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A RESIDENT-CENTERED DEMENTIA CARE STAFF EDUCATION PROJECT TO
REDUCE CHALLENGING BEHAVIORS AT A LONG-TERM CARE FACILITY

By

Margaret Huryk

DNP Scholarly Project Committee

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Susan Zboray, RN, APN, Mentor

Submitted in partial fulfillment of the
Requirements for the degree of Doctor of Nursing Practice

Seton Hall University

2016

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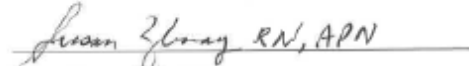
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Abstract

Frequent use of antipsychotic medication (APM) for behavioral and psychological symptoms of dementia (BPSD) persists at high levels in long-term care (LTC) facilities despite extensive evidence of modest clinical benefits, serious adverse effects, public health advisories and a national initiative to improve dementia care. There is a gap between best-practice evidence and actual clinical practice related to pharmacological and nonpharmacological care for persons with dementia (PWD) and BPSD and/or neuropsychiatric symptoms (NPS) of dementia. The literature shows that clinicians often ignore FDA (Food and Drug Administration) warnings, CMS (the Centers for Medicare and Medicaid Services) initiatives and expert opinion regarding the use of APMs and other psychotropic medications. Surveyed nursing home staff believe pharmacological interventions are more effective than nonpharmacological interventions to manage challenging behaviors. Previous studies document that nonpharmacological interventions and patient/resident-centered education programs are effective in reducing the frequency and severity of BPSD. This project presents an evidence-based interdisciplinary education program developed and administered at a Long Term Care (LTC) facility in the northeast. This program was designed to help staff at long-term care facilities who work with persons with dementia (PWD). This educational intervention project teaches staff a resident-centered approach that enhances care-planning skills for behavior problems and emphasizes meaningful activities to improve the PWD's quality of life, reduce distressing symptoms and decrease the use of psychotropic drugs. This project uses Watson's Theory of Human Caring and integrates several effective patient-centered educational strategies including the STAR-VA program available in the public domain. The STAR-VA program has demonstrated that an intensive interdisciplinary staff education program and development of a behavioral support

team can reduce the frequency and intensity of BPSD for PWD. The current project's specific educational program for nurses, nurse managers, certified nursing assistants, activity staff, unit secretaries, and social workers includes five 30-45 minutes sessions. The results demonstrate that an education project can be implemented in a LTC facility to heighten awareness and help staff consider the use of meaningful individualized activities to decrease BPSD.

Recommendations include the continued testing of the modified STAR-VA program in long-term care facilities with dissemination to assist staff in working with PWD to reduce BPSD with a nonpharmacological approach.

Background

Dementia is a major health care problem for the 21st century. The United Nations' population projections (2010) estimate that 35.6 million people worldwide have dementia. The United States' estimate is 3.9 million. The number of PWD is estimated to double every 20 years. By 2030, the projection is 65.7 million PWD and, by 2050, 115.4 million worldwide. This is a major concern for health care planning and financing (Prince et al., 2013). Dementia describes a wide range of symptoms associated with a decline in memory or other cognitive processes (e.g., judgement, insight, reasoning, communication, attention and perception) severe enough to affect activities of daily living (ADL). Dementia is a complex disease with multiple presentations and causes. The clinical hallmark of the disease is cognitive impairment with noncognitive behavioral and psychological symptoms of dementia (BPSD) presenting and often the focus of care (Kales et al., 2011). In 1996, the International Psychogeriatric Society developed a consensus statement that defined BPSD as signs and symptoms relating to brain disease of dementia. These encompass anxiety, depressive mood, hallucinations, delusions, aggression, screaming, restlessness, agitation, wandering, culturally inappropriate behaviors, sexual disinhibition, hoarding behaviors, cursing and shadowing (Finkel, Silva, Cohen, Miller, & Sartorius, 1997). Most PWD will experience BPSD during the course of the disease with an estimated 60-98% incidence (Sink, Holden, & Yaffe, 2005).

The associations between BPSD and antipsychotic use and nursing home placement have been discussed in the literature (Gitlin & Rose, 2013; Sink, Holden, & Yaffe, 2005). Caring for PWD experiencing BPSD is a major challenge in the community and LTC facilities with limited evidence of the effectiveness of nonpharmacological strategies (Konno, Kang, & Makimoto, 2014) and lacking any FDA approved pharmacological interventions for BPSD (Salvig et al.,

2015). In fact, the U. S. Food and Drug Administration (FDA) has specifically warned the pharmaceutical industry, healthcare providers, prescribers and consumers against the use of antipsychotics for PWD with psychosis (U. S. Food and Drug Administration, 2005; U. S. Food and Drug Administration, 2008).

The Omnibus Budget Reconciliation Act of 1987 addresses several quality issues in nursing homes, but in particular, it aims to reduce unnecessary medication use such as antipsychotic drugs for the treatment of BPSD/NPS (Hughes, Lapane, Mor, Turrell, & Castleden, 1999; Smith, et al., 2013). Although this law has been active since 1990, nursing homes have had difficulty complying especially with the use of atypical antipsychotic medications. In 2005, the FDA issued black box warnings due to the increase in mortality with the use of atypical antipsychotic medications in dementia patients, which was a 1.6-1.7 fold increase compared to placebo (Jeste, et al., 2008; Reisberg, et al., 2014; Smith, et al., 2013). The increase in mortality and morbidity with atypical and conventional antipsychotics is associated with cardiovascular events, dysrhythmias, heart failure, infectious conditions, usually pneumonia and falls as well as movement disorders (U. S. Food and Drug Administration, 2005; U. S. Food and Drug Administration, 2008). These warnings have not stopped the use of these medications especially with few options for treatment of BPSD/NPS (Briesacher et al., 2005). Antipsychotics continue to be utilized frequently to manage BPSD in spite of the evidence of modest clinical benefit, serious adverse effects and the public health advisories (Kales, Gitlin, & Lyketsos, 2014; Sink, Holden, & Yaffe, 2005). Many research studies have demonstrated mortality risk of antipsychotic use among persons with BPSD (Gill et al., 2007; Huybrechts et al., 2012; Kales et al., 2007; Schneeweiss, Setoguchi, Brookhart, Dormuth, & Wang, 2007). One hallmark study, the CATIE-AD trial, concluded that the adverse events with atypical antipsychotics outweigh the

effectiveness of the drugs for BPSD (Schneider et al., 2006). There is a large gap between the best evidence for practice and actual clinical care with the frequent use of antipsychotics and limited use of nonpharmacological interventions for BPSD.

Dementia care has been under scrutiny by the federal and state governments in the USA for decades due to the dangerous side effect profiles, poor outcomes and high cost for small benefits with pharmacological interventions for BPSD as reported by the Office of Inspector General (Levinson, Pattison, & Walden, 2011). Several countries have also been working on initiatives to change the management of the disease due to the growing global projections of dementia (Levinson, 2012; Prince et al., 2013). In 2010, CMS examined the use of antipsychotic medications in LTC in response to the OIG report which revealed 39.4% of LTC patients' with cognitive deficits and behavior issues received antipsychotic medication "off-label" without a psychosis indication or CMS-approved diagnosis. This revelation spurred CMS to lead a national initiative to reduce the use of antipsychotics in LTC to treat BPSD/NPS by 15% through 2012 (Rice & Humphreys, 2014). The National Partnership to Improve Dementia Care in Nursing Homes is devoted to achieving significant reduction in drug use. The trends as of the third quarter of 2015 showed that APM use in nursing homes has been reduced 27% nationally since 2011, with a current prevalence of 17.4% (CMS, 2016) PWD residing in long term care facilities receiving off label APMs. At the educational project's facility, there is an 11.2% APM use, which is below the national average and below the state's average of 12.87%.

The National Partnership has encouraged multiple programs to help stakeholders (PWD, care partners, nursing home facilities and their associations, administrators, etc.) to improve and optimize person-centered care (PCC) for PWD (Carnahan et al., 2012; Kales et al., 2014; Karlin et al., 2015; Kolanowski & Van Haitsma, 2013; Smith et al., 2013). There is increasing evidence

that nonpharmacological interventions are effective with limited adverse effects compared to pharmacological treatment (Brodaty & Arasaratnam, 2012; Karlin et al., 2015). Although nonpharmacological interventions are the recommended initial treatment for BPSD, it is still common practice to use antipsychotic drugs as first line treatment for BPSD or after one failed attempt with nonpharmacological interventions (Kales, Gitlin, Lyketsos, 2014). Nursing staff, who managed PWD, have demonstrated a knowledge deficit of best practices and have widely held the belief that antipsychotics are effective with a safe side effect profile (Lemay et al, 2013). The majority of PWD will develop BPSD over the course of their disease, which causes patient distress, caregiver burden and often precipitates institutionalization (Kales, Gitlin & Lyketsos, 2014). While some severe and persistent BPSD may require pharmacological management (Sink, Holden, & Yaffe, 2005), the research does not support significant benefit and consistently identifies increased risks especially when used long term. It is imperative that we identify effective nonpharmacological interventions to prevent and/or reduce the duration and the use of psychotropic medication for this very vulnerable population (Seitz et al., 2012).

Treatment for BPSD is now focused on nonpharmacological interventions. This is not new, it has always been an option but now the regulators, third party payers and geriatric experts are challenging the use of APMs and promoting nonpharmacological treatment first ("ASCP Policy Statement Use of Antipsychotic Medications in Nursing Facility Residents," 2011; Cohen-Mansfield & Jensen, 2008; Watson-Wolfe, Galik, Klindedinst, & Brandt, 2014). One of the programs using nonpharmacological interventions available in the public domain is the STAR-VA Intervention for Managing Challenging Behaviors in VA Community Living Center Residents with Dementia. This program stresses realistic expectations in dealing with PWD, adding person-specific meaningful, purposeful activities throughout the day and care planning

techniques for problem solving challenging behaviors (Karel, Teri, McConnell, Visnic, & Karlin, 2015; Karlin et al., 2015). Stakeholders and providers must have realistic expectations for training and skill development necessary to care for PWD throughout the course of the disease. These complex skills require education and practice. It is unrealistic to expect that care partners (certified nurse assistants, activities staff, nurses, unit secretaries, social workers, charge nurses or unit managers) have the ability to perform this level of care without intensive training and continued support. This is especially true considering that as the disease progresses a PWD has increasing risk of impaired speech, language deficits, functional, emotional and behavior control issues. The majority of care providers at the bedside do not have formal training (Barbosa, Nolan, Sousa, & Figueiredo, 2014). The skill set required to manage PWD is even greater as the disease advances. We have expected staff to manage the complexity of caring for PWD intuitively without training (Barbosa, Nolan, Sousa, & Figueiredo, 2014). For care partners to interact therapeutically with PWD, intensive training, opportunities for guided practice, and annual competency review are necessary to maintain these skills.

At a LTC facility in the northeast a lack of dementia training was identified. The need for further education was supported by data identifying increased psychiatric hospitalizations for BPSD on six units, multiple skin tears and bruising with PWD, and anecdotal data such as frequent staff complaints that residents are not medicated enough because of behavior issues. As examples, staff would present to the nurse practitioner (NP) that a patient was aggressive during needed care or disruptive with constant yelling or walking frequently in the hallways or was experiencing unruly behavior (e.g., going in and out of other residents' rooms or demanding to go home). The staff would then request a benzodiazepine, antidepressant, mood stabilizer or antipsychotic medication. The entire facility lacked a formal mechanism to assess the behavioral

problem as a team, including bedside staff members, so a plan for nonpharmacological treatment could not be initiated. Individual staff attempted to use nonpharmacological techniques initially for new BPSD. However, when the standard interventions for unmet physical needs (hunger, thirst, incontinence, pain, etc.) interventions were ineffective, the staff would not know what else to try besides asking for a pharmacological approach. The idea of making the PWD's day pleasant/relieve boredom or frustration and improve their quality of life was not recognized as a possible strategy to prevent BPSD. The caregivers' daily routine consisted of waking up residents, bathing, dressing, breakfast, toileting, day room duty, toileting, lunch, toileting, providing snacks, dayroom duty and hallway duty, etc. The staff was very aware that a major part of their job was to prevent falls, so they encouraged residents to sit especially in the dayroom. There was no coordination or collaboration with activity staff to perform pleasant event activities and no formal way for care partners to share what they learned about the resident (e.g., biography, preferences, abilities) in order to provide PCC. The direct care staff verbalized that the activity staff was responsible for activities to entertain the residents in a group setting. Personalized meaningful activities were not perceived as an option by busy direct care workers (DCW, e.g., activities staff, RN, LPN, CNAs,). Constant discussions on the unit revolved around poor staffing issues, staff being overworked, and not enough time to provide physical care to the residents.

