Classification of Behaviors in Dementia/NCD.

A new Behavioral Assessment Scale to Measure Behavioral and Psychological Symptoms in Dementia (BPSD)

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Re-Conceptualization Of Behaviors In Dementias; Towards A Better Understanding

- Terminology and Definitions
- Existing Models
- Classification of Behaviors
- Future Direction
Terminology and Definitions

“Problem behaviors, Disruptive behaviors, Disturbing behaviors, and Agitation are all used interchangeably.”

- Agitation in Dementia
- Aggression in Dementia
- Behavioral and Psychological Symptoms of Dementia (BPSD)
- Responsive Behaviors in Dementia
Terminology and Definitions

Agitation by Cohen-Mansfield

• (1986): “An inappropriate verbal, vocal or motor activity that is not judged by an outsider to result directly from the needs or confusion of the individual”.

• (2003): The presenting behavior is not labeled as “Agitation in Dementia” if any of the following clinical syndromes are present:
  – Psychosis
  – Individual’s emotional state or mood disorders
  – Delirium
  – Unmet needs
Terminology and Definitions

Agitation in BPSD and Responsive Behaviors:


• Both of these broadly defined terms are based on description of psychiatric disorders in general psychiatry and are not specific towards D/NCD.
Terminology and Definitions

Aggression in Dementia

- Patel and Hope (2004): ‘An overt act, involving the delivery of noxious stimuli to (but not necessarily aimed at) another organism, object or self, which is clearly accidental’.

- Keene et al. (20XX): ‘Include physical aggression, aggressive resistance, physical threats, verbal aggression, refusing to speak, destructive behavior and general irritability’.
Behavioral and Psychological Symptoms of Dementia (BPSD)

• Smith and Buckwalter 2005. ‘BPSD are non-cognitive characteristics of dementia. These symptoms include: agitation and aggression, apathy and withdrawal, anxiety, irritability, dysphoria and depression, disinhibition, delusions, hallucinations and paranoia, as well as activities such as wandering, socially inappropriate behavior, and resistance to care’.

• Accepted by International Psychogeriatric Association and DSM-IV-TR.

• DSM-V (2013): Behavioral Symptoms in Major Neurocognitive Disorders
Responsive Behaviors (Dupuis et al., 2004)

- Reflects a response to something negative, frustrating or confusing in the person’s environment
- The term “responsive” behaviors places the reasons for behaviors “outside” of the persons rather than “within” the individual (“within” referring to biological processes)
- Persons with dementia/NCD chose this term with the reasoning that behavior is a means of communicating;
- To address behaviors and need to change physical or social aspects environment
Existing Models

Biological Model
• Continuum of Agitation into Aggression

Psychosocial Model
• Needs-Driven, Dementia-Compromised Behaviors
Biological Model

Continuum of Agitation into Aggression (Bédard et al., 1997)

Circumstantial Episode

- Confusion
- Out of Control
- Anxiety to Panic

Aggressive, Wandering or Withdrawn response
Psychosocial Model

Consequences of Needs-Driven, Dementia-Compromised Behaviors (C-NDB) (Kovach et al., 2005)

Primary Needs → Unmet Needs

Primary NDB

Background factors
Proximal factors

Secondary Need

Secondary NDB

Primary NDB
Personal Factors
Care Factors
Contextual factors
Classification of Behaviors

As defined by Cohen-Mansfield:

- Verbal Behaviors
- Physical Behaviors
- Both of these are each divided into:
  - Aggressive
  - Non-Aggressive
Classification of Behaviors

As defined by Cohen-Mansfield

Verbal Behaviors

Non-aggressive
- Constant unwarranted requests for attention/help
- Repetitive sentences or questions
- Complaining/whining
- Negativism/sarcasm

Aggressive
- Cursing or verbal aggression
- Making strange noises
- Screaming
- Verbal sexual advances
Classification of Behaviors
As defined by Cohen-Mansfield

Physical Behaviors

Non-aggressive
- Pacing, aimless wandering
- Inappropriate dressing or disrobing
- Trying to get to a different place
- Intentional falling
- Eating/drinking inappropriately
- Handling things inappropriately
- Hiding and hoarding things
- Performing repetitious mannerisms
- General restlessness or agitation
- Refusing care

Aggressive
- Spitting, hitting, slapping
- Kicking
- Pushing
- Banging/throwing things
- Biting/scratching
- Grabbing others
- Hurting self/others
- Tearing things or destroying property
- Physical sexual advances
Future Direction

• A new biopsychosocial (BPS) model for occurrence of behaviors in D / NCD titled: Stage Congruent Responsive Behaviors (SCRB).

• A new classification system for SCRB.

• A new behavioral assessment tool; Luthra’s Behavioral Assessment and Intervention Response (LuBAIR) Scale
Variables to Consider

• **Biological Factors**
  - Stage of the Disease (with or w/o mental illness)
  - Inherent Circadian Rhythms
  - Innate Physiological Needs

• **Personal Factors**
  - Pre-morbid personality and psychological defense mechanisms
  - Acquired Coping Strategies

• **Environmental factors**
  - Milieu Structures
  - Interpersonal Interactions
Understanding Behaviors

Biological Factors
Understanding Behaviors

Biological Factors

• Stage of the Disease (SOD)
  ○ Cognitive changes:
    ▪ Mild
    ▪ Moderate
    ▪ Severe
    ▪ Advanced
Understanding Behaviors

Biological Factors

- **Stage of the Disease (SOD)**
  - **Non-Cognitive changes:**
    - Mood symptoms
    - Anxiety symptoms
    - Psychotic symptoms
Understanding Behaviors

Biological Factors

• **Stage of the Disease (SOD)**
  
  o **Non-Cognitive changes – Mood Symptoms**
    
    ▪ Pro-drome
    
    ▪ **Mild-to-moderate**
      ▪ Psychological symptoms
    
    ▪ **Severe-to-Advanced**
      ▪ Motivational symptoms
Understanding Behaviors

Biological Factors

• Stage of the Disease (SOD)
  
  o Non-Cognitive changes – Anxiety Symptoms
    
    ▪ Adjustment disorder
      ▪ At the time of diagnosis
    
    ▪ Mild-to-Moderate
      ▪ Newly diagnosed GAD
    
    ▪ Severe-to-Advanced
      ▪ Anxiety symptoms in the absence of any measurable cognitive distortions
Understanding Behaviors

Biological Factors

• Stage of the Disease (SOD)
  o Non-Cognitive changes – Psychotic Symptoms
    ▪ Mild-to-Early Moderate
      ▪ Non-bizarre, well systematized delusions
    ▪ Moderate
      ▪ Delusional misidentification syndromes (DIS)
      ▪ Hallucinations
    ▪ Advanced
      ▪ Conspicuous absence
Understanding Behaviors

Biological Factors

• Stage of the Disease (SOD)
  o With Mental Illness
    ▪ Risk factor for developing dementia
    ▪ Shape behaviors in dementia
  o Without Mental Illness
Understanding Behaviors

Biological Factors

• Inherent Circadian Rhythms (ICR)
  o Sleep rhythms (phase advanced / delay / erratic)
  o Level of arousal + attention = Sensorium
  o Motor performance, cognitive speed, reaction time, etc.
  o Emotional states
Understanding Behaviors

Biological Factors

• Inherent Circadian Rhythms (ICR)
  o HR, BP, Temperature
  o Pineal gland (melatonin), Cortisol, TSH, Testosterone, Estrogen and Progesterone
  o Diurnal variation during course of the day
  o Variation over days and weeks
Understanding Behaviors

Biological Factors

• Innate Physiological Needs (IPN)
  ○ Fatigue → Need to rest
  ○ Hunger and thirst → Need to satiate
  ○ Bladder and bowels → Need to void / defecate
  ○ Pain and discomfort → Need for relief
  ○ Need for mental and social stimulation (including intimacy needs)
Understanding Behaviors

Biological Factors

Relationship between CR and IPN

- Disrupted sleep rhythms:
  - decreased wakefulness
  - increased need to sleep
  - decreased need for:
    nutrition & hydration, regulation of bowels & bladder, and mental & social stimulation
Understanding Behaviors

Biological Factors

Relationship between CR and IPN

• Fecal impaction / inadequate bladder emptying:
  → Increased pain & discomfort
  → Increased arousal
  → Decreased need to rest
  → Sleep rhythm disturbances

Dynamic Relationship between CR and IPN
Understanding Behaviors

Personal Factors
Understanding Behaviors

Personal Factors

Personality Model (McCrae & John, 1992)

1. Neuroticism (emotional instability)
2. Extraversion vs. Introversion
3. Conscientiousness (rigidity vs. flexibility)
4. Agreeability vs. Aggression
5. Openness to experience
Ego defense mechanisms (unconscious mechanisms to reduce “anxiety” from libidinal impulses):

- Pathological defenses (psychotic denial and delusional projection).
- Immature defenses (fantasy, projection, acting out).
- Neurotic defenses (intellectualization, reaction formation, dissociation, displacement, and repression).
- Mature defenses (humor, sublimation, altruism, suppression).
Understanding Behaviors

Personal Factors

Acquired Coping Strategies (Weiten et al. 2009)

- Appraisal or adaptive cognitive focused
  - (denial, minimizing, rationalizing, etc.)

