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Original Study

Reliability and Validity of the Care Plan Checklist for Evidence of Person-Centered Approaches for Behavioral and Psychological Symptoms Associated With Dementia

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A B S T R A C T

Purpose: The purpose of this study was to test the reliability and validity of the Care Plan Checklist for Evidence of Person-Centered Approaches for Behavioral and Psychological Symptoms Associated with Dementia (BPSD).

Methods: This study used baseline data from the first cohort of a larger randomized clinical trial testing the implementation of the Evidence of Integration Triangle for BPSD. Fourteen settings volunteered to participate, 8 from Maryland and 6 from Pennsylvania, and a total of 137 residents were recruited. In addition to completing the Care Plan Checklist for Evidence of Person-Centered Approaches for BPSD, assessments of depressive symptoms (Cornell Scale for Depression in Dementia), resistiveness to care (Resistiveness to Care Scale), and agitation (Cohen-Mansfield Agitation Inventory) were also completed on each participant. Reliability was tested based on evidence of internal consistency and inter-rater reliability. Construct validity was tested using a Rasch measurement model to determine item fit and hypothesis testing using bivariate correlations. Item mapping was also performed.

Results: The majority of the sample was female (69%), Caucasian (69%), non-Hispanic (98%), and not married (78%). The mean age of the sample was 82.01 years (standard deviation = 11.44). There was evidence of reliability based on internal consistency with a Cronbach alpha of 0.96 and inter-rater reliability with correlations between 2 evaluators of r = 0.93, $P = .001$. There was evidence of validity of the scale based on item fit as the infit statistics and outfit statistics were all within the acceptable range with the exception of the outfit statistic for the item focused on sexually inappropriate behaviors. Lastly, there was evidence of significant relationships between the Care Plan Checklist for Evidence of Person-Centered Approaches for BPSD and the Cornell Scale for Depression in Dementia (r = 0.38, $P < .001$) and the Cohen-Mansfield Agitation Inventory (r = 0.44, $P < .001$). There was not a significant relationship between resistiveness to care and scores on the Care Plan Checklist for Evidence of Person-Centered Approaches for BPSD (r = −0.02, $P = .86$). There were 78 care plans that were so low in evidence of using appropriate interventions that they could not be differentiated.

Conclusions: There was sufficient evidence for the reliability and validity of the Care Plan Checklist for Evidence of Person-Centered Approaches for BPSD. Additional items should be considered to better differentiate those low on the Checklist for Evidence of Person-Centered Approaches for BPSD.

A number of pathophysiological, psychological and environmental mechanisms likely underlie behavioral and psychological symptoms associated with dementia (BPSD).[1–3] From a clinical perspective, BPSD have been conceptualized as expressions of un-met needs[4] and are exhibited by up to 90% of residents with dementia.[2,5,6] Close to 20% of residents in long- term care facilities with dementia have behaviors that

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interfere with daily living.[7] BPSD contribute to poor quality of life, more rapid cognitive and functional decline, and put residents at risk for inappropriate use of antipsychotics as well as other psychotropic medications (antidepressants, anxiolytics, sedative/hypnotics) and physical or environmental restraints that reduce function.[6,7] The use of psychotropic medications among individuals with dementia is associated with a more rapid physical and cognitive decline than would otherwise be anticipated and use of these drugs has led to little or no improvement in BPSD.[6,7]

Behavioral approaches have repeatedly been endorsed as the first line of treatment for BPSD.[8–10] The Centers for Medicare and Medicaid has focused regulatory oversight on decreasing the use of inappropriate antipsychotics and increasing the use of patient-centered care approaches in long-term care settings. The goal is to ensure that care for residents with dementia is person-centered and assures optimal safety and quality of life.[11] Despite all of these regulatory efforts nursing homes do not consistently use person-centered care plans.[12]

Care Plan Requirements in Long-Term Care

One way in which to improve the implementation of person-centered behavioral approaches for BPSD is through resident care planning in long-term care settings. Requirements for comprehensive person-centered care planning are detailed in 483.21 of the Regulatory Manual.[11] Specifically, long-term care settings are required to develop and implement an interdisciplinary care plan that provides effective and person-centered care. The plan of care should focus on reducing or eliminating inappropriate psychotropic medications and using person-centered behavioral approaches such as those included in Table 1. Person-centered care requires a shift in the philosophy of care from a focus on custodial, task oriented approaches to care that facilitates autonomy, independence, and quality of life of the residents. It involves a care model that upholds the older adults' humanity and works on the unique needs of the individual rather than institutional and biomedical goals.[12]

