

Slide 1

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# Creating Safe Environments

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## Considerations

- To employ 'evidence based practice' to support the provision of a safe environment for children who have significant sensory processing differences.
- To evaluate how sensory processing differences impact on the child's ability to modulate behavioural, social and emotional responses.
- These responses to sensory information must influence the child's ability to maximise their potential in activities of daily living.
- The assessment process is complex and time consuming but highly relevant when considering the provision of a safe environment.
- There need to be regular reviews to support the continued provision of a safe environment.

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## Case Study

**Twin 1 – P**

<ul style="list-style-type: none"><li>▪ Is one of twins born at 33 weeks</li><li>▪ was born by emergency Caesarean section</li><li>▪ spent time in NICU</li><li>▪ has a diagnosis of Severe ASD</li><li>▪ needs constant supervision both during the day and at night to ensure his safety</li><li>▪ requires the use of PECS and other visuals</li><li>▪ wakes in the night repeatedly</li><li>▪ settling is taking approximately 90 minutes</li></ul>	<ul style="list-style-type: none"><li>▪ Will wake other twin up (Separate rooms)</li><li>▪ Has significant hyper mobility at all joints which affects proprioception and joint stability</li><li>▪ can bite himself when frustrated or head butt surfaces</li><li>▪ can be aggressive towards his twin e.g. punching, biting</li><li>▪ struggles with some sounds, and can be easily startled at times</li></ul>
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## Case Study

### Twin 2-S

- S is one of twins born at 33 weeks
- Was born by Ventouse delivery
- Born with cord around his neck
- Has a diagnosis of Severe ASD
- Needs constant supervision both during the day and at night to ensure his safety
- Requires the use of PECS and other visuals
- S wakes in the night repeatedly
- Settling is taking approximately 90 minutes
- Will wake other twin up (have separate rooms)
- Has significant hyper mobility at all joints which affects proprioception and joint stability

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## Sleep for case studies S and P

- P and S had a long standing issue with sleep and this has been advised on by many professionals and involves the use of medication with limited success
- Either one of their parents sleep with them/manage them throughout the night often resulting in them both only getting 4 hours of interrupted sleep
- This has had a massive impact on P and S's behaviour, learning and emotional well being
- This situation has also impacted on their parent's relationship
- It has affected their father's ability to carry out his job as a roofer and their mother's emotional resilience as the main carer
- The parents feel that there is something in their boys' brains that is not allowing them to switch off to sleep

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## The importance of Multi Disciplinary Assessment

- Paediatrician
- General Practitioner
- Behaviour team
- Clinical Psychologist
- SALT
- Multi Agency Autism Team
- Children's Occupational Therapist
- Community Occupational Therapist

All the professionals involved provided valuable information and had recorded the outcomes of previous interventions

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## Information gathering

- **Parent Involvement**  
Accurate information from parents via interview, completion of Sensory Profile Caregiver Questionnaire and Sleep diaries ( the information can be represented in a very visual form which is useful for comparing the impact of strategies introduced – See example at end of presentation)
- **Birth History and Early Development**  
To eliminate any underlying neurological explanation for the difficulties observed
- **Diagnosis**-indicate trends expected- **The Autism Diagnostic Observation Schedule (ADOS)** is an assessment of social interaction, communication and imagination used with individuals suspected of having an Autistic Spectrum Disorder (ASD)

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## Sensory Processing differences

e.g The Sensory Caregiver Profile ( Winnie Dunn )

- Auditory
- Visual
- Vestibular
- Touch
- Multi - sensory
- Oral

} Consider sensitivities and preferences

This information is presented in Quadrant Format and is useful in identifying how a safe environment can be created.  
(See example in the Appendix)