- Emotional focused (principles of emotional regulation)
  - (managing hostile emotions, meditating, relaxation techniques)

- Problem focused (solution driven)
Understanding Behaviors

Personal Factors

- Innate and constitutional
- Genetically determined
- Dynamic relationship with aging
- Neurostructural changes responsible for cognitive decline are also responsible for affecting personality factors
- Increased vulnerability to mental illness
- Increase vulnerability to neuropsychiatric syndromes in D / NCD
Understanding Behaviors

Environmental Factors
Understanding Behaviors

Environmental Factors

Milieu Structure (MS)

• Static
  o Structural layout
  o Lighting fixtures
  o Flooring
  o Type of furniture
  o Walls décor

• Dynamic
  o Amount of lighting
  o Movement of furniture
  o Opening/closing of doors
  o Clutter and cleanliness
  o Music and TV programming
Understanding Behaviors

Environmental Factors

Inter-Personal Interactions (IPI)

- **Random**
  - Changing patient population
  - Changing behaviors of co-patients
  - Staff changes at shift times
  - Activities of cleaning staff
  - Kitchen staff and food cart activities
  - Visiting family members
  - Crowding of space with patients/family members.

- **Structured**
  - Any / all forms of scheduled activities
Understanding Behaviors

Environmental Factors

Relationship between MS and IPI

• Changes in MS
  → Increased behaviors
  → Decreased behaviors

• Changes in IPI
  → Scheduled activities at shift change
  → Changing patient population
Biopsychosocial (BPS) Model

Responsive Model:

1. Input Stage
2. Processing Stage
3. Output Stage
Biopsychosocial (BPS) Model

1. Input Stage

Internal Factors:
- Inherent Circadian Rhythm (CR)
- Innate Physiological Needs (PN)

External Factors:
- Milieu Structure (MS)
  - Static and Dynamic
- Inter-Personal Interactions (IPI)
  - Random and Structured
Biopsychosocial (BPS) Model

2. Processing Stage

• **Stage of Disease** (with or w/o mental illness)

• **Personal Factors**

• **Dynamic with disease progression**
2. Processing Stage

- **Ecological Model of Aging** (Lawton 1974)
  - Competence = biological & personal factors
  - Demands from environmental factors

- Normal / decreased competence
  - High and low demands from environmental factors

- New / old computers
  - Hard drive and RAM
Biopsychosocial (BPS) Model

3. Output Stage

- Quality
- Frequency
- Duration
- Severity
3. Output Stage

**Quality** (Individual behavioral characteristics)

- Mild stage of D/NCD:
  - Home environment (stable MS and IPI)
    - No behaviors
  - Day program (changing MS and IPI)
    - Behaviors
Biopsychosocial (BPS) Model

3. Output Stage

Quality (Individual behavioral characteristics)

• Moderate stage of D/NCD:
  → Home environment (stable MS and changing IPI)
    → Behaviors (wants to go home)
  → Day program (changing MS and IPI)
    → Behaviors (clingy, needy, repeatedly asking for spouse to come)
Biopsychosocial (BPS) Model

3. Output Stage

Quality (Individual behavioral characteristics)

- Moderate stage of D/NCD:
  - LTCF placement (changing MS and IPI)
  - Behaviors (getting ready to go to work)
Biopsychosocial (BPS) Model

3. Output Stage

Frequency, Duration, Severity

• Phase rhythm disturbances
  - Changes in sensorium, cognitive and motor speed
  - Congruent impact on IPN
  - Changes in frequency, duration and severity
New Model (SCRB)
Stage Congruent Responsive Behaviors

INPUT
- Internal stimuli
  - CR
  - PN
- External Stimuli
  - MS
  - IPI

PROCESSING
- SOD
- PF

OUTPUT
- SCRB
Understanding Behaviors

Conclusion

• Behaviors are **NORMAL** in cognitively impaired brains.

• **Biological, personal and environmental factors generate behaviors in dementia/NCD**

• Quality of behaviors is contingent upon:
  - **SOD** and **PF**.

• **Frequency, Duration and Severity of behaviors is contingent upon**:
  - **Internal Factors**: CR and PN
  - **External Factors**: MS (static and dynamic) and IPI (random and structured)

• Hence the term ‘Stage Congruent Responsive Behaviors’ (SCRB).
Proposed Classification System
Proposed Classification System

Criteria proposed by Davis et al. (1997):

1. Identification of the target population,

2. Construction of items into categories which adequately represent the domain,

3. Definition of the purpose of the measure, and

4. Specification of the construct of the category or domain.
Proposed Classification System

1. Identification of the target population:
   - Moderate-to-advanced persons with dementia/major neurocognitive disorder (D/NCD)
   - Persons incapable of conducting a valid and reliable clinical interview
2. Construction of items into categories which adequately represent the domain:

- Clustering of ‘alike’ or ‘similar’ behavioral symptoms into discrete categories.
- Each category titled to adequately represent the symptoms collected therein.
Proposed Classification System

3. Definition of the purpose of the measure:

- Each category identified serves a specific “purpose” or “meaning” for the patient.
- Each patient may have more than one clinical category of behaviors being exhibited.
4. Specification of the construct of the category or domain.

- Identification of specific theoretical constructs to justify the formation of each behavioral category.

- Each identified theoretical construct has been validated and accepted in existing psychology literature.

- Behavioral, developmental and neuropsychology literature formed the source of these constructs.
Proposed Classification System

Identified Specific Theoretical Constructs:

1. Information Processing Theories
2. Motivational and Needs based Theories
3. Theories on Regulation of Emotions
4. Theories on Principles of Compliance and Aggression
Behaviors emanating from each construct:

I. Information Processing Theories:

1. Disorganized Behaviors
2. Misidentification Behaviors
Behaviors emanating from each construct:

II. Motivational and Needs-Based Theories:

3. Apathy Behaviors
4. Goal-Directed Behaviors
5. Motor Behaviors
6. Importuning Behaviors
Behaviors emanating from each construct:

III. Theories in Regulation of Emotion

7. Emotional Behaviors

8. Fretful / Trepidated Behaviors
Proposed Classification System

Behaviors emanating from each construct:

IV. Theories based in Principles of Compliance and Aggression:

9. Oppositional Behaviors

10. Physically Aggressive Behaviors
Proposed Classification System

Behaviors emanating from each construct:

V. Heterogeneous Categories:

11. Vocal Behaviors

12. Sexual Behaviors
Quality of Behaviors

Disorganized Behaviors

• Appearing “vacant” or “lost” in facial expressions.

• Disorganized thinking, unintelligible / garbled speech.

• Rapid shifts in or incongruency of emotional states.

• Inappropriate mixing of food or dressing of clothes and layering, smearing fecal matter.

• Playing with things in the air, responding to auditory hallucinations, picking things from the body / furniture.

• Mental / physical lethargy or general functional decline.
Quality of Behaviors

Misidentification Behaviors

• Misidentification of persons, places, objects
  – Facial stimuli
    • Ex. Capgras syndrome
  – Non-facial stimuli
    • Ex. hospital vs. home
Quality of Behaviors

Misidentification Behaviors

• Misidentification of sounds, smells, tastes, touch

- Tactile stimuli
  - Ex. accusations of aggression

- Auditory stimuli
  - Ex. air vs. water

- Olfactory stimuli
  - Ex. smelling a burning building

- Gustatory stimuli
  - Ex. poisoned food
Quality of Behaviors

Misidentification Behaviors

• Misidentification of events or occurrences
  – Ex. Thinking a group craft event is a birthday party

• Misperception or interpretation of comments or behaviors of others
  – Ex. Believing staff are talking about patient and plotting to harm them
Quality of Behaviors

Goal-Directed Behaviors

• **Goal Directed Thinking:**
  – “I am going home today.”
  – “My wife is coming to pick me up.”
  – “I need to go to the bank.”

• **Goal Directed Activities:**
  – Rummaging, rifling or emptying drawers
  – Rearranging furniture / fixing items in milieu
  – Stripping beds / pulling curtains

• **Intrusiveness, purposeful wandering**
Quality of Behaviors

Vocal Behaviors

• Explosive, argumentative, quarrelsome.

• Talking loud / fast, acting manic-like.

• Yelling and screaming to get things done.

• Rattling bed rails, banging table tops.

• Persistent calling out for staff / family members.

• Making strange noise or repetitious sounds.
Quality of Behaviors

Emotional Behaviors

• Appearing sad, despondent, tearful.

• Expression of despair, morbidity, gloominess and somatic complaints.

• Mimicking, mocking, being dismissive.

• Sarcastic, teasing, derogatory, critical, negative.

• Feeling rejected / increased sensitivity to comments from others.
Quality of Behaviors

Fearful / Trepidated Behaviors

• Fearful / scared facial expressions.

• Anxious / distressed facial expressions.

• Clingy, “latches on,” ringing hands, rubbing face / body.

• Expressing worry, fear, foreboding, catastrophe.

• Hoarding or collecting.
Quality of Behaviors

Importuning Behaviors

• Persistently seeking reassurance or assistance.

• Behaving in ways for demands to be met immediately.

• Shadowing staff, being a pest, crowding personal space.

• “Attention” seeking or “manipulative” behaviors.
Quality of Behaviors

Apathy Behaviors

• Indifference and lack of concern re: self / milieu.

• Lack of self-initiation.

• Low social engagement (IPI and MS).

• Poor persistence.

• Emotional indifference and lack of emotional remorse.
Quality of Behaviors

Oppositional Behaviors

• Negotiating around care and other needs.

• Working against everything health care provider (HCP) is attempting w/ patient.

• Evasive to directions from HCP.

• Resistive to care, medication, meals or other directions.

