Elysium Healthcare

Assessing and Treating the Sensory Needs of Adults with Autistic Spectrum Disorder

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2nd November 2017

Contents

- What is sensory processing and sensory ‘dysfunction’?
- The importance of assessing an individual’s sensory needs
- Case study- from assessment to treatment
- Questions

Sight
Visual system
Interprets visual light to build up a representation of the world outside of the body

Smell
Olfactory system
responsible for sense of smell

Taste
Gustatory system
Uses taste buds to provide information about the food eaten

Balance
Vestibular system
Maintains balance and provides input about orientation in space

Body Awareness
Proprioceptive System
The position of the body/body parts in space

Touch
Tactile system
Responsible for sense of touch

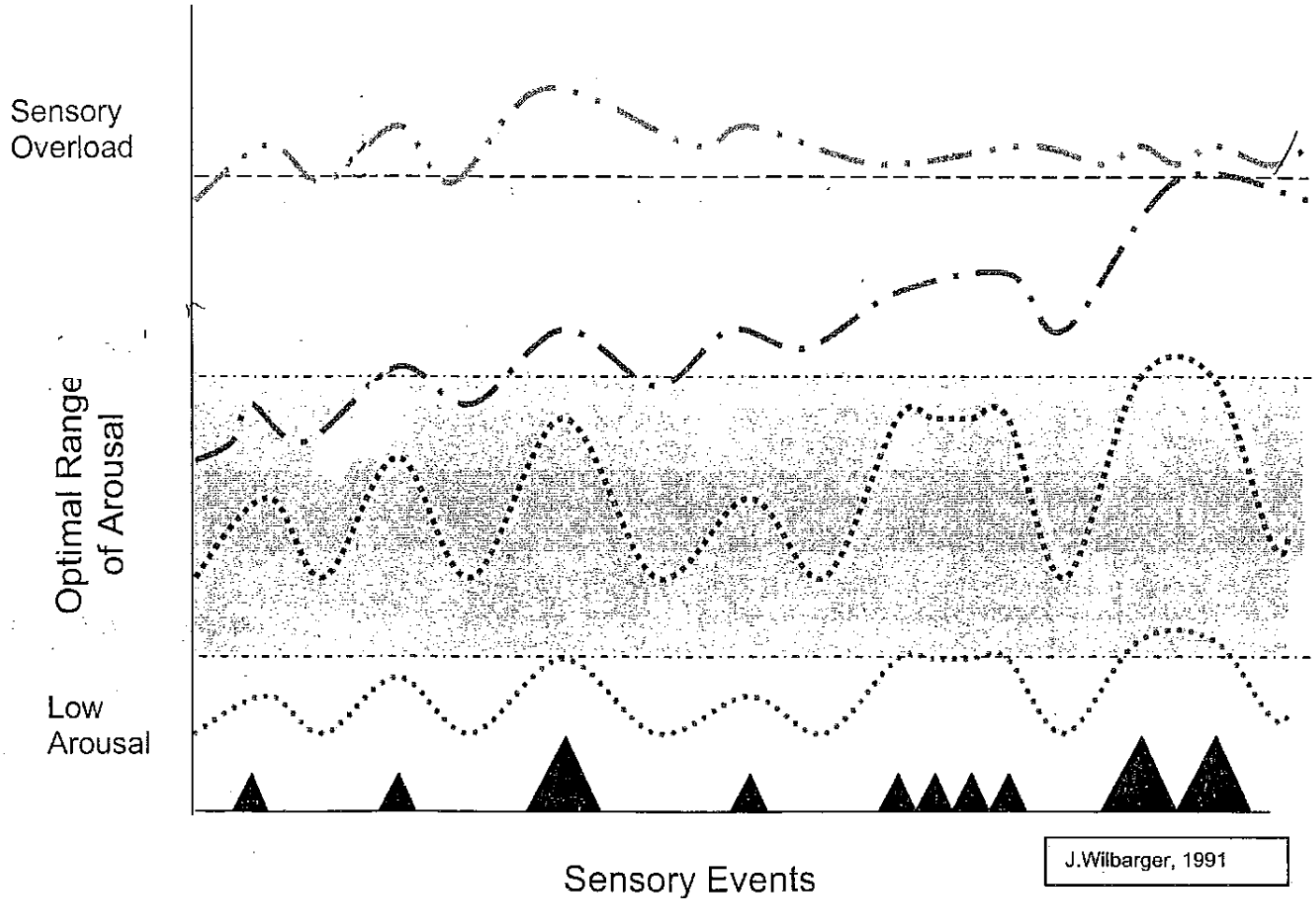
SENSES

Sound
Auditory system
Responsible for sense of hearing

What is sensory processing?

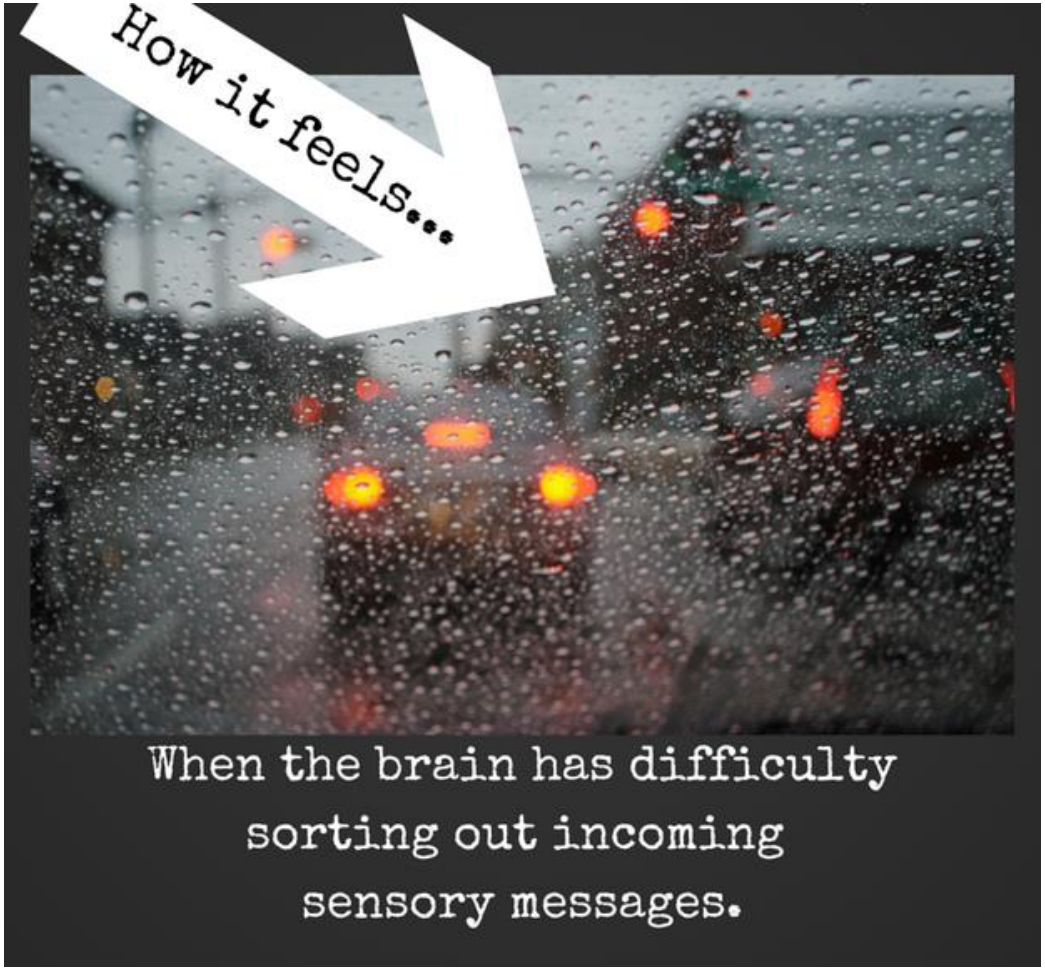
Register →	Interpret →	Respond
How we receive information from our environment and from within our own bodies, e.g. What we see, hear, feel and how we do this.	How we understand and organise the information that we receive.	The behavioural response that is seen following the sensory information being digested.

