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Dementia Management:
Evidence-Based Interventions to Reduce Unwanted Behaviors

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Learning Objectives

- Describe multi-faceted interventions for common dementia behaviors based on supportive evidence.
- Identify methods for developing a client occupational profile and utilizing this information to develop person-centered plans of care.
- Explain ways to modify activities for persons with dementia to reduce agitation and promote purposeful and meaningful engagement.
Background

- Estimated 5 million Americans suffer from dementia
- More than 15 million provide caregiving
- Costly to treat ($215 B in 2010)
- Caregiving is the most costly aspect of dementia care

(AHRQ, 2014)

BPSD

- Behavioral and psychological symptoms of dementia
  - Symptoms of disturbed perception, thought content, mood or behavior that frequently occur in patients with dementia.
- As many 76% of residents have BPSD
- Labels used to describe include agitated, aggressive, and disruptive

(AHRQ, 2014)
Distress to Caregivers

- Associated with increases in caregiver anger, resentment, stress, and decreased psychological health
- Stressed caregivers may be inclined to abuse the client or turn to antipsychotic medications

Theoretical Frameworks

Four theoretical frameworks to explain etiology of behavioral disorders
- Biologic/genetic
  - Due to symptoms of dementia
- Behavioral
  - Relationship between patients and environment
- Reduced stress threshold
  - Lower threshold to stimuli
- Unmet needs
  
(Cohen-Mansfield, 2013)
Basic Needs

- Physiological
- Safety/security
- Belonging and love
- Esteem

Care Models Addressing Behaviors

- Progressively Lowered Stress Threshold Model (Hall & Buckwalter, 1987)
  - Six principles of care
  - Modify the environment
  - Unconditional positive regard
  - Use anxiety as a gauge
  - Listen for behaviors
  - Support loss and enhance safety
  - Provide caregiver education
Care Models Addressing Behaviors

- Need-Driven Dementia-Compromised Behavior Model (Algase et al., 1996)
  - Background factors
    - Dementia compromised functioning
    - Poor health status
    - Demographic and psychosocial variables
  - Proximal factors
    - Unmet physiologic and psychological needs
    - Disturbing environmental factors
    - Uncomfortable social surroundings

Responses to Stress

Typical Stress Relievers
- Go for walk
- Talk on the phone
- Take a bath
- Put on comfortable clothes
- Go shopping
- Exercise
- Read a book
- Sex

Dementia Behaviors
- Wandering
- Asking same thing over and over
- Taking off clothes
- Rummaging
- Pacing
- Inappropriate sexual behavior
Behaviors and Dementia

- “Behavioral symptoms related to dementia are defined as verbal, vocal or motor activities that are considered to be aggressive, excessive or lack adherence to social standards.”
- Behaviors result from interactions between the resident, the caregiver, and the setting
- 56-66% of residents in LTC facilities exhibit behavioral symptoms related to dementia
  Boustanian et al. 2005

Disruptive Behaviors

- Inappropriate, repetitive or dangerous behaviors which are disruptive to the living and working environment in the NH
- Most common disruptive behaviors
  - Wandering
  - Aggression
  - Agitation
  Ahn & Horgas, 2013
Behaviors

- ALL behavior has meaning and is indicating something
- Behavior is a form of communication
- Look at every behavior as unmet need
- Behaviors are considered a problem when
  - Safety or well-being of patient or others is compromised
  - A trigger or cause cannot be identified

Common Behaviors

- Anger/agitation
- Sleep problems
- Paranoia/delusions
- Resistance to ADL
- Continence difficulty
- Getting lost/wandering
- Sundowning
- Catastrophic reactions
- Rummaging
- Repetitive actions
- Crying out
- Inappropriate social and sexual behavior
Causes of Problematic Behaviors

- Environmental
- Physiological
- Psychological
- Medication induced
- Communication
- Task-related
- Pain

Addressing Problematic Behaviors

- Prevent the incidence of agitation and aggressive behaviors
- Respond to episodes to reduce severity, duration, caregiver distress
- Interventions may be
  - Patient focused: directly intervene with patients
  - Caregiver focused: intervene through caregivers and environment
Addressing Problematic Behaviors

- Staff nurses under-identify behavior changes and the need for additional physical assessment

- The Serial Trial Intervention (STI) can be initiated to determine the cause of a behavior change and address it
  Kovach et al., 2012

Addressing Problematic Behaviors

- Observe the behavior and try to determine cause
- Behaviors may be indicative of needs that should be addressed
- Could be due to inability to manage stress
  - Change in routine/caregiver/environment
  - Demands that exceed ability
  - Multiple and competing stimuli
  - Pain/illness/discomfort
  - Medication side effects
Evidence Related to General Interventions