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Low Registration	Sensory Seeking	Low Registration	Sensory Seeking
6) Appears to not hear what you say (for example, does not "tune in" to what you say, appears to ignore you)	8) Enjoys strange noises/seeks to make noise for noise's sake	6) Appears to not hear what you say (for example, does not "tune in" to what you say, appears to ignore you)	8) Enjoys strange noises/seeks to make noise for noise's sake
7) Doesn't respond when name is called but you know the child's hearing is OK	24) Seeks all kinds of movement and this interferes with daily routines (for example, can't sit still, fidgets)	7) Doesn't respond when name is called but you know the child's hearing is OK	24) Seeks all kinds of movement and this interferes with daily routines (for example, can't sit still, fidgets)
47) Gets lost easily (even in familiar places)	25) Seeks out all kinds of movement activities (for example, being whirled by adult, merry-go-rounds, playground equipment, moving toys)	47) Gets lost easily (even in familiar places)	25) Seeks out all kinds of movement activities (for example, being whirled by adult, merry-go-rounds, playground equipment, moving toys)
50) Seems oblivious within an active environment (for example, unaware of activity)	26) Twirls/spins self frequently throughout the day (for example, likes dizzy feeling)	50) Seems oblivious within an active environment (for example, unaware of activity)	26) Twirls/spins self frequently throughout the day (for example, likes dizzy feeling)
53) Leaves clothes twisted on body	27) Rocks unconsciously (for example, while watching TV)	53) Leaves clothes twisted on body	27) Rocks unconsciously (for example, while watching TV)
66) Moves stiffly	28) Rocks in desk/chair/on floor	66) Moves stiffly	28) Rocks in desk/chair/on floor
67) Tires easily, especially when standing or holding particular body position	40) Touches people and objects to the point of irritating others	67) Tires easily, especially when standing or holding particular body position	40) Touches people and objects to the point of irritating others
68) Locks joints (for example, elbows, knees) for stability	41) Displays unusual need for touching certain toys, surfaces, or textures (for example, constantly touching objects)	68) Locks joints (for example, elbows, knees) for stability	41) Displays unusual need for touching certain toys, surfaces, or textures (for example, constantly touching objects)
69) Seems to have weak muscles	44) Avoids wearing shoes; loves to be barefoot	69) Seems to have weak muscles	44) Avoids wearing shoes; loves to be barefoot
70) Has a weak grasp	45) Touches people and objects	70) Has a weak grasp	45) Touches people and objects
71) Can't lift heavy objects (for example, weak in comparison to same age children)	46) Doesn't seem to notice when face or hands are messy	71) Can't lift heavy objects (for example, weak in comparison to same age children)	46) Doesn't seem to notice when face or hands are messy
72) Props to support self (even during activity)	51) Hangs on people or furniture, or objects even in familiar situations	72) Props to support self (even during activity)	51) Hangs on people or furniture, or objects even in familiar situations
73) Poor endurance/tires easily	59) Routinely smells non-food objects	73) Poor endurance/tires easily	59) Routinely smells non-food objects
74) Appears lethargic (for example, is sluggish)	60) Shows strong preference for certain smells:	74) Appears lethargic (for example, is sluggish)	60) Shows strong preference for certain smells:
75) Seems accident-prone	61) Shows strong preference for certain tastes:	75) Seems accident-prone	61) Shows strong preference for certain tastes:
	62) Craves certain foods:		62) Craves certain foods:
	63) Seeks out certain tastes or smells:		63) Seeks out certain tastes or smells:
	80) Takes excessive risks during play (for example, climbs high into a tree, jumps off tall furniture)		
	81) Takes movement or climbing risks		

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## Tried & Tested

### Bedtime Routines

- **Modifying current bedroom space**- de- cluttering, shutters, safety gates, clothing, weighted equipment, soothers, music, different mattresses on the floor, different beds and cots. (11 different mattresses and beds had been tried)
- **Behavioural strategies** – sleep routine, allowing space and keeping safe, fluids after meltdowns
- **Medication**-Melatonin -with limited success. (cost of prescription £260/4 weeks)
- Input from clinical psychologist-attending **parent workshops** around sleep management and parental support

