

ESP

VA Evidence Synthesis Program

Synthesizing evidence for VA leadership to improve the health and health care of Veterans

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July 25, 2024

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VA Evidence Synthesis Program

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What is the ESP?

ESP

Nimble

We adapt traditional methods, timelines, and formats to meet our partners' specific needs.

Rigorous

Rigor, transparency, and minimization of bias underlie all our products.

Relevant

Emphasis on Veteran population helps ensure our reviews are relevant to VA decision-makers' needs.

The VA **Evidence Synthesis Program (ESP)**, established in 2007, helps VA fulfill its vision of functioning as a continuously learning health care system. We provide timely, targeted, independent syntheses of the medical literature for the VHA to translate into evidence-based clinical practice, policy, and research.

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What is the ESP?

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- ESP reports are used to help:
 - Develop clinical policies informed by evidence
 - Implement effective services and support VA clinical practice guidelines and performance measures
 - Set the direction for future research to address gaps in clinical knowledge
- Four ESP Centers across the US
 - Directors are VA clinicians and recognized leaders in the field of evidence synthesis, and have close ties to the AHRQ Evidence-based Practice Center Program
- ESP Coordinating Center in Portland
 - Manages national program operations, ensures methodological consistency and quality of products, and interfaces with stakeholders
 - Produces rapid products to inform more urgent policy and program decisions
- To ensure responsiveness to the needs of decision-makers, the program is governed by a Steering Committee composed of health system leadership and researchers

The ESP accepts [topic nominations](#) throughout the year, and nominations are considered every 4 months.

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ESP Locations

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Coordinating Center
Portland, OR

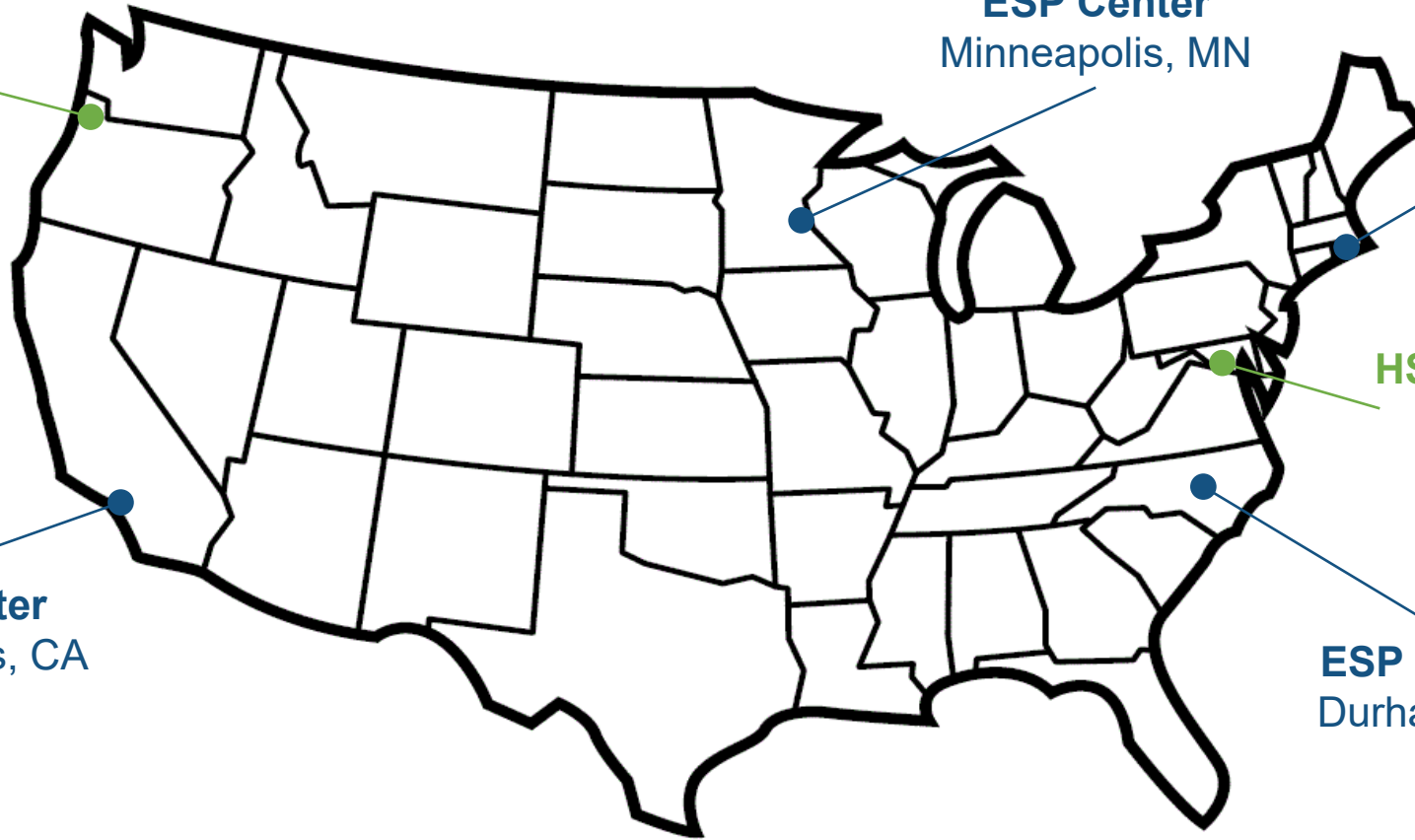
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Care for Older Adults with Distress Behaviors: Health Care Team-focused Interventions