Description of the Project

The Resident-Centered Dementia Care Staff Project is now being implemented at the facility. The education program focuses on the staff for the two specialty units for persons with dementia (PWD). One specialty unit is for ambulatory PWD and the other is restricted to PWD with advanced dementia who are no longer ambulatory. Initially the project was developed to

educate the entire staff on all the units to include the three shifts, maintenance workers, administrative staff, housekeeping, social workers, dietary staff, dieticians, unit secretaries, activity staff, certified nursing assistants, charge nurses, unit RNs and LPNs and the therapy staff (PT, OT, SLP). After the initial sessions in September 2015, the Department of Health (DOH) annual survey was performed at the facility in October 2015. The surveyors recommended improving the care on the ambulatory unit for PWD by including meaningful person centered activities for each resident in a teamwork structure. The Assistant CEO requested that a Quality Assurance Project Improvement (QAPI) committee convene for the dementia specialty units with the goal of addressing the DOH recertification recommendations. In addition, education of the staff on the dementia units was required to meet some of the QAPI goals. After meeting with the Assistant CEO to brainstorm ideas for inclusion in the staff education, the program was developed with the idea of monthly 30-45 minute inservice sessions over 9 months for the two specialty units managing ambulatory and nonambulatory PWD. The educational sessions focus on teaching a resident-centered approach that enhances care-planning skills for behavior problems and emphasizes meaningful activities to improve a PWD's quality of life utilizing the STAR-VA program with additions from other programs in the public domain (Biglari, 2015; Carnahan et al., 2012; Kales et al., 2014; Kolanowski & Van Haitsma, 2013; Smith et al., 2013). The direct recipients of the project would be the staff members with the goal to improve their dementia care competencies with PWD. The outcomes of the project would benefit the PWD, their significant others, the care partners on the units, and the administration.

Purpose of the Project

An education project is proposed as a tool to improve dementia care at the nursing home. The organizational culture can be a tremendous support, hindrance or barrier to the utilization of nonpharmacological interventions with the subsequent avoidance or use of antipsychotic drugs. Other factors that impede evidence-based practices in nursing homes include limited decision capability of staff to implement change, challenges associated with poor staffing patterns, lack of adequately trained staff and organizational cultures that are not receptive to change (Smith et al, 2013). All of these issues are potential constraints at the project facility.

Goals and Objectives

The goals of the project are to improve the skills of the staff in providing care to PWD experiencing BPSD and to improve the quality of life for the VHR with dementia by identifying meaningful activities related to the PWD's interests and abilities.

At completion of the project, the staff will be able to:

- utilize the ABCDE care planning method in a team structure to identify activators that contribute to and/or cause BPSD (See Appendix B).
- utilize the REAL communication technique (See Appendix A).
- reduce the frequency and severity of BPSD/NPS.
- reduce the requests for psychotropic drugs especially antipsychotics for BPSD.
- meet the educational requirements to maintain dementia unit designation for the ambulatory unit and possibly improve job satisfaction.

Significance of the Project

Staff in LTC require skills that the educational project includes to effectively work with this vulnerable, susceptible population. The FDA warning and current dementia care in nursing homes require a better way of managing BPSD. Education that includes content and practice is a key way to give staff a new way of interacting with PWD and treating BPSD. The educational project teaches staff about dementia brain effects, the lower stress response theory, unmet needs model, the relationship between dementia and BPSD, effective communication (REAL Communication), care planning tools (ABCDE approach for problem solving), practice of ABCDE tool with staff's own residents and case scenarios to demonstrate ways to provide personal meaningful activities. Research findings show that these interventions have decreased BPSD in LTC and other settings (Karel et al., 2015). The expected effect is improved quality of life for PWDs and alleviation of emotional distress with BPSD by providing resident-centered care with personal meaningful activities. The benefit will be to increase the knowledge and empower staff to have confidence in PCC and managing BPSD. This project has the potential to improve job performance, job satisfaction and decrease staff burnout. The administrative impact of the project could be to meet the advisory standards for a dementia-designated unit, reduce staff workload attending to resident bruises and skin tears, and decrease inpatient hospital admissions, which deplete facility financial resources.

The contribution to the nursing world is significant because it demonstrates a way to provide nursing staff and the interdisciplinary team a different and effective way to treat BPSD. This project is applying a modified version of the STAR-VA program in one LTC facility. As advanced practice nursing leaders, we are in a strategic position to apply research into practice and adapt the findings for an organizational structure. The results of the program has the

possibility of changing the way we provide care to PWD that can reduce and alleviate distress in a frequently forgotten population. Alzheimer's disease is the sixth leading cause of death in the USA and the only disease in the top ten causes of death that has no cure. The trajectory is long so the nursing profession and other disciplines in gerontology have many opportunities to provide safe evidenced-based care. Dementia is the leading cause of admission to an assisted living residence (ALR) or LTC facility (Kolanowski & Haitsma, 2013). BPSD is a frequent cause of admission to LTC (Buhr, Kuchibhatla, & Clipp, 2006). This project, and other programs that address treatment of BPSD, require evaluation for feasibility in LTC, effectiveness, sustainability, and dissemination throughout ALR and LTC facilities in order to improve care for PWD.

Review of Literature

Theoretical Framework. The theoretical framework used for the project was Jean Watson's Theory of Human Caring/Caring Science. Watson's work focuses on the individual as a unique human being who is whole with an interconnectedness between "the one being cared for" and the care person. There is harmony of mind/body/spirit within the universe. This occurs in the caring interaction within a transpersonal caring relationship (Saliman, et al., 2009; Sitzman, 2007). The nurse enters into the individual's energy/experience. The nurse and individual share energy, where the nurse detects a need(s) in the individual. Together they enter into a transpersonal caring relationship where caring/nursing occurs (Cohen, 1991). These concepts are also central to PCC (Lusk & Fater, 2013), which also guides the educational program developed for this project. Watson developed three elements. The first are the ten carative factors that have been transformed into the ten clinical caritas processes that can be applied to any nursing activity (Sitzman, 2007). The carative factors promote individualized

patient care in a supportive, protective, corrective environment that addresses mental, physical and spiritual dimensions (Lusk & Fater, 2013).

Watson's ten clinical caritas processes include:

- Practice of loving-kindness and mental calmness within the caring relationship.
- Being present and creating and maintaining the idea of self and one-being-cared for.
- Development of your own spirituality and rituals and reaching out above your ego self.
- Initiation, maintenance and cultivation of a "helping-trusting, authentic caring relationship" (Wagner, 2010, pg. 2).
- Being present to and accepting of the assertion of positive and negative emotions as an association with the in-depth spirit of self and the one-being- cared- for.
- Innovative use of self to develop the artistic practice of caring-healing.
- Working in teaching-learning experiences that keep the self unique within other's life experiences.
- Making a healing environment that develops and accentuates wholeness, beauty, comfort, dignity, and peace.
- Helping with basic needs, with a deliberate caring consciousness, tending to necessary human function, which increases the congruence of mind-body-spirit, wholeness in all facets of care.
- Being receptive to miracles in one's life-death; working with the soul for self and the one-being-cared for (Wagner, 2010).

The second major element is the caring occasion or caring moment. Dudkiewicz, (2014) performed a study to determine if PCC using a caring-based model founded on Jean Watson's theory could be implemented across departments in a hospital. The caring moments are all the interactions between staff and patient that occurred throughout the hospital and not just with the nursing staff. There was improvement on all components of the patient questionnaire with statistically significant improvement in the subscales of helping/trust and human needs assistance. The results demonstrated that education is the major tool to effectively bring a PCC focus to the facility and improve patient satisfaction.

The third element is the transpersonal caring relationship where the work of caring occurs (Dudkiewicz, 2014). The heart of the theory focuses on caring with less emphasis on curing. The interactions between two unique individuals, the nurse and the patient, are supported and promoted with dignity and humanity. The focal point of the transpersonal interaction deals with caring and healing in a relationship between the individual, the nurse, healthcare and the universe (Bailey, 2009). Another theme in Watson's theory is to care for the self as well as the one-being-cared- for. This is a core concept in PCC. Care partners/caregivers can only provide PCC if they feel supported.

Dementia is a progressive terminal illness requiring nursing care between the PWD and the nurse. In this educational project, Watson's theory is congruent and appropriate to teach PCC to staff caring for PWD to improve quality of life and employee satisfaction. In addition, utilization of the theory is necessary to help staff develop effective communication techniques to prevent and reduce frequency and severity of BPSD, create meaningful activities for PWD based on past interests and experiences, and develop care-planning techniques using the ABCDE approach for problem solving. The essence of Watson's Theory and STAR-VA is PCC.

Watson's theory and clinical *caritas* weave through each step of the creation and implementation of the Resident-Centered Dementia Care Staff Project at the LTC facility. The theory repeats throughout the contents of the project in PCC. Each person in the authentic transpersonal caring interaction is viewed as whole and complete (Sitzman, 2007). In the program, the focus is on a person with dementia and not a demented patient. This change in nomenclature is an opportunity for the care partner to realize the shift from an illness of dementia to a whole person who is experiencing distressing symptoms of a disease.

Byers (2008) performed a study on nurses to describe the lived experience of caring for PWD in the hospital setting using Watson's theory as one of the theoretical frameworks. The study supports Watson's concept that the caregiver and the one being-cared-for are interconnected. The idea was demonstrated in the nurses' frustration and feelings of remorse when caring for a PWD. The nurses expressed that they needed to spend more time to provide comfort and care due to the patient's physical/mind/ body/spirit state, this was not supported administratively due to staffing issues. Other studies utilizing Watson's theory of human caring in nursing home setting were not found in this review but the framework fits. This project may be helpful in applying this theory for nursing home settings and PWD.

Cohen (1991) describes a central concept in Watson's theory as the preservation of human dignity. The staff were exposed to the idea of recognizing the PWD in their entirety with past experiences and interests that guide the future and improves the experience of both care partner and PWD. The caring nurse recognizes that the individual still is an evolving physical/spiritual being that requires nurturing (Sitzman, 2007). This project will teach staff to discover the PWD's biographical past, to identify interests, and engage in meaningful activities for improvement in his/her quality of life and human dignity.

Running (1997) describes Watson's theory as focusing on the individual who is unique. The nurse must develop a relationship with the individual. Learning about the individual's past experiences, expectations, uneasiness and worry, capabilities, as well as limitations promotes the nurse's understanding of the patient as a person. This competency is developed throughout this project and is the core of the supportive education programs found in the literature (Karlin, et al, 2015). A preadmission resident questionnaire on biography, past experiences and interests was developed by the QAPI chairperson, reviewed and approved by the committee. As part of this educational program, the activity staff on the ambulatory PWD unit is developing individualized meaningful event folders based on each resident's biographical information and interests to be utilized by the staff on the clinical unit.

The transpersonal interaction is made up of shared energy between all who are present--all life is interconnected (Sitzman, 2007). This is a core belief in the STAR-VA (Karlin et al., 2015), IA-ADAPT (Carnahan et al., 2012), DICE programs (Kales et al., 2014), and other programs that identify who is present during pleasant events, BPSD experiences, and the environmental and social interactions factors in order to repeat good experiences or resolve problem behaviors. In this project, utilization of the ABCDE approach includes all who are present during a challenging behavior, and asks, "what were the environmental and social interactions?" This approach helps identify activators that either improve quality or trigger BPSD. Watson realizes some of our experiences pertaining to self and others are unexplainable. Care partners will be unable to understand all experiences with BPSD. We will not always be able to answer: "Why did the PWD behave that way?" However, we still need to understand the experience from the PWD's perspective to alleviate distress. (Sitzman, 2007). The ABCDE card

helps the staff understand the experience that the PWD is having and creates an individualized plan of care.

Watson posits that in order for the nurse to provide a caring relationship he/she must care for self (Sitzman, 2007). Strategies to support the care partner (nurse, certified nursing assistant, social worker, unit secretary, activity staff, etc.) were discussed during this educational program's sessions and during the QAPI meetings. Other methods for administrative support, team support and individual support were addressed. Discussion at the last session centered on helping the care partners identify their individual needs and identify ways for administration and fellow care partners to support care partners working with PWD and challenging behaviors.

Watson advocates caring as a way of being and not just caring nursing interventions. There needs to be a healing of self to have the energy to be compassionate and care for others. Caring for self in terms of safety, self-protection, managing personal life, respecting self, loving and caring for self are themes that are important in the caring interaction (Sitzman, 2007). This is especially significant for staff caring for PWD who can become aggressive. Safety of the individual and staff are important areas included during the education sessions.

Other theories for explaining dementia and BPSD that were analyzed and utilized during the education project and sessions included the Progressively Lower Stress Threshold (PLST) theory and the Needs-driven Dementia-compromised Behavior (NDB) model. The PLST theory has been used to train staff for more than 20 years (Logsdon, McCurry, & Teri, 2007; Smith, et al, 2004). This theory suggests the PWD's deteriorating ability to cope with stress (e.g., demands of new/complex tasks or multiple tasks, noise, other stimuli) results in agitation, night wakening and aggressive behavior. Adults have ways to cope with stress (e.g. cognitive exercise, meditation, exercise, etc.) but dementia limits this ability. Even normal routines and events such

as eating and dressing can be very stressful due to memory loss, perceptual and emotional deficits and environmental causes. The educational project utilizes this theoretical framework to help staff identify with the stress the PWD may be experiencing and how it can trigger BPSD. The staff will be empowered to recognize that they can decrease/prevent stressful experiences in dressing, feeding, interactions, etc. by communicating clearly, simply and exposing PWD to meaningful events and providing PCC. The NDB model is focused on unmet needs (e.g., pain, anxiety, fear, hunger, thirst, elimination) as an underlying cause of BPSD. Kolanowski, Litaker, & Buettner (2005) studied this model and found that an individualized activities program that was developed based on the PWD's needs and interests decreased behavior problems and increased attention time to tasks. Watson's Caring theory, PLST theory and NDB model framed and guided the content during this educational project.