Arousal



OPTIMUM

Sensory ‘dysfunction’



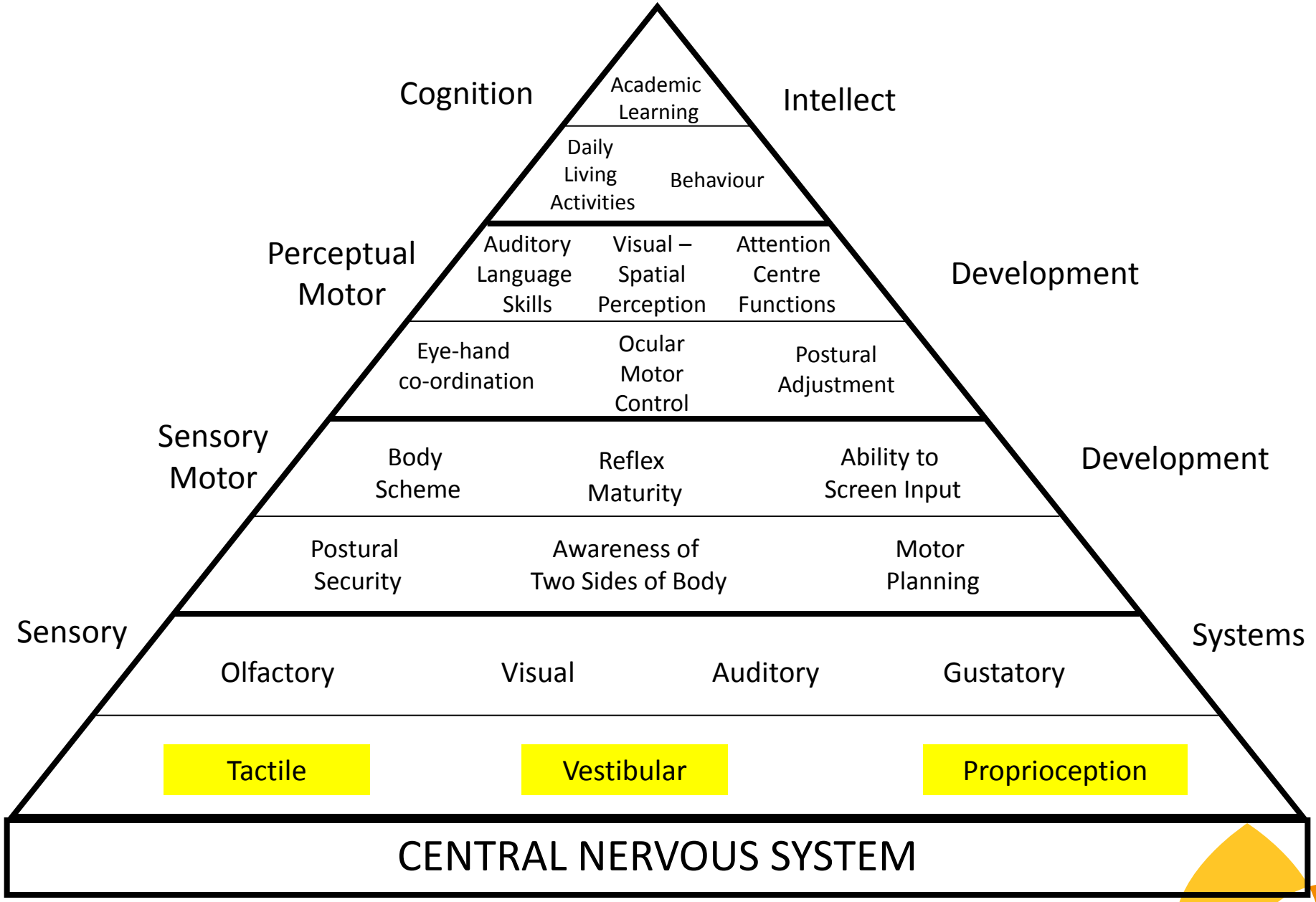
Sensory ‘dysfunction’

Sensory ‘dysfunction’

Why do you think it is critical to assess the sensory needs of the individuals we work with?