November 2023

Full-length report available on [ESP website](#).

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This presentation was prepared by the Evidence Synthesis Program Coordinating Center located at the Durham VA Health Care System, directed by Karen M. Goldstein, MD, MSPH and Jennifer M. Gierisch, PhD, MPH and funded by the Department of Veterans Affairs, Veterans Health Administration, Health Services Research and Development.

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The ESP consulted several technical and content experts in designing the research questions and review methodology. In seeking broad expertise and perspectives, divergent and conflicting opinions are common and perceived as healthy scientific discourse that results in a thoughtful, relevant systematic review. Ultimately, however, research questions, design, methodologic approaches, and/or conclusions of the review may not necessarily represent the views of individual technical and content experts. The authors gratefully acknowledge the following individuals for their contributions to this project:

Operational Partner

Operational partners are system-level stakeholders who help ensure relevance of the review topic to the VA, contribute to the development of and approve final project scope and timeframe for completion, nominate technical expert panel members, provide feedback on the draft report, and provide consultation on strategies for dissemination of the report to the field and relevant groups.

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Technical Expert Panel (TEP)

To ensure robust, scientifically relevant work, the TEP guides topic refinement; provides input on key questions and eligibility criteria, advising on substantive issues or possibly overlooked areas of research; assures VA relevance; and provides feedback on work in progress.

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Distress behaviors are highly prevalent among older adults with cognitive and mental disorders



Behaviors can be exacerbated by over- or under-stimulation, unmet needs; unintentionally present in residential settings



Manifestations of patient distress and are highly challenging for health care systems, providers, and paid caregivers, leading to:

- Poor care provision, quality of life
- Staff burnout, low morale



Historically, some common strategies to manage distress behaviors are ineffective, not patient-centered (e.g., anti-psychotic medications, restraints)



Effective patient-centered, nonpharmacological approaches to support these patients and paid caregivers/providers are needed and guideline concordant, including

- Training healthcare workers/teams, adjusting workflow to promote positive change (e.g., [STAR-VA](#))

Study Goal

- Assess effectiveness of nonpharmacologic staff/clinic focused interventions to reduce patient distress behaviors in residential settings or transitions



What is the effect of health care team-focused interventions designed to manage persistent or recurrent distress behaviors among older adults...

- in long-term residential or inpatient health care settings
- between health care settings
- inpatient mental health settings

on patient, staff, and utilization outcomes?



Distress behaviors

- Physical or verbal aggression
- Repeated vocalizations
- Yelling
- Pacing
- Wandering
- Hoarding
- Handling objects unsafely
- Sexual disinhibition
- Psychosis
- Disengagement or apathy

- Rigorous evidence synthesis methodological approach
- *A priori* registered protocol: CRD42023402760 (PROSPERO)
- Searched Ovid MEDLINE, Elsevier Embase and Ovid PsycInfo (December 2002 – December 2022)
- Dual-review of titles/abstracts and full-text for eligibility
- All abstraction over-read by a second reviewer
- Intervention characteristics evaluated for complexity using iCAT-SR
- Risk of bias assessed using Cochrane ROB tools for randomized trials and other intervention study designs
- For KQ1, prioritized randomized trials and those with low to moderate risk of bias
- Strength of evidence assessed via GRADE