Interventions for BPSD. The key words utilized in the literature search of interventions included: behavioral and psychological symptoms of dementia, neuropsychiatric symptoms of dementia, antipsychotics, pharmacological and nonpharmacological interventions and staff education in nursing homes. Databases utilized were Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane Library, PubMed Agency for Healthcare Research and Quality and Google Scholar. Several areas that required literature support in this project included efficacy research on nonpharmacological interventions, STAR-VA program effectiveness, staff education projects for BPSD and barriers in nursing homes to staff education.

Pharmacological treatment. Multiple research studies resulted in the FDA warnings/alerts in 2003, 2005, 2008 on increased risks of mortality and morbidity with the use of antipsychotics in the elderly dementia population. Sink, Holden, & Yaffe (2005) performed a systematic review to assess the efficacy of several drug classes to determine treatment for

neuropsychiatric symptoms of dementia. Two meta-analyses and two random control trials (RCTs) demonstrated that conventional antipsychotics had small benefit with frequent adverse events. The results also showed that second generation antipsychotics had modest statistically significant benefits for olanzapine and risperidone with nominal adverse events with lower dosages. However, the increased risk of stroke was still found in this study. This was not the first time stroke risk was discovered in the literature.

A major trial that examined the risk from the second-generation antipsychotics over their benefits was the CATIE-AD trial (Schneider, Dagerman, & Insel, 2005). This research study was a double blind placebo-controlled trial at 42 sites with 421 outpatients diagnosed with Alzheimer's disease and psychosis. The patients were blinded to their treatment with olanzapine, quetiapine, risperidone or placebo. Patients were enrolled in the study for 36 weeks and medications were adjusted as needed by four physicians participating in the study. The Clinical Global Impression of Change (CGIC) scale was used to assess improvement in BPSD. There were no significant differences in CGIC scores ($p=0.22$) between treatment groups. The improvement in the scores were olanzapine 32%, quetiapine 26%, risperidone 29% and placebo 21%. The rates of participant discontinuation in the four study groups for any reason were 77% to 85%. The authors concluded that the adverse events outweigh the modest benefit (Schneider et al., 2006). Several other studies achieved similar results (Ballard, Waite, & Birks, 2006; Iersel, Zuidema, Koopmans, Verhey, & Rikkert, 2005; Seitz et al., 2012). Schneider, Dagerman, & Insel (2005) concluded that the risks outweigh the modest benefits with antipsychotic use for BPSD. Still other studies verified the risk of death with the use of both classes of antipsychotics corroborating the need for FDA black box warnings (Gill et al., 2007; Schneider, Dagerman, & Insel, 2005).

Nonpharmacological treatments. The research findings above and the frequent prescribing of antipsychotics in nursing homes and the community has created the need for evaluation of nonpharmacological interventions with BPSD. This literature review included the keyword search: nonpharmacological interventions for dementia AND BPSD OR behavioral and psychological symptoms of dementia and systematic review OR meta-analysis only in title. Nine systematic reviews were found that met the intention of this project on the effectiveness of nonpharmacological interventions for BPSD (Ayalon, et al., 2006; Brodaty & Arasaratnam, 2012; de Oliveira et al., 2015; Jutkowitz et al., 2016; Kong, Evans & Guevara, 2009; Livingston, et al., 2014; Olazaran, et al., 2010; Testad, et al., 2014; Seitz, et al., 2012). There was agreement across eight of the nine studies that nonpharmacological interventions are efficacious with BPSD (Ayalon, et al, 2006; Brodaty & Arasaratnam, 2012; de Oliveira et al, 2015; Kong, Evans & Guevara, 2009; Livingston, et al, 2014; Olazaran, et al, 2010; Testad, et al, 2014; Seitz, et al, 2012). All nine studies emphasized the need for further research.

Sink, Holden, & Yaffe (2005) and other studies were the basis for Ayalon, et al. (2006) performing a systematic review that assessed the efficacy of nonpharmacological interventions with BPSD. The findings were not robust. Three RCTs and six single-case design (SCD) studies were included in the review. Nonpharmacological interventions were grouped into three categories. The first category was unmet needs interventions, which deal with impaired physical needs (e.g., hungry, pain), socialization needs (lonely) and stimulation needs (vocalizing for auditory stimulation). The second type of nonpharmacological interventions includes learning and behavioral interventions. This category included a dementia patient learning to scream to be attended to. The last category includes environmental vulnerability and reduced stress-threshold. PWD's sensitivity to loud noises precipitating a behavior problem would be an example. Dr.

Linda Teri, one of the main authors of the STAR-VA program, had two of her RCT studies included in this review. The studies of unmet needs interventions evaluated the reason behind the behavior and attempted to prevent/reduce neuropsychiatric symptoms (NPS). One SCD study met the criteria and the outcome was positive in reducing NPS, which could possibly be efficacious after further study. The learning and behavioral models assessed behavioral interventions (removing rewards for negative behaviors and adding rewards with positive behaviors) and caregiving interventions (education in unmet needs and behavior management and support to caregivers). The results had limitations as individual behavioral interventions and caregiver interventions are more likely to be effective, but further research is needed.

Ayalon, et al. (2006) concluded that the research indicates that when staff address BPSD and unmet needs with the inclusion of caregivers or using bright lights, nonpharmacological interventions may be effective. There were 257 studies found in this review that addressed nonpharmacological interventions with BPSD but only nine met the APA guidelines to determine whether a nonpharmacological intervention has sufficient evidence. Although there is a significant number of studies on nonpharmacological interventions, most of the study designs did not meet adequate research methodological criteria needed for a systematic review. All of the interventions showed positive results but not all achieved statistical significance. Only one study showed statistical significance for unmet needs interventions. Of the three RCT and six single case design (SCD) studies that met inclusion criteria, unmet needs interventions demonstrated moderate reduction in challenging behaviors; caregiving interventions showed reduction in BPSD and using bright light therapy reduced agitation in the short term. Ayalon, et al. (2006) concluded that high quality research is necessary to fully investigate efficacy and corroborate these study findings.

Kong, Evans, and Guevara (2009) performed a systematic review and meta-analysis on nonpharmacological interventions specifically for agitation in dementia. Among the seven categories of interventions (sensory, social contact, activities, environmental modification, caregiver training, combination therapy and behavior therapy) that were reviewed only sensory stimulation (aromatherapy, thermal bath, music and hand massage) demonstrated efficacy in reducing agitation in PWD. The overall effect size was $Z = 3.03$ with $p = 0.002$ and test for heterogeneity $I^2 = 68.2\%$. There were two studies comparing caregiver training versus usual care that did not demonstrate significant improvement with agitation.

Olazaran et al. (2010) performed a systematic review for efficacy of nonpharmacological interventions in Alzheimer's disease and related disorders (ADRD). The inclusion criteria were randomized control trial (RCT), published in peer-review articles, cognitive impairment or dementia with at least 80% sample with Alzheimer's disease and Related Disorders (ADRD). Specific statistical analysis was required and efficacy of nonpharmacological (NP) interventions tested in at least one of the following areas: for the PWD (cognition, ADLs, behavior, mood, combined scales, physical domain, quality of life, institutionalization, restraint use or mortality) or for the professional or non-professional caregiver (mood, psychological well-being, objective burden or quality of life) or cost-effectiveness. Thirteen high quality trials were included and seven had positive results. The major findings identified multicomponent cost effective strategies that focused on caregiver education and support that delayed institutionalization. Four professional caregiver training research studies were evaluated with 370 participants. There was a reduction in agitation after caregiver training in two of the studies, including Teri, Huda, Gibbons, Young, & Leynseele (2005), with an effect size of 0.223 and a confidence interval of 0.017-0.428. This is a small effect size, which causes difficulty in interpreting results. The

majority of studies (166) reviewed were low quality trials but 113 of 166 studies had positive results. This underscores the necessity for high quality research in this field.

Brodaty and Arasaratnam (2012) assessed 1,665 articles and utilized 23 studies that met their criteria for a meta-analysis on nonpharmacological interventions for NPS of dementia with community dwelling PWD and their caregivers. Although this article did not address PWD living in nursing homes, it was important for this project because it discussed caregiver training. The researchers included unique randomized or pseudorandomized nonpharmacological interventions by family caregivers and assessed the outcomes for the frequency and severity of BPSD. The results were positive or partially positive for 20 out of the 23 studies. This meta-analysis found that caregiver interventions significantly reduce BPSD and reduce caregiver negative response to the behavioral disturbance. The effect size was calculated as 0.13, which is a similar net effect size, found with antipsychotics in Schneider, Dagerman & Insel (2006) study that was 0.18. The interventions that were analyzed were skills training for caregivers, education for caregivers, activity planning, environmental redesign, enhancing support for caregivers, and self-care activities for caregivers. High quality trials and positive results with the nonpharmacological interventions studied were found effective in improving BPSD (Teri et al., 2003; Teri, Logsdon, Uomoto, & McCurry, 1997; Teri, McCurry, Logsdon, & Gibbons, 2005). Teri et al. (2003) assessed the use of exercise and caregiver behavioral management education, which demonstrated improvement in the physical health and depression symptoms in PWD. Teri and colleagues (1997) were successful in using initiation of patient pleasant events and education of caregiving problem solving to decrease depression symptoms in PWD. Teri, McCurry, Logsdon, & Gibbons (2005) demonstrated the ability to train consultants who educated family caregivers. This study was included in the Ayalon et al. (2006) showing statistical significance

in reduction of BPSD after education. At six months, the study demonstrated that caregivers self-reported a decrease in severity and frequency of behavior problems identified prior to baseline.

Brodaty and Arasaratnam (2012) identified the limitations in the meta-analysis as the inability to identify specific parts of an intervention that were effective. All of the interventions did not target behaviors but focused on care in general. The caregivers were at different levels of knowledge and caregivers with the lowest scores improved the most. The quality of research and sample sizes varied. The authors also noted that the nonpharmacological studies had included PWD with less severe BPSD than are found with subjects of drug trials, making comparisons difficult.

Seitz, et al. (2012) performed the first systematic review on the efficacy and feasibility of nonpharmacological interventions for NPS in PWD in LTC. Forty studies met inclusion criteria with 3,519 subjects included in the review. The nonpharmacological interventions studied included training staff in NPS management, programming activities, exercise, music and other sensory stimulation. Sixteen of the forty studies had a reduction of at least one NPS compared to control group, which was statistically significant however only two of the studies demonstrated clinically significant results. Barriers to nonpharmacological intervention use have been identified as staff lack of knowledge, lack of available services (e.g., mental health and staffing time). The researchers developed a feasibility measure and each study was rated as unclear, low, medium or high in each of three categories of feasibility. They were unable to perform a meta-analysis due to the heterogeneity of study designs and therefore could not summarize the results statistically. The time constraints feasibility of nonpharmacological interventions were rated low to medium according to staff participating in the training or implementing the program. Time constraints must be considered in planning a nonpharmacological intervention for the program

to be sustainable. The authors noted that the staff education research utilized mostly external researchers/consultants to train or guide the staff, which can reduce the feasibility of sustaining the intervention within usual LT care settings. Further research should include studies implementing nonpharmacological interventions by actual LTC staff during routine care to directly measure possible improved practice outcomes in the LTC setting.

Since NPS are heterogeneous, Livingston, et al. (2014) performed a systematic review on nonpharmacological interventions specifically for initial agitation reduction and for sustainability in the long term. Staff training in PCC and dementia care mapping with interventions performed by staff were shown to be effective in reducing agitation scores initially and sustained improvement for 3-6 months. Specifically, when staff were educated and supervised in communication techniques with PWD, problem solving for causes of agitation and meeting the PWD's needs, there was a 30 % reduction in agitation, although the effect size was small (0.2). Teri and colleagues' work was reviewed but did not show any significant reduction in PWD's agitation, when family caregivers were educated in behavioral management training (BMT). The authors advised clinicians to consider that agitation is not only due to brain changes, but can often be caused by unmet needs. This would explain the findings of this systematic review that PCC was effective.

A recent systematic review by de Oliveira et al. (2015) again demonstrated nonpharmacological interventions are effective in reducing BPSD, especially agitation. Twenty studies were included in the review, which analyzed research from 2005 to 2015. The interventions found were activities, music therapy, aromatherapy, exercise, light therapy, touch therapy, combination therapies and cognitive rehabilitation. Fifteen of the twenty studies were conducted in nursing homes. There were five studies investigating activity interventions. Three

of the five assessed the Tailored Activities Program (TAP), which is an occupational therapy program that identifies activities based on the PWD's ability, previous roles and interests.

However, this review lacked rigor due to the lack of specified study inclusion (e.g., sample characteristics and RCT design) and exclusion criteria (Melnik & Fineout-Overholt, 2011).

After assessing this review, it would have been appropriate to include the STAR-VA program (Karlin, Visnic, McGee, & Teri, 2014; Teri, Huda, Gibbons, Young, & Leynseele, 2005), but with the lack of eligibility criteria it is unclear why the STAR research was excluded.