Importance of sensory assessment

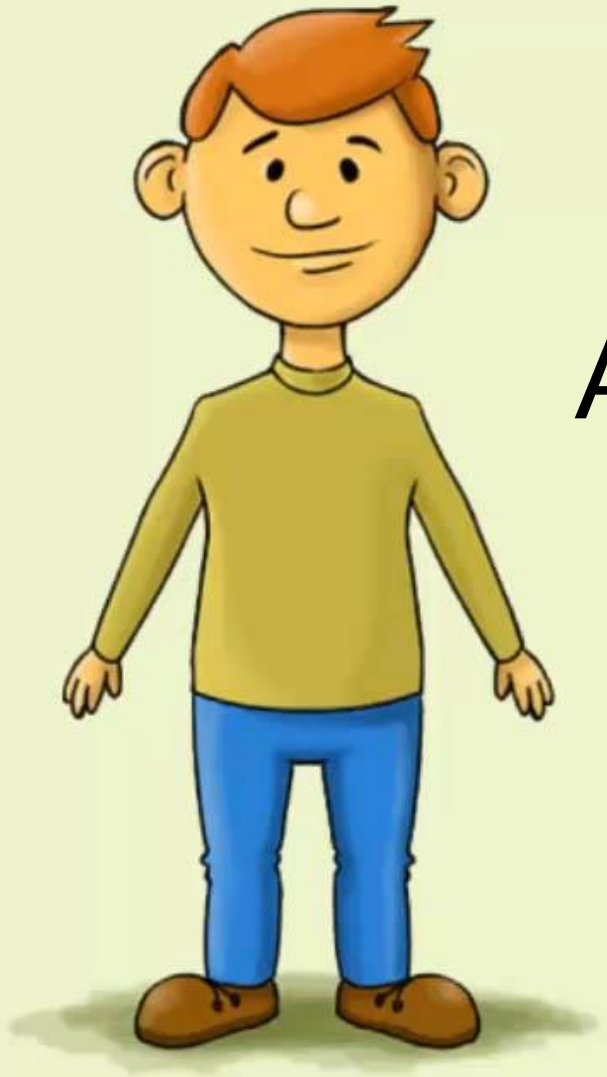
- Awareness of the world around us
- Keeps us alert
- Allows us to alter our behaviour
- Keeps us safe- sensing danger/survival
- Emotion regulation/wellbeing
- Communication- understanding and responding
- Gives us a sense of where we are
- General functioning on a day to day basis- all ADLs
- Provides feedback on our performance
- Organises our behaviour
- Helps us to look after basic needs (hunger, warmth etc)
- Learning and development
- Assists with future planning/transition/discharge from hospital


Cognition
Academic Learning
Intellect
Daily Living Activities
Behaviour
Perceptual Motor
Auditory Language Skills
Visual – Spatial Perception
Attention Centre Functions
Development
Eye-hand co-ordination
Ocular Motor Control
Postural Adjustment
Sensory Motor
Body Scheme
Reflex Maturity
Ability to Screen Input
Development
Postural Security
Awareness of Two Sides of Body
Motor Planning
Sensory
Systems
Olfactory
Visual
Auditory
Gustatory
Tactile
Vestibular
Proprioception
CENTRAL NERVOUS SYSTEM

Case study

Bob

(Pseudonym)

