The Facts . . .

⇒ Disruptive vocalization (DV) is a common problem among cognitively impaired older adults.
⇒ DV is common in long-term care settings, affecting as many as 10 to 30% of nursing home residents.
⇒ Adverse effects of DV can be huge - frustration for staff, irritability among other residents, retaliation toward the vocalizer, and stress for everyone involved.
⇒ Assessment of DV as a Need-Driven Dementia-Compromised Behavior (NDB) is the key to effective intervention.

INFO-CONNECT

Disruptive Vocalizations

What is DV?
The term Disruptive Vocalization (DV) is used to describe verbal utterances that are:
• Excessively loud and/or repetitive in nature.
• Socially inappropriate due to the intensity, frequency, duration and/or setting in which they occur.
• Both distressed sounding and distressing to hear.
• The result of some form of brain injury, often severe dementia.
• Often indicative of unmet physical, psychological or social needs or a reaction to physical or environmental stress.

Also known as:
• Problematic vocalization
• Verbally agitated behavior
• Vocally disruptive behavior
• Aggressive vocalization
• Noisy behavior

Who exhibits this behavior?
The frequency, duration and intensity of the DV vary substantially:
• The majority of persons with DV:
  ⇒ Are vocally active for short, discrete periods of time, often in response to clearly identifiable stimuli.
  ⇒ Exhibit behavior that is manageable.
• A small minority of residents with DV:
  ⇒ Engage in DV without obvious provocation for many hours a day.
  ⇒ Are called Severe Disruptive Vocalizers.

Why focus on DV?
Some believe DV is the most frequent, persistent and annoying of all dementia-related behaviors. The adverse impact of DV can be huge, leading to:
• Frustration and distraction for staff;
• Anxiety and agitation for other residents;
• Retaliation toward or isolation of the person who vocalizes; and
• Increased stress for everyone involved.

In short, DV deserves our attention!

Types of DV:
• Includes a wide range of verbal expressions, ranging from the fluent use of words to repetition of nonsensical sounds.
• Can be roughly grouped into verbalization that is considered aggressive or agitated as outlined below.

Verbally Aggressive Behaviors
The following are characteristics of verbally aggressive behaviors:
• Tend to be situation-specific.
• Duration is often time-limited.
• Behavior is a reaction to perceived threat like personal cares (e.g., being bathed).

Examples of these behaviors include:
⇒ Making threats of bodily harm
⇒ Cursing or swearing
⇒ Use of profanity or obscenities
⇒ Accusatory language
⇒ Threats
⇒ Sexual comments
⇒ Harassment
⇒ Racial insults
⇒ Name calling
### Verbally Agitated Behaviors
The following are characteristics of verbally agitated behaviors:
- Tend to be generalized.
- Duration is longer-lasting (i.e., hours vs. minutes).
- Underlying causes are often difficult to detect.

Examples of these behaviors include:
- Moaning
- Yelling
- Screaming
- Nonsensical sounds or noises
- Calling out
- Repetitive questions
- Grunting
- Grumbling or negative comments
- Constant talking

It is important to note that this division is arbitrary. Problems associated with DV are highly individualized.

### Triggers to DV
Common antecedents or “triggers” to DV include:
- Overstimulation
- Understimulation, sensory deprivation
- Immobility, restricted movement
- Pain, discomfort
- Fatigue
- Psychotic symptoms
- Depression
- Psychological distress
- Caregiver behaviors
  - Ignoring the person or behavior
  - Telling the person to be quiet
  - Asking the person why he/she is yelling

### Medication Management
- Use medications only as an adjunct to behavioral interventions.
- Select medications with the lowest adverse side effect profile.
- Use standing doses, not prn, since effects are cumulative.
- Start at the lowest dose possible and titrate upwards.
- Change one medicine at a time to evaluate effectiveness.

### Severe DV
**Remember – severe DV occurs in the minority!**
- Persist for hours each day in spite of “best interventions.”
- Often do not respond to behavioral/medication interventions, or do not respond consistently.
- Same interventions that help for some will make others worse.
- Highly individualized approaches required.
- Prognosis per one large study: Good News and Bad News after 6 months:
  - 66% vocalized fewer hours.
  - 45% considered improved by nursing staff.
  - 25% died.
- Believed to be part of terminal phase of disease, suggesting use of hospice approach.

**The bottom line?** Most severe DV problems require patience, but will probably resolve themselves.

### Managing Severe DV
- Provide staff education — frame as dementia-related behavior.
- Create one or more sound-proof bedrooms or quiet rooms.
- Provide ear plugs for staff who must provide care.
- Place near hearing impaired residents.
### DV Interventions & Management Strategies