Jutkowitz et al. (2016) performed a systematic review and meta-analysis (when appropriate) of care-delivery interventions to manage aggression and agitation for PWD in assisted living residences and nursing homes. Nineteen studies met inclusion criteria. The STAR program was included. Agitation was defined as "excessive motor activity associated with irritability, pacing and wandering"; aggression was defined as "being a subtype of agitation that consists of verbal or physical actions that are overt and potentially harmful" (Jutkowitz et al., 2016, pg. 477). Dementia care mapping (DCM) is an intervention that comprises identifying and alleviating suspected causes of agitation and aggression. A meta-analysis was done for DCM and PCC studies. DCM did not demonstrate an adequate effect size (-0.12 with 95% CI = -0.66 to 0.42 , $I^2 = 53\%$, $\tau = 0.15$). PCC studies also did not demonstrate an adequate effect size (-0.15 with 95% CI = -0.67 to 0.38 , $I^2 = 56\%$, $\tau = 0.14$). The heterogeneity (I^2) for the DCM and PCC studies demonstrate substantial variation between the studies reducing the ability to perform an accurate meta-analysis. Cohen-Mansfield Agitation Inventory (CMAI) scores need to improve by 30% in order for the intervention to be clinically meaningful; both DCM and PCC improvement scores were less than 30% with the CMAI. Eleven studies evaluated caregiver training interventions and found no effect on aggression or agitation found, including the STAR

program. The authors were unable to identify any conclusions due to the small sample sizes and methodological problems throughout the studies. After their review, the authors felt there was insufficient strength of evidence (SOE) to conclude that care-delivery intervention programs for nonpharmacological treatment of agitation or aggression decrease the symptoms any more than usual treatment. They were unable to pool the data on the caregiver education training due to heterogeneity of methodology and outcomes. These results seem to challenge the Livingston, et al. (2014) conclusions already discussed in this literature review. Jutkowitz, et al. (2016) criticized the design of Livingston, et al. (2014), e.g., liberal pooling of studies and premature conclusions of efficacy when the SOE, e.g., CMAI scores less than 30%, was not sufficient to be clinically significant. These methodological decisions likely bias toward the interventions (DCM and PCC) being efficacious (Jutkowitz et al., 2016).

Jutkowitz et al. (2016) also discuss major problems with studying this particular area. The heterogeneous nature of the interventions create major difficulties for meta-analyses and systematic reviews to develop a consensus on the treatment modality. The measurement instruments for aggression and agitation were different throughout the nineteen studies. There was sparse information regarding clinically meaningful results with change in scores, which then caused difficulty with interpreting statistically significant differences. Many of the trials were underpowered (determining sample size), experienced significant numbers of withdrawals and dropouts that further reduced sample size in some of the studies. The staging of the dementia was not clear. The persons evaluating the outcomes of the studies frequently were not blinded and knew the intervention that the PWD was receiving, which could have skewed the findings. Since the training was not specifically described in many of the studies, it could not be replicated. At times, the terms agitation and aggression were identified as one single score.

Each study trained staff in order to change their behavior in managing BPSD with aggression and agitation. Changing behavior can be assessed using a three-step approach. First, the intervention needs to be tested. Second, staff training in the new behavior is assessed and competency is developed. Third, the new skill is scheduled into the workday to sustain the behavior. The authors felt most of the research reviewed did not demonstrate studies that went even beyond the first step.

The review by Jutkowitz et al. (2016) sets the stage for the next phase of research. It questions the rigor of what has been done and gives pointed suggestions on how to improve research, going forward. A uniform taxonomy on nonpharmacological interventions is necessary. Conceptually linking the intervention and behavioral problem treated will clarify the evidence. Consistency in measurements would be helpful to pool results in a meta-analysis and systematic review. RCTs need to describe high rates of attrition when using power calculations and the sample demographics and context (study settings, interventions and treatment fidelity, and control conditions) need to be stated clearly (Jutkowitz et al., 2016).

Generally, the nonpharmacological interventional study findings for BPSD are not robust, however there is evidence that there may be a modest benefit in reducing symptoms with PCC using care mapping-unmet needs and lowered stress threshold theoretical frameworks. Further research in this area is needed. Jutkowitz and colleagues' (2016) suggestions of a uniform taxonomy, more description of the interventions included in the research studies, and real time studies with nursing home staff would be beneficial. These are the next steps necessary to further the evidence and discussion of effective interventions.

Staff training in the STAR-VA program. There is evidence in the literature of the effectiveness of the STAR-VA program in treating BPSD in assisted living and nursing home

populations (Karel et al., 2015; Karlin, et al., 2014; Teri, et al., 2005a; Teri et al., 2010, 502-509).

Teri, Huda, Gibbons, Young, & van Leynseele (2005a) describe an innovative staff training/education program to improve care and reduce behavior problems with dementia patients in assisted living facilities. The STAR (staff training in assisted-living residences) program consisted of educating direct care workers (DCWs) with two half-day group workshops followed by four individualized on-site consultations. The administration in the assisted-living residences attended three leadership sessions. The trainers were a clinical psychologist and a graduate nursing student, both with education in geriatric mental health. They utilized lecture and discussion, role-playing, handouts, and observation of video-taped case studies. Sharing between staff members encouraged learning from each other. The program was a work-in-progress and was revised as it progressed. A total of 114 staff received the training. This was followed with a small, randomized controlled trial including twenty-five staff and thirty-one residents in four assistant living residences. This study employed blinded pre-and post-training assessments (at week 8) to evaluate the residents' emotional and behavioral distress and staff skill and job satisfaction. Outcome measures for PWD participants included the neuropsychiatric inventory NPI, The Clinical Anxiety Scale, the Revised Memory in Behavior Problems Checklist, and the Mini Mental State Exam (MMSE). The staff were given the Short Sense of Competence Questionnaire to ascertain if staff was satisfied with their patient care.

The PWD participants were mostly female, widowed and over the age of 80 years old. The results demonstrated reduction in all of the measurement scores for the residents that were statistically and clinically significant in the areas of behavior problems, depression and anxiety.

The mean change in NPI score was not statistically or clinically significant. However, the Revised Memory and Behavioral Problems Checklist mean total score, the Agitated Behavior in Dementia mean score; the Clinical Anxiety Scale and the Geriatric Depression Scale had statistical and clinical significance. See Table 1 for select results.

Table 1

Change in Mean Scores from Baseline to Posttest Comparing STAR Program and Control Group

Instrument	Control Group Change in mean score from baseline (Standard deviation)	STAR Program Change in mean score from baseline (Standard deviation)	p-value
NPI score	2.7 (10.0)	-3.5 (8.1)	0.31
Revised Memory and Behavioral Problems Checklist (Total Score)	0.2 (0.8)	-3.47	< .001***
Agitated Behavior in Dementia	-0.5 (6.7)	-6.75	< .001***
Clinical Anxiety Scale	4.9 (8.9)	-3.06	.002**
Geriatric Depression Scale	1.5 (2.8)	-15.99	< .001***

Notes: Teri et al. (2005a)
*** p< 0.001, ** p<0.01, * p<0.05

The STAR program also improved the reaction of staff to the residents' behavior problems. However, statistically significant improvement in job satisfaction or job competence was not demonstrated. The authors note two major limitations. The pharmacological management that was employed during the study was not included, which may have contributed to improvements found. In addition, the sample size was very small and therefore should not be interpreted as representative to the dementia population. The “work- in- progress” concept and

changes made throughout the research study makes conclusive findings suspect with intervention fidelity lacking. However, this study needs further development and more clearly defined sample characteristics and intervention fidelity, especially including the use of drugs (e.g., APMs) in the inclusion and exclusion criteria.

Teri, et al (2010) later performed a study to determine the treatment fidelity issues of the STAR-VA program for assisted living residences (ALR). This study evaluated the translation of the program into practice. Since DCWs come from many backgrounds and diverse ethnic groups, it is necessary that the program be utilized in accordance with the evidenced-based treatment that has been identified. In long term care (LTC) and assisted living residences (ALR) a majority of care is provided by unlicensed personnel. The study followed the Health Behavior Change Consortium's recommendation for a complete evaluation of treatment fidelity for successful translation to practice in the following areas: design of study, training providers, delivery of treatment, receipt of treatment and enactment of treatment skills (Ory, 2002). The STAR-VA program was instituted in three states (WA, IL and AR) at six different ALRs (rural, suburban, urban, for-profit and not for profit sites) which provided education and evaluation of treatment fidelity. The three trainers had varied professional backgrounds (two MSW and one Ph.D. in nursing). Eighty staff, forty-four DCWs and thirty-six leadership staff (licensed personnel and administrators) received training on the program. Trainers, interventionists and leadership staff monitored and evaluated the staff's ability to translate the program into practice as the authors intended it.

The treatment fidelity assessment components were assessed in the treatment program and the results were as follows:

- The design of the study evaluates whether theory-based elements are preserved. In the treatment program, the number of workshops and individual sessions and frequency of contact between the trainers were the same for all staff throughout the sites.
- The training of the providers assesses if the staff participants are appropriately trained (e.g., number and length of training sessions, and monthly phone contacts consistent for all provider trainers). In the treatment program, the trainers attended a two-day seminar and participated in troubleshooting phone consultations to ensure the correct implementation and utilization of the STAR-VA program.
- Delivery of treatment was identified to see if the treatment was implemented as it was intended. The trainers in the program filled out content provided using a checklist after each session; staff and leadership filled out anonymous survey of content discussed. Ninety-two percent of the staff attended both workshops. Fifty-one percent of the leadership staff attended all three workshops. In workshop one, all modules were completed and five out of six videos were seen. In workshop two, all modules and videos were viewed. Seventy-five percent of staff completed anonymous survey on STAR-VA content.
- Receipt of treatment criteria defines how the staff participants received and understood key content. The trainers evaluated staff regarding the specific STAR-VA content in the program. There was statistical significance at $p < 0.05$ in improvement from session one to four with the staff's ability to independently develop plan of care for BPSD using the ABC approach.

- Enactment of treatment skills assessed the staff participant's ability to correctly apply the treatment in real-life situations. The method used for evaluation was a direct observation checklist completed by leadership staff and self-assessment by staff. The leadership found that 75% of the staff utilized the STAR-VA ABC card to problem solve behavior issues. Other areas, such as, ability to communicate, to use pleasant events and to change the environment to decrease behaviors showed small improvement but did not achieve statistical significance (Teri, et al., 2009).

These findings demonstrated to the authors that the STAR-VA program treatment fidelity was able to be evaluated during the study and was successful in translating research into practice. The program was implemented with trainers not initially involved in the development of the program. The staff were able to utilize the training with real patients. The more training that a staff member had the more likely they were able to follow the program. Recommendations include that the program needs to be disseminated throughout ALRs to improve the care with PWD.

In another study Teri, et al (2009) examined staff reaction, barriers and perceptions from data in the treatment fidelity study previously described. Although the program was conducted at diverse settings, Teri, et al (2009) found similarities among the staff reactions and concerns. There were five common themes found throughout the ALR in relationship to staff barriers. The literature was therefore reviewed to compare LTC with ALR to determine if these findings can be useful in LTC facilities and used in this educational project. Zimmerman et al. (2003) performed a study comparing LTC and ALR. The differences found between the two settings

were in the nursing home's more lenient admission policies and provision of less privacy at the LTC facility. These are not surprising considering the purpose and acuity level in each respective residence. LTC and ALR are similar in policy clarity (orientations, staff meetings, distributing newsletters), social/recreation programs (exercise, outside entertainment, groups) and resident control (conducting resident meetings, involving residents in activity plan). The functional impairments were assessed and nursing home residents require significantly more assistance in ADLs and have lower levels of cognitive functioning. ALR, however, experienced higher levels of behavioral disturbances. Since there are several similarities between LTC and ALR, the findings of the staff perceptions in the treatment fidelity study (Teri, et al., 2010) were considered appropriate for use in the design of this project's educational sessions to address possible barriers and additional topics. It was assumed that there would be similar staff reaction during this project's education sessions. See Table 2 for the commonalities and adjustments made during the educational sessions in the STAR-VA program and this Resident-Centered Dementia Care Staff Project (RCDCS Project).

Table 2

STAR-VA and RCDCS Project Activities to Address Common Staff Barriers to the STAR-VA Program Implementation

Commonalities in Staff Reaction at Diverse ALR	STAR-VA Program Intervention Reaction	RCDCS Project
"I don't have enough time"	-Discussed their heavy workload. -Discussed goal of program was to improve care without making it more difficult	-Same as STAR-VA -Used examples from their residents to show that meaningful activities can reduce time. -Discussed that BPSD takes time too (skin tears & falls)

Commonalities in Staff Reaction at Diverse ALR	STAR-VA Program Intervention Reaction	RCDCS Project
"It's not my job" -Hesitation to try new interventions	-Used supervisors to introduce the training to staff in the first workshop -Supervisors stressed that the new skill is a required element in their care. -Discussed that pleasant events are everyone's job -Helped staff to see that they are already adding pleasant events during group and individual sessions	-Discussed results of the QAPI regarding administration support of the education -Discussed Department of Health recommendation requesting PCC in a teamwork framework. -Discussed ways to improve care with use of the ABCDE care and care planning sessions to help staff see we can all make a difference. -Discussed that pleasant events are everyone's job.
"Lying is bad" -Conflict with prior training and experiences, reality orienting	-Discussed using staff reaction as a barometer to assess if the intervention employed is effective, did it yield a good outcome and would you be open to other interventions?	-Same -Used case scenarios from actual residents regarding deceased loved ones and requested the participants determine the best response.
"He's just being difficult" -Perceived or negative attitudes about the cause of the PWD behaviors	-Discussed the brain effects with disease process -Teaching mutual respect between staff and PWD -Problems found in ALR were medication management and involvement in activities in the group and individual experiences	-Same -Discussed ways to manage frequent challenging behaviors (resistance to care, unable to sit, walking continuously). In-depth discussions during the actual care planning sessions with real problems. -REAL communication. A=Ask yourself why is the resident behaving this way
"I didn't do anything" -Lack of awareness of staff's own behavior	-Instead of focusing on the negative attitude, discussion regarding the impact that the staff's behavior can have on the resident.	-Same -Utilized the "floater" who comes on the unit for the day and the PWD reaction and the staff's management.