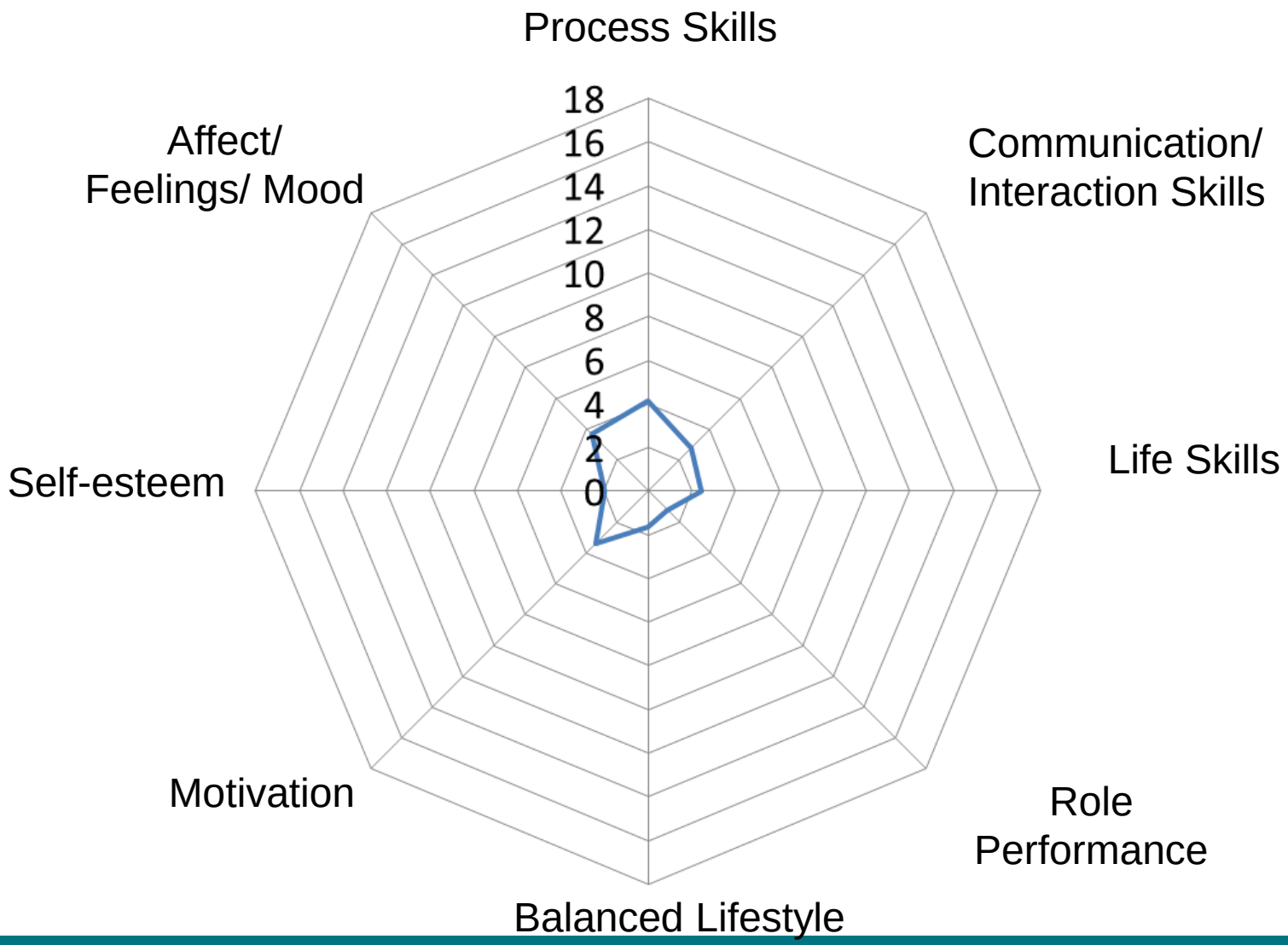


Age: 25

Introduction

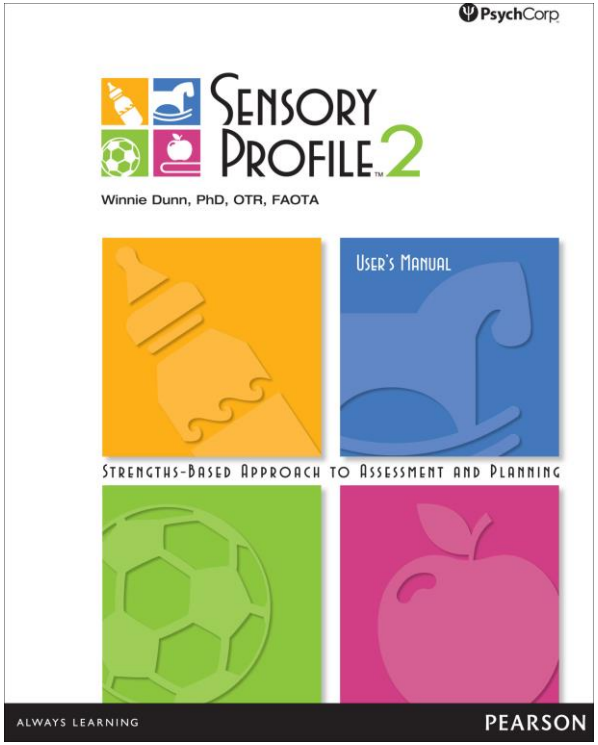
- Diagnosis: Autistic Spectrum Disorder, Severe Learning Disability
- Communicates non-verbally, has a small repertoire of signing which he has developed for meeting basic needs (e.g. drink, chocolate)
- Lived in a large number of residential specialist school provisions throughout childhood
- Admitted to the Woodhouse Hospital in October 2011
- Due to the frequency and severity of challenging behaviour, and his difficulties in coping with others, he has been living in long-term segregation for a number of years.

Outcome Measure- March 2017

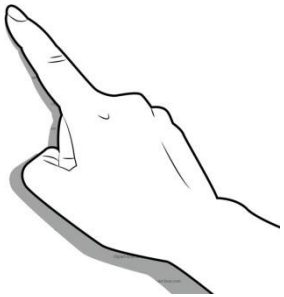


Case Study
Assessments Completed

- Dunn’s sensory profile
- Sensory preferences tool
- History/childhood development information gained from meetings with family
- Clinical observations
- Review of behaviour recording (ABC charts)
- Questionnaires completed with key staff members, family and previous placements
- Attendance to all clinical meetings

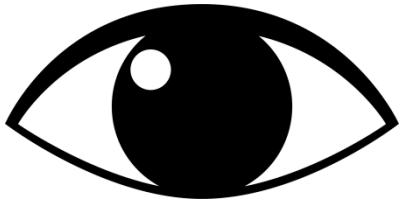


Tactile



- Ritualistic behaviours
- Touching/holding objects
- Resisting/seeking touch
- Difficulty tolerating clothing
- Dislike wet/sloppy food textures- strong preference for dry foods
- Seeks pressure- squeezing self/pulling clothing over his head
- Low response to temperature and pain
- Self-injurious behaviour

Visual



- Notices small changes in his environment
- Looks at minute particles
- Picks up small pieces of fluff
- Attracted to lights
- Moves fingers/objects in front of his eyes
- Fascination with reflection/bright coloured objects
- Studies finer details of objects rather than the whole object
- Can appear startled if approached suddenly
- Hits/rubs own eyes when distressed

Auditory

- Frustration within crowded/noisy environments
- Banging objects/doors
- Makes loud rhythmic sounds
- Delayed responses to instructions/sounds

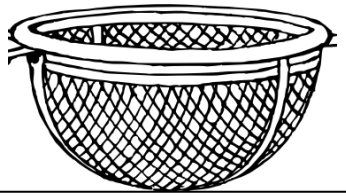
Olfactory- Smell

- Smells self/people/objects
- Occasionally smears faeces and is fascinated with the smell
- Hits nose when distressed
- Incontinent within own environment and whilst travelling in vehicle