• Barricading and territorialism.
Quality of Behaviors

Physically Aggressive Behaviors

- Self abuse.
- Pulling, pushing, grabbing.
- Kicking, biting, scratching, punching.
- Spitting, throwing things, breaking objects.
Quality of Behaviors

Sexual Behaviors

- Verbally sexual (comments, gestures, innuendos)
- Physically sexual (grabbing breasts, buttocks, etc.)
- Self-Stimulation
Quality of Behaviors

Motor Behaviors

• Roaming, strolling, wandering.

• Fidgety, rocking in wheelchair, restless, agitated.

• Seemingly driven, “on the go.”

• Wheelchair propelling, chair / bed exiting
Quality of Behaviors

As defined by Luthra’s Behavioral Assessment and Intervention Response (LuBAIR) Scale:

- Disorganized Behaviors
- Mis-Identification Behaviors
- Goal Directed Cognitions and Activities
- Vocal Behaviors
- Emotional Behaviors
- Fretful/Trepidated Behaviors
- Importuning Behaviors
- Apathy Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
- Motor Behaviors
Quality of Behaviors

Severity as defined by LuBAIR:

- On the basis of individual behaviors’ response to interpersonal interventions (IPI)
  - Mild Severity: Sustained response to IPI.
  - Moderate Severity: Un-sustained response to IPI.
  - Severe: No response to IPI.
**Luthra's-Behavioral Assessment and Intervention Response (LIBAIR) Scale**

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### Definition of Severity

- **Mild (1)**: Behaviors respond to interventions (IPI) and remain stable once IPI is withdrawn
- **Moderate (2)**: Behaviors respond to IPI only to relapse when IPI is withdrawn
- **Severe (3)**: Behaviors do not respond to IPI
- **NP**: Not present

### Disorganized Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearing &quot;vacant&quot; or &quot;lost&quot; in facial expressions, mental lethargy</td>
<td>1</td>
</tr>
<tr>
<td>Disorganized thinking, unintelligible/garbled speech</td>
<td>1</td>
</tr>
<tr>
<td>Rapid shifts in or incongruity of emotional states</td>
<td>1</td>
</tr>
<tr>
<td>Inappropriate mixing of food or dressing of clothes and layering</td>
<td>1</td>
</tr>
<tr>
<td>Playing with things in the air, responding to auditory hallucinations</td>
<td>1</td>
</tr>
<tr>
<td>Mental or physical lethargy or general functional decline</td>
<td>1</td>
</tr>
</tbody>
</table>

### Misidentification Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misidentification of persons, places, objects</td>
<td>1</td>
</tr>
<tr>
<td>Misidentification of sounds, smells, tastes or touch</td>
<td>1</td>
</tr>
<tr>
<td>Misidentification of events or occurrences</td>
<td>1</td>
</tr>
<tr>
<td>Mis-perception or interpretation of comments or behaviors of others</td>
<td>1</td>
</tr>
</tbody>
</table>

### Goal Directed Behaviors

**Goal-Directed Thinking:** e.g., I am going home today, I am going to the bank. I am getting married today, where can I pay my bills etc. 1 2 3 NP

**Goal-Directed Activities:** e.g., rummaging, hoarding, rifling or emptying drawers; stripping of clothes, rearranging furniture or fixing items in milieu; stripping bedding or pulling curtains/fixtures on the walls; bed/chair exiting or exit seeking; intrusiveness or purposeful wandering (seemingly driven, 'on the go') 1 2 3 NP

### Vocal Behaviors

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosive, argumentative and quarrelsome</td>
<td>1</td>
</tr>
<tr>
<td>Talking loud and fast, acting manic-like</td>
<td>1</td>
</tr>
<tr>
<td>Yelling and screaming to get things done</td>
<td>1</td>
</tr>
<tr>
<td>Rattling bed rails/table tops, persistent calling out for staff/family or parents</td>
<td>1</td>
</tr>
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<td>Making strange noises or making repetitive sounds</td>
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### Emotional Behaviors

<table>
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<tbody>
<tr>
<td>Appearing sad, despondent or tearful</td>
<td>1</td>
</tr>
<tr>
<td>Expression of themes of despair, morbidity, gloominess and somatic complaints</td>
<td>1</td>
</tr>
<tr>
<td>Mimicking or rocking and being dismissive</td>
<td>1</td>
</tr>
<tr>
<td>Sarcastic or teasing, derogatory comments, being critical and negative of others</td>
<td>1</td>
</tr>
<tr>
<td>Feeling rejected or increased sensitivity to comments from others</td>
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</tbody>
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### Fretful/Trepidation Behaviors

- Fearful or scared facial expressions 1 2 3 NP
- Anxious or distressed facial expressions 1 2 3 NP
- Clinging or "latches on", ringing of hands, rubbing face/body 1 2 3 NP
- Expressing worry, fear, foreboding or catastrophe 1 2 3 NP
- Hoarding or collecting 1 2 3 NP

### Importuning Behaviors

- Persistently seeking reassurance or asking for assistance 1 2 3 NP
- Behaving in ways for demands to be met immediately 1 2 3 NP
- Shadowing staff, being a pest and crowding personal space of HCP 1 2 3 NP
- Attention seeking or 'manipulative' behaviors 1 2 3 NP

### Apathy Behaviors

- Indifference and lack of concern re: self and environment 1 2 3 NP
- Interactions and lithium structure and poor persistence 1 2 3 NP
- Emotional indifference and lack of emotional remorse 1 2 3 NP

### Oppositional Behaviors

- Negotiating around care and other needs 1 2 3 NP
- Working against everything the care giver or care provider is attempting with patient 1 2 3 NP
- Evasive to directions from care giver or provider 1 2 3 NP
- Barricading and territorialism 1 2 3 NP

### Physically Aggressive Behaviors

- Self-abusive 1 2 3 NP
- Pulling, pushing, grabbing 1 2 3 NP
- Kicking, biting, scratching, punching 1 2 3 NP
- Spitting, throwing things, breaking objects 1 2 3 NP

### Sexual Behaviors

- Verbally sexual (comments, gestures, innuendos) 1 2 3 NP
- Physically sexual (grabbing breasts, buttocks etc.) 1 2 3 NP
- Self stimulation 1 2 3 NP

### Motor Behaviors

- Roaming, strolling, wandering 1 2 3 NP
- Seemingly driven, "on the go", w/c propelling, chair/bed exiting 1 2 3 NP

**Frequency and duration of the identified behaviors is measured by transferring behaviors to Dementia Observation Scale (aka Q - 30 min check list)**
Luthra's-Behavioral Assessment and Intervention Response (LUBAIR) Scale  
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**DEFINITION OF SEVERITY**

- **MILD (1)**  
  Behaviors respond to interventions (IPI) and remain stable once IPI is withdrawn
- **MODERATE (2)**  
  Behaviors respond to IPI only to relapse when IPI is withdrawn
- **SEVERE (3)**  
  Behaviors do not respond to IPI
- **NP**  
  Not present

**DISORGANIZED BEHAVIORS**

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**MISIDENTIFICATION BEHAVIORS**

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<td>1 2 3 NP</td>
</tr>
<tr>
<td>Misidentification of events or occurrences</td>
<td>1 2 3 NP</td>
</tr>
<tr>
<td>Mis-perception or interpretation of comments or behaviors of others</td>
<td>1 2 3 NP</td>
</tr>
</tbody>
</table>
GOAL DIRECTED BEHAVIORS

- Goal-Directed Thinking: e.g. I am going home today, I am going to the bank, I am getting married today, where can I pay my bills etc)
- Goal-Directed Activities: e.g. (rummaging, hoarding, rifling or emptying drawers; stripping of clothes, rearranging furniture or fixing items in milieu; stripping bedding or pulling curtains/fixtures on the walls; bed/chair exiting or exit seeking; intrusiveness or purposeful wandering (seemingly driven, 'on the go')

VOCAL BEHAVIORS

- EXPLOSIVE, ARGUMENTATIVE AND QUARRELSOME
- TALKING LOUD AND FAST, ACTING MANIC-LIKE
- YELLING AND SCREAMING TO GET THINGS DONE
- RATTLING BED RAILS / TABLE TOPS, PERISTENT CALLING OUT FOR STAFF/FAMILY OR 'PARENTS'
- MAKING STRANGE NOISES or MAKING REPETITIVE SOUNDS

EMOTIONAL BEHAVIORS

- APPEARING SAD, DESPONDENT OR TEARFUL
- EXPRESSION OF THEMES OF DESPAIR, MORBIDITY, GLOOMINESS AND SOMATIC COMPLAINTS
- MIMICKING OR MOCKING AND BEING DISmissive
- SARCASTIC OR TEASING, DEROGATORY COMMENTS, BEING CRITICAL AND NEGATIVE OF OTHERS
- FEELING REJECTED OR INCREASED SENSITIVITY TO COMMENTS FROM OTHERS
**FRETFUL/TREPIDATION BEHAVIORS**

- Fearful or scared facial expressions
- Anxious or distressed facial expressions
- Clingy or "latches on", ringing of hands, rubbing face/body
- Expressing worry, fear, foreboding or catastrophe
- Hoarding or collecting

**IMPORTUNING BEHAVIORS**

- Persistently seeking reassurance or asking for assistance
- Behaving in ways for demands to be met immediately
- Shadowing staff, being a pest and crowding personal space of HCP
- Attention seeking or 'manipulative' behaviours

