Managing Problem Behaviors in People with Dementia

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Outline

- Dementia background and description
- Problem behaviors in persons with dementia
- Pharmacological treatments
- Behavioral management of problem behaviors in dementia
  - Behavioral principles
  - Behavioral solutions
  - Case studies

What is dementia?

- Cognitive decline from a previous level of performance in one or more domains
  - Complex attention
  - Executive functioning
  - Learning and memory
  - Language
  - Perceptual-motor
  - Social cognition
- Difficulties with activities of daily living
- Outside of context of delirium

Types of dementia

- Alzheimer's
- Lewy body disease
- Vascular disease
- Frontotemporal lobar degeneration
- Parkinson's disease
- Huntington's disease

Stages of dementia

- Global Deterioration Scale for Assessment of Primary Degenerative Dementia (GDS; Riesburg, 1982)
- Functional Assessment Staging (FAST; Riesburg, 1988)
- Clinical Dementia Rating (CDR; Morris, 1993)
  - CDR-0 — No dementia
  - CDR-0.5 — Mild
  - CDR-1 Mild
  - CDR-2 — Moderate
  - CDR-3 — Severe

Delirium vs. dementia

- Delirium
  - Change in consciousness or alertness
  - Caused by medical illness, substance use, etc.
  - Differential diagnosis
- Dementia
  - Multiple persistent cognitive problems
  - Significant distress or impairment in functioning

Emotional difficulties in dementia

- Anxiety and/or depression are common
- Psychotherapy to reduce internalizing problems
  - Cognitive-behavioral therapy
  - Reminiscence therapy
  - Relaxation techniques
  - Problem solving therapy
  - Behavioral activation

Problem behaviors in dementia

- Behavioral and psychological symptoms of dementia (BPSD) occur in ~80% of long-term care residents with dementia (Seitz et al., 2010)
- Those with some cognitive impairment who have greater numbers od BPSD have increased risk of progression to dementia (van der Linde et al., 2013)

Problem behaviors in dementia

- Aggressive behavior
  - Physical or verbal
  - Hitting/kicking
  - Grabbing
  - Scratching
  - Throwing
  - Verbal sexual advances
  - Cursing
  - Screaming/yelling
- Wandering & elopement
  - Pacing
  - Aimless wandering
  - Trying to get to another place
  - Escaping institution without permission

Problem behaviors in dementia

- Other agitation
  - General restlessness
  - Repetitive mannerisms
  - Disrobing
- Apathy
  - Loss of interest
  - Fatigue
  - Motor retardation
  - Affective blunting
- Sleep disturbance
  - Includes day/night reversal
- Delusions/hallucinations
  - Paranoia

Problem behaviors and staff

- Behavioral problems are associated with care staff distress (Zwijsten et al., 2014)
  - Agitation/aggression is most closely associated with greater staff distress
  - Disinhibition and irritability/lability are the next closely associated
  - Least distressing: Euphoria/elation, hallucinations, apathy
  - Severity of symptoms, as opposed to frequency, is most important in predicting staff distress

Step-by-step approach to solving behavioral problems (Pieper et al., 2016)

1. Basic care needs assessment – hunger, thirst, toileting, etc.
2. Pain and physical needs assessment
3. Non-pharmacological treatment – behavioral intervention or comfort measures
4. Pharmacological intervention

Pharmacological management of problem behaviors in dementia

- Management (Desai & Grossberg, 2001; Madhusoondanan & Ting, 2014)
  - Behavioral emergencies
  - Target the symptom
  - Start low and go slow
  - Monitor and document

Pharmacological management of problem behaviors in dementia

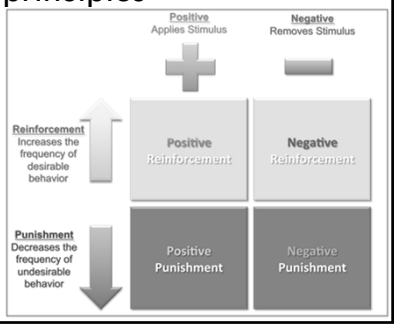
- Pharmacological Interventions (Desai & Grossberg, 2001; Madhusoondanan & Ting, 2014)
  - Anti-depressants
  - Sedative-hypnotics
  - Mood stabilizers
  - Cholinesterase inhibitors
  - Anti-psychotics
- Benefits and detriments
- Beers Criteria
- Pharmacological vs. Behavioral management

Behavioral principles

- Classical conditioning
  - A neutral stimulus comes to elicit a response after being paired with a stimulus that naturally brings about that response
    - Ivan Pavlov
  - E.g. Fear of the dentist – a person who associates sounds related to dentistry (brushing, drilling) with pain will experience physical anxiety when hearing those sounds