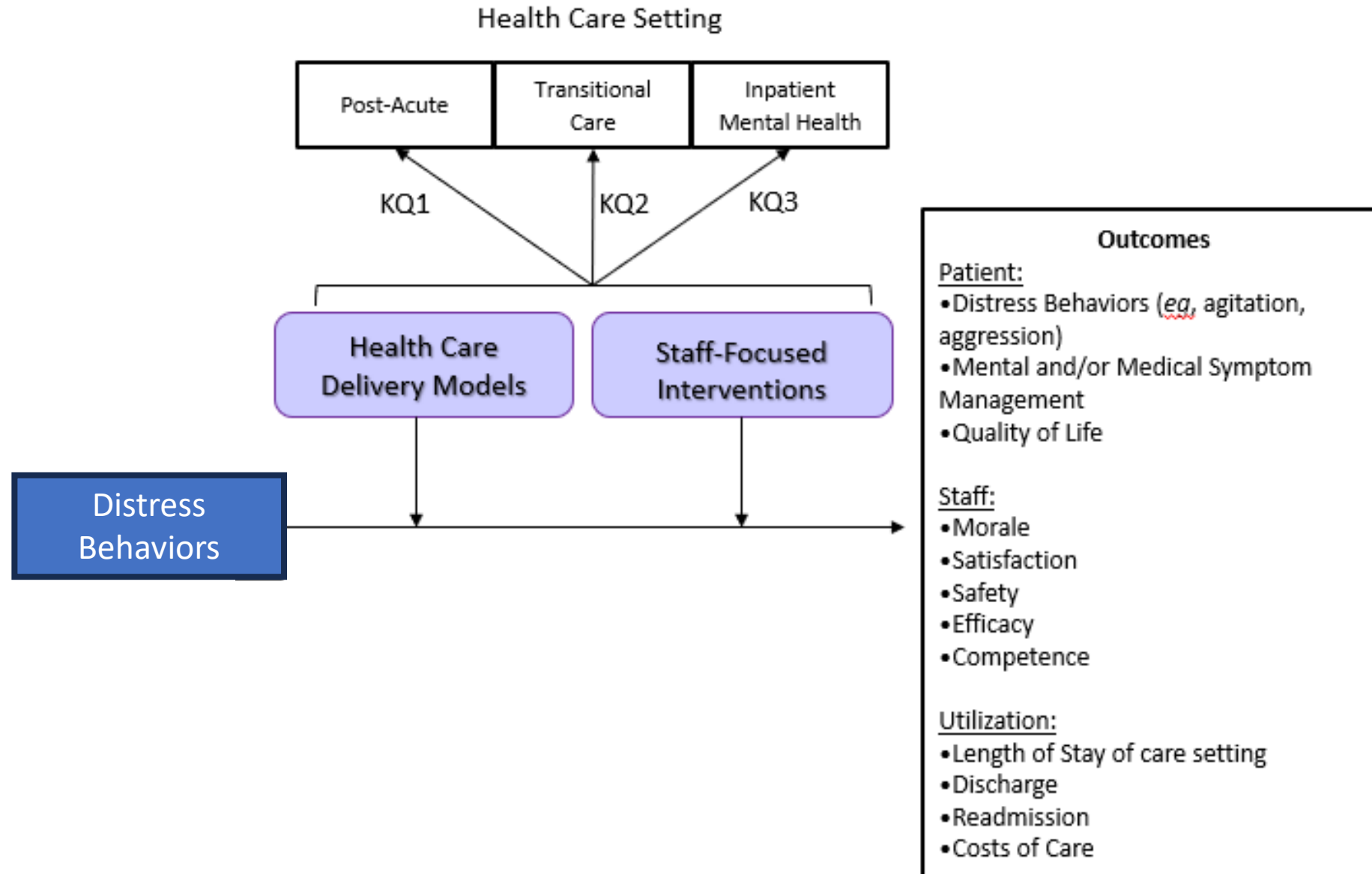
- Interventions primarily intended to improve health care staff knowledge and behaviors related to distress behavior management
- Adults ≥ 50 years at elevated risk of persistent or recurrent distress behaviors
- Residential, long-term, inpatient health care settings
- Transitional health care settings

Included:

- Solely patient-directed interventions (e.g., patient-tailored music)
- Delirium
- Intoxication
- Pediatric populations

