



Assessment and Management of Behavioural Changes in Dementia: DICE vs. P.I.E.C.E.S.™

Summary based on: Comparative analysis of the DICE Approach and P.I.E.C.E.S. Approach frameworks for dementia care.

Overview

Healthcare professionals often utilize structured frameworks to support older adults living with dementia who experience behavioural changes. Two of the most prominent models are the **DICE Approach** and the **P.I.E.C.E.S. Approach**. While both recognize that behaviour is a form of communication often signaling unmet needs, they differ in their primary focus and application.

- **DICE** is typically the preferred tool for managing **specific, distressing behaviours** (biological and psychological symptoms of dementia; BPSD) through a structured problem-solving method.
- **P.I.E.C.E.S.** offers a **broader, holistic assessment** of the person's overall well-being, function, and environment, often used for team-based care planning.

Key Takeaways

- **Scientific Alignment:** Both frameworks align with clinical guidelines prioritizing non-pharmacological interventions and root-cause investigation before medication.
- **Complementary Use:** These tools are not mutually exclusive. P.I.E.C.E.S. is ideal for baseline assessments, while DICE is best for targeting acute behavioural episodes.
- **Evidence Base:** DICE has a stronger base of peer-reviewed research and randomized controlled trials (RCTs) specifically for BPSD outcomes. P.I.E.C.E.S.

has strong qualitative evidence for implementation and team capacity building in Canadian settings.

The Frameworks Defined

1. The DICE Approach

Targeted BPSD Management

- **D – Describe:** Clearly define the specific behaviour (who, what, when, where).
- **I – Investigate:** Look for underlying causes (medical, environmental, caregiver factors).
- **C – Create:** Develop a plan to prevent or respond to the behaviour.
- **E – Evaluate:** Assess if the plan worked and adjust as needed.

2. The P.I.E.C.E.S. Approach

Comprehensive Holistic Assessment

- **P – Physical:** Pain, physical health, mobility, drugs/medications.
- **I – Intellectual:** Cognitive changes, insight, memory, executive function.
- **E – Emotional:** Mood, depression, anxiety, trauma, delusions.
- **C – Capabilities:** What the person *can* still do (strengths and abilities).
- **E – Environment:** Noise, light, routine, social space, timing.
- **S – Social:** Life story, cultural background, social network, intimacy.

Side-by-Side Comparison

Feature	DICE Approach	P.I.E.C.E.S. Approach
Primary Purpose	Structured method to assess and manage specific BPSDs (e.g., agitation, wandering).	Holistic framework to assess overall changes in function, behaviour, and well-being.
Structure	Sequential Steps: Describe → Investigate → Create → Evaluate	Domain Assessment: Physical, Intellectual, Emotional, Capabilities, Environment, Social
Typical Setting	Specialist dementia settings, memory clinics, and caregiver training programs.	Long-term care (LTC), geriatric services, and interdisciplinary team rounds.
Implementation	Requires caregiver education (e.g., worksheets, simulations). Quicker for targeted episodes.	Emphasizes team dialogues and shared assessment. Broader scope and may require more time.
Evidence Landscape	Moderate/Expanding: Includes RCTs, training, impact studies, and protocols for BPSD outcomes.	Implementation-Focused: Strong adoption in Canada with studies on staff capacity and team processes, but fewer controlled patient-outcome trials.
Strengths	<ul style="list-style-type: none"> • Emphasizes root-cause analysis. • Strong focus on caregiver education. • Clear, actionable workflow. 	<ul style="list-style-type: none"> • Addresses the "whole person." • Promotes interdisciplinary collaboration. • Identifies strengths/capabilities.

References

- **DICE Approach:** <https://diceapproach.com/>
- **P.I.E.C.E.S. Canada:** <https://piecescanada.com/>

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