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## Example of sleep diary

Day	Time final drink	7.30	8.00	8.30	9.00	9.30	10.00	10.30	11.00	11.30	12.00	12.30	1.00	1.30	2.00	2.30	3.00	3.30	4.00	4.30	5.00	5.30	6.00	6.30	7.00	
Monday																										
Tuesday																										
Wednesday																										
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Sunday																										

Mark on the chart the time he/she went to bed, **B**  
 Mark the time he/she settled **S**  
 Whenever you check him/her, check whether he/she is wet or dry and write **W** Wet or **D** Dry in the box  
 Dr R. Lancaster, Chartered Clinical Psychologist Oct 2009

**NB. Note any external factors, e.g. loud noises, sibling going to bed etc.**  
 Shade/ mark on the squares to signify when he/she wakes and when he/she settles back to sleep  
 Mark when he/she wakes for the morning

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## Lack of Sleep

The lack of sleep in these children impacted on:

- Behaviour – more challenging and aggressive
- Mood- tired and angry
- Learning – limited attention and concentration
- Play-limited opportunities due to behaviour , mood and interest
- Family dynamics-relationships
- Family Economy-parents ability to work
- Activities of daily living- toilet training

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## Concerns

**Long Term use of Melatonin**

- P had been prescribed **medication** (Melatonin) to aid sleep. There are **concerns about long-term use in children**
- Melatonin's long-term effectiveness and safety are unclear. For this reason there's good cause for **caution in children** (Science based Medicine July 4<sup>th</sup> 2013)
- There is also a long term **cost** implication

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## Risk of Injury

- P & S have hyper mobile joints which impact on their balance and co ordination. This also gives rise to concerns around joint stability. They have no awareness of safety and that combined with joint instability puts them at a higher risk of dislocation and injury
- There is also a risk of injury to parents who have to give physical prompts to prevent injury as P & S does not always understand the implications of their actions

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## Lack of Sleep

**Before introducing safe environment**

- S & P and their parents were only getting limited sleep
- Sleep has beneficial effects on our health, emotions, memory, and academic potential.
- Inadequate sleep, however, can negatively affect our well-being, decision-making, and attention, all of which are necessary for success in school.

**After introducing safe environment**

- Parents report that P & S are 'ready to learn'

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## Before and after

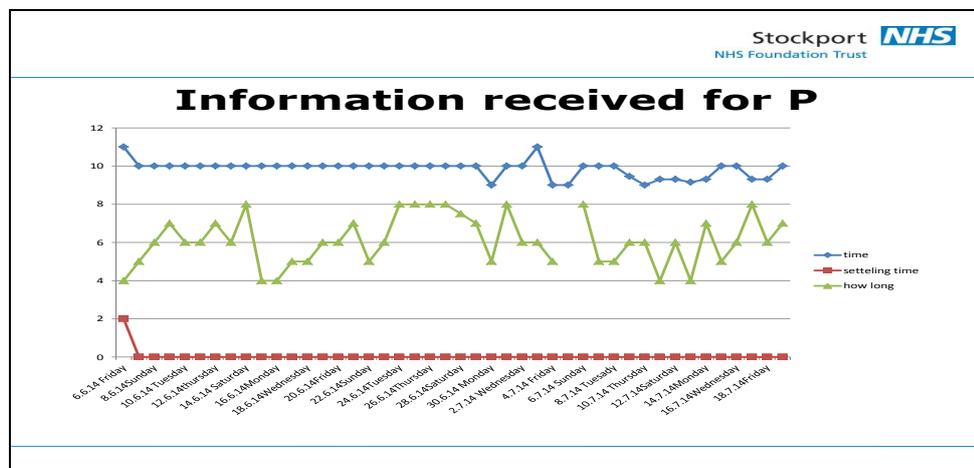
Time to settle to sleep before	Time to settle to sleep after
90 minutes	15 minutes