Vestibular/Proprioception

- Rocking back and forth
- Altered muscle tone
- Difficulty in co-ordinating complex movements
- Spinning/jumping especially when frustrated or bored
- Walking on tiptoes
- Often in a constant state of motion

Assessment Conclusion



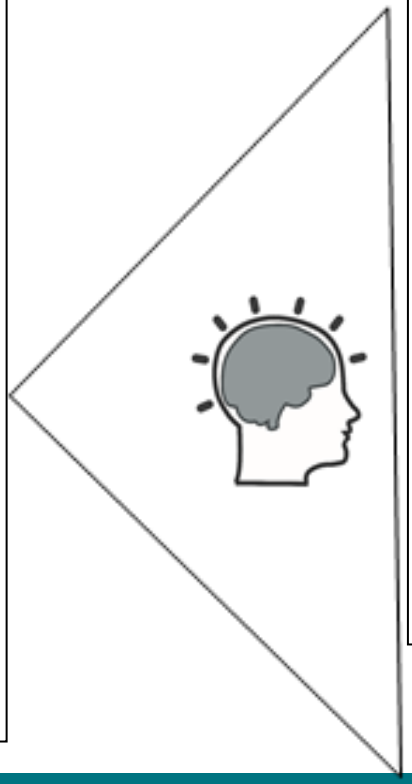
Hypo<u>**sensitive**</u>: The channel is not open enough; as a result too little of the stimulation gets in and the brain is deprived.

Visual

Tactile

Vestibular

Proprioception



Hyper<u>**sensitive**</u>: The channel is too open; as a result too much stimulation gets in for the brain to handle.

Tactile

Vestibular

Proprioception

Current Intervention

<u>Sensory Diet</u>

- A personalised activity plan which will provide Bob with the sensory input he requires in order to adaptively interact with the environment and remain in a calm-alert state
- A sensory diet is similar to a nutritional diet, where “meals” and “snacks” are provided throughout the day to keep our body functioning to their optimum.

Visual intervention ideas

- Play catch with slow moving objects e.g. balloons
- String blinking lights around his room
- Use Makaton as well as speech when communicating
- Provide a projector to increase visual interest

Auditory intervention ideas

- Offer him a noisy activity; singing, music
- Put music/TV
- Go outside- listens to natural, outdoor sounds- birds singing, point out noises
- Introduction to white noise or other calming sounds
- Avoid raising voice
- Try to introduce hearing protection if showing distress (muffs, headphones, ear plugs)
- Shut the doors and windows to reduce external sounds
- Check for any other buzzing radiators/fans that might be annoying Bob

Tactile experiences

- Textured cloths/shower gels for washing
- Vibrations- toothbrush, cushions, massagers, mattress
- Weighted products- such as blanket/lap pad/vest
- Encourage walking barefoot in the grass
- Squeeze balls
- Textured flooring
- Textured items to hold in the hand
- Tight fitted clothing i.e. stretchy lycra
- Massage

Proprioception/vestibular input

- Stretching/bending/twisting/rotational movements
- Push-pull activities that involve resistance (mopping/sweeping)
- Therapy ball/space hopper- bouncing on, rolling over the top
- Swings/trampoline

Findings so far

Staff feedback:

- Increased ability to attend for longer periods and focus on tasks
- More accepting of new staff members
- Increased access to community venues, spending longer amount of time in vehicle, visiting family

