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down syndrome
education international
discovering potential - transforming lives

EARLY INTERVENTION - PRIORITIES AND PRINCIPLES

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Families first – support families

- Families make the most difference to child's progress they need time to adjust
- Positive, accurate information hope for the future
- Enable families to lead ordinary lives best outcomes for child with Down syndrome being part of a happy family and fully included (not centre stage)
- Be alert for vulnerable families poverty, poor housing, single parents, isolated, no transport, low self-esteem
- Watch for families with more delayed children they leave support groups
- Depression influences language development D'Souza 2020

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Healthcare

- Ensure good healthcare implement guidelines
- Babies and young children cannot learn if they are sick Babies Immediate health checks and treatments
- Feeding, gaining weight early months. Parents cannot enjoy a baby while worrying about feeding

Toddlers - On going monitoring - hearing, vision, thyroid

- Establishing healthy eating, avoid obesity (risk for COVID 19)
- Establishing healthy sleeping patterns poor sleep influences language, behaviour, obesity and causes family stress (Horne et al 2018)
- Being active patterns for life

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dse 📳 Social development · Learning the social rules and managing emotions and behaviour Starts early – eye contact, smiling – usually a strength, babies and children love social interaction All learning is built on social interaction, play and communication - parents need to know this is a strength • Self regulation – VITAL AND STARTS EARLY • Learning to wait, not getting immediate attention • Settled feeding and sleeping routines, settling to sleep alone (parent presence reduces sleep time Yay et al 2019) • Sleep and behaviour problems increase family stress 4 dse 📳 Manage and teach behaviour • Encourage and expect age-appropriate behaviour – this sets the scene for life and for inclusion • Start early – same expectations as all children • Fixed daily routines – mealtimes, bedtimes, in control from early months – all toddlers challenge • Do not 'baby' or make excuses – child should be able to go anywhere with family and fit in at play group and school with age peers • At risk because of delayed communication – so clear rules and routines even more important to help child understand – build on social strengths Copyright © 2020 Down Syndrome Education International. 5 dse 📳 Develop communication • Learning to talk starts early, eye contact, smiling, turn taking, joint attention • Encourage all early communication and babble games • Follow child's lead, imitate sounds, give time to respond · Keep talking

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Speech matters – for talking and working memory
• Ensure speech sounds are being learned

tune to native language by 6-8 months

• Sounds they make predict first words

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· Babies tune to native language from first weeks of life -

· Need to hear, learn, discriminate all speech sounds



Support motor development

- Movements and motor control develop with practice
- Motor delay leads to cognitive and social delay children learn through play with objects (Fidler 2019)
- Being able to crawl and walk are big milestones and alter child's control over their world and how others interact
- Baby massage may help feedback for child
- Physiotherapy advice if available encourage all movements but make it fun
- Positions for play for example, support in a chair to free arms and hands (Winders 2019 and book)
- Compensate help children hold toys and explore

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Teach talking

- All children learn to talk from being talked to
- Our children may get less input as they initiate less and later
- Teach vocabulary in developmental order and keep a record – number of different words predicts progress
- 50-100 then put 2 together ~300 for grammar/sentences
- Signs help but always focus on encouraging child to make sounds – once they can attempt words, new words learned as spoken
- Very wide variability in rates of progress and usually lags behind non-verbal abilities

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Teach reading to teach talking

- Many children can learn sight words from 3 years or earlier visual support for words
- At first choose words they understand
- Once child shows they can learn sight words, teach new words in print – make personal books (for all children)
- Powerful for teaching children to join words and then move to sentences and grammar
- Once child is confident and can read and understand at least about 50 words in sentences – begin to show them how letters and sounds work in words (phonics)
- If they have learned all speech sounds early this will help

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Teach number and math concepts

- From about 3 years children start to learn to count and understand that numbers represent quantity
- Small steps saying number words is a challenge and remembering a list. Be wary of rote learning without understanding.
- Teach slowly 1-5 ensure child knows numbers represent fixed quantities and understands cardinality before moving on. Poor foundations may explain why so many children struggle later.
- Need concepts, same, more, less, bigger, smaller, next ...links with language and cognition
- Play simple games lots of repetition

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Principles for interventions

- Children learn all day, every day through daily interactions and play provided they are in stimulating homes and settings – important to stress this
- Structured teaching will help more opportunities to learn and more repetition needed – short daily sessions, planned and recorded
- Use an errorless learning approach, small steps, prompting success then fading prompts
- Use visual supports visual short-term memory better than verbal short-term memory
- Model activities learn by imitation make it fun

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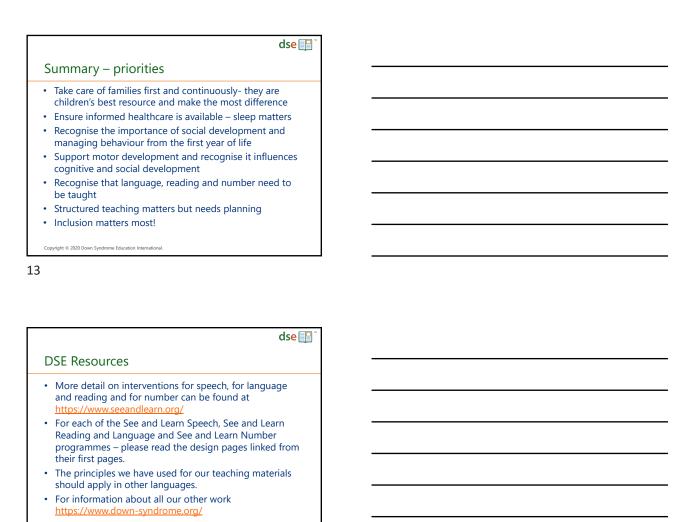
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Inclusion matters

- We have learned a lot about our children's development which means we are more effective teachers BUT
- Most progress in last 40 years due to inclusion having the same experiences as other children
- All children learn from other children in ways they cannot learn from adults
- Inclusion in schools many studies now show better outcomes for language, reading and social maturity – immersed in normal social world (de Graaf papers)
- Ensure as many social opportunities as possible, clubs, sports, shopping, meals out – you can only learn the social rules and behaviours by being there.

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