**APATHY BEHAVIORS**

- Indifference and lack of concern re: self and environment
- Interactions and Lilieu structure) and poor persistence
- Emotional indifference and lack of emotional remorse
OPPOSITIONAL BEHAVIORS

- Negotiating around care and other needs
- Working against everything the care giver or care provider is attempting with patient
- Evasive to directions from care giver or provider
- Barricading and territorialism

PHYSICALLY AGGRESSIVE BEHAVIORS

- Self-abusive
- Pulling, pushing, grabbing
- Kicking, biting, scratching, punching
- Spitting, throwing things, breaking objects

SEXUAL BEHAVIORS

- Verbally sexual (comments, gestures, innuendos)
- Physically sexual (grabbing breasts, buttocks etc.)
- Self stimulation

MOTOR BEHAVIORS

- Roaming, strolling, wandering
- Seemingly driven, “on the go”, W/C propelling, chair/bed exiting

FREQUENCY AND DURATION OF THE IDENTIFIED BEHAVIORS IS MEASURED BY TRANSFERRING BEHAVIORS TO DEMENTIA OBSERVATION SCALE (AKA Q - 30 MIN CHECK LIST)
Objectives

The objectives of this study was to establish the reliability and validity of LuBAIR. It is hypothesized LuBAIR will:

1. Have equivalent content, criteria and face validity to CMAI and BEHAVE-AD.

2. Have acceptable intra- and inter-rater reliability.

3. Be less labor intensive than CMAI and BEHAVE-AD.

4. Be more comprehensive in scope than existing behavioral scales.

5. Improve categorization of behaviors into clinically meaningful categories.
Study Design - Participants

• One hundred and twenty (120) residents with a D/NCD diagnosis from seven (7) long term care facilities in Canada were recruited for the study.

• 60 residents exhibiting BPSDs were in the study group.

• 60 participants not exhibiting BPSDs were in the control group.
Inclusion Criteria

• Have an existing diagnosis of moderate-to-advanced D/NCD as determined by an MMSE score of 23 or less.

• Consent to participate in the study by Power of Attorney (POA) or Substitute Decision Maker (SDM), if incapable.
  • If capable, consented for themselves.

• Resident or their POA/SDM was able to read, comprehend and speak in English at a minimum of grade six level.

• The ‘letter of information’ was written at a grade six level of comprehension.

• Residents were screened for the presence of BPSD using Pittsburg Agitation Inventory (PAI).
  • Residents with a score of three (3) or higher were included in the study group.
  • Residents with a score of two (2) or less were included in the control group.

(Rosen et al., 1994).
Exclusion Criteria

- Residents who had in their care plan a transfer to another LTCF during the study time period.

- Residents who scored more than twenty-three (23) on MMSE.

- Residents or their POA/SDM were unable to understand, read or speak English and were unable to complete the study assessment tools.

- Residents or their POA/SDM were unable or unwilling to provide consent to participate in the study.
Measures

• Mini-Mental State Exam (MMSE)
• Pittsburg Agitation Scale (PAI)
• LuBAIR Scale
• Cohen-Mansfield Agitation Inventory (CMAI)
• Behaviors – Alzheimer’s Disease (BEHAVE-AD)
• Clinical Utility Survey (CUS)
Clinical Utility Survey (CUS):
Developed for this study:

(1) Less labor intensive.
(2) More comprehensive.
(3) Better able to categorize behaviors into clinically meaningful categories.
Study Design - Procedure

- Registered nurses (RN) completed **LuBAIR** on the same residents on separate occasions, two weeks apart, for intra-rater reliability.

- A second group of RNs completed **LuBAIR** on the same respective participants to calculate inter-rate reliability.

- On the days RNs completed **LuBAIR**, they also completed **CMAI** and **BEHAVE-AD** with the participants to measure Content and Criteria Validity.

- RNs then completed the CUS.

- Four (4) geriatric specialists reviewed **LuBAIR** on layout, ease of use and content for Face Validity.
Results - Screening

SurveyMonkey Inc. (1999-2015) program was used to calculate the sample size.

- Confidence Interval: 5%
- Confidence level: 90%
- Sample size required: 270
- Sample size used: 120
- Amended confidence interval: 7.5%
- Study duration: January 2009 – September 2011
Inter-Rater Reliability:

- Correlations for 10 of the 12 categories in LuBAIR Scale were statistically significant.

- Two categories which did not reach statistical significance were:
  - Misidentification behaviors
  - Fretful / Trepidated behaviors
Results - Reliability

Intra-Rater Reliability:

- Correlations for 8 of the 12 categories in LuBAIR Scale were statistically significant.

- Four categories which did not reach statistical significance were:
  - Misidentification Behaviors
  - Fretful / Trepidated Behaviors
  - Apathy Behaviors
  - Sexual Behaviors
Content and Criterion Validity:

• Total scores from LuBAIR Scale, CMAI and BEHAVE-AD scales were used to calculate inter-scale correlation coefficients using Pearson’s 2-tailed test.
  
  • All inter-scale correlation coefficients were found to be statistically significant.

• Inter-rater correlation coefficient for the total scores were calculated for LuBAIR Scale, CMAI and BEHAVE-AD for each of the participants in the behavior group.
  
  • All inter-rater correlation coefficients were found to be statistically significant.
Results - Validity

Face Validity:

• The scale layout was deemed acceptable by all four specialists.

• Two specialists suggested that a frequency measure, like in CMAI, could be added.

• Most criticism was directed at scale title.

• Ease of use was not applicable to the specialists and therefore not commented on.

• The content of the scale was determined to be more comprehensive in collecting information on behaviors in patients.
Results – Clinical Utility

Q1: Does LuBAIR Scale take less time to complete than other scales?
   YES: 24%      NO: 76%

Q2: Does LuBAIR Scale collect more information than other scales?
   YES: 82%      NO: 18%

Q3: Does LuBAIR Scale help you understand behaviors in a clinically meaningful way?
   YES: 98%      NO: 2%
Discussion - Reliability

• Inter and intra-rater reliability was within acceptable range compared to CMAI and BEHAVE-AD.

• **Misidentification** and **Fretful / Trepidated behaviors**: Absence of significant correlations may be due to lack of familiarity amongst staff on this new terminology.

• **Apathy behaviors**: Absence of the term “depression” when describing this category that may have resulted in staff mistakenly placing depressed behaviors under the *Emotional* category instead.

• **Sexual behaviors**: Presence of social judgment, objectivity and emotional intensity amongst staff could have affected intra-rater reliability.
Discussion – Clinical Utility

• After CUS, staff revealed the need for comprehensive understanding of the scale to use it successfully.

• Staff did support that LuBAIR was able to collect more information compared to the other two scales.

• Staff also said LuBAIR assisted them in gathering information under clinically meaningful behavioral categories, thereby helping them to understand the ‘purpose’ or ‘meaning’ of behaviors.

• All of the above factors require a steep learning curve and a change in approach.
Conclusion

• It was determined that LuBAIR Scale has comparable inter- / intra-rater reliability and Construct and Criteria Validity to existing behavioral scales such as CMAI and BEHAVE-AD.

• LuBAIR Scale is more comprehensive when collecting data on behaviors and is better able to categorize these behaviors into clinically meaningful categories.


Chapter 4

Classification of Behaviors in Dementia/NCD Based in Theories of Information Processing Pathways

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Research Scientist, Schlegal Research Institute for Aging, University of Waterloo
Information Processing Pathways

- Arousal
- Attention
- Information Processing
Information Processing Pathways

• Step 1: Arousal

  o Ability to react to a stimulus
  
  o Regulated by:
    • Reticular Activating System
    • Autonomic Nervous System
    • Endocrine System

  o Involved in:
    • Consciousness
    • Attention
    • Information Processing
• **Step 2: Attention**
  
  o **Selects information to be processed into memory**
  
  o **Influenced by level of arousal:**
    - Selective attention
    - Attention capacity
    - Sustained attention
    - Information processing speed (IPS)

• **Arousal + Attention = Sensorium**
Information Processing Pathway

Step 3: Information Processing

Input

Sensory Memory

Output

Short Term & Working Memory

Long Term Memory
Information Input & Storage

Input

External Stimuli
- Sounds
- Visions
- Tastes
- Scents

Internal Stimuli
- Pain
- Touch
- Pressure
- Temperature

Sensory Memory
Information Encoding & Storage

- Rehearsal
- Chunking
- Imagery
- Schema activation
- Pattern Recognition
Information Retrieval & Response

- Short Term & Working Memory
- Long Term Memory

Output

- Verbal behavior
- Emotional behavior
- Motor behavior
Information Processing Module

Sensory Memories
- Primary Sensory Area
- Secondary Sensory Area

Encoding, Storage, Retrieval and Output

Associational Cortex
- Limbic Association Area
- Anterior Association Area
- Posterior Association Area
Information Processing Module (IPM)

- Encoding
- Storage
- Retrieval
- Output
Information Processing

Two Way Flow of Information

• Bottom Up (stimulus or data driven)
  
  External stimuli \(\rightarrow\) Higher Order Cortical Processes

• Top Down (Conceptually Driven)
  
  Higher Order Cortical Processes \(\rightarrow\) Meaning to milieu
  Mental Schema’s / Internal World Order
Information Processing

Yerkes-Dodson Law

Intimate relationship amongst:

- Arousal
- Attention
- Information Processing
- Task Performance
Information Processing