Cognitive/Emotion-Oriented Interventions

- **Reminiscence Therapy**
  - Discussion of past activities, events, experiences with another person or a group of people

- **Simulated Presence Therapy (SPT)**
  - Audiotapes by family members with scripted conversation about cherished memories
  - Overall good evidence, though may cause adverse effects in some residents (Zetteler, 2008; O’Connor, et al., 2009)
Cognitive/Emotion-Oriented Interventions

- Validation Therapy
  - Opportunity to resolve unfinished conflicts by encouraging and validating expressions of feeling
  - Mixed evidence (Neal, Barton, & Wright, 2009)
  - Overall, insufficient evidence to draw conclusions about the efficacy of cognitive and emotional interventions

Multi-Sensory Interventions

Increased engagement in multi-sensory environments (Heyn, 2003)

- Sound
  - Natural environments decrease agitation (Whall et al, 1997)
- Sight
  - Light intensity improves performance and sleep (Koss & Gilmore, 1998)
- Smell
  - Lavender oil decreases agitation (Holmes et al., 2002; Thorgrimsen, Spector, Wiles, & Orrell, 2003)
Multi-Sensory Interventions

- Snoezelen Multisensory Stimulation Therapy (MMS)
  - Combines the therapeutic use of light, tactile surfaces, music, and aroma
  - Neuropsychiatric symptoms may result from periods of sensory deprivation
  - Short-term benefits on behaviors were significant (Chung & Lai, 2009)

Multi-Sensory Interventions

- Massage and Touch
  - To reduce depression and anxiety
    - Hand massage with calming music
    - Tactile input during meals
    - Gentle massage 3X/day
    - Intermittent touch with talking
  - Massage and touch therapy may have beneficial effects
    (Hansen, et al., 2009; Gleeson & Timmins, 2004)
Multi-Sensory Interventions

Music
- Reduces repetitive disruptive vocalizations and self-stim behavior (Casby & Holm, 1994)
- Promotes mobility skills and body awareness (Pomeroy, 1993)
- Improves posture, competence, and sensory awareness (Gotell, Brown, & Ekman, 2003).
- Reduces agitation and time spent with meals (Sherratt, Thornton, & Hatton, 2004)

Other Interventions
- Animal-Assisted Therapy
  - Robotic cats, plush toys, fish tanks, resident cat/dog
    - Decreases in agitated and disrupted behaviors
    - Increases in social and verbal interactions
    - Decreases in passivity
    - Increases in nutritional intake
  
  (Greer, et al., 2001; Martindale, 2008; McCabe, et al., 2002)
Other Interventions

- Exercise
  - No specific guidelines re: intensity or frequency
  - Increased sleep time, decreased daytime sleep, decreased nighttime awakenings
  - Improved mobility and decreased falls

(Alessi, et al., 1999; McCurry, et al., 2005; Alessi, et al., 2005)

Interventions
Targeting
Specific
Behavioral
Symptoms
Agitation

- Sensory interventions (aromatherapy, thermal bath, calming music, and hand massage) show decreased agitation
- Social contact, environmental modification, caregiver training, and behavior therapy showed limited effects on agitation

Agitation Strategies

- Do not fight, scream or scold
- If possible leave the room (tell person you’ll be back)
- Do not turn your back on the person
- Simple, firm, clear language
- Do not try to reason
- Keep your hands in view
- Avoid exaggerated gestures
- Stand to one side and slightly sideways
Agitation Strategies
- Stay out of personal space
- Use soft eye contact
- Appear non-confrontational
- Tell person gently what you want him/her to do
- Do not restrain from wandering, go with them
- Ask others to leave the room
- Reassure family members

Wandering Strategies
- Illusions
  - Misinterpretations of common, everyday events and items
- Visual cliffing
  - Misinterpretation of a change in color or texture as a change in elevation
- Deterrents
  - Intentional obstacles to stop an undesired activity
Wandering Strategies

- **Message**
  - What exactly is the message you want to send?
  - E.g., DETOUR, DO NOT OPEN, DANGER

- **Authority figures**
  - Choose a figure that conveys respect and sends the correct message

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Wandering Strategies

- **Camouflage**
  - Make it disappear or resemble something else
  - E.g., door murals, “fake mullions”

- **Diversions**
  - Items strategically placed to catch and redirect attention
Wandering – Signage/Cues

- Location
  - Signs are of little value if not seen

- Readability
  - Simple, easy-to-read contrasting letters
  - Consider native language

