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EARLY INTERVENTION – PRIORITIES AND PRINCIPLES


Professor Sue Buckley OBE
Psychologist and parent

sue.buckley@dseinternational.org



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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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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

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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

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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

Speech matters – for talking and working memory

- Ensure speech sounds are being learned
- Babies tune to native language from first weeks of life - tune to native language by 6-8 months
- Sounds they make predict first words
- Need to hear, learn, discriminate all speech sounds

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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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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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Summary – priorities

- Take care of families first and continuously- they are children's best resource and make the most difference
- Ensure informed healthcare is available – sleep matters
- Recognise the importance of social development and managing behaviour from the first year of life
- Support motor development and recognise it influences cognitive and social development
- Recognise that language, reading and number need to be taught
- Structured teaching matters but needs planning
- Inclusion matters most!

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DSE Resources

- More detail on interventions for speech, for language and reading and for number can be found at <https://www.seeandlearn.org/>
- For each of the See and Learn Speech, See and Learn Reading and Language and See and Learn Number programmes – please read the design pages linked from their first pages.
- The principles we have used for our teaching materials should apply in other languages.
- For information about all our other work <https://www.down-syndrome.org/>

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