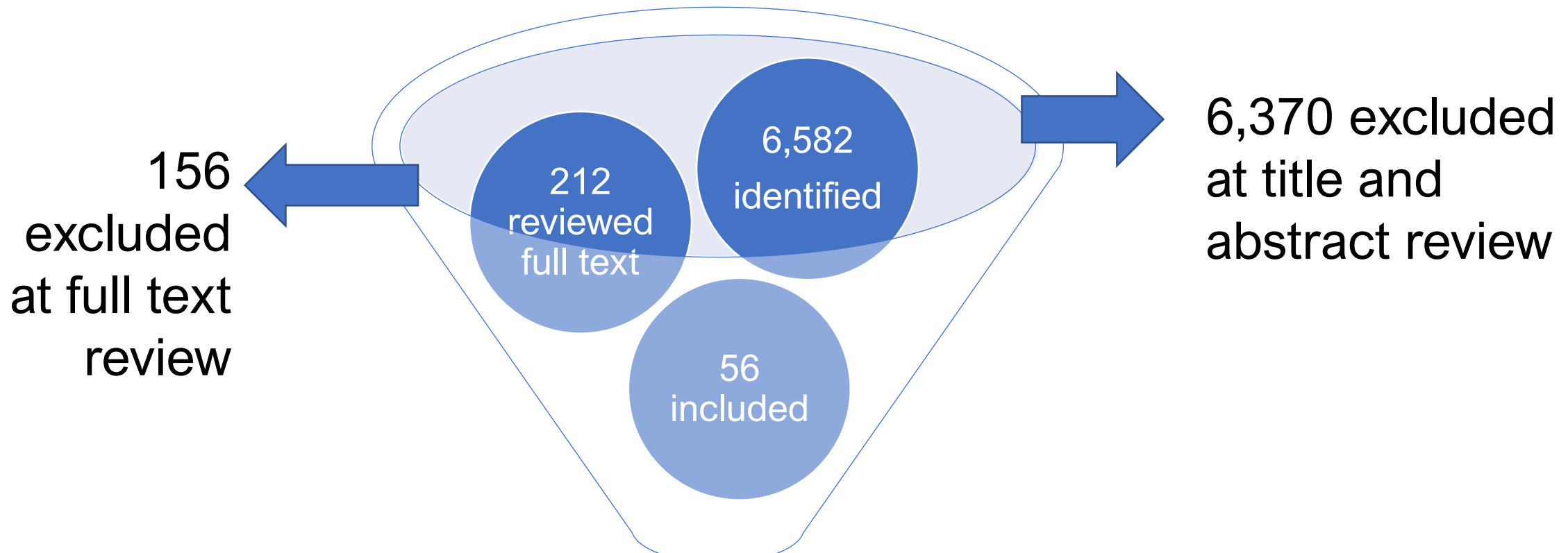
Excluded:





Literature Flow Diagram

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156
excluded
at full text
review

6,370 excluded
at title and
abstract review

**56 (48 unique studies) abstracted and
categorized by focus area**

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34 unique studies

- Long-term care/inpatient: 29 low/moderate risk of bias
- Transitions of care: 2
- Inpatient mental health: 3

Mean age range: 63.9 to 89.8

Countries:

- USA (n = 10), Europe (n = 18), Australia/NZ (n = 4), Japan (n = 1), Canada (n = 2)

Patient-focused Intervention Activities

- Staff intervenes on patient via assessment and care planning.

Health Care Worker-focused Activities

- Interventions to enhance staff abilities, knowledge or skills to manage distress

Health Care Worker and Patient-Focused Intervention Activities

- Combo of patient and HCW activities

Health Care Worker, Patient, and Environment-Focused Intervention Activities

- Combo of patient and HCW activities + modifying the environment to minimize distress.

Distress Behaviors

- Cohen-Mansfield Agitation Inventory (CMAI)
- Neuropsychiatric Inventory (NPI)
- Subscales of the above

