

AAC & Emerging Communication

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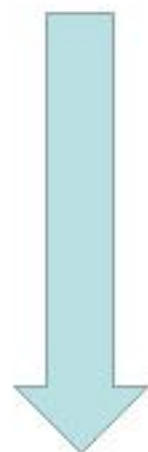
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Aim of presentation

To compare assessment
and intervention
approaches for 2 (similar
but different) client groups

Profound and Multiple Learning Difficulties

Brain Injury Recovery Continuum



Coma

Vegetative State

Minimally Conscious State

Cognitive Impairment

Normal cognition

Definition of PMLD

- Complex range of disabilities
- 1 – 2% of LD population
- “Profound and multiple disability... referring to an individual who requires maximum assistance in all aspects of everyday life, in terms of 24 hour supervision. The person may have difficulty in communication, eating and drinking, continence and mobilisation, for example” (Wake 1997)
- Additional needs – sensory, physical, emotional / behavioural

Coma

- No arousal or awareness
- No eye opening
- Reflexive movements only
- No language comprehension
- No purposeful responses
- Rarely last more than 4 weeks

Clinical Features of VS

- Medically stable
- Spontaneous maintenance of blood pressure & respiration
- Spontaneous eye-opening
- Sleep-wake cycle
- May present with reflex response to stimulus
- No localisation to pain
- No evidence of awareness or perception of the environment or own body at any time
- No evidence of:
 - Communicative intent
 - Comprehension
 - Meaningful expression
- No repetitive, purposeful response to a variety of stimuli

Vegetative State (VS)

Exclusion criteria

- CANNOT be secondary to an active cerebral injury, degenerative condition, metabolic disease, infections or developmental malformations
- CANNOT be due to the effects of sedative drugs, anaesthetic or neuromuscular blocking drugs

VS Prognosis

- The longer time in VS, the lower the chance of recovery
- VS can persist until death or progress to MCS
- 6 months after non-traumatic and 12 months traumatic injury, the chances of recovering awareness are extremely low
- Life expectancy decreased secondary to compounding medical factors

(Multi-Society Task Force, 1994)

Minimally Conscious State (MCS)

- Behavioural repertoire is severely compromised
- Sleep/wake cycles
- Severely limited movements
- Feel pain
- Altered awareness
- Limited repertoire of SUSTAINABLE and REPRODUCIBLE behaviours demonstrating awareness:
 - Follow simple commands
 - Yes/no responses regardless of accuracy
 - Verbalisation/expression
 - Purposeful behaviour

Problematic Presentation

- Grasp reflex
- Swallowing
- Chewing and tongue pumping
- Bruxism
- Grunts and groans
- Smiles and frowns
- Relaxation response

Emerging from MCS

- Functional interactive communication i.e. 6/6 accurate 'yes'/'no' responses in 2 consecutive sessions
- Functional use of 2 objects in 2 successive evaluations
- Can be end point of recovery or temporary plateau towards further recovery

Pre-Intentional Communication

- The behaviour does not have a communicative function for the person
- The person's behaviour sends messages to others, but these messages are unintentional
- The person is not attempting to elicit a response from others
 - Level 1 = Reflexive
 - Level 2 = Reactive
 - Level 3 = Proactive

Level 1 = Reflexive

- Communication partner assigns meanings to a limited range of early behaviours, sounds and reflexes. These behaviours occur as a result of internal and external stimuli
- Communicative partners tend to act instinctively to the person's behaviours
- E.g person uses different cries when hungry or in pain

Level 2 = Reactive

- Social significance is assigned by the communication partner to a range of behaviours
- Stimuli include events and people within the environment
- The person begins to respond to affective messages such as tone of voice or facial expression
- E.g. if a person's body stiffens this is interpreted as dislike

Level 3 = Proactive

- Repertoires of behaviours are now exhibited
- Communication partners become more selective about the behaviour they respond to
- The focus of attention shifts from care giving to objects and toys
- The person can now take meaning from others facial expression and intonation
- E.g. Clients deliberately respond to objects and people, and people then assign communicative intent to them. E.g. pursing lips and turning head is seen to mean “don’t want”

Intentional Communication

- The behaviour has a communicative function for the person
- The person understands that their behaviour gains responses from others and that different behaviours elicit different responses
- The person is sending a planned message in order to gain a response from others
- Based upon cognitive ability / social experience

Assessment

- What is assessment for this client group?
- Includes looking at person's skills, experience and environment
- Structured observation
- Repeated over a period of time – variable responses
- Formal recording
- Consideration of external factors / environment / communication partner
- Detailed and extensive

Affective Communication Assessment (ACA)

- Structured observation with co-operation of familiar people
- Interpretation of responses to stimuli
- Early Communication Assessment
- Develop communication partners skills and in doing so reinforce communicators skills
 - Vocalisation, Facial expression, Body proximity, Eye contact/orientation, Physical contact, Imitation, Turn-taking
 - Observation
 - Identification
 - Intervention

Judith Coupe O'Kane & Juliet Goldbart (1998)