Source: Teri, et al., 2010 and content from RCDCS Project education sessions.

Karlin, Visnic, McGee, & Teri, (2014) presented data from a behavioral intervention training program for mental health providers in community living centers/nursing homes (CLC's) for veterans, assisting staff partners in nonpharmacological management of challenging dementia-related behaviors. The purpose of the training was to reduce the frequency and severity of residents experiencing challenging dementia-related behaviors. Twenty-one mental health providers, who were doctorally prepared psychologists, received 2 1/2 days of training followed with six months of mentoring via telephone consultation with expert facilitators trained or knowledgeable in the STAR-VA program. The VA staff partners identified residents with challenging dementia-related behaviors for the STAR-VA trained mental health providers. Then the residents were assessed for frequency and severity of challenging behaviors. Several scales for anxiety, depression and aggression were utilized pre-and post-intervention. There were 64 veterans who participated in the study in 17 VA nursing homes. The trained mental health staff utilized the STAR-VA care planning method and pleasant events to reduce the challenging behaviors. There was a 35% reduction in the frequency and 46% decrease in severity of the challenging behaviors. There was also a reduction in scores of the anxiety, depression and aggression measures utilized in the study. This was very promising because it, again, demonstrates that care planning and nonpharmacological interventions can be effective in reducing behavior problems with dementia. However, a major limitation of the study is the utilization of mental health providers. There is usually very limited availability of mental health providers in most traditional nursing homes. Again, the utilization of pharmacological management is not discussed and is unclear if or how drugs may be influencing positive results.

Karel, Teri, McConnell, Visnic, & Karlin, (2015) performed a study on the STAR-VA intervention program in CLCs for challenging behaviors among residents experiencing BPSD.

This research was conducted after the Karlin, et al (2014) study. The program was adjusted utilizing the results from the previous study. The difference in this study was the addition of a Nurse Champion to work with the Behavioral Coordinator, a psychologist or psychiatrist. The role of the Nurse Champion was to engage the staff and implement the program at the facility. The interprofessional staff, called staff partners, included the nursing staff, physicians, nurse practitioners, physician assistants, social workers, recreational, occupational and physical therapists, chaplains, administrative and janitorial staff. Again, the intervention demonstrated a decrease in frequency and severity of challenging behaviors along with decreases in the anxiety, depression and agitation.

The Behavioral Coordinator and Nurse Champion received 2½ days of training in the STAR-VA program. Then they educated the staff partners applying the STAR-VA concepts with in-service training, team meeting discussion, brief huddles, 1:1 coaching, modeling and collaborative behavioral assessment and care planning. The mean length of time for training consultation period was 35.8 days with SD of 16.1 days with median of 30 days. The behavioral intervention teams for the 71 veterans completing the study at the 17 sites were interdisciplinary. The following staff worked with these 71 veterans: 62 nursing staff with nursing assistants, 52 nurse managers, 62 recreation therapists, 41 physicians, 19 physical and/or occupational therapists and 16 chaplains.

The three core concepts central to the STAR-VA program are:

- The ABC (activators, behaviors, consequences) method to identify and change intrapersonal, interpersonal or environmental triggers influencing the challenging behaviors;

- The identification and application of pleasant events individualized, personal and meaningful within the residents current abilities;
- Realistic expectations and communication with residents experiencing challenging behaviors utilizing the Listen with Respect, Comfort and Redirect method.

The staff identified veterans with dementia who had repetitive challenging behavior issues, defined as behavior upsetting to the veteran/resident, other nursing home veterans/residents, staff and/or family. The intervention was performed over six months at 19 Community Living Centers (CLC) with 77 veterans/residents, 19 Behavioral Coordinators, 19 Nurse Champions and 126 staff partners who responded to the Staff Partner Feedback questionnaire. Seventy-one veterans completed the study at 17 CLC with two CLC dropping out of the study during the training phase. The addition of the Nurse Champion role helped assimilate the program and engage the staff into accepting and trying the new skills and approaches in STAR-VA. The behaviors tested were organized into six groupings: care refusal or resistance, agitation, aggression, vocalization, wandering, and other.

Several instruments were used in this study at baseline. The Blessed Orientation-Memory-Concentration (BOMC) Test (Meiran, Stuss, Guzman, Lafleche, & Willmer, 1996) and the Functional Assessment Staging Tool (FAST) (Sclan & Reisberg, 1992) were used to determine the presence of dementia and the level of cognitive decline. The weighted mean score for the BOMC was 20.8 with SD of 6.9. This is significantly above the necessary score of 10 or more to suggest dementia. The overall mean FAST score was 5.9 (SD = 0.7) which represents moderate to severe dementia. The ABC Card for recording frequency and severity of symptoms

was utilized initially and at six months after the start STAR-VA program implementation. The card includes a Likert scale (0 = never to 4 = daily or more often) to determine frequency of the behavior. In addition there is a Likert scale for severity (0 = not at all to 4 = extreme). The Behavioral Coordinator obtained the team's data to determine the severity and the frequency scores of BPSD. The baseline frequency score was 3.4 BPSD with SD of 0.8 and the severity rating was 3.1 with SD of 0.8. These values indicated clinically distressing levels of severe behavioral problems. The Cornell Scale for Depression in Dementia (CSDD) was utilized for depression, the Rating Anxiety in Dementia (RAID) for anxiety and the CMAI-SF (Cohen-Mansfield Agitation Inventory-short form) for agitation, in addition to the ABC card, to determine efficacy of the STAR-VA program. An anonymous survey was also distributed to the staff on the perceived feasibility and effectiveness of the program, to which 126 staff across 12 sites responded. Table 3 lists the specific behavior problems experienced by the study resident participants prior to the staff training (Karel, M.J., Teri, L., McConnell, E., Visnic, S., & Karlin, B. E., 2015).

Table 3

Behavior Issue Frequency Prior to Intervention

Behavior	Number of Participants Experiencing the Behavior	% of Total Participants Experiencing the Behavior
Care refusal or resistance (e.g., refusing to bathe, receive personal care, or drugs)	15	21%
Agitation (e.g., anxiety or irritability)	15	21%
Physical and/or verbal aggression (e.g., hitting, striking out, cursing or name-calling)	14	20%

Behavior	Number of Participants Experiencing the Behavior	% of Total Participants Experiencing the Behavior
Vocalization (e.g., repetitive calling out or questions)	7	10%
Wandering (e.g., exit seeking or entering other residents' rooms)	5	7%
Other: (e.g., self-isolation, sexually inappropriate behaviors, getting up unsafely with fall risk)	15	21%

Source: Karel, M.J., Teri, L., McConnell, E., Visnic, S., & Karlin, B. E., 2015.

The study demonstrated improvement in all areas assessed. The total frequency of target behaviors decreased from the baseline of 3.4 to 1.8 (SD = 1.2) with statistical significance $p \leq .0001$ and an effect size of 1.2. This showed a clinically significant 45.4% decline on average. The severity of target behaviors from the baseline decreased from 3.1 to 1.1 (SD = 1.1) with $p \leq .0001$ with an effect size of 16; this was an improvement of 63.8% on average. The individual results from each category were not provided. The staff survey demonstrated high rates of perceived feasibility. In addition, staff felt the veterans benefitted from the program. The survey showed that the staff perceived an increase in their knowledge and skill in managing BPSD.

The limitations of this study are the lack randomization or use of control participants, so it is not possible to state that these improvements are due to the interventions. Another limitation is the absence of reporting of the use psychotropic drugs especially antipsychotics. It would have been important to note if drugs were added, continued, or reduced due to the program intervention, since drugs might affect BPSD frequency/severity. Another limitation is that these findings may not be generalized to female PWDs because it included 70 males and only one

female participant. The Behavioral Coordinator compiled the data on the ABC card after input from staff. This type of information gathering could have biased the results toward the positive direction. The non-RCT study design is probably why it was not reviewed by Jutkowitz et al. (2016). However, this study is important in the body of knowledge needed to improve the information on this topic since it followed the three steps necessary for changing staff behavior as discussed by Jutkowitz, et al. (2016). It will be important to improve the study design and continue the research on an interventional interdisciplinary staff training program for PWD with the STAR-VA program, the DICE program, the IA-ADAPT program and others. The positive response to the STAR-VA program was encouraging and should stimulate further research and replication of evidenced-based education programs.

Staff perceptions of training to manage BPSD. The literature was also reviewed for staff perceptions and barriers to training in nursing home for treatment of BPSD. Song & Oh, (2015) reported on research that assessed the relationship between BPSD and formal caregiver distress in Korean nursing homes. The higher the aggression or agitation, the higher the distress in the formal caregiver. It was noted that RNs had less distress than the DCW. This was probably due to the DCW spending more time with the PWD than the RN. Increased risk of burnout is associated with caregiver distress and turnover, which increases costs and decreases quality of life for PWD in LTC facilities. The information obtained from this study added to the educational content by increasing awareness of the distress that BPSD causes for staff and offering options to alleviate the staff's distress by reducing the BPSD, especially aggression and agitation.

Ervin, Cross, & Koschel (2014) surveyed staff at six rural residential aged care facilities in Australia. The staff perception of five methods used to manage BPSD were assessed using a short answer questionnaire. The methods to reduce BPSD were pharmacological (antipsychotic use), behavioral (redirection, distraction, the use of signs), cognitive (use of clocks, calendars and games), emotional (reminiscing, reviewing photos, discussing past interests and family) and stimulation (exercising, cooking and gardening) strategies. One hundred and thirty staff responded to the survey. Seventy three percent of the respondents were RNs, 11% were personal care attendants, and 13% were students or activities coordinator. It is important to note that this may not represent LTC staff population since this is not the typical staffing composition in LTC facilities in the USA.

There were several items in the Ervin, Cross, & Koschel (2014) study that were noteworthy for the Resident-Centered Dementia Care Staff Education Project. Themes identified included the staff issues with instituting the behavior method for BPSD. The staff were affected by the perception of time constraints preventing the strategies, the lack of knowledge and education in utilizing behavior interventions, and the lack of trust in the effectiveness of behavior management for BPSD symptom control. The time constraint specifically heightened the staff's conflict with inadequate resident-to-staff ratio and the occurrence of two or more residents experiencing BPSD at the same time. Another theme identified was the strong feeling that activities (e.g., cognitive or stimulation- oriented strategies) were the responsibility of the activities staff/diversional therapy and not the nurses. Thus, additional nursing staffing would not necessarily be effective in improving BPSD, since the nurses feel that activities are not part of the nursing role. Education and training needs to be instituted before improving staffing ratios in order to change the nurses' perception of their role in BPSD.

Ervin, Cross, & Koschel's work (2014) contributed to the education plan in the Resident-Centered Dementia Care Staff Education Project by giving direction to the educational sessions. The discussions with the staff will offer different interventions besides antipsychotics, addressing time constraints, adjusting activities to the cognitive level of the PWD working on the theme of teamwork with the idea that all staff are responsible for meaningful activities. Examples from the staff's own caseload will be utilized to demonstrate effectiveness of personalized meaningful interests to reduce BPSD. Furthermore, this study helped formulate the final questionnaire (see Appendix E) to assess if learning objectives met.

Barbosa, Nolan, Sousa, & Figueiredo, (2014) studied the expectations and concerns of managers and administrators and direct care workers (DCW) of psychoeducational (PE) interventions in long-term care (LTC) with dementia residents. Psychoeducation addresses the emotional and educational needs in order to support the DCW due to the high stress nature of the job. Four LTC facilities with 66 participants (8 managers and 58 DCWs) were included in the study. Data was collected during individual and focus-group interviews by a trained gerontologist. Thematic analysis was utilized to identify trends, similarities and differences between the two groups. Each group emphasized the need for dementia information, skills to deal with BPSD and practical guidance to advance and sustain the skills needed for managing BPSD. Other support that needs to be incorporated into the PE included improvement in DCWs teamwork, workload and time management. These outcomes affirm the need for educational training of the DCW as well as support strategies to deal with the stress and emotional burden of caring for BPSD, which are needed to change the culture and improve performance. Both DCWs and administrators identified time constraints and support as issues that will affect sustainability. This study and the available research demonstrate the barriers of time constraints

and sustaining change over time in LTC. They suggest that managers need to support and encourage DCWs to practice and utilize their newly acquired skills to sustain the change over time. This study reinforced the content for the education sessions offered to the participants of dementia information, managing time constraints, REAL communication (See Appendix A) and use of ABCDE card (See Appendix B) to determine cause of BPSD and treatment.

Kolanowski, Fick, Frazer, & Penrod, (2010) studied nursing home staff decision-making process for determining which nonpharmacological interventions they will use with BPSD. Thirty-five nursing home staff members from six nursing homes in Pennsylvania and North Carolina attended group meetings with a moderator to discuss their experiences with BPSD. Content and thematic analysis was utilized. Time was the major barrier identified in implementing nonpharmacological interventions with BPSD. Five time themes were identified. The “changing landscape” at the nursing home was the first theme discussed. The major theme in this project was that pharmacological initiation for BPSD frequently occurred on the evening and weekends, when staffing was insufficient. Another aspect of the changing landscape identified that although culture change is emphasized, the staff still are focusing on controlling behavior of PWD instead of understanding them. The STAR-VA program and the Resident-Centered Dementia Care Staff Project address these concerns.

