Behaviour and Psychological Symptoms of Dementia (BPSD)

Background information
Brain functions
Dysfunction and effect on behaviour
Model of interpreting behaviour
Helping manage the behaviours
BACKGROUND INFORMATION

• BPSD are evident in all dementias. Most severe in moderate stage of dementia.

• Dementia is an organic condition where there is irreversible loss of cognitive capacity and memory.
  – Overtime this causes functional losses – socially, physically and emotionally.
  – Consciousness is not clouded
Background Information

- Over 60 different diseases processes cause Dementia
  - Most common – Alzheimers Disease, Vascular Dementia, Frontotemporal Dementias (Semantic variant, behavioural variant)

- Disease of the cortex predominantly but in advanced dementia all structures of the brain are affected
An increasing problem

• Presently in Australia approximately 250,000 people have a diagnosis of dementia.

• By 2050, the total number will exceed 1,130,000 - in excess of a fourfold increase since 2009.

• 80% of people admitted to nursing homes will have dementia. Over 80% will have BPSD
Brain functions

1. The outer part of brain - Cerebral cortex (Cerebrum):

   Responsible for higher brain function such as thinking and behaviour.

   - divided into two hemispheres
   - each hemisphere is divided into lobes
     - frontal lobes
     - parietal lobes
     - temporal lobes
     - occipital lobe
Anatomy of the brain
Functions of the Frontal Lobe

The ability to concentrate and attend.
Judgment, reasoning, inhibition/impulse control
Personality and emotional traits.
Motor Cortex (Brodman's): voluntary motor activity.
Storage of motor patterns and voluntary activities.
Language: motor speech
Damage to Frontal Lobe

Impairment of recent memory, Inattentiveness, inability to concentrate, Difficulty in learning new information.
Lack of inhibition (inappropriate social and/or sexual behaviour).
Inability to plan and organise and initiate action
Perseveration – inability to stop action (repetitive)
Inability to start an action
Loss of empathy
Inability to wait, impulsive
## Function of Temporal Lobe

<table>
<thead>
<tr>
<th>Function</th>
<th>Symptoms of damage</th>
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<tbody>
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<td>• Expressed behaviour.</td>
<td>• Agitation, irritability, childish behaviour.</td>
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<td>• Language: Receptive speech.</td>
<td>• Receptive/ sensory aphasia.</td>
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<td>• Memory: Information retrieval.</td>
<td>• Forgets names, people, events</td>
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## Parietal Lobe

### Functions
- Processing of sensory input, sensory discrimination.
- Body orientation.

### Damage causes
- Inability to discriminate between sensory stimuli (temperature, pain)
- Difficulty with speech (dysphasia)
- Inability to locate and recognise parts of the body, people, objects (agnosia) (use of knife and fork)
- Severe Injury: Inability to recognize self.
- Visual spatial disorientation within the environment (lost in corridor)
- Difficulty with learned patterns of movement - Inability to write, put clothes on in right order, use appliances.
Occipital Lobe

Function

• Primary visual reception area.

• Primary visual association area: Allows for visual interpretation.

Damage causes

• Loss of perception and visual interpretation – linked with parietal lobe
  – Depth perception
Thinking Processes Impaired by Dementia

1. Judgement*: ability to problem solve and consider outcomes, consequences or risks

2. Attention*: ability to stay on task, to concentrate

3. Perception*: ability to interpret one’s senses (sights, smell, touch, taste and sounds)

4. Reasoning*: cause and effect realization, ability to bargain & negotiate, perception or appreciation of levels of danger and risk

5. Organization*: planning, initiating, following through with an activity

6. Memory*: ability to store, retain and retrieve information (especially short-term memory)
Behavioural and Psychological Symptoms of Dementia

- Frequent, troubling emotional states accompanied by behaviours that distress the person and others.
- Apathy
- Aggression (Defensive/protective response)
- Pacing
- Intrusive wandering
- Impulsive behaviour
- Resistance to care
- Vocalisation
- Shadowing
Associated psychological experience

- **Fight/flight response**
  - Threat and Fear
  - seeking to survive
  - **Vocalisation**
    - Loneliness, boredom, pain
- Seeking affiliation, sense of worth
  - **Wandering**
- Lost, seeking familiarity, seeking security, seeking meaningful activity
Models to explain BPSD

• Behaviour is meaningful communication about the person’s living experience in the present moment. (embarrassed at soiled clothing - trying to get rid of faeces - faecal smearing )

• Behaviour is an expression of an unmet need (I need you to stop hurting me)

• Behaviour is a catastrophic stress response (I hurt, I’m bombarded with stimuli and I can’t keep pace)
Person centred model

• TO UNDERSTAND THE PERSON’S BEHAVIOUR YOU MUST UNDERSTAND THE SITUATION FROM THEIR VIEWPOINT.
• If you determine the reason for behaviour from your viewpoint you’ll probably be wrong.
• Understanding the reason for a behaviour comes through empathic resonance with the person’s subjective world.
BEHAVIOUR IS ALSO DRIVEN BY PSYCHOLOGICAL NEEDS FOR SURVIVAL

ABRAHAM MASLOW HIERARCHY OF NEEDS

- Self-actualization
  - Pursue inner talent
  - Creativity
  - Fulfillment
- Self-esteem
  - Achievement
  - Mastery
  - Recognition
  - Respect
- Belonging - Love
  - Friends
  - Family
  - Spouse
  - Lover
- Safety
  - Security
  - Stability
  - Freedom from fear
- Physiological
  - Food
  - Water
  - Shelter
  - Warmth

These innate needs remain triggers for behaviour regardless of severity of dementia
MANAGEMENT PRINCIPLES OF BPSD

1. Recognise that the behaviour is a communication about a person’s feelings.

2. Recognise that any feeling is a response to a survival need – biological, psychological, social, spiritual.

3. Identify the person’s need and respond appropriately to meet the need through your interpersonal agency and flexible nursing care.

4. Every person on every shift must use the behavioural strategy for at least 48 hours to give the person time to ‘learn’ about his/her situation and how to act within it. Then review plan.

5. The person’s behaviour will lessen in severity when the need is met.

6. Antipsychotics do not treat the cause of most BPSD. Therefore it will continue unless the person is over sedated.

Remember the ‘challenging’ behaviours are symptoms and not something the person has conscious control over. We can minimise them but not stop them completely.
References from Lynne Chenoweth
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- Hall, G & Buckwalter,K. 1987 From almshouse to dedicated unit: Care of the institutionalised elderly with behavioural problems. Arch Psychaitric Nursing, 4:3-11.
- McKee et al 2004 Supporting successful ageing in residential homes.-the role of the physical environment. Psychology & Health, 19:11-112.
- McIntyre 2003;
References from Lynne Chenoweth
UTS

OTHER REFERENCES


• Rizzo, M and Nawrot, M., (1988) Perception of Movement and Shape in Alzheimer’s Disease Brain 121, 2259 – 2270