- Increased or Decreased Arousal
- Increased or Decreased Attention
  - Selectivity
  - Capacity
  - Sustenance
- Increased or Decreased Processing Speed (IPS)
- Increased or Decreased Task Performance
Figure 1: Schematic Diagram of the Functional Model of the Human Brain (Luthra, 2012)
Impairment in Information Processing

- Altered Physiological Status
- Breakdown of Neuronal Circuitry (IPM)
- Or a Combination of the two

Disorganized and Misidentification Behaviors
Disorganized Behaviors
Disorganized Behaviors

Symptoms

• Mental and Physical lethargy or functional decline

• Appearing vacant or blank in expressions

• Disorganized thinking, unintelligible / garbled speech

• Rapid shifts or incongruent emotional states

• Inappropriate mixing of food, layering clothes

• Playing with things in air, responding to internal stimuli
Disorganized Behaviors

• Alteration in sensorium (Arousal and Attention)
  “ Appearing vacant or blank in expressions”

• Altered Processing Speed
  “Mental and Physical lethargy or functional decline”

• Altered IPM (Encoding, Storage and Retrieval)
  “Disorganized thinking, unintelligible / garbled speech”
Disorganized Behaviors

• Altered IPM (Output)
  
  “Rapid shifts or incongruent emotional states”

  “Inappropriate mixing of food, layering clothes”

• Complete Fragmentation

  “Playing with things in air, responding to internal stimuli”
Disorganized Behaviors

Purpose of Measure or ‘Meaning’ of Behavior

• Occurrence of ‘muddled’ or ‘confused’ states
  • “Mrs. Smith is more confused lately”

• Alerts Health Care Professionals (HCPs) to changes in physiology from baseline

• Emergence of new onset Patho-physiology

• Emergence of Organic Mental Syndrome (OMS)

• Identify “modifiable’ and / or the “reversible” factors
Disorganized Behaviors

Modifiable Factors (change physiology)

- Bowel habits and bladder emptying
- Hearing and vision changes
- Dentition
- Pain / discomfort
- Medication side effects
- Circadian rhythm changes
Disorganized Behaviors

Reversible Factors (pathophysiology)

• Infection in urinary and respiratory tracts
• Electrolyte imbalance
• Metabolic changes
• Endocrine function
• Toxicology
• Neoplastic action
Disorganized Behaviors

Care Approach

• Address “modifiable” and “Reversible” factors

• Provide supportive care
  – Hydration, nutrition, skin and positioning
  – Creating safe environment
  – Creating low stimulation environment
  – Reality orientation
  – Pharmacological interventions (sparingly)
Misidentification Behaviors
Misidentification Behaviors

- Misidentification of persons, places, objects
- Misidentification of sounds, smells, tastes, touch
- Misidentification of events or occurrences
- Misconstruing comments or behaviors of others
Misidentification Behaviors

Symptoms

- Misidentification of persons, places, objects
  - Facial stimuli
    - Ex. Capgras syndrome
  - Non-facial stimuli
    - Ex. Fregoli syndrome
Misidentification Behaviors

Symptoms

• Misidentification of sounds, smells, tastes, touch

  – Tactile stimuli
    – Ex. accusations of aggression

  – Auditory stimuli
    – Ex. air gushing from vent as tap running

  – Olfactory stimuli
    – Ex. Smoke from a toaster oven (fire in the building)

  – Gustatory stimuli
    – Ex. Poisonous taste
Misidentification Behaviors

Symptoms

• Misidentification of events or occurrences
  – Thinking a group craft event is ‘my’ birthday party
  – EMS response on the unit as ‘terrorist’ attack

• Misconstruing comments or behaviors of others
  – Staff talking to each other “talking about me” or “plotting to harm”
Misidentification Behaviors

Causes

• Altered relationship between ‘self’ and ‘milieu’

• Stimuli are of ‘great personal importance’

• Normal Arousal

• Normal Attention
Misidentification Behaviors

Causes

• Normal IPS

• Impaired ‘Encoding’

• Dehiscence at ‘Schema Activation’ and ‘Pattern Recognition’

• Impaired ‘Working Memories’ \(\rightarrow\) ‘Cognitive schema and Cognitive Misperceptions’
Misidentification Behaviors

Purpose of Measure or ‘Meaning’ of Behavior

• Alerts HCPs to “paranoid” states in PwD

• Alert HCPs to the likelihood of misconstruing of verbal and non-verbal communication with PwD
Misidentification Behaviors

Care Approach

• Set aside extra time for ‘all interactions’

• Speak Slowly, Simple Language, Explain Everything

• ‘Paired Care’ Approach

• Detailed Document
Behaviors of Dementia/NCD

As defined by LuBAIR:

- Disorganized Behaviors
- Misidentification Behaviors
- Goal Directed Behaviors
- Vocal Behaviors
- Emotional Behaviors
- Fretful/Trepidated Behaviors

- Importuning Behaviors
- Apathy Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
- Motor Behaviors
Behaviors of Dementia/NCD

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- Fretful/Trepidated Behaviors
- Vocal Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
Chapter 5

Classification of Behaviors in Dementia/NCD Based in “Motivational” and “Needs Based” Theories

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Needs and Motivation

• **Needs:**
  – Physiological, Security, Belongingness, Self Esteem and Self Actualization

• **Motivation:**
  – arousal, Persistent and directional force for voluntary action

• **Drives:**
  – **Motives** that drive us to meet and satisfy/satiate a **need** to achieve a goal

• **Therefore...**

  Needs and Motivation Coexist
Hierarchy of Needs

Basic/Innate Needs:

- **Physiological**
  - Nutrition, sex, rest, social/mental stimulation

- **Security**
  - Physical and psychological

- **Belongingness**
  - Affiliation, acceptance, inclusion

(Maslow, 1943)
Hierarchy of Needs

High Level Needs:

• Esteem
  – Respect for others, self-respect, recognition

• Self-Actualization
  – Reaching max potential, doing your best

Cannot meet these needs in moderate-severe stages of dementia/NCD

(Maslow, 1943)
Motivational Circuitry (MC) and Dementia/NCD

• MC controls motivational energy and drives ‘needs’ fulfillment

• Behaviors in dementia/NCD can arise from impaired MC
Motivational Circuitry

Step 1: Identify Change in Milieu

- Receive internal / external stimuli
- Perceive discrepancy in internal state and / or environment
- Trigger physiological / psychological deficiency
- The deficiency is an unmet need
Motivational Circuitry

Step 2: Activate Mental Schemas

• Utilize **Secondary Motivational Circuits (SMCs)**:
  – Identifies new stimuli
  – Transfers information on affective & contextual memory
  – Carries information on selected ‘needs’

• Pairing of identified ‘need’ with stored Information

• Activate mental schemas (goal representations)
Motivational Circuitry

Step 3: Address Need

• Prioritize ‘motives’ and choose best action

• Utilize **Primary Motivational Circuit (PMC):**
  – Selects specific motivational drives
  – Prioritizes decision making on specific behavioral actions

• Drives and behavioral actions reduce discrepancy

• ‘Need’ is satisfied
Motivational Circuitry

Internal/External Stimulus/Discrepancy

SMC

PMC

Behavior that reduces physical/psychological deficiency and satisfies need

Output
Impaired Motivational Circuitry

- Consequence of impaired cognitive function in NCD
- Can increase or decrease motivational energy or remains preserved
- Behaviors emanating from any of the above include:
  - Apathy Behaviors
  - Goal-directed Behaviors
  - Motor Behaviors
  - Importuning Behaviors
Apathy Behaviors
Apathy Behaviors

Symptoms

• Indifference and lack of concern re: self / milieu
• Lack of self-initiation
• Low social engagement (IPI and MS)
• Poor persistence
• Emotional indifference and lack of emotional remorse
1. Diminished Goal Directed Cognition (GDC)

- Indifference or Lack of concern (but no appreciation) re:
  - Self
  - Environment
Apathy Behaviors

Domains

2. Diminished Goal Directed Activities (GDA)
   - Lack of self initiation
   - Low social engagement (people and milieu)
   - Poor Persistence
Apathy Behaviors

Domains

3. Emotional concomitants of GDC/GDA

  - Emotional Indifference
  - Absence of appreciation of impact on relationships for not showing remorse.
Apathy Behaviors

Diminished / absent motivational drives in:

- Cognition
- Behavior
- Emotions
- Absence of ‘needs’ fulfillment
Apathy Behaviors

Purpose of Measure

• Alerts HCP to perceived “lazy states” in patients
• Behaviors are unintentional / lacking malicious intent
• Alerts HCP to patient’s need for strong cueing
• Absence of emotional remorse / indifference may increase HCP frustration
Apathy Behaviors

Care Approach

• Care plans need to be step wise and graduated (break down tasks)

• HCPs must provide significant cuing and encouragement for all patient tasks

• Strong supports in place for HCP
Goal Directed Behaviors
Goal Directed Behaviors

- **Goal Directed Thinking:**
  - “I am going home today to look after kids, pay bills”
  - “My wife is taking me to church.”
  - “I am going to the bank, mall, visit my cousin.”