The next theme involved residents' behaviors. The staff understood the cognitive and physical limitations of BPSD but did not problem solve to improve the situation. Wandering and sundowning were the major behaviors identified. A noteworthy finding was that aggressive behaviors such as hitting were not identified frequently as dangerous behaviors. Passivity was not a problem for the staff, because it did not interfere with their goal of keeping residents calm.

The educational program focused on the critical analysis of why a patient is behaving in such a way and what can staff do to modify, reduce or prevent the behavior.

The third theme identified reaching out to the person with dementia. Activities were discussed that helped the staff meet this objective. It was important to the staff to know the resident's history, but the information was not readily available. Establishing trust is time consuming but necessary to develop a relationship with the resident. Spending time with the resident, finding the time to be with the resident and knowing what are the interests of the VHR are ways to reach the residents. The RCDCSE Project discussed the QAPI initiatives that will create folders for each resident listing their history, likes and dislikes increasing the staff's knowledge of the resident. Developing trust through time and REAL communication was emphasized throughout the educational sessions in this project. The last theme was the knowledge deficit and the need for educational programs to work with BPSD and implement nonpharmacological interventions. Again, the literature supports that staff perceive that pharmacological interventions are a safe and effective strategy to deal with BPSD. The staff's continued over reliance on pharmacological management of BPSD was stressed throughout the education project and other safer and more effective strategies discussed.

Summary of the review of literature. There is consensus in the literature that the use of pharmacological treatment especially APMs show small benefit with significant risk and that other methods of treatment need to be identified. Furthermore, the use of nonpharmacological strategies should be first line treatment for BPSD. Although many of the research studies reviewed did not achieve statistical significance, nonpharmacological interventions, especially person-centered strategies, appear to be useful in many situations to reduce BPSD. The STAR-VA is the most studied interdisciplinary program that has demonstrated efficacy in reducing

BPSD in long-term care. In fact, it was the only well-tested program among those reviewed for this project, as mentioned previously. The review of literature strengthens and supports the plan that will be utilized in the educational project.

Project Methodology

The design of the project was to apply the best practice evidence from the literature using proven educational strategies for integrating PCC, meaningful activities and care planning techniques for BPSD, and for adapting these methods and concepts to one LTC facility. This project integrated several effective patient-centered educational program strategies and content areas available in the public domain; however, the STAR-VA program was the main approach of the education project. The STAR-VA program has demonstrated that an intensive interdisciplinary staff education program and development of a behavioral support team can reduce the frequency and intensity of BPSD for PWD and support sustained use (Karel et al., 2015; Karlin et al., 2014; Teri et al., 2005a; Teri et al., 2010). Additional strategies and content were applied from the following programs available in the public domain:

- the *Algorithm for Treating Behavioral and Psychological Symptoms of Dementia* from University of Iowa's IA-ADAPT Project (Carnahan, et al., 2012);
- the *DICE Approach* from recommendations of a multidisciplinary expert panel (Kales et al., 2014);
- *Living with Dementia: Impact on Individuals, Caregivers, Communities and Societies*, a John Hopkins School of Nursing online program (Biglari, 2015);
- the CMS training program, *Hand in Hand: A Training Series for Nursing Homes* (2013);
- the CMS national dementia care initiative's *Nursing Home Toolkit: Promoting Positive Behavioral Health* (Kolanowski, A. and Van Haitsma, 2013).

After identification of the LTC staff needs for PWD as described in the background, the literature was reviewed, a preceptor who is a psychiatric mental health nurse practitioner in ALR and LTC was chosen and the committee for the project assembled. The committee chair from Seton Hall University was selected as the subject matter expert due to her experience as a geriatric clinical nurse specialist, education specialist, and associate professor in gerontology and community health with multiple published research studies on PWD and the use of APMs for BPSD. The second reader, who is an assistant professor, an Adult-Geriatric DNP and director of the DNP program, was selected for her expertise in DNP scholarly projects and agreed to serve on the committee. The mentor was the preceptor in the clinical experience and a Psychiatric NP. After three clinical experiences, it was apparent that BPSD was present in a majority of the preceptor's caseload. Pharmacological treatment was being utilized and nonpharmacological treatments were not readily recognized by the staff. It also became evident that the psychiatric NP avoided APMs and used other pharmacological classifications to manage the BPSD. The preceptor shared her experiences presenting educational inservice sessions on how to treat BPSD at ALR and LTC facilities, which was helpful in planning this project. There were multiple communications with the committee chairperson to identify education programs available, educational strategies and measures to assess if the goals of the project were met.

The project plan was developed by adapting and using the programs identified to create an educational program for a large LTC facility in the northeast with more than 300 available beds. Facility administration was contacted in early 2015 to discuss the possibility of creating an educational program for the staff in this LTC facility. The Assistant CEO was very receptive and supported the project in words and actions including financial backing. A meeting with the Assistant CEO occurred in July 2015 to discuss specific plans for the project and approval was

given. The Assistant CEO had many ideas about the education including use of multiple training sessions throughout the year, for all three shifts and all staff members. Maintenance workers, administrative staff, housekeeping, social workers, dietary staff, dieticians, unit secretaries, activity staff, certified nursing assistants, RNs, LPNs, supervisory nurses and the therapy staff (PT, OT, SLP) were included. Case studies and role-playing were suggested additions to the program to assess the staff's understanding of the concepts. The project was planned to be ongoing from September 2015 to May 2016.

The educational sessions utilized PowerPoint presentations, handouts, case studies, a survey, a post-questionnaire and data on staff participation modified/adapted from the STAR-VA program and the other educational programs. At the initial session, staff were surveyed about their competencies (e.g., knowledge, skills, and attitudes) and interactions with PWD with BPSD (see Appendix D). At the last session, a brief questionnaire was used to assess if course objectives were met (see Appendix E). The project was individualized for the specific facility. As the research showed, time was a major issue for the participants and administration at the LTC facility. The usual training for the STAR-VA program requires two half-day sessions and then four individualized sessions. This would not be a viable plan at the project site. Five monthly sessions were then planned for 30-to- 40 minutes in length, to fit into the workflow of the day. Staff are accustomed to attending one to two inservice sessions per month during the year. The educational sessions were planned for 7 AM, 10:30 AM, 1:30 PM and 3:30 PM to include each shift at appropriate times when staff had fewer obligations. The sessions were offered twice during the 11-7 and 3-11 shifts and four times during the 7-3 shift. Since the educational sessions totaled 2.5-3 hours, the topics needed to be broken out to meet the essentials. The background on dementia, the relationship between dementia and BPSD,

utilization of the REAL communication tool (see Appendix A), use of problem solving ABCDE tool (see Appendix B), and development of meaningful activities were identified as indispensable content. In addition to the education sessions, the activities staff through the QAPI project were working on individual personalized interest folders for each resident on the ambulatory unit to follow through with the STAR-VA program in action. The STAR-VA communication tool (Listen with Respect, Comfort and Redirect) was replaced with the REAL communication tool developed for this project due to the easy-to-remember acronym that included the same information (see Appendix A). The STAR-VA ABC problem-solving tool (Karlin et al., 2015) was modified (see Appendix B) into ABCDE tool (see Appendix B) with Antecedent, Behavior, Consequence of the behavior, and added Decide a new plan, Evaluate the plan. A worksheet was developed that included the content from the different programs' concepts on causes of BPSD (Biglari, 2015; Carnahan et al., 2012; Kales et al., 2014; CMS, 2013; Kolanowski & Van Haitsma, 2013). See Appendix C for worksheet.

There are approximately 370 employees at the facility. The initial educational session was performed in September 2015 for 165 employees from all departments including the six nursing units. For the first educational session that focused on dementia and introduction to STAR-VA, two nurse educators performed the education using the same PowerPoint presentation and objectives. The Department of Health (DOH) annual re-accreditation survey was performed at the facility in October 2015. The surveyors recommended including meaningful person-centered activities for each resident in a teamwork structure to improve care on the ambulatory unit for PWD. Now there was added interest in staff education and personalized activities for the units with PWD. The Assistant CEO requested that a QAPI committee convene for the dementia specialty units with the goal of addressing the

recertification DOH recommendations. The staff education on the PWD units and developing meaningful resident-centered activities were necessary to meet the advisory goals for a dementia unit designation. After meeting with the Assistant CEO, again, in October 2015 to brainstorm ideas for inclusion in the staff education, the program was developed with the plan for monthly 30-45 minute educational sessions over nine months (4.5 hrs.) for the two specialty units managing ambulatory and nonambulatory PWD. The educational sessions focused on teaching a resident-centered approach that enhanced care-planning skills for BPSD and emphasized meaningful activities to improve a PWD's quality of life utilizing the STAR-VA program model with additions from other programs in the public domain (Biglari, 2015; Carnahan et al., 2012; Kales et al., 2014; Kolanowski & Van Haitsma, 2013; Smith et al., 2013).

The administration was supportive by developing the QAPI project, attending the QAPI meetings, financing the individualized folders and paying overtime to the night shift to stay after their shift for the educational sessions. The unit manager on the ambulatory PWD unit viewed the educational sessions as mandatory and consistently scheduled staff to attend. This action by the manager was important because she valued the benefit of the program and this unit is the only dementia-designated unit at the facility. The QAPI was held from November 2015 to May 2016. Due to staffing issues, chairperson of the QAPI reported to the assistant CEO that she was unable to continue leading the committee. The assistant CEO revised the initial plan and downsized the project from nine to five educational sessions, which spanned from 9/15 to 6/16. The number of participants was 258 due to the initial plan to educate all employees. The total number of participants for sessions two to five was 70, including staff members and administrative staff from all three shifts on the two units for PWD. The attendees were RN, LPN, CNA, activity staff, unit secretary, social workers, dietitians, nurse practitioners,

housekeepers, dietary staff, charge nurses, unit managers, MDS coordinators and MDS supervisor. Of the staff, 7.14% attended all five sessions; 21.43% attended four sessions; 21.43% attended three sessions; 35.71% attended two sessions; 14.29% attended one session; and 79.5% of all participants attended the last session and took the survey. 50% of the staff attended three or more sessions and 50% of the staff attended one or two sessions.

The topics for each lecture were:

1. Introduction to dementia and STAR-VA program
2. Communicating with and without words when working with Persons with Dementia (PWD) and Residents in a LTC facility
3. The ABCDE of problem solving for BPSD
4. The ABCDE form in action
5. Putting it all together.

During each educational session, most of the staff were engaged and participating in the discussions and activities. Healthy refreshments were served at each session. The staff were informed that the refreshments were a message: Take care of the caregiver, which is a core concept/value in providing PCC. The goal for each session was to engage the staff in discussions on behavior problems. This was necessary so the content could be guided by the staff's current ideas and feelings on BPSD and then gently tailored to heighten their awareness of the relationship between poor outcomes and previous intervention methods. The staff was very willing to discuss their opinions and feelings about the STAR-VA program throughout the sessions.

Real life examples of the staff's residents experiencing BPSD were reviewed, so the staff could relate to the problem since many had actually witnessed the PWD's challenging behaviors. Flexibility was utilized frequently to address staff concerns but still convey the message of the STAR-VA program. Correlation of BPSD with skin tears, bruises (unusual incidents) and falls causing increased workload was made. The possibility of fewer "unusual incidents and falls with the resultant paperwork" with the STAR-VA was stressed. The idea that BPSD is a very time-consuming experience for staff was reiterated every session to encourage buy-in. An example with a case study of a familiar resident was developed. The resident was physically aggressive frequently during the day. She received more than sixty doses of a tranquilizer in the previous month. The staff discovered that she enjoyed folding towels. Several times a day the staff gave the PWD the towels and she folded them beautifully. The staff continually praised her for her contribution to the unit. Our PWD had a purpose in her life that was meaningful to her and made her feel satisfied and happy. Her use of tranquilizers was reduced to four doses in the last program month. Every session, the staff was reminded to identify the "laundry basket" for each resident. The staff was very interested and understood these discussions, but it was hard to determine if these points were deemed possible and reproducible by them. Staffing issues were a major concern for the staff members. Participants noted inadequate staffing on all units. During every session, time issues were debated, challenging the implementation of the STAR-VA program. The idea that the STAR-VA program could actually save time was repeated by stressing the importance of meeting the resident where he/she is using meaningful events and personalizing interactions. These interventions have the potential to decrease falls (due to medications or BPSD), unusual incidents (skin tears, bruising, resident-to-resident issues,

resident to staff injury issues) and BPSD, the staff was reminded. "Remember the "laundry basket!" became the motto.

In the initial session, the first activity was to fill in the Realistic Survey (nursing or non-nursing form; Appendix D) to determine staff's interest in dementia care education and their current practices with PWD. In order to heighten the staff's understanding of the cognitive impairment that PWD struggle with, an MMSE was performed on the participants in a group format. It was very effective. The staff was surprised by the severity of the PWD's cognitive impairment. The terms PCC (patient-centered care) RCC (resident-centered care) were defined and PWD was stressed instead of the term "dementia patient" to heighten awareness that PWD are people first and that the PWD has a disease and is not the disease. Another distinction made was the change in labeling behavior problems or disturbances to challenging behaviors. The staff listed all the challenging behaviors that they experienced and the lecturer pointed out that "sitting quietly" should be noted as a challenging behavior also, if it stems from apathy or depression. This made an impression on the staff because sitting quietly was a "blessing" on most days since the resident was not falling. Staff were able to discuss quality of life for PWDs and they recognized apathy is not quality living.