Waking in the night before	Waking in the night after
4 x times for long periods	0 x times

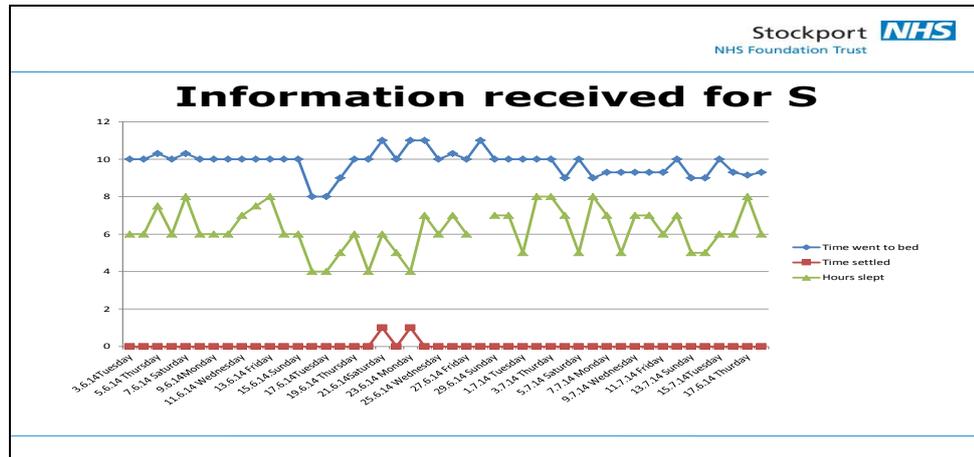
Twin 2 but Twin 1 is waking occasionally in the night but again settles quickly

Number of hours of uninterrupted sleep before	Number of hours of uninterrupted sleep after
2-4 hours	8-10 hours

Slide 17



Slide 18



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**Behaviour after introducing safe environments**

- P's behaviour has been easier to manage with less frequent and less challenging episodes.

**Parent's health and well being**

- Parents are no longer taking it in turns sleeping with P & S. Father has been able to take on more hours at work and is safer carrying out his job as a Roofer. Mother is able to offer P & S a wider variety of experiences and opportunities as they are less challenging and more engaged.

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**Trial Vs Assessment**

- It is imperative to trial the equipment in order to formulate a competent clinical decision.
- The decision cannot be based on a one off assessment.

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**Main aims when considering the equipment**

- To create a space where P & S can feel safe and be safe
- To allow P & S to self soothe and settle themselves to sleep at bedtime and if they wake in the night
- To reduce the risk of injury as it eliminates hard edges and surfaces
- The mattress used will give the sensory feedback necessary to provide information about their position in space particularly in low level lighting. They are both hyper mobile and have associated difficulties with proprioception
- The quiet low stimulation environment supports P & S as they have Severe Autism, Sensory Processing Differences and Challenging Behaviour
- There are bite resistant covers but P and S access chewelry as appropriate to help with self regulation

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- The fabric choice- solid colours are less visually alerting and can be calming
- The zip out soft windows assist with control of light and that can dampen arousal levels
- The viewing panels allow their parents to monitor sleep and activity and keep P and S informed of information outside the environment as necessary.
- The TV panel is safe and can provide visual stimulation that is calming and helps with self regulation.
- The Impact absorbing moulded foam frame limits sensory feedback from possible movement and helps with self regulation.

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## Use of equipment

- There has to be a **planned strategy** for its use –agreed by all people involved in this case Parents, Child and Adolescent Behaviour Service and Occupational Therapy.
- This minimises the risk of **misuse**. (consider the implications of restraint and deprivation of liberty)
- In this case both P and S **choose** to take themselves to the environment to help with modulation throughout the day and settle at night.
- Parents Quote:  
‘The safe environments have not just changed our lives they saved our lives’

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## Funding Streams considered

- NHS Equipment Panel
- Charity funding
- Self Funding

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## Questions

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