Behavioral principles

- Operant conditioning
  - Behavior controlled by consequences



Behavioral principles

- Positive reinforcement
  - Getting an award/recognition at work for going above and beyond the job description
- Negative reinforcement
  - You feel hungry, so you eat a snack → the hunger is removed
- Positive punishment
  - Two siblings are fighting over a toy, so their parents scold them
- Negative punishment
  - Two siblings are fighting over a toy, so their parents take away their TV privileges for that night

Behavioral principles

- Schedules of reinforcement
  - It matters **when** and **how often** reinforcers are applied
    - Immediately following each instance of behavior vs. after several occurrences of target behavior
    - Delayed reinforcement
  - Different patterns of reinforcement = different effects

Behavioral solutions

- Functional analysis
  - Does the problem behavior have a **function**?
    - Is it reinforced in some way?
  - What is that function?
  - Can you eliminate or modify the function?
    - Remove the reinforcement for the behavior
    - Make the reinforcer non-contingent on the behavior (i.e. the patient does not need to perform the behavior to get the reinforce)
  - E.g. providing non-contingent attention

Behavioral solutions

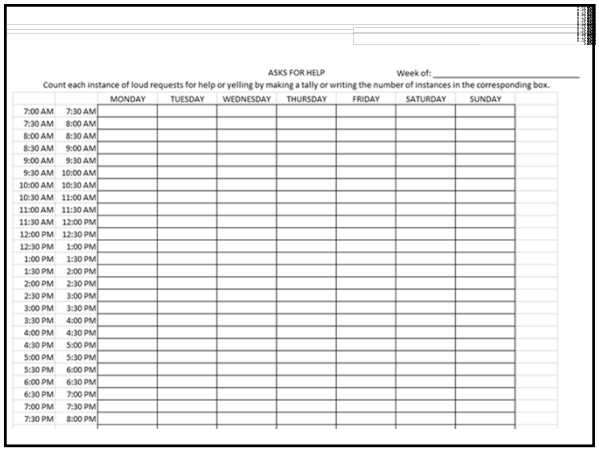
- Functional analysis, cont.'d
  - Is there an **alternative** behavior you can reinforce, which is **incompatible** with the problem behavior?
    - E.g. pushing a call button instead of screaming
  - Can you effectively reinforce the patient for **not** performing the problem behavior (i.e. behaving in any **other** way)?
    - E.g. a treat/privilege for each period of time (hour, day) the patient does not exhibit behavior

Behavioral solutions

- Functional analysis, cont.'d
  - Alternatively, using knowledge of classically-conditioned associations, can you change a **stimulus** in the environment to promote more appropriate behavior?
    - E.g. stop sign

Behavioral solutions

- Collect data!
  - Before, during, and after implementing intervention
  - Track:
    - Frequency of behavior
    - What happens just before and just after behavior (antecedents and consequences)
  - Helps with functional analysis and development of intervention
  - Tracks whether intervention is working
  - Provides motivation for staff to stick to an intervention that is working!



ASKS FOR HELP Week of: _____

Count each instance of loud requests for help or yelling by making a tally or writing the number of instances in the corresponding box.

		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
7:00 AM	7:30 AM							
7:30 AM	8:00 AM							
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Behavioral solutions - examples

- Selecting interventions based on patient's needs (Cohen-Mansfield et al., 2015)
  - Social interaction: one-on-one interaction or group activities
  - Sensory stimulation: touch objects, music
  - Movement: walks indoors or outdoors
  - Manipulative: ball toss, puzzle, squeeze ball

Behavioral solutions - examples

- Interventions that may be appropriate for various behavioral problems or needs (Desai & Grossberg, 2001)
  - Loneliness: social interaction
  - Boredom: sensory stimulation, structured and unstructured activities
  - Screaming: reinforcement of silence or appropriate requests, auditory stimulation
  - Sleep disturbance: light therapy, exercise, decrease in nighttime interruptions, gradual sleep schedule shifting

Behavioral solutions - examples

- Desai & Grossberg, 2001 – cont.'d
  - Wandering/pacing: outdoor walks with accompaniment, outdoor wandering areas
  - Hoarding/gathering/pilfering: safe areas where they can "shop" and store items
  - *General notes on physical aggression and sexual disinhibition:*
    - Behavioral interventions should be first line of treatment for aggression, then short-term pharmacological treatments
    - Sexual disinhibition is not often treated successfully with medications – behavior management is more likely to be effective

Behavioral solutions

- Progression of dementia
  - As dementia progresses and patients exhibit greater impairment in learning and memory, interventions based on operant associations may not be as effective
  - In these cases, environmental approaches may be more helpful (e.g. using stimuli that are well-learned or over-learned)

Case X (adapted from Passmore, 2009)

- Patient X is a 90-year-old female in a nursing home. She has one son who visits weekly. She has been exhibiting anxiety and verbal agitation (calling her son's name for hours during the night). Staff make a number of observations that allow them to develop interventions.