In the second session, communication was the emphasis to sensitize staff that PWDs understand gestures, tone of voice, speed of voice, and facial expression much more than our verbal responses. Examples from the STAR-VA manual were utilized to point out that many of our interactions with PWD could be misinterpreted and perceived as a threat. The case studies for sudden movements and sensory impairment using "Pearl", "Frank" and "Greg" were demonstrated from the STAR-VA manual (Karlin et al., 2015, pgs. 34-35). Smiling was practiced which created humor and fun in the session, but the point was made. REAL

communication was practiced including how to move the caregiver's body gently from the front of the PWD to their side in a nonthreatening manner. Important safety issues were stressed that the charge nurse needs to be aware of immediately (e.g., prevention of staff injury, signs and symptoms of dangerous psychotic/unsafe behaviors). This discussion precipitated a dialogue in almost every session about the stress and difficulty when dealing with and trying to "control" behavior for PWD with BPSD. It was a wonderful opportunity to talk about PCC and meeting the PWD where he/she is. Discussion dealt with how to change the resident's environment, change staff behavior and infuse meaningful events for the PWD to reduce their challenging behaviors.

The third session discussed how to use the ABCDE problem solving tool for BPSD. Each letter was identified and defined with examples from the staff's caseload. The staff currently documents the frequency of challenging behaviors that have been identified for every shift. The documentation including the severity of the behavior(s) and whom the behavior affected was added to the STAR-VA procedures.

In the fourth session, the staff members were engaged and energized by managing real BPSD. During these sessions, it was apparent that staff needed coaching on how to manage BPSD by following cues from the PWD, following the PWD's schedule, changing staff behavior so that staff was not vulnerable to combative behavior, and notifying nursing/medical staff when physical problems arose. As one resident who was combative during care was discussed, it was revealed that this PWD would prefer to awaken on his own schedule. He also had uncontrolled pain issues and constipation. The team on the ambulatory unit supported the caregiver in meeting the PWD where he was. The caregiver verbalized that she needed to complete her work or she would be "in trouble". The nurses stressed to all of the caregivers to notify the charge

nurse if PWD was unable to cooperate and especially if he was aggressive. The nurses assured staff they would not be reprimanded if the resident was uncooperative. One of the caregivers did note that some caregivers are having trouble with certain residents and other caregivers do not have any problems. The team discussed asking for help and showing each other ways to reach the PWD without incidents. It was an amazing experience to witness everyone's interest, concern and development of viable solutions. The end of these discussions with each shift on the ambulatory unit resulted in new team care plans for six residents. The new plans of care included medication for pain, laxatives for constipation, and/or nonpharmacological interventions for the PWDs. Only one psychotropic drug (hypnotic) was resumed for insomnia for PWD with BPSD. The interventions developed proved to be effective with an almost immediate decrease in intensity and frequency of BPDS observed.

The assistant CEO preferred an activities expert to present how to incorporate meaningful activities in the day, requiring a revision of the plan. A fifth and final education session was added to pull all the STAR-VA concepts together. In this session, a questionnaire was also offered (see Appendix E) for assessment of the teaching objectives. All of the topics were reviewed including the addition of the lower stress response theory. As an example of this theory, a hypothetical staff "bad day" (e.g., running late for work, forgot lunch, hit traffic, clocked in 8 minutes after their start time and then they were pulled to a different floor) was created. All of the staff identified with this experience. The lower stress response for our PWD was demonstrated and a connection was made between the PWD who is experiencing memory loss all day and a staff member's "bad day." It was emphasized that if stress were lowered with individualized meaningful activities, then staff would alleviate or attenuate BPSD. Communication using REAL, problem-solving using the ABCDE worksheet, and meaningful

activities infused into the day by the team were reviewed. The sessions spanned nine months. This helped the staff recognize that this is important to administration, which can encourage staff to utilize the skills learned.

During the planning and implementation process, risks and threats to the project were anticipated and managed with communication. Communication was utilized to handle concerns over management approval, staffing patterns and staff acceptance. Meetings were scheduled with the Assistant CEO initially and then with the unit managers to discuss the content in order to engage their interest and receive their approval for the educational plans. To reinforce management's trust, emails regarding the schedule were sent to the assistant CEO for approval. Discussions with administration initially about staff engagement were arranged. Meetings with the two unit managers together to set timing of the educational sessions were done and approved by the administration. Attending the QAPI meetings to discuss staff engagement and any concerns helped disseminate the activities and progress made during the education sessions. At the start of each session, the QAPI planning and activities were shared with staff.

All of the employees routinely attend one to two mandatory inservice sessions per month. Since inservice sessions already were part of the staff's workday, they were not disgruntled with attending the educational project's sessions. The location of the sessions was coordinated with the staff educator to ensure they did not utilize occupied space. This required that the education sessions were moved to the units, which made it easier for the staff to attend and gave them a comfortable and familiar space. The sessions were small with four to eight staff attending, which gave the staff the ability to share their ideas and concerns. Although staff resistance was anticipated, it was not a major issue. As the research literature pointed out, their main issue was time! Elephants that our PWD had colored in arts and crafts were posted all over

the classroom with a PowerPoint slide with an elephant sitting on top of a table were used to start our discussion in the first session on time constraints. One of the first concepts was to discuss their perception that they "do not have enough time" (the elephant in the room) to provide meaningful personalized activities and they were "not too sure that if they did activities, it would decrease BPSD." The honesty shared gave a sense of staff engagement in this conversation on how to safely and peacefully provide care to PWD. They did want to improve care but did not know how to proceed. Throughout the educational sessions, the staff's interest was visible, but verbalization of uncertainty was apparent when describing effective strategies for PWD and BPSD. An open forum of dialogue was encouraged as the staff members were listened to when they voiced their concerns. The answer to their worry was exactly what the entire project was – learning a new way of working with BPSD. The idea that the STAR-VA program, in many instances, could decrease their workload and help with staff shortages was reiterated in each session with examples. "Remember the laundry basket!" was used to reinforce the benefit of meaningful personalized activities. This early case study demonstrated minimal staff time with maximum hours of benefit.

Project Outcomes

A questionnaire (see Appendix E) was used to determine if the staff had the knowledge to be able to utilize the STAR-VA program and if they were willing to apply strategies the educational program presented. The project objectives were to:

- utilize the ABCDE care planning method in a team structure to identify activators that contribute to and/or cause BPSD (see Appendix B).
- utilize the REAL communication technique (see Appendix A).
- reduce the frequency and severity of BPSD/NPS.
- reduce requests for psychotropic drugs especially antipsychotics for BPSD.
- meet the educational requirements to maintain dementia unit designation for the ambulatory unit and possibly improve job satisfaction.

In order to determine if the staff understood the ABCDE method and REAL communication, simple identification of the acronym was assessed on completion of the program. The fifth item on the questionnaire was pivotal for deciding if staff understood the basic element of the STAR-VA program – using resident-centered personalized activities based on resident interests would decrease BPSD. Items 6, 7, and 8 also assessed knowledge of the main concepts of the STAR-VA program and this RCDCSE project. Item 9 asked if staff felt confident they could respond to BPSD. Item 10 assessed staff willingness to utilize the program in their daily work. See Appendix F for results of the questionnaire. The ambulatory unit's results were assessed separately since this is the unit that the DOH assessed as requiring more resident-centered activities.

During the time for the staff to answer the questionnaire in the last session, their stress level with the form was noteworthy. For example, "looking at other's questionnaire" to get the correct answer could have contributed to some of the correct and incorrect answering. It was compelling to see that the staff wanted to do well on the questionnaire. This could be interpreted to suggest that the topic was important and mattered to them. There were no names on the questionnaire or any minimal passing requirement such as they are accustomed to. The questionnaire was presented as an opportunity to assess if program goals were met and not about their individual performance. These words of encouragement did not help resolve the palpable anxiety (worried expressions and statements "this is hard") that the questionnaire generated. Test anxiety could have contributed to some of the incorrect responses. There were several items that were missed with no answer given for a few of the questions.

Analysis of the questionnaire gives some insight into the staff's reaction and understanding of the program. The questionnaire was evaluated on 55 staff completing the form. The percent of correct response or positive statements were calculated from the number correct divided by the 55 staff (the total participants in the fifth session). To determine the percent correct response or positive statements for the ambulatory unit, the number correct in the ambulatory unit in the numerator divided by 27 staff (total participants from the ambulatory unit in the fifth session) in the denominator. In the identification of the REAL acronym and the Problem Behavior Identification with the ABCDE Approach card, most staff could not recall the meaning of the letters in their entirety. The ambulatory unit staff for PWD with 100% correct on REAL form was 30% and 100% correct on the ABCDE form was 36%. The nonambulatory staff for PWD with 100% correct on the REAL form was 36% and 100% correct on the ABCDE form was 34%. This outcome suggests the need for reminders on the unit to help staff recall and

practice the communication and problem solving techniques. The ambulatory unit did not do as well as the nonambulatory unit in these responses however the difference was not great.

The third question addressed the lower stress level theory and more than 50% of the staff chose the correct answer. Understanding this concept could significantly help PWDs by giving the staff the knowledge and motivation necessary to reduce the resident's stress level. The fourth question dealt with the REAL communication technique in application. Only 24% of the total participants and 40% of the ambulatory unit staff answered correctly. These results could signify that the staff need multiple opportunities to practice this skill with coaching and feedback on their performance. This supports the idea that the program needs a local nurse champion who could help staff practice this technique. The REAL technique should be incorporated into a competency day for working with PWD to sustain the project.

The fifth and eighth questions handled the core belief that individualized meaningful activities and events can decrease BPSD. The results were very encouraging with 84% in question five and 93% in statement eight of the total participants and 89% in questions five and 96% in statement eight of the ambulatory unit staff believing that these activities can decrease BPSD. This is similar to the contemplation stage of change, when staff are attempting to understand the problem and are seeking solutions (Norcross & Prochaska, 2002). Responses indicate relief of a major barrier to changing staff behavior. It would have been helpful to include a parallel item in the Realistic Survey used at the start of the project to assess if the education changed staff from precontemplation stage to contemplation stage of change. It would also help determine whether the project provided gentle and persistent support and instruction to help move a person from precontemplation to contemplation stage (Norcross & Prochaska, 2002).

The sixth item assessed staff views on whether the PWD is able to achieve a purposeful life. The answers revealed 91% of the total participants either strongly agreed or agreed and 89% of the ambulatory unit either strongly agreed or agreed. Disagreement was openly shared. The seventh item assessed if the staff felt that they were responsible for improving the PWDs quality of life. On the ambulatory unit, 100% strongly agreed or agreed. This could reflect that staff are in the contemplation stage of change when they are assuming responsibility for the change in behavior. The tenth item reflected positive response to whether staff had the intention of utilizing meaningful events in their day- to- day practice with 93% of the participants that attended session five strongly agreed or agreed. This item might indicate the staff's readiness for change, moving from the preparation stage (getting ready) to action into action stage.

The RCDCSE project was well received by the staff. The strengths of this project included presenting a topic that the staff recognized as a problem. During the educational sessions it was evident by their discussions that they were interested in this topic. They welcomed the opportunity to discuss the topic honestly and freely. Another strength was offering a topic that the staff felt that they needed. In the Realistic Survey given during the first session, the majority of staff reported that they would like more dementia training. In fact, only six out of 58 respondents said they did not want any further education on BPSD. The fact that the staff was able to utilize the ABCDE tool with a real resident provided immediate feedback and successful results with BPSD that did not increase their workload in the fourth session –both strengths that addresses sustainability. During this session, everyone worked together as a team. The staff themselves stressed with each other the need "to work together and help one another". It was evident that the first objective was met - the staff were able to utilize the ABCDE care planning method in a team structure to identify activators that contribute and/or cause BPSD.

Project limitations include insufficient data to evaluate several of the project goals at this time. The second goal (to utilize the REAL communication technique), requires observation of the staff in the classroom and on the units to determine if they were skilled in this technique. The assessment of the third goal (to remove or reduce BPSD to decrease the frequency and severity of BPSD/NPS) depends on revisions to the forms for monitoring behavior utilized at the facility. Currently the staff only chart on the frequency of the challenging behavior. A revision of the form they are utilizing would need to include frequency and severity. Changing a form at the facility requires a committee review and agreement of the revision. This will be possible to achieve but will take time. It would be difficult to assess the fourth objective (to reduce the “request” for psychotropic drugs, especially antipsychotics for BPSD) since this is not recorded in any manner at the facility. Use vs. request for antipsychotics could be obtained from the MDS/drug claims data. Since the DOH survey for 2016 has not occurred, the administrative goal to meet educational requirement to maintain dementia unit designation for the ambulatory unit cannot be assessed at this time. However, with the education and individualized activities folders, this should meet the DOH requirements. It would be a challenge to identify goal achievement for job satisfaction related to RCDCSE project, since there are many factors that affect this.