Pre-Verbal Communication Schedule

- Needs to be filled in by someone familiar with the client.
- Observation Checklist.
- 27 Sections
- Score sheet indicates areas of strengths and needs based on the checklist

Kiernan and Reid (1987)

Wessex Head Injury Matrix

- 62 item behavioural observation scale - to assess & monitor the recovery of communication, cognition & social interaction
- Bridges the gap between GCS and standard tests of cognition, motor skills & dependency
- Provides a sequential framework & is designed to pick up minute changes; provides objective evidence of recovery
- Focuses on what patient does/doesn't do, rather than clinical diagnostic features

Sheil, Horn, Wilson, Watson, Campbell & McLelland
(Psychology Press / Harcourt Assessment)

- Designed for LAS patients
- Assesses full range of sensory modalities
- Optimal opportunities to respond
- Clear protocol
- Behavioural Observation then Assessment phase
- 10 assessments over 3 weeks
- Assessment of 20-40 mins
- Assessment and treatment tool
- Involves family and team

H.Gill-Thwaites & Munday

Royal Hospital for Neurodisability

SMART – Behavioural Observation Categories

- Reflexive responses
 - Automatic response over which patient has no control
- Spontaneous response
 - Random non-meaningful movements that occur without stimulus
- Purposeful response
 - Meaningful intentional movement

SMART Sensory Assessment

- 29 techniques
- Multi-modal programme, rotation of modalities

Vision

Gustatory

Auditory

Motor function

Tactile

Communication

Olfactory

Wakefulness/arousal

- Standardization of stimuli for assessment
- Immediately follows Behavioural Observation Assessment
- Hierarchical categorization of responses

Level 1 -

No response

Level 2 -

Reflex

Level 3 -

Withdrawal

Level 4 -

Localising

Level 5 -

Discriminating

Considerations for Treatment Planning

- Treatment mode
- Type of stimuli
- Order of technique
- Position of stimuli
- Size of stimuli
- Type of prompt
- Volume and pitch
- Duration of response time
- Timing of session
- Environment
- Position of patient
- Position of assessor
- Assessor facilitation
- Relative/carer involvement

Goal Planning

- Use outcomes of assessment / observation schedules
- Joint target setting is vital
- Goals must reflect small changes
- Requires creativity and inspiration to continue to identify activities to move client on

Resources

- Intensive Interaction
- Scope pack – Chapter 9
- Objects of Reference / Sensory Objects
- Interactive Story Telling
- Communication Passports
- Sensory regulation
- Use of PowerPoint – Tony Jones (Liberator)
- Using Switches / cause & effect activities

Intensive Interaction

- Allow the person who is learning to (more or less) lead the activity so that the
 - Content
 - Tempo
 - Behaviour of the other personIs agreeable / understandable to the student

www.intensiveinteraction.co.uk

www.davehewitt.com

Learning opportunities

– Intensive Interaction

- How to be with another person
- Joint focus / how to have activities with another person
- How to attend & concentrate
- Use & understand NVC, body language, gesture
- Use & understand eye contact
- Turn taking
- Use & understand vocalisation
- Sharing personal space
- Use and understand touch

Scope Manual

- Useful advice, resources , handouts, contacts, references, resources, web addresses etc
- Module 9 - Children and adults with PMLD
 - Assessment / information gathering, chart/ form / aims & objectives section – based on communication before speech. Suggested activities
 - Functional
 - Importance of facilitator's role
 - Child & adult version, activities and ideas for switch progression

Objects of Reference

- Can be used in a number of different ways
- As a bridge to more complex communication systems
- To help understanding of environment
- To help with timetabling or sequencing
- To help people make choices

Communication Passports

- Give information about how client communicates, including pre-intentional communication
- Needs information / contributions from wide range of people
- Does not have to be on paper; can be audio, DVD
- Time needs to be allowed for carers to see/read/hear it.
- <http://www.communicationpassports.org.uk/>



Sensory Regulation

- Described within the International Working Party report on Vegetative State (RHND, 1996)
- Patients can quickly become over stimulated by the environment
- Optimise the sensory conditions within the patient's environment
- Importance of regulating noise, visual and tactile stimuli
- ???Is this similar to Karen Bunning's work on Individualised Sensory Environments???

This is my dog Barney



Switching activities

Simple computer game – providing changing visual feedback when switch is activated e.g. Priory Woods

Simple environmental control activity – turning radio on/off

Remote control toys

Personalised PowerPoint display – family photos

Monitor:

- Awareness of switch

- Purposefulness of activation

- Response to action after switch press

- ?connect switch press to action

- Repetition of switch presses

- Motivation

- Cessation of switch pressing during action/reward/end of sequence

- Responses to visual and auditory actions

- Understanding that switch activation causes effect

Summary

– Emerging Communication

- Complex area
 - Requiring significant assessment
 - Ongoing (Often intensive) intervention
 - Regular review of progress / goals
 - For minimal gains
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- BUT REWARDING!!!!

Anything else????

Questions / comments????