Case X

1. Facial expressions suggest possible pain → Patient is treated for pain with acetaminophen → Behavior still persists
2. Startle response on approach from left side → Patient diagnosed with and treated for visual impairment in left field of vision → Staff approach patient from right side only, and verbally notify her of their arrival in vicinity → Decrease in startle response
3. Patient is calmer when son visits → Staff have son record himself reading her a book, and play it for patient over night via headphones → Significant reduction in nighttime verbal agitation

Case Y

- Patient Y is an older male nursing home resident who repeatedly wanders the same route throughout the facility. He also elopes whenever possible, and will often attempt to follow staff out the door. As he wanders, he grabs any small objects that attract his attention and puts them in his pockets (though when confronted, he easily hands them back).

Case Y

- Intervention: Place/hide small identifiable objects (e.g. marbles, erasers) all around the facility. Implement reinforcement system for finding and collecting these objects
  - Reinforcement: Patient gets a 5-minute walk outside with a staff member after collecting 10 of the objects
  - Also provides an alternative contingency for time outside, removing the contingency where the patient only received time outside when eloping

Case Z

- Patient Z is a female nursing home resident who repeatedly disturbs other residents by coming into their rooms. She may move around objects in the other residents' rooms. When confronted by another resident, she stands in the room and appears confused.
  - Staff believe the patient enters others' rooms believing they are hers.

Case Z

- Intervention: Post signs with clear, over-learned symbols and the patient's name to point her to her own room
  - Arrows, stop signs
  - Also, avoid changing resident's room when room changes are made

Now let's do one together…

- From Woodhead & Edelstein (2008)
- "Mr. K" is a 52-year-old White male living in a nursing home. He carries diagnoses of dementia and major depressive disorder, as well as a number of other medical diagnoses.
- Presenting problem: Mr. K exhibits physical aggression and verbal abuse. He kicks other residents (in one serious incident, he repeatedly kicked another resident repeatedly in the stomach), and curses at staff and residents.

Current policy

- Nursing home policy, prior to intervention, was to immediately remove aggressive resident from situation and take resident to bedroom to "cool down."
- This had been minimally effective with Mr. K.

Relevant history

- Closed-head injury at age 16 (motorcycle accident)
- Second closed-head injury at age 32 (motor vehicle accident)
  - Following accident, exhibited explosive anger, poor judgment, "paranoid delusional ideas"
- Stroke during surgery 10 years later – partial paralysis of throat muscles and vocal apparatus
  - Transferred to first nursing home
- Asked to leave one nursing home due to physically aggressive behavior

Assessment

- *What else do you want to know? What should you assess for? Where would you look?*
- Specify target behavior
  - What type of aggressive behavior does he exhibit?
  - Kicking, throwing, choking, hitting, yelling, cursing
- Frequency of behavior
  - Nurses' notes: approx. once per day or more; physical aggression more frequent than verbal abuse

Assessment, cont.'d

- What happens before the behavioral incidents? (antecedents)
  - Functional analysis - after some tracking, three conditions are identified under which physically aggressive behavior seems to be more likely:
    1. when Mr. K believes other male residents trying to flirt with a female friend (another resident)
    2. when Mr. K is visiting with female friend (aggression toward her)
    3. when Mr. K is in close proximity to a particular other male resident with whom he does not get along

Assessment, cont.'d

- Antecedents of verbally abusive behavior
  - Directed toward staff
  - Often preceded by attempts to provide routine care
    - Especially encouraging him to clean himself prior to bedtime
    - Resident sometimes refuses to bathe for a few days, until staff are required to bathe him
    - Resident does not specify what is making him upset

Assessment, cont.'d

- Prior psychological assessment
  - "Moderately" depressed on Geriatric Depression Scale
  - Significant problems with abstract reasoning and judgment
  - Oriented to time, place, person, situation
  - Short-term verbal memory impairment
  - Impairment in confrontational naming (language)

What's going on?

- *Based on the information you have now, what do you think is the function of the problem behaviors?*
- *Of the history and assessment findings, what other information will be relevant in developing an intervention for Mr. K?*

So… what do we do?

- *What type of intervention might you try with Mr. K, based on what you know about the case and about behavioral management of problem behaviors?*

Intervention

- Reinforcing behavior **other** than aggression
  - Rewards following periods of time during which behaviors other than target behavior were exhibited, and target behavior was **not** exhibited
  - Included both physical and verbal aggression
  - Sticker on chart for each period of time without target behavior – waking to lunchtime, and lunchtime to dinnertime
  - Short- and long-term reinforcers: soda or candy (for 5 consecutive stickers), music CDs or baseball caps (for a total of 35 stickers)

Outcome

- Behavior was continually tracked
- Reduction in aggressive behavior
  - More effective for physical aggression than for verbally abusive behaviors
  - Over time, occurrence of behaviors generally remained low, though there are periodic instances where he does exhibit aggression (much more rarely)

Recap

- Overview of dementia
- Types of problems behaviors in persons with dementia
- Pharmacological treatment options
- Behavioral treatments

Questions?

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