The Checklist for Evidence of Person-Centered Approaches for BPSD in Care Plans

To objectively evaluate care plans with regard to use of person-centered behavioral approaches to BPSD the Checklist for Evidence of Person-Centered Approaches for BPSD in Care Plans was developed.[13] Behavior and psychological symptoms addressed included apathy, agitation, inappropriate/disruptive vocalizations, aggression, wandering, repetitive behaviors, resistance to care, and sexually inappropriate behaviors. These 8 behaviors were considered as these are the behaviors that are most commonly noted and are generally unresponsive to pharmacologic interventions.[14] Establishing a reliable and valid measure to evaluate whether or not care plans incorporate behavioral and person-centered approaches can help to optimize care, assure adherence to regulatory guidelines, and guide facilities in targeting residents that need revisions in care plans to better reflect behavioral and person-centered approaches. Further, the assessment of care plans can help determine the need for staff education around use of behavioral and person-centered care approaches. The purpose of this study was to test the psychometric properties of the Checklist for Evidence of Person-Centered Approaches for BPSD in Care Plans.

Table 1
Person-Centered Behavioral Approaches to Management of BPSD

Type of Approach	Description of Interventions
Sensory stimulation	Music therapy
	Snoozelen multisensory stimulation rooms
	White noise
	Light therapy
	Aromatherapy
	Massage and light touch therapy
	Pet therapy/petting
	Art therapy
Cognitive-behavioral management and cognitive-emotional therapy	Habit training
	Communication training
	Cognitive behavioral therapy and positive reinforcement
	Reminiscence therapy
	Simulated presence therapy
	Validation therapy
Structured activity	Scheduled activities throughout the day
	Exercise class
	Recreational activities
	Group and individual activities
	Meaningful volunteer activities (eg, setting the table for meals)
Social contact	Animal assisted therapy
	One-on-one therapy
	Simulated presence therapy
Environmental modifications	Open areas for ambulation/wandering
	Gardens and natural environments
	Reduced stimulation units
	Reduced and special lighting
	Restraint free environment
Clinically oriented	Pain management
	Comprehensive assessment
	Delirium recognition and management
	Restraint removal – both chemical and physical
Staff training approaches	Communication techniques (person-centered vs task oriented)
	Person-centered bathing – time and technique preferences
	Oral care training to optimize self-care activities
	Assessment of resident needs (eg, pain, hunger)
	Management of acute presentations of BPSD
	Appropriate talk and touch
	Use of distraction

Methods

Design and Setting

This study was approved by a university-based institutional review board and used baseline data from the first cohort of a larger randomized clinical trial testing the implementation of the Evidence of Integration Triangle for BPSD. Settings were invited to participate in the study if they (1) agreed to actively partner with the research team on an initiative to change practice; (2) had at least 100 beds; (3) identified a registered nurse, licensed practical nurse, or certified nursing assistant to be an internal champion and work with the research team in the implementation process; and (4) were able to access email and websites via a phone, tablet, or computer. Invitation letters were sent out to 100 long-term care settings and 14 settings volunteered to participate, 8 from Maryland and 6 from Pennsylvania.

Residents were eligible to participate if they (1) were living in a participating nursing home; (2) were 55 years of age or older; (3) had a history within the past month of exhibiting at least 1 BPSD; (4) had cognitive impairment as determined by a score of 0–12 on the Brief Interview of Mental Status (BIMS)[15]; (5) were not enrolled in hospice; and (6) were not in the long-term care setting for short-stay rehabilitation care. A list of all eligible residents was obtained from a designated staff member, and residents were then approached with the goal of recruiting 12–13 residents per setting. After discussing the study with an eligible resident, he/she was asked to complete the Evaluation to Sign Consent (ESC).[16] Evidence of ability to sign consent was based on correct responses to all 5 items on the ESC. If decisional