- **Goal Directed Activities:**
  - Rummaging, rifling, packing or unpacking drawers
  - Rearranging furniture / fixing items in milieu
  - Stripping clothing, beds / pulling curtains
  - Intrusiveness, purposeful wandering (seemingly drive; on-the-go)
  - Chair or bed exiting
Goal Directed Behaviors

Domains

1. Goal Directed Cognition (GDC)
   - Heightened interest in environment
   - Increased ability to detect discrepancy b/w environment/internal state
   - Consistent cognitions
Goal Directed Behaviors

Domains

2. Goal Directed Activities (GDA)

- Cognitions generate congruent activities

- Functional motor activities (FMA)
  - Purposeful / meaningful to patient
  - Ex. Retired HCPs, trade workers, etc. doing work-related tasks
Goal Directed Behaviors

• Heightened motivational drives resulting in:
  – Triggering needs of “belongingness”
  – Activating motivational forces
  – Propelling needs fulfillment
Goal Directed Behaviors

Confabulations vs GDC

Stimulus Bound Behaviors vs GDA

- Tied to overt / obvious stimuli
- Persistent behavior as long as stimuli present
- Eg. Utilization behaviors
Goal Directed Behaviors

Purpose of Measure

• Alert HCP to patients’ “Busy Beaver” like states

• “Belongingness” need, where locus of control is external

• High energy of milieu requires ++ HCP time

• Understand need, motive and fulfillment pursuits
Goal Directed Behaviors

Care Approach

• Do NOT attempt to impede the patient

• Identify triggered need(s) and help fulfill

• Provide alternative direction to patient goals
  • Adaptive, risk-free activities

• Remove needs’ triggers from environment
Motor Behaviors
Motor Behaviors

- Roaming, strolling, wandering
- Fidgety, restless, agitated
- Seemingly driven, ‘on the go’
- Chair / bed exiting
- Wheelchair rocking / propelling
Motor Behaviors

Causes

• Change in ‘frequency and amplitude’ of motor activity
  – Increase in motivational levels
  – Due to increase in autonomic arousal
Motor Behaviors

Domains

• Environment-dependent
  – Milieu dictates labeling of behavior

• State-dependent
  – State of mind / degree of arousal
Motor Behaviors

Purpose of Measure

• Alert HCP to degree of unrest in patient

• Alert that behaviors will contribute significant “background noise” in any given clinical situation

• Identify if behavior is ‘purposeful’ or purposeless’
Motor Behaviors

Care Approach

• Alert HCPs to look out for other behavioral categories

• Look for presence of other behavioral categories
  – MB usually occur in conjunction with other behaviors
Importuning Behaviors
Importuning Behaviors

- Persistently seeking reassurance or assistance
- Demands to be met immediately
- Shadowing staff, being a pest, crowding personal space
- “Attention” seeking or “manipulative” behaviors
Importuning Behaviors

‘persistent, insistent or pressing request to fulfil a need’

Obvious / Overt Expression
- Sexual Deviant Behaviors (SDB)
- Addictions Behavior (AD)
- Medicine seeking / medical attention
- Disability support seeking

Ambiguous / Occult Expression
- Depression and Dementia/NCD
- Pacing / agitation
- Disinhibited behavior
Importuning Behaviors

• Behaviors are the result of preserved motivational drives in detection and fulfillment of physiological needs.

• Persistent action to fulfill physiological need
  – Fatigue / need to rest, pain / need for comfort, thirst and hunger / need to satiate, need to void / defecate, need for emotional and social stimulation
Importuning Behaviors

Purpose of Measure

• Alert HCP of possible physiological need
  • Expression can be: “Obvious or Ambiguous”
    “Overt or Occult”

• Alert HCPs that behaviors may be counter productive to its origins

• Alert HCP to ‘attention-seeking’ ‘manipulative’ behaviors
Importuning Behaviors

Care Approach

• Undertake Pro-Attention Techniques

• Effort to delineate thirst, hunger, need to void, bowels, pain and discomfort, need for mental and social stimulation
Behaviors of Dementia/NCD

As defined by LuBAIR:

- Disorganized Behaviors
- Misidentification Behaviors
- Apathy Behaviors
- Goal Directed behaviors
- Motor Behaviors
- Importuning Behaviors
- Emotional Behaviors
- Fretful/Trepidated Behaviors
- Vocal Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
Chapter 6

Classification of Behaviors in Dementia/NCDs based upon Theories of Regulation of Emotion

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Emotions

• Arise in context of a specific situation
  – Extrinsic or intrinsic

• Experienced as “whole body phenomenon”

• Has “control precedence”
  – Invades / interrupts our consciousness

• Capacity to modifying / changing contextual situation

Parkinson et al. (1996)
Mood

- Persistent, long lasting, not situation specific
- Diffuse, tied to cognitions rather than actions
- Lack “control precedence”
- Lack capacity to modifying / change contexts

Clore, Schwarz and Conway (1994)
Regulation of Emotions

- Encoding, storage and retrieval of information worsens as dementia/NCD progresses
- Recall of information (on mood duration and related symptoms) becomes unreliable in moderate to advanced NCD
- Validity and reliability of diagnosis of ‘depression’ needs to be challenged
Regulation of Emotions

• Advancing cognitive impairment:
  
  – Emotional Comprehension preserved

  – Emotional Expressivity is decreased
    – Joy and Pleasure

  – Emotional Expressivity is heightened
    – Melancholy, Fear, anger and discontentment
Regulation of Emotions

- Focus needs to be on emotional responses
Expression of Emotions

• Non-Verbal
  – Physical action
  – Facial, vocal, postural display

• Verbal
  – Communicated language
Generation of Emotions

• Origin in Limbic Systems

• Impaired Limbic neuronal circuitry in PwD

• Disproportional generation
Regulation of Emotions

- Higher Cortical Centres
- Impaired Neuronal Circuitry in PwD
- Inadequate Regulation
Regulation of Emotions

- Situation selection
- Situation modification
- Attention deployment
- Cognitive schema change / reframing
- Response modulation
Regulation of Emotions

• Generation and Regulation occurs simultaneously

• Bi-Directional link b/w Limbic and Cortex

• Disproportional generation and Inadequate regulation === Perpetual Emotional Instability
Classification of Emotions

Primary

- Sadness or melancholy
- Discontentment
- Fear
- Anger
- Joy or happiness

Plutchik (1980)
Classification of Emotions

- Primary emotion of discontentment can co-exist with:
  - Melancholy, and
  - Anger

(Plutchik 1980)
Behaviors emanating from Theories on Regulation of Emotions:

1. Emotional Behaviors
   Verbal and Non-verbal expression of emotions of melancholy and discontentment

2. Fretful / Trepidated Behaviors
   Verbal and Non-Verbal expressions of emotions of fear

3. Vocal Behaviors
   Verbal and Non-Verbal expression of emotions of anger with discontentment and joy
Emotional Behaviors
Emotional Behaviors

- Appearing despondent, tearful, irritable
- Expression of despair, morbidity, helplessness
- Mimicking, mocking, dismissive
- Sarcastic, teasing, derogatory, critical, negative
- Feeling rejected / increased sensitivity
Emotional Behaviors

- Emotions of melancholy and discontentment are viewed as ‘negative’ in nature

- Principles with govern and regulated these ‘negative’ emotions:
  - Measured catharsis
  - Allow decompression
  - Ability to express without limitations or barriers
  - Diminish exposure to pain

All of the above steps to: To Feel Good
Emotional Behaviors

Purpose of Measure

Melancholy

• Alert to verbal / non-verbal expression of an effort to diminish ‘pain’

• From observers perspective it represent ‘suffering’

• Measured “catharsis” for decompression of emotional pain (makes them feel good)

• Solicit comfort from care givers.
Emotional Behaviors

Care Plan

EB (melancholy)

• Enhancing a safe / structured environment for behaviors to be expressed

• Diversion and cognitive reframing
Emotional Behaviors

Purpose of Measure
Discontentment

- Exhibited by HSP (Thin – skinned)
- Alert to verbal and non-verbal expression of diminishing exposure to pain
- From observers perspective it is ‘rude’ and arrogant’
- Putting others down make ‘me’ feel good
- Shutting down all lines of communication
- Preventing exposure to painful interactions
- Reject other before being rejected
Emotional Behaviors

Care Plan

EB (Discontentment)

• Recognition of ‘reverse’ dynamics

• ‘Rejecting” such behaviors feeds into ‘increasing pain’

• ‘Accepting’ behaviors in that moment

• Increased ‘acceptance’ will decrease the ‘guard’

• Consistency in this approach decreases ‘fear of rejection’
Fretful / Trepidated Behaviors
Fretful/Trepidated Behaviors

• Fearful / scared facial expressions

• Anxious / distressed expressions

• Clingy, ringing hands, rubbing face

• Expressing worry, fear, foreboding, catastrophe
Fretful/Trepidated Behaviors

• Bowlby proposed ‘Attachment’ Theory (1973)
  – Individuals need relationships for
    • Emotional development
    • Social development
    • Preservation

• ‘Attachments’ result in ‘internal working models’

• Mental schemas guide through perturbations
Fretful/Trepidated Behaviors

• Ainsworth (1969) introduced ‘secure base’

• Ainsworth and Bell (1970) proposed ‘attachment models’
  – Determined by the strength of ‘secure base’
    • Secure
    • Avoidant
    • Anxious
    • Disorganized
Fretful/Trepidated Behaviors

- Antonucci (1994)
  - validated ‘Attachment’ Theory in Older Adults

- Miesen (1996)
  - relationship between ‘Attachment Theory’ and advanced CI
    - Concept of ‘Parent Fixation’
      » Invoke ‘parental images’ to create ‘secure base’
Fretful/Trepidated Behaviors

• Stages of Cognitive Impairment
  – Mild
    • Preserved ability to pair information
      – ‘pattern recognition and schema identification’
  – Moderate to Advanced
    • Impaired ability to pair information
      – ‘pattern recognition and schema identification’
        » ‘PwD turn inwards’ (parent fixation)
Fretful/Trepidated Behaviors

Purpose of Measure

• Alert HCP to profound insecurity in milieu

• “Security” needs follow “physiological” needs

• Internal Models of “attachment”
Fretful/Trepidated Behaviors

Care Approach

• Identify “secure” base from past and recreate in present milieu

• Introducing memory aids (albums, furniture, landmarks etc.)