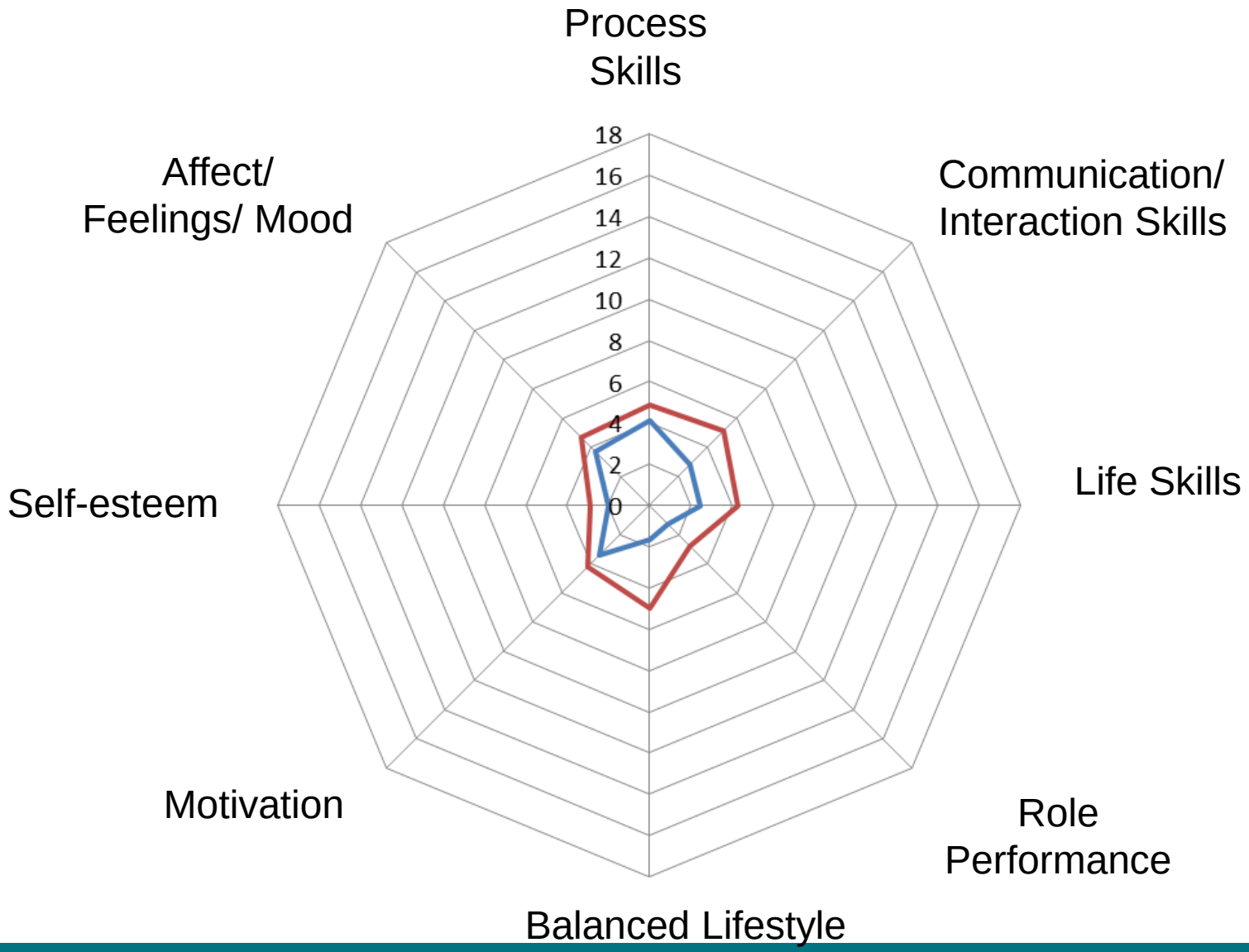
Observational assessment

- Using timeline communication aid to request activities, make choices and structure daily routine

Further findings:

- Significant reductions in challenging behaviour (Approximately 10-12 per week, however significant periods with no challenging behaviour)
- Utilising ‘communal’ spaces within the unit: long-term segregation has ended.
- Future planning- a new house has been sought in the community. Sensory recommendations are informing a lot of the future planning- OT involvement

Outcome Measure- October 2017



Key points

It is thought that over 98% of individuals with Autism, also have difficulties processing sensory information

A full sensory assessment provides us with a greater wealth of information

1 in 6 of the worlds population have sensory processing difficulties

Sensory strategies can help everyone, now and in the future

QUESTIONS