Quality of Life

- DEMQOL-Proxy
- EQ-5D index
- QUALID
- QUALIDEM

Antipsychotic Use

- # reduction of medication

*Study characteristics:
Long-term residential and inpatient settings*

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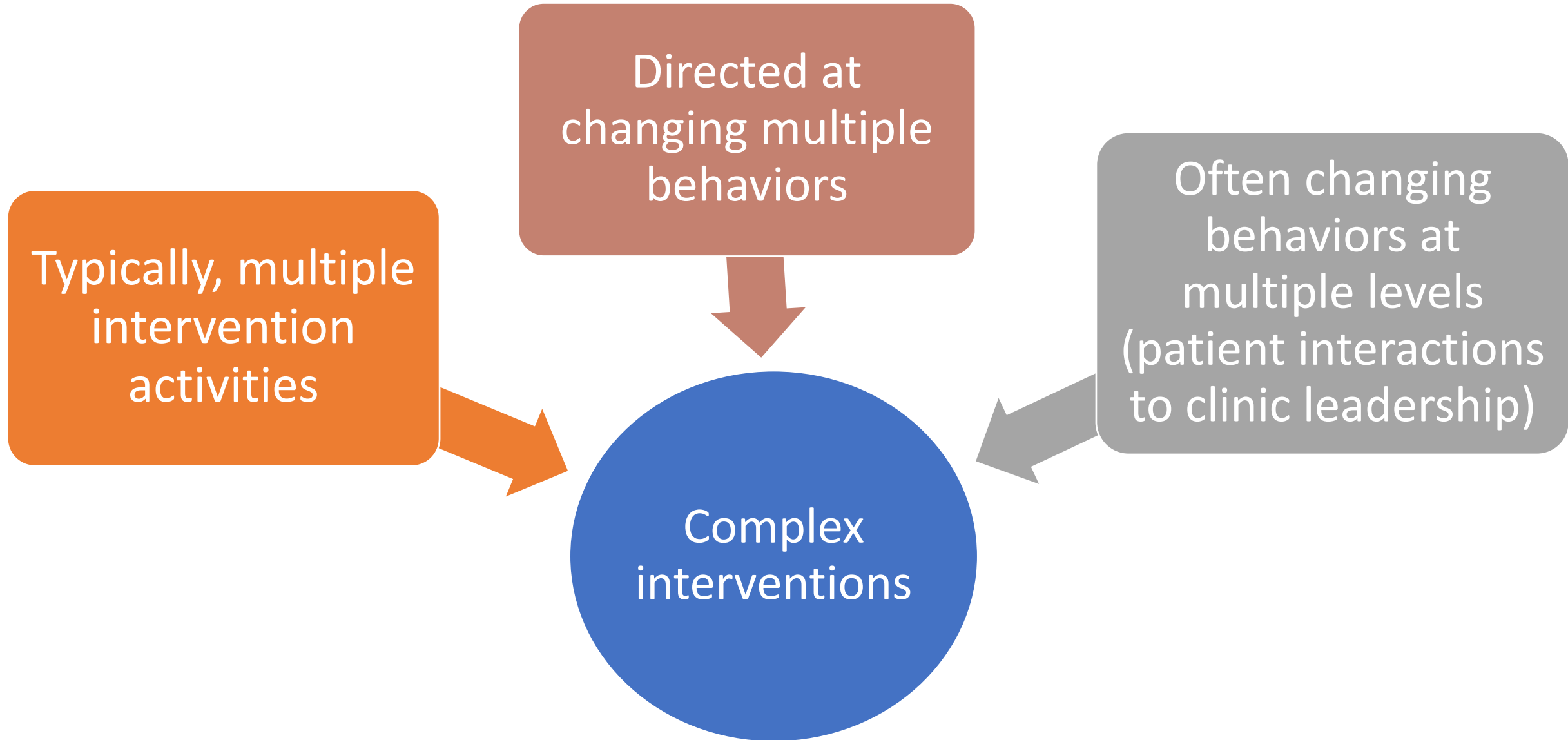
All among patients
in NH or LTC
facilities

Mostly patients
with dementia

Cluster
randomized

Study characteristics:
Long-term residential and inpatient settings

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Patient-Focused Intervention Activities Only

(N =3 studies; 365 patients)

Intervention Components:

- Diagnose distress behaviors
- Assessment and care planning
- Ongoing support for distressed behaviors
- Medication management
- Life histories

Agitation:

- No significant intervention effects by CMAI
- Some short term (<2 week) improvement by Agitation Behavior Mapping Instrument

Findings:

Long-term residential and inpatient settings

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Health Care Worker-Focused Intervention Activities Only

(N=6 studies; 1,689 patients)

Intervention Components:

- Providing education on dementia
- Building staff skills or implementing a tool
- Single 2-hour session → 2-day seminar and 6 monthly group meetings

Agitation:

- CMAI: 3 studies
 - no significant improvement
- NPI: 4 studies
 - Improvement short-term (4-8 weeks)
 - No long-term improvement (7-8 months)