• Reminiscing with recreation therapist / HCP
Vocal Behaviors
Vocal Behaviors

Causes

• Cognitive impairment affects emotional vulnerability and regulation

• Dysregulation in emotions of anger with discontentment and emotions of joy

• Increased ability to be overwhelmed by all stimuli
Vocal Behaviors

Symptoms

• Explosive, Argumentative, Quarrelsome

• Talking loud / fast, acting manic-like

• Persistent calling out for staff / family members,

• Whimpering, moaning, making strange noises

• Yelling, screaming, Rattling bed rails, banging table tops
Vocal Behaviors

- Emotional Vulnerability (Generation)
- Impaired Regulation

Bi-Directional Link Between the Two

- Primary Emotions of Anger (with discontentment)
- Joy
Vocal Behaviors

• Perpetual State of ‘Emotional Vulnerability’
  – Increased sensitivity to emotional stimuli
  – Intensified reactions
  – Prolonged / delayed return to baseline

  (Donegan et al 2003)

• Reduced ‘Competence’ to distinguish amongst
  – Noxious Stimuli
  – Non-Noxious Stimuli
  – Ambiguous Stimuli
Vocal Behaviors

- ‘Out of Proportion’ Responses for
  - Anger (with discontentment) and Joy

- ‘Short lasting outbursts with anxiety, aggression, swearing, displacement and compensatory boasting’ (Goldstein 1995)

- ‘Inadequate, disordered, inconstant and inconsistent’ (Goldstein 1995)

- This phenomenon is referred to as ‘Affective Hyper-reactivity’ (AH)

- Present in many psychological illness states

- In PwD called ‘Catastrophic Reactions’
Vocal Behaviors

Progression of AH culminates in ‘Dysphoric Episodes’ (DE)

Characterized by:
• Profound irritability, anger, discontentment,
• racing thoughts,
• loud speech
• Distrust
• motor agitation
• Functional Motor Behaviors

Destructive actions towards oneself / others / objects
Vocal Behaviors

- Defensive behavior
  - Emotional dysregulation NOT associated with functional motor activity
  - Affective Hyperactivity (AH)

- Attack behavior
  - Emotional dysregulation associated with functional motor activity
  - Dysphoric Episodes (DE)
Vocal Behaviors

Sub-Types

• Aggressive Type (Explosive)
  – Stems from emotions of anger and discontentment
  – Behaviors are “shot across the bow”
  – Prevents further exposure to “perceived” noxious stimuli

• Aggressive Type (argumentative and Quarrelsome)
  – Continued exposure leads to “attack” mode.

• Aggressive Type (Physical destruction – self/others/milieu)

• Effusive Type (talking loud / fast, acting manic-like)
  – Stems from emotions of happiness and joy
Vocal Behaviors

Purpose of Measure or ‘meaning’ of behavior

• Alert HCP to “defensive” and “attack” nature of interactions with patients

• Alert HCP to “out of proportion” response to ‘noxious’ and ‘pleasant’ stimuli

• Help HCPs understand destructive and manic-like behaviors of patients
Vocal Behaviors

Care Approach

- Goal is to prevent ‘Defensive’ to ‘Attack’ mode
- Heed to ‘shot across the bow’
- Calibrate ones own emotional responses
- Low keyed ‘Gentle Approach’
Behaviors of Dementia/NCD

As defined by LuBAIR:

- Disorganized Behaviors
- Misidentification Behaviors
- Apathy Behaviors
- Goal Directed behaviors
- Motor Behaviors
- Importuning Behaviors
- Emotional Behaviors
- Fretful/Trepidated Behaviors
- Vocal Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
Chapter 7

Classification of Behaviors in Dementia/NCDs based on Principles of Compliance and Aggression

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Principles of Compliance

Compliance:
• The appropriate following of any instruction to perform a specific response within a reasonable and designated time.

Non-Compliance:
• Refusal to initiate or complete a request made by another person.

Interactional Unit:
• The bi-directional relationship between the person receiving a command and the person delivering the command.

(Barnett et al., 2012; Forehand & McMahon, 1981; Kuczynski & Hildebrandt, 1997; Schoen, 1983)
Non-Compliance

**Negotiation:**
- Person attempts to modify the nature / conditions of the command

**Passive Non-Compliance:**
- Person does not acknowledge directions given to them

**Simple Non-Compliance**
- Person appears to acknowledge commands but refuses to comply
- No associated hostility / anger

**Direct Defiance:**
- Variant of non-compliance, accompanied by hostility / anger

(Kuczynski & Kochanska, 1990)
Principles of Aggression

Definition:
• An overt act, involving the delivery of noxious stimuli to (but not necessarily aimed at) another organism, object or self, which is clearly accidental.

Expressed as:
• Physical aggression
• Aggressive resistance
• Physical threats,
• Verbal aggression
• Refusal to speak
• Destructive behavior
• General irritability

(Patel & Hope, 1992)
Principles of Aggression

Perspectives

• Biological:
  – Genetic predisposition, changes in physiological function
  – Various disease states may cause change in brain function
  – Changes in neurotransmitter function causes aggression

• Behavioral:
  – Classical / operant conditioning
  – Aggression is a learned behavior
  – Variables in milieu reinforce / attenuate the behavior
Principles of Aggression

Perspectives

• Cognitive:
  – Mental processing of information (memory, thinking, language, problem-solving, decision-making)
  – Impairment leads to aggression

• Evolutionary:
  – Behavior evolved as a form of “defense against attack”
  – Aids in survival and reproduction

• Cross-cultural:
  – Different cultures influence perspective on aggression
  – Cultures may differ in behavior frequency
Compliance, Aggression and Dementia/NCD

• Patient relationship with health care professionals (HCPs), care providers (CGs) and loved ones changes as cognitive impairment escalades

• Emotional regulation / expression also becomes unbalanced

• Expressions of non-compliance and aggression manifest

• **Oppositional and Physically Aggressive Behaviors** emerge as a result
Oppositional Behaviors
Oppositional Behaviors

Causes

- Parent-child relationship develops between patient and care partners as dementia progresses
- Non-compliance in relationship results in oppositional behaviors
- Level of pre-morbid developmental sophistication determines type of non-compliance
Oppositional Behaviors

Domains & Symptoms

• Negotiation:
  – Observed in early stages of impairment in patients with high intellectual function
  – Patient negotiates around care and other needs
  – If unsuccessful, patient works against HCP
Oppositional Behaviors

Domains & Symptoms

• Passive non-compliance:
  - Observed in early stages of impairment in patients with low intellectual function
  - Patient is evasive to commands
Oppositional Behaviors
Domains & Symptoms

• Simple non-compliance:
  – Observed in moderate stages of impairment in patients with low intellectual function
  – Patient is resistive to care, medications, meals, commands
Oppositional Behaviors
Domains & Symptoms

- Direct defiance:
  - Observed in advanced stages of impairment in patients with low intellectual function
  - Patient acts territorial / barricades self
  - Progresses to vocal and physically aggressive behavior
Oppositional Behaviors

Purpose of Measure

• Alert HCP to ‘bi-directional’ dynamic interaction between patient and them

• HCP verbal / non-verbal expressions and commands influence state of ‘homeostasis’

• Alert HCP to range of non-compliant actions patient may exhibit

• Outcomes influenced by degree of cognitive impairment / level of developmental sophistication
Oppositional Behaviors

Care Approach

• Patient-centered, individualized approach to management is required

• Develop care plans which address each identified level of non-compliance exhibited by patient

• Focus on preserving homeostasis in patient milieu
Physically Aggressive Behaviors
Physically Aggressive Behaviors

Causes

- Physiological, security or belongingness need exists that must be fulfilled

- Negative emotions of anger / discontentment stem from blocked goal attainment

- Behaviors emerge as a response to impediment / direct defiance to commands from HCPs

- Change in milieu homeostasis may also push behaviors
Physically Aggressive Behaviors

Symptoms

- Pulling, pushing, grabbing
- Kicking, biting, scratching, punching
- Spitting, throwing things, breaking objects
- Self-abuse / mutilation
Physically Aggressive Behaviors

Domains

• Instrumental Aggression:
  – Based in reward-consequence paradigm
  – Process of systematic thinking (benefits / rewards)

• Hostile Aggression:
  – Emotional response to provocation / negative feelings
  – “Frustration-Aggression theory”
  – Blocked goal attainment $\rightarrow$ frustration $\rightarrow$ aggression
  – Internal / external perturbations $\rightarrow$ negative feelings $\rightarrow$ aggression
Physically Aggressive Behaviors

Purpose of Measure

- Alert HCP that anger and discontentment emotions result from blocked goal attainment
- Alert HCP of patient’s need to fulfill need / goal
- Perceived blockage of “goal attainment” by the patient is the final straw
- HCP need to understand the dynamic interaction amongst Oppositional, Vocal (aggressive type), and Physically Aggressive Behaviors
Physically Aggressive Behaviors

Care Approach

• Assess from all perspectives and determine whether behavior is instrumental / hostile

• If instrumental:
  – Assess if patient can understand consequences of actions and develop appropriate interventions

• If hostile:
  – Identify how HCP role / environment acts as an impediment to patient’s goal attainment
  – Develop behavioral interventions around mitigating / eliminating goal impediments
Behaviors of Dementia/NCD

As defined by LuBAIR:

- Disorganized Behaviors
- Misidentification Behaviors
- Apathy Behaviors
- Goal Directed behaviors
- Motor Behaviors
- Importuning Behaviors
- Emotional Behaviors
- Fretful/Trepidated Behaviors
- Vocal Behaviors
- Oppositional Behaviors
- Physically Aggressive Behaviors
- Sexual Behaviors
Chapter 8

Classification of Behaviors in the Heterogeneous Group; Vocal and Sexual Behaviors in Patients with Dementia/NCD

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Background

The Heterogenous Group:

• Final two behavioral categories.

