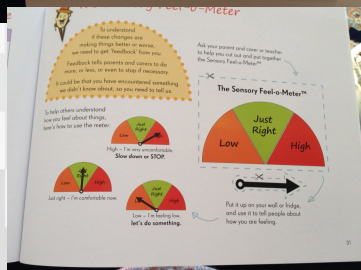
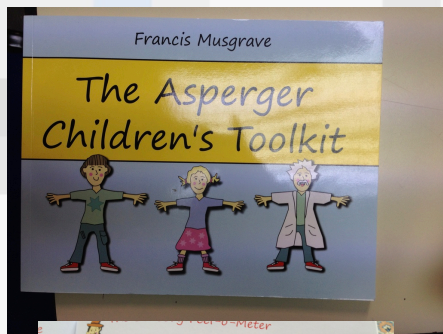
## When my worries get too big



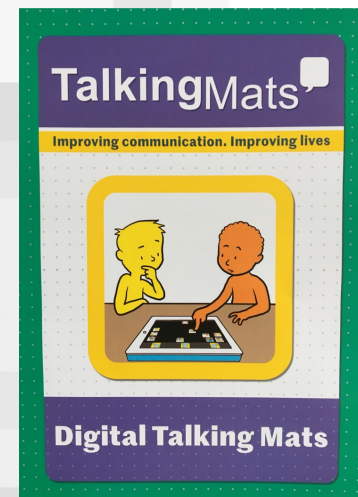
## Choosing Autism Interventions collection of tried and tested







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+AET  
Autism  
Progression  
Framework



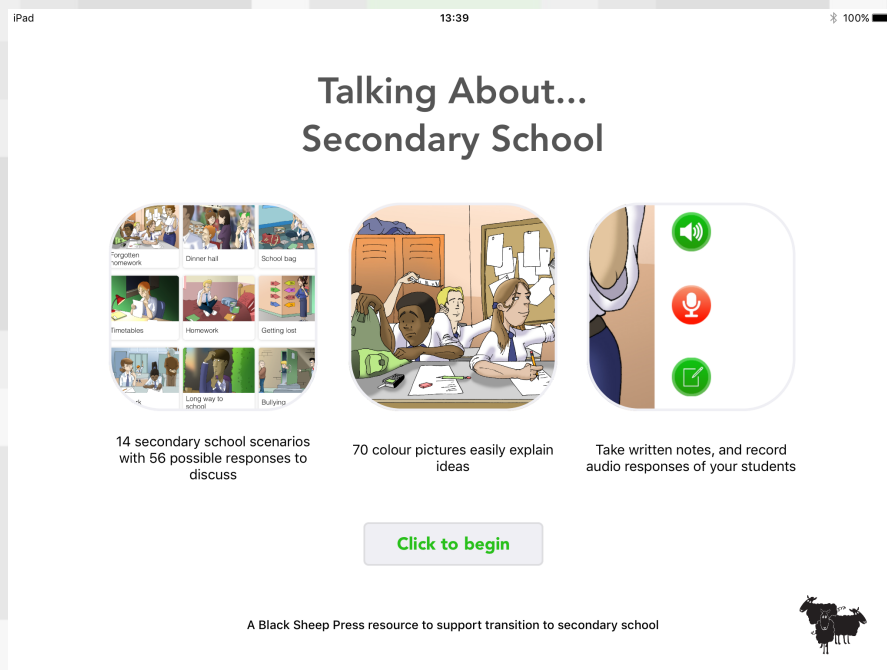


- NAS website continually adds new material with online access to their library
- [www.autism.org.uk](http://www.autism.org.uk)
- A variety of newsletters-

# APPs Chatable by Therapybox

- Augmentative and Alternative Communication(AAC) App
- Recently shown on BBC – Click programme
- Helpful for customised use
- Lots of visual content with words
- Language building
- Ability to take photos and add sound

# APP for understanding about secondary school



Clicker apps –to support learning

# Your ideas

- .....please send me any and I will add

Thank you



in anticipation!