<table>
<thead>
<tr>
<th>UNDERSTIMULATION</th>
<th>DEPRESSION</th>
<th>PAIN/DISCOMFORT</th>
<th>GENERAL INTERVENTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Involve in social, leisure activities.</td>
<td>• Reduce or eliminate sources of stress and factors causing fear (e.g., room, roommate change).</td>
<td>• Treat underlying diseases.</td>
<td>• Use massage and comforting touch.</td>
</tr>
<tr>
<td>• Place near activities, traffic (e.g., nurses station).</td>
<td>• Offer talking options to discuss fear, anxiety, or grief.</td>
<td>• Schedule toileting.</td>
<td>• Provide specific reassurance (e.g., “You are safe with me.”).</td>
</tr>
<tr>
<td>• Increase environmental sounds (e.g., hair dryers, loud audiotapes via earphones or in room).</td>
<td>⇒ Day-to-day staff</td>
<td>• Institute bowel protocols.</td>
<td>• Avoid generalities (e.g., “It’s okay.” or “You’re fine.”).</td>
</tr>
<tr>
<td>• Increase light, especially natural light.</td>
<td>⇒ Family support, phone calls</td>
<td>• Offer snacks and fluids.</td>
<td>• Provide a hot water bottle.</td>
</tr>
<tr>
<td>• Place in vibrating or rocking chair.</td>
<td>⇒ Chaplain services</td>
<td>• Employ exercise or range of motion activities.</td>
<td>• Provide stuffed toys, soft objects, or dolls to hold.</td>
</tr>
<tr>
<td>• Use aromatherapy.</td>
<td>⇒ Therapist, counselor</td>
<td>• Reposition, stand, or change chairs.</td>
<td>• Make and play audiotapes of loved one’s voice.</td>
</tr>
<tr>
<td>• Use pet therapy.</td>
<td>• Slow down and listen to concerns.</td>
<td>• Schedule pain medications versus prn use.</td>
<td>• Use rocking chairs or beds.</td>
</tr>
<tr>
<td>• Offer dolls, stuffed animals, or soft blankets.</td>
<td>• Remember fears are real to persons.</td>
<td>• Titrate pain medications upward using alternative categories of pain relief (see chart).</td>
<td>• Make and play videotapes of loved ones at home, reminiscing or talking to resident.</td>
</tr>
<tr>
<td>• Maximize sensory function.</td>
<td>• Provide specific reassurance (e.g., methods to promote safety and comfort).</td>
<td>• Document nonverbal pain behaviors to justify medication increases or adjustments.</td>
<td>• Play audiotapes of familiar sounds.</td>
</tr>
</tbody>
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### OVERSTIMULATION

- Decrease noise and commotion.
- Remove to quiet area.
- Use calm, quiet approach.
- Speak slowly and clearly.
- Avoid large group activities or congregate dining.
- Create home-like settings and routines.
- Adapt personal care routines to reduce fear and agitation.
  - ⇒ Provide privacy.
  - ⇒ Use one versus many caregivers.
  - ⇒ Tell person what you are doing and why.
  - ⇒ Slow down.
  - ⇒ Offer explanations.
  - ⇒ Use gentle touch and stay in visual field.

### PSYCHOSIS

- Maximize sensory input.
  - ⇒ Increase lighting.
  - ⇒ Put on glasses.
  - ⇒ Use hearing aide.
- Reduce or eliminate illusions.
- Simplify the environment.
- Use validation principles to reassure.
- Redirect or distract to an alternative activity.
- Increase appropriate auditory or visual stimuli (e.g., music, old movie, or video of family).
- Speak slowly and clearly.
- Provide specific reassurance (e.g., “You are safe with me.”).
- Reminisce or review life history.
- Avoid confrontation or you-are-wrong messages.
- Use low-dose, high potency antipsychotics (see chart).
  
### FATIGUE

- Regulate or control length of activities.
- Monitor number and type of appointments or visits.
- Adjust level of stimulation (see Overstimulation).
- Alternate high stimulus activities with low stimulus activities.
- Schedule quiet times.
  - ⇒ Rest in recliner
  - ⇒ Time out in room
  - ⇒ Naps of short duration

### IMMOBILITY

- Ambulate or wheel person regularly.
- Escort outdoors.
- Offer choices for positioning.
- Reposition and turn often.
- Use alternative seating like recliners.
- Position in place person enjoys.
- Reduce or eliminate restraints.
  
### GENERAL INTERVENTIONS

- Use “white noise.”
  - ✓ Fan noise
  - ✓ Hairdryer blowing
  - ✓ Other loud, continuous noise that “drowns out” other sounds
- Use sound amplifier to provide direct feedback to person regarding volume of his/her voice.
## DV: Medication Management

### Antidepressants
Prescribed for vocalizers who exhibit symptoms of depression or mood disturbance.
- Persons with sudden unexplained vocalization or crying are good candidates.
- Low serotonin associated with impulsivity.
- Provides rationale for using medications with serotoninergic properties like SSRIs.
- Many options:
  - Citalopram
  - Trazodone used because of sedating qualities
  - Antidepressants used successfully to treat depression in past
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  - Trazodone used because of sedating qualities
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### Antianxiety
Prescribed for vocalizers with anxious appearance or features.
- Benzodiazepines should be used with caution due to potential negative side effects.
  - Sedation with associated fall risk
  - Disinhibition, making behavior worse
  - Rebound anxiety on discontinuation after prolonged use
- Valuable in managing short-term anxiety (e.g., appointments, procedures).
- Low doses of short-taking medications preferred:
  - Lorazepam
  - Alprazolam
  - Buspar may also be used.

### Antipsychotics
Prescribed for vocalizers exhibiting psychotic symptoms, including hallucinations (unreal sensory experiences) or delusions (false, fixed beliefs).
- Medications with the fewest anticholinergic side effects are preferred.
- Literature review suggests use of:
  - Risperidone as first line
  - Haloperidol, olanzapine as second line
  - Quetiapine or traditional low potency antipsychotics as third line
  - Thiothixene also recommended by some
- Monitor extrapyramidal side effects (e.g., stiffness causing more discomfort).

### Anti convulsants
Prescribed for severe DV, persons who are resistant to other therapies and who exhibit other agitated behaviors such as physical aggression.
- Used as mood stabilizers:
  - Divalproate
  - Carbamazepine
  - Gabapentin
  - Topiramate

### Psychostimulants
Prescribed occasionally for persons who fail to respond to traditional antidepressants.
- Methylphenidate
- Dextroamphetamine

### Other Options
- Acetylcholinesterase inhibitors
  - Have been found to reduce cognitive and behavioral symptoms in dementia and theoretically should reduce DV.
  - e.g., donepezil, galantamine, rivastigmine
- Electroconvulsive Therapy (ECT)
  - Reported to eliminate DV in patients resistant to other medications, but use still quite controversial

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