• Require combination of all four theoretical constructs to justify their occurrence.

  o No single “Specification of the Construct” can account for the heterogeneity of the symptoms present under each behavioral category identified.
Vocal Behaviors
Vocal Behaviors

Sub-Types

1. Noise making which appears purposeless and repetitive.
2. Noise making in response to the environment.
3. Noise making which elicits a response from the environment.
4. “Chatterbox” noise making.
5. Noise making due to deafness.
6. Other noise making.

Ryan et al. (1988)
Vocal Behaviors

Typology of Vocalization (TOV)

1. Type of sound.

2. Purpose of sound, including response to the environment.

3. Timing, including frequency and pattern of occurrence.

4. Level of disruptiveness.

Cohen-Mansfield & Werner (1997)
Vocal Behaviors

Suggested Causes

• VB due to physical illness (unmet physiological needs).\(^1\)

• VB due to underlying psychiatric illness (depression, anxiety, psychosis, impulse dys-control).\(^1\)

• VB due to underlying personality.\(^1\)

• VB due to environment (under or over stimulation and caregiver behaviors).\(^1\)

• VB due to impairment in language functions.\(^2\)

• VB due to fronto-subcortical interruption or serotonin dysfunction.\(^4\)

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Vocal Behaviors

New Proposed Classification

I. VB based in *theories of regulation of emotions*.

II. VB based in *theories of motivation and needs based*.
   
i. VB based in Goal-Directed Cognitions (GDC).

   ii. VB based in Importuning Behaviors (IB).

III. VB based in *theories of self-stimulation*. 
Vocal Behaviors

New Proposed Sub-Types

1. VB Aggressive type.

2. VB Effusive type.

3. VB Based in Goal Directed Cognitions (GDC).

4. VB based in Importuning and/or Fretfulness.

5. VB based in Self Stimulation.
Vocal Behaviors

Symptoms

• Argumentative, explosive, quarrelsome.

• Talking loud / fast, acting manic-like.

• Yelling, screaming to get things done.

• Persistent calling out for staff / family members.

• Rattling bed rails, banging table tops.

• Any kind of strange noise or repetitious sounds.
Vocal Behaviors

VB Aggressive Type

- **Symptoms**: Explosiveness, argumentative and quarrelsome.

- **Expression of irritability and discontentment emotions in the form of defensive and attacking actions**.

- **Purpose**: Patient is defensive to prevent further exposure to a perceived noxious stimulus in their immediate environment.

- **Risks**: Prepare for physical aggression if VB Aggressive Type escalades.

- **Care approach**:
  - Identify and extinguish possible triggers in milieu.
  - Calibrate own emotional response to prevent pushing the patient.
Vocal Behaviors

VB Effusive Type

• **Symptoms:** Talking fast and loud, acting manic-like.

• **Expression of happiness emotions in the form of excitable and “out of proportion” actions.**

• **Purpose:** Responding to pleasant stimuli in environment.

• **Risks:** Prepare for sexual behaviors / emotional instability if VB Effusive Type escalades.

• **Care approach:**
  – Create a low stimulation environment to diminish the “out of proportion” responses.
  – Calibrate own emotional responses so patient’s behaviors do not escalate.
Vocal Behaviors

VB based in GDC

• **Symptoms**: Yelling, screaming to get things done in environment.

• Expression of “busy-beaver” state of patient’s mind and heightened motivational drives.

• **Purpose**: Perceived discrepancy between internal state and stimulus in milieu forms the basis of triggering a “need” which requires fulfilment.

• **Risks**: Activation of specific mental schemas in the brain from triggers in the external environment.

• **Care approach**:
  - Identify and remove triggers in environment.
  - Understand “belongingness” need tied to behavior.
Vocal Behaviors

VB based in Fretfulness/Importuning

• **Symptoms:** Rattling bed rails/ table tops, persistent calling out for staff, family or “parents.”

• **Purpose:** Represent fulfilment of physiological or security needs.

• **Care approach:**
  – Identify and remove triggers in environment.
Vocal Behaviors

VB based in Self-Stimulation

- **Symptoms**: Making strange noises and making repetitive sounds.

- **Expression of feelings of “detachment” and disconnection” from immediate environment.**

- **Purpose**: Less mobile patients suffering sensory deprivation such as visual or hearing impairment.

- **Care approach:**
  - Connect patients with their environment.
  - Utilize multi-sensory stimulation techniques (Snoozelin Room, Montessori methods, etc.)
Sexual Behaviors
Sexual Behaviors

Sub-Types

I. **Sex Talk**: Using foul language that is not in keeping with a patient’s premorbid personality.

II. **Sexual Acts**: Touching, grabbing, exposing or masturbating in public or private places.

III. **Implied Sexual Acts**: Openly reading pornographic material or requesting unnecessary genital care.

*Szasz (1983) and Tucker (2010)*
Sexual Behaviors

Classification

I. Intimacy Seeking:
   Referring to normal behaviors that are misplaced in social context (kissing, hugging).

II. Disinhibited
   Referring to rude and intrusive behaviors that would be considered inappropriate in most contexts (lewdness, fondling, and exhibitionism).

de Medeiros et al. (2008)
Sexual Behaviors

Inappropriateness

- Disrobing in Public
- Masturbating in Public
- Increase or Decrease in Libido
- Inappropriate Sexual Advances
- Sexually Demanding/Aggressiveness
- Lewd/Suggestive/Foul Language
- Fondling Self / Another
- Flirtatious Behavior
- Viewing Pornography
- Sexual Preoccupation
- Delusions of Spouse Infidelity

Howell and Watts (1990), Kuhn, Grenier and Arseneau (1998), Robinson (2003), Hajjard and Kamel (2004), Tucker (2010), and Alkhalil et al. (2004),
Sexual Behaviors

D/NCD Factor

• Loss of self-monitoring / awareness of environment = normal SB expressed in inappropriate locations.

• Misidentification of patient / staff member for spouse = normal SB expressed to incorrect person.

• Differing social, moral, and religious values of staff vs. patient = normal SB (to patient) labelled inappropriate by staff.

• Patient seeking primary human need for intimacy (not sex) = touching to feel connected labelled inappropriate by staff.
Sexual Behaviors

New Proposed Classification

• SB based in theories of information processing.
  – SB based in over-identification of visual facial stimuli. Results in Misplace Intimacy (MI).
  – SB based in mislabelling patient’s actions. Results in Attribution Error (AE).

• SB based in theories on motivation and needs-based.
  – SB based in Stimulus Bound Behaviors (SBB).
  – SB based in Importuning Behaviors (IB).

• SB based in theories on regulation of emotions.
  – SB based innate need for intimacy (INI) or a “secure base.”
Sexual Behaviors

New Proposed Sub-Types

1. SB based in MI
2. SB based in AE
3. SB based in SBB
4. SB based in IB
5. SB based in INI
Sexual Behaviors

Category Items

• Verbally Sexual (Comments, gestures, innuendos).

• Physically Sexual (Grabbing breasts, buttocks, crotch).

• Self-Stimulation (Masturbating).
Sexual Behaviors

SB in MI and AE

• Expression of misplaced intimacy driven by phenomenon of mis/over identification of facial visual stimuli.

• **Purpose:** Identifying another patient/staff as their spouse and expressing appropriate affection.

• **Risks:**
  • Systematic bias where staff draw inferences or conclusions from previous knowledge.
  • Personal bias where staff mislabel behaviors based on own values.

• **Care Approach:**
  • Be cognizant of own moral/religious values and role in labelling behaviors.
Sexual Behaviors
SB in SBB and IB

• Loss of ability to be aware of the social inappropriateness of actions in the immediate social context.

• **Purpose:** Impairment of self-awareness and monitoring and driving need to fulfill basic “physiological needs.”

• **Risks:**
  • Behaviors are specifically tied to an overt or an obvious stimulus and persist as long as the stimulus persists.
  • If stimulus is not removed, patient will attempt to fulfill the need by engaging in sexually inappropriate behavior.

• **Care Approach:**
  • Staff must be aware of the preservation of innate physiological needs well into the very late stages of dementia/NCD.
  • Remove stimulus to stop behavior.
Sexual Behaviors

SB in INI

• Expression of intimacy need through inappropriate physical touching and verbal expressions.

• **Purpose:**
  - Patient’s innate need for intimacy based on physiological needs.
  - Patient’s innate need for a “secure base.”

• **Care Approach:**
  - Staff must be aware of the need for the patient to feel secure in their environment through connection with other human beings.
Behaviors of Dementia/NCD

As defined by LuBAIR:

- Disorganized Behaviors
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