- Backup precautions
  - Never rely on a single device or strategy when more than one is warranted

Wandering

- Staff rewarding non-wandering behavior (Allen-Burge et al., 1999)
- Secure place to wander (Allen-Burge et al., 1999)
- Corridors with nature and homelike scenes (Day et al., 2000)
Visual Barriers/Interventions

- Concealment of doorknobs, painted doorknobs, wall mural on an exit door are effective for wandering  
- Dividers facilitate engagement in activity and improve attention  
  (Namazi & Johnson, 1992)
- Wall murals and posters decrease exit-seeking behavior  
  (Cohen-Mansfield & Werner, 1998)

Fall Management

- Incidence of falls with AD is around 60% (twice that of normal elderly)  
  (Shaw et al., 2003)
- Embed physical training focused on improving gait, strength, balance, and flexibility in occupation-based intervention  
  (Hauer et al., 2006; Oliver et al., 2007)
- Close supervision and participation in activity-based intervention  
  (Detweiler et al., 2005)
Eating
- Improved consumption when:
  - CNA allows resident to control more of the eating process (Amella, 1999)
  - Verbal prompts and positive reinforcement (Coyne and Hoskins, 1997)
  - Listening to music while eating (Ragnesko et al., 1996)
  - Small dining rooms next to living space (Day et al., 2000)
  - Consistency of caregivers and increased nutritional value of foods (Burgener and Twigg, 2002)

Toileting/Continence
- Improved continence when:
  - Toilets are visibly accessible to residents (Day et al., 2000)
  - Prompted voiding, behavior modification, and scheduled toileting (Doody et al., 2001)
Sleep Behavior

- Bright light therapy to improve circadian rhythms and increase time sleeping at night
- Higher doses of melatonin
  - Neither has solid conclusive evidence
- Environmental modification may help to improve sleep behavior
  - E.g., less noise, light, interruptions

Bathing and Dressing

- Improved independence when:
  - Listening to favorite music (Clark et al., 1998)
  - Environment with nature sounds, large, bright pictures, sweet food (Whall, 1997)
  - Tailor care to capabilities of the individual resident (Beck et al., 1997)
  - Verbal prompts and physical assists (Rogers et al., 1999)
  - Present clothing in sequential order (Day et al., 2000)
Routines

- To maintain occupational performance (Nygård & Öhman, 2002)
- To address wandering, aggression, or to prevent catastrophic reactions (Corcoran, 2001; Lewis, 2003; Ward, 2003)
- Routines must be flexible to meet the resident's needs, not staff (Skovdahl, Kihlgren, & Kihlgren, 2003)
- Residents should follow preferred routines (Donovan & Dupuis, 2000)

Pain Management
Pain in the Elderly

- 50-80% of NH patients are reported to be in pain (Achterberg et al., 2013; Ahn & Horgas, 2013; Patel et al., 2013; Takai et al., 2010)
- Pain is positively correlated with ↑ aggression and agitation scores (Ahn & Horgas, 2013)
- Analgesics were significantly less often prescribed and/or used for patients with dementia (Hoffman et al., 2014; Takai et al., 2010)

Pain Management Protocol

- Ensure all comfort needs are met
- Look for treatable conditions
- Look for other potential sources of the unusual behavior
- Try non-drug comfort strategies
- Begin an analgesic trial
- Use a pain rating/assessment tool
Pain Behaviors
(American Geriatric Society Panel)

1. Facial expressions
   - Slight frown/sad, grimacing, wrinkled forehead, closed eyes, rapid blinking

2. Verbalizations/vocalizations
   - Sighing/moaning/groaning, grunting/chanting, calling out, noisy breathing, asking for help, verbally abusive

3. Body movements
   - Rigid/tense, fidgeting, ↑ pacing, rocking, gait/mobility changes
   Achterberg et al., 2013

4. Changes in interpersonal interactions
   - Aggressive/combative/resisting care, ↓ social interactions, socially inappropriate/disruptive, withdrawn

5. Changes in activity patterns or routines
   - Refusing food/appetite change, ↑ rest periods, sleep pattern change, cessation of common routine, ↑ wandering

6. Mental status changes
   - Crying/tears, ↑ confusion, irritability/distress
   Achterberg et al., 2013
Barriers to Pain Management
- Poor or absent communication
- Psychotropic meds to deal with behavior
- Lack of knowledge for pain assessment & management
- Reluctance to change/increase meds

Multi-Sensory Interventions
- Transcutaneous Electrical Nerve Stimulation (TENS)
  - Most often used for pain control
  - Positive short-term benefits on sleep disturbances and behavioral symptoms, evaluated immediately after treatment or at six-week follow-up
    (Johnson, 2008; Cameron, Lonergan, & Lee, 2009)
Communication