Quality of Life:

- No significant effect

Antipsychotic use:

- No significant effect

Health Care Worker and Patient-Focused Intervention Activities (n= 17studies; 6,377 patients)

Intervention Components:

- Most common: assessing resident behaviors for care planning
- 3-hour lecture to 2 days per week for 10 months
- 4-20 months duration

Agitation

CMAI 11 studies

- Meta-analysis of 7 studies – no reduction (SMD -0.31 ($-0.78, 0.16$))

NPI 9 studies

- Meta-analysis of 5 studies – moderate, but non-significant reduction (SMD -0.47 ($-1.18, 0.24$))
- Notable heterogeneity
- More components may be more effective

Health Care Worker and Patient-Focused Intervention Activities
(n= 17 studies; 6,377 patients)

Intervention Components:

- Most common: assessing resident behaviors for care planning
- 3-hour lecture to 2 days per week for 10 months
- 4-20 months duration

Quality of Life

9 studies

- Meta-analysis of 5 studies found medium to large beneficial effect with SMD 0.71 (0.39, 1.04)

Anti-psychotic Use

8 studies

- Meta-analysis of 6 studies found reduced odds of medication use with OR 0.45 (0.22, 0.91)

**Health Care Worker,
Patient, & Environment-
Focused Intervention
Activities**

(N = 3 studies; 432 patients)

- No significant effect on agitation, quality of life

Two studies evaluated patient distress behaviors during transitions to more supportive residential settings.

- One study (N=116) found a significant reduction in distress behaviors among 14 patients... with no change in the other 112 patients.
- The second study found no change in "negative affect or inappropriately engaged" behaviors.

Two primarily staff-focused interventions were evaluated across 3 articles.

- A theoretically driven, multifaceted intervention with 10 packaged activities (e.g., Safewards) was found to reduce the rate of conflicts per shift by 15% and the rate of containment events by 26.4%.
- A second evaluation of a single-site staff education program with ongoing monitoring reduced the average number of aggressive incidents toward peers or objections by 6 to 2.

- **Focus on Dementia Care in Long-Term Residential Settings**
 - Most studies involved dementia patients in long-term settings
- **Short-Term vs. Long-Term Benefits On Distress Behaviors**
 - HCW-only interventions (skills building and education) → short-term gains
 - HCW + Patient interventions → improved QOL, reduced antipsychotic use, distress reduction was inconclusive but in the direction of being beneficial
- **Continued Gaps in Research**
 - Few studies examined interventions involving transitions in care locations or that evaluated multi-faceted interventions from inpatient mental health settings.

- **Interventions that prioritize quality of life and other potential mechanisms offer a novel route to address distress and hold promise for significant improvements in patient care.**
- **Insufficient evidence base to assess the impact on healthcare worker outcomes remains.**
- **Addressing distress is clearly complex and may require multi-level interventions to target distress behaviors.**

- **Identified Literature**

- Most of literature from long-term care settings of patients with dementia
- Complex interventions – multiple behaviors and clinical practices
 - Could not determine effectiveness of individual intervention components
- Very little found related to transitions of care
- Staff turnover generally not reported
- Definition distress varies across studies

- **Our approach**

- Did not include workplace violence literature
- Interventions not primarily focused on distress behavior management



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Questions?

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If you have questions, feel free to contact:

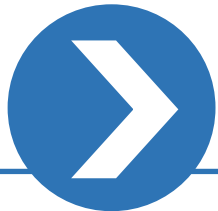
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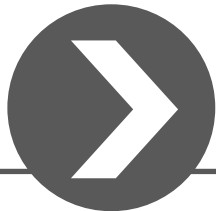
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Ramos K, Shepherd-Banigan M, McDermott C, McConnell ES, Raman SR, Chen D, Der T, Tabriz AA, Boggan JC, Boucher NA, Carlson SM, Joseph L, Sims CA, Ma JE, Gordon AM, Dennis P, Snyder J, Jacobs M, Cantrell S, Gierisch JM, Goldstein KM. Health Care Team Interventions to Reduce Distress Behaviors in Older Adults: A Systematic Review. Clin Gerontol. 2024 Jul 2:1-16. doi: 10.1080/07317115.2024.2372424. Epub ahead of print. PMID: 38954524.

[LINK](#) to full ESP report



[ESP on the Internet](#)



[ESP on the VA Intranet](#)



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