Verbal vs. Non-Verbal Communication

- Body Language
- Pitch and Tone
- Verbal

55%
38%
7%

Albert Mehrabian, Ph.D.
Factors Affecting Communication

- Family/staff stress and frustration
- Environment
- Time
- Distractions in the environment
- Medications
- As dementia progresses, the ability to correctly interpret communication decreases
- Depression and anxiety

Challenges in Communication

- Word-finding difficulty
- Repetition
- Unable to read and/or understand written communication
- Revert back to their native language
- Lose ability to speak in sentences
- Loss of ability to understand
- Unable to use words
Communication Strategies

- Avoid arguing or reasoning
- Ask closed-ended questions
- Observe non-verbals
- Allow time to respond
- Be ready to repeat
- Use short sentences
- Speak slowly, clearly, audibly
- Use the person’s name
- Use gestures/visual cues

Communication Strategies

- Communication skills vary
- Assume most of the conversation
- Grade the conversation
- Be an active listener
- Avoid shouting
- Use adult language
- Use eye contact
- Use touch
Caregiver Approach

- The caregiver’s approach affects the resident’s behavior
- Behavior management skills training program
  - Inservice, direct observation and feedback
  - Decreased use of ineffective strategies (e.g., arguing), decreased disruptive vocalization, restlessness, aggression during ADL
    (Burgio, et al., 2002)
Importance of Activity

- Tailored Activity Programs reduce behaviors and increase engagement (Gitlin et al., 2008)
- Activity kits improve quality of visits and QOL (Crispi & Heitner, 2004)
- Individualized and meaningful activities show positive results (Pool, 2001)

Activity Requirements

- Gross motor
- Repetitive
- Uses familiar motions
- Involves 1 or 2 steps
- Observable effect on the environment
- Non-competitive
- Involves few or no rules
- Tailored to match skills and interests (Kolanowski, 2001)
Meaningful Activity

Every activity must . . .
- Have a purpose that is obvious to the participant
- Be voluntary
- Be pleasurable
- Be socially and age appropriate
- Be failure proof

Considerations When Adapting Activities

(Warchol, Copeland, & Ebell, 2002)
- Attention span
- Environmental scanning
- Awareness of purpose/goal
- Communication
- Physical attributes
- Quality of work
- Problem solving
- Sequencing
- Social factors
- Environment
- Ability to initiate
- Ability to choose
- New learning ability
- Direction following
- Response time
Successful Activities

1. Assess cognitive function
2. Learn about past habits and interests
3. Choose activities based on past interests
4. Adapt the activity to match physical and cognitive abilities
5. Assess success of the activity

IDT Techniques
Interdisciplinary Treatment Techniques

- Establish simple routine
  - Short simple phrases for instruction
  - Concrete, not abstract
  - Consistent with sequence of tasks/instruction
  - Predictable routine

Interdisciplinary Treatment Techniques

- Task segmentation
  - Simplify tasks
  - One-step commands
  - Hand-over-hand guidance
  - Familiar area
  - Allow for slower reaction time
  - Repeat commands
  - Limit adaptive equipment
General Behavior Management Strategies

- Keep tasks simple
- Be flexible
- Provide soothing activities
- Tolerate wandering or pacing
- Get into the person’s reality
- Validate the person’s feelings
- Keep a calm demeanor
- Distract with meaningful activity
- Use routines, keep environment and approach consistent and familiar

Interdisciplinary Treatment Techniques

- Provide one-step commands
- Speak slowly
- Repeat and rephrase sentences
- Utilize gestures with speech
- Praise and encourage patient often
- Limit distractions/structure environment
- Eye contact
- Avoid open-ended questions, offer choices
- Demonstrate the activity
Cueing Strategies
- Cues should be short and provide clear direction (Padilla, 2011)
- Verbal prompts along with positive reinforcement improve performance (Coyne & Hoskins, 1997)
- Demonstrate the activity
- Series of pictures that symbolize activity
- Provide tactile stimulation along with verbal instruction

Cueing Strategies
- Use hand signals, pictures, facial expressions
- Provide familiar visual and auditory stimuli
- Provide cues when changing topic
- Use of redirections
- Hand-over-hand technique
- Utilize multi-modality cueing
In Conclusion

- BPSD can contribute to institutionalization, increased cost, heightened stress, and decreased QOL
- Nonpharmacological approaches are preferred
- Several underlying themes:
  - Environmental modification
  - Properly trained staff

Thank You

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