Another major limitation in the project is the change in plans due to an administrative decision to switch the project from nine sessions to five sessions due to staffing concerns. Also, the number of staff who attended all of the training sessions was less than 10%, with 50% of the staff attending at least three or more sessions. This raises questions about whether enough of the content was discussed. Were the staff exposed to the three core concepts central to the STAR-VA program, which are the ABC problem solving approach, realistic expectations,

communication and personalized, meaningful, pleasant events? This could be assessed in the future by evaluating the REAL communication in action, assessing if the ABCDE problem-solving tool was utilized and looking at the severity and frequency of the challenging behaviors over a specific designated time. Reviewing the individualized folders at the facility for pleasant events and assessing if the staff are utilizing them on a day-to-day basis would be another way to assess applying learning into practice. In addition, if enough classroom education occurred in this project, could the STAR-VA program decrease the amount of sessions and still produce the intended results? This would make the STAR-VA program more versatile and accessible to facilities that do not have the hours for training but have the need. The education was adjusted for this facility. The modifications of STAR-VA included reducing the number of sessions and adapting the case studies and content for this facility. The project did not have treatment fidelity nor comparability with the STAR-VA program and thus RCDCSE project results need replication and further evaluation.

Summary, Conclusions and Recommendations

In the LTC community, there is heightened awareness of the need to reduce the use of APMs and increase use of nonpharmacological interventions as first line prevention and treatment for BPSD. The potential impact for this project could be far reaching. If the project's reduced five sessions could translate into achieving the skills necessary to implement the STAR-VA, more facilities may have the resources to utilize the program, but this needs further evaluation. The possibility of decreasing and/or alleviating distress of PWD with BPSD would be a major outcome but was not confirmed from this project. The attendance of the sessions demonstrated 50% of the staff attended at least three or more sessions. According to the STAR-VA project, the more sessions for which participants were present, the increased ability staff had

to apply the STAR-VA concepts on the clinical unit (Karlin et al., 2015). The data obtained in the RCDCSE project suggests that 85% of the staff members surveyed report they would apply the concepts learned in the project. This interdisciplinary educational project has the potential to decrease BPSD using this team approach with intensive education, administrative support and coaching and feedback for sustained implementation.

Recommendations include designating a staff member at this facility as a nurse champion who has demonstrated an interest and skill in application of the STAR-VA program. A behaviorist specializing in PWD should be hired in a part-time/per diem capacity to work with the nurse champion and the staff on a routine basis to discuss/observe/problem solve BPSD. Creating a behavioral health team with the nurse champion and behaviorist would be helpful to meet with staff on a weekly and/or prn basis as problems arise. Another activity for the behavioral health team could be to assist staff in updating the individualized folders to identify, adjust and adapt the activities throughout a PWD's life at the nursing home. A meaningful activity hour could be designated in the day room one to several times a day to engage staff and PWD in individualized activities based on their cognition and functional level. The staff could meet weekly to work on the Problem Behavior Identification with the ABCDE approach. Furthermore, the staff should meet on a routine basis to discuss interests of new residents and new discoveries of interests, activities and schedules for current residents as well as reviewing what is working or not effective.

The entire staff would benefit from the five sessions discussed in the project. A monitoring system using the unit managers for each unit for attendance at all of the sessions would be helpful to increase the probability of translation of the evidence into practice. A PWD communication module with the REAL technique from the project should be modified/adapted

and added into the annual competency day for all employees. The approval of the ABCDE problem solving cards into the official facility forms or used in the individualized folders for staff reference would further ensure the sustainability of this project. Also re-testing this project with stronger intervention fidelity in other nursing homes could validate the preliminary findings and lead to further dissemination of the STAR-VA program. Research is necessary to test the efficacy of this evidence-based project for reduction of APM use, reduction of frequency and severity of BPSD, and duration of effects. Further research on adapting the STAR-VA and other programs will be necessary to identify efficacy, intervention dose, and sustainability before broad dissemination.

We are at a crisis point right now with our aging population. The ever-growing PWD population will continue to increase in the years to come. The time is now for nurse leaders to move this education and training forward. It is important that as advanced practice nurses we are aware of the pharmacological implications with BPSD and that we stay current about the nonpharmacological treatment options. Nurses are in an important position in LTC, poised to be leaders in this movement. The nurse champion is an innovative application for the unique skills and sensibilities that have been inherent in our profession since its inception. PWD are very vulnerable and need our nursing care and advocacy to enhanced and/or create their quality of life. The STAR-VA program with evidence-based adaptations is an option to help achieve these goals in an interdisciplinary design with the nurse champion front and center as an agent of change.

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Appendix A

REAL Communication Pneumonic

R	Realistic expectations	Redirect
	Respect	Respond
E	Expression calm & smiling	Eye contact at eye level
A	Ask why is PWD behaving this way	Ask permission to hand items to staff
L	Listen to what the PWD is doing and saying	

Source: Adapted from Karlin, et al., 2015

Appendix B

Problem Behavior Identification with the ABCDE Approach

A
ACTIVATOR

What was the VHR doing?

Who was present?

Where was this happening?

When was this happening?

B
BEHAVIOR

What was the behavior? Be Specific

Who did the behavior affect?

How severe was the behavior for the VHR, other VHR, and the staff?

Appendix B (Continued)

C
CONSEQUENCES

What happened after the behavior?

Did the behavior escalate, lessen, continue, or stop?

D
DECIDE
AND
DEBRIEF

What can we do to meet the physical, environmental and psychological needs of the VHR now and in the future?

How did we manage the behavior?

E
EVALUATE

Did the staff implement a new plan?

Was it effective?

If unable to utilize plan, explain why.

Source: Adapted from: Karlin et al., 2015

Appendix C

ABCDE Problem-Solving Tool Guide Worksheet

B – Behavior (Add to the ABCDE worksheet)

What is the actual behavior?

Frequency of the behavior:	Constant	Several times a shift	Once a shift	Less than once a shift	Severity of behavior (Mild Mod Severe or Dangerous)
7-3 shift					
3-11 shift					
11-7 shift					

A – Activator/Antecedent (Add to the ABCDE worksheet)

What happened before the episode?

Medical, psychological, interpersonal and environmental: Common Triggers for PWD
(Circle if present and describe if needed below and cross out if not applicable)

Medical/physical (Add if present to the ABCDE worksheet)

Pain or discomfort	Constipation	Infection
Medication side effects	Poor sleeping patterns	Functional Limitations
Verbal/speech deficits (unable to share needs)	Visual deficits (glasses)	Hearing deficits (hearing aids)
Fatigue from drugs	Toileting, hunger, thirst, wet (incontinence)	Cognitive dysfunction

Psychological (Add if present to the ABCDE worksheet)

Sad/depressed	Anxious/worried	Frightened	Frustration
Angry	Lonely	Fearlessness	

Appendix C (Continued)

Interpersonal and Environmental Triggers (Add if present to the ABCDE worksheet)

Interpersonal Triggers from care partner	Environmental triggers
1. Stressed, overwhelmed, depressed care partner	1. Poor lighting
2. Care partner expectations	2. Over-stimulation in room (loud noises, startling noise, changes in schedule and routine)
3. Care partner feeling rushed, frustrated	3. Under-stimulation in room
4. Care partner touching VHR in a way that is confining or frightening	4. Too much clutter
5. Relationship problem (care partner new to PWD or PWD uncomfortable with care partner)	5. Too hot or too cold
6. Communication style of care partner not effective with PWD (Gitlin & Piersol, 2014)	

C – Consequences (Add to ABCDE worksheet)

1. Behavior worsened
2. Behavior improved
3. Maintained the behavior
4. Who did the behavior affect (VHR, other VHR, Staff, Family, Visitors)?

D - Decide (Add to ABCDE worksheet)

1. What is the new goal behavior?
2. What will be your new approach?
3. Who will be performing this new approach?
4. What will you do if the new goal behavior occurs? Positive reinforcement
5. What will you do if the challenging behavior occurs again?
6. What will you do if the behavior does not change?

E – Evaluation (Add to the ABCDE form)

1. When will you evaluate the new plan?
2. Was the plan implemented? (If not, explain why)
3. Was the plan effective?

SOURCE: Adapted from Karlin, et al. (2015)

Appendix D

Initial Staff Survey

Survey regarding caring for residents with dementia and behavior problems (If you agree check box yes; if you disagree check box no)	Yes	No
1. I think if the resident liked me his behavior would be appropriate.		
2. I always speak slowly to the resident to explain what I am doing.		
3. I think that it is my job to provide pleasant happy activities for our residents during the day.		
4. I look the resident in the eye and get to his eye level when I am talking to the resident.		
5. When a resident's behavior is verbally aggressive (yelling or cursing), I try to think what may be causing the problem before I try to help.		
6. I let the nurse know when my resident has a behavior problem every time.		
7. I only let the nurse know when my resident has a behavior problem if it is something I cannot handle.		
8. I find it difficult to remain calm when a resident is experiencing behavior problems		
9. I feel confident that I can calm down a resident who is experiencing behavior difficulty		
10. I would like more training on how to prevent behavior problems in dementia residents.		

Appendix D (continued)
Initial Staff Survey Initial Survey for Nursing Staff

Survey regarding caring for a resident with dementia and behavior problems (If you agree check box yes; if you disagree check box no)	Yes	No
1. I think if the resident liked me, his behavior would be appropriate.		
2. I always speak slowly to the resident to explain what I am doing.		
3. I think that it is my job to provide pleasant happy activities for our residents during the day.		
4. I look the resident in the eye and get to his eye level when I am talking.		
5. I feel I need to clean the resident's entire body every day.		
6. When a resident fights me during care, I stop and come back later.		
7. I am afraid, worried, and anxious for my safety when I provide personal care for a resident with dementia.		
8. When a resident's behavior is physically aggressive (attempting to hit or actual hitting), I try to think what may be causing the problem before I try to help.		
9. When a resident's behavior is verbally aggressive (yelling or cursing), I try to think what may be causing the problem before I try to help.		
10. I let the nurse know when my resident has a behavior problem every time.		
11. I only let the nurse know when my resident has a behavior problem if it is something I cannot handle.		
12. I find it difficult to remain calm when a resident is experiencing behavior problems		
13. I feel confident that I can calm down a resident who is experiencing behavior difficulty		
14. I would like more training on how to prevent behavior problems in dementia residents.		

Appendix E

Dementia Education Series Questionnaire

Unit: RS TV

Position: RN LPN CAN Dietician SW Activity

1. What do the letters REAL stand for in relation to REAL communication with persons with dementia?

R _____

E _____

A _____

L _____

2. What do the letters ABCDE stand for?

A _____

B _____

C _____

D _____

E _____

3. Your resident was woken up earlier than his usual time, his caregiver is a float and a stranger to him, he was incontinent of urine requiring a diaper change that upset him, his wife did not visit, he walked all day up and down the corridors looking for her, he refused any of the scheduled activities and he did not eat lunch well. At 4 PM, he was yelling at the women in the day room to shut up and he threw milk and cookies on the floor. How would the stress theory explain why the resident became aggressive?
 - a. Each stressful events breaks down the resident's ability to cope appropriately because a person with dementia has a low stress level tolerance.
 - b. It will be very hard for the resident to adjust because he is too attached to his wife and family.
 - c. The resident is experiencing depression and probably needs to receive medication to help him cope better
 - d. The staff need to chart on his behavior since it may be one bad day for the resident due to all the changes in his schedule and not real change in behavior.

APPENDIX E (Continued)

4. If a person with dementia is getting upset, what is your next best response to help him be safe and calm down?
 - a. Find the resident's CNA or nurse who knows him the best
 - b. Remind him who you are, as you walk in front of the resident
 - c. Tell the resident to calm down
 - d. Tell the resident that you will help him

5. In order to prevent a person with dementia from developing cursing or yelling or hitting, what is your best response?
 - a. Ask the family to visit more often.
 - b. Engage the resident in a group activity, like bingo or a word game.
 - c. Find out the activities and interests that the resident enjoys and then help the resident perform them throughout the day.
 - d. Tell them in a polite manner that their behavior is upsetting other residents

Please circle the answer that best describes how you feel about the statement.

6. A person with dementia can have a purpose in life.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
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7. It is my job to find ways to help the resident have a pleasant day.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
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8. If I help a resident enjoy activities that he/she are interested in, the resident will have less challenging behavior (yelling, cursing, hitting).

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
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9. I am able to help a resident calm down when they are yelling, cursing or hitting me or others.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
----------------	-------	-----------	----------	-------------------

10. I will use personalized interests and activities with my residents in my day-to-day work.

Strongly agree	Agree	Undecided	Disagree	Strongly disagree
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Give Example:

Appendix F

Responses to Dementia Education Series Post-Questionnaire

The percent in each column was calculated as follows for total participants in session five:

$$\frac{\text{Numerator} = \text{number answered correct}}{\text{Denominator} = 55 \text{ (number who filled out the questionnaire)}}$$

The percent in each column was calculated as follows for Ambulatory unit:

$$\frac{\text{Numerator} = \text{number answered correct}}{\text{Denominator} = 27 \text{ (number who filled out the questionnaire from ambulatory unit)}}$$

1. REAL Communication means

Letter in Acronym	% Total Participants correct (N=55)	% Ambulatory Unit correct (N=27)
R	87%	89%
E	53%	40%
A	40%	37%
L	47%	37%
All correct	36%	30%

2. ABCDE problem solving means

Letter in Acronym	% Total Participants correct	% Ambulatory Unit correct
A	58%	56%
B	80%	81%
C	60%	74%
D	64%	52%
E	70%	78%
All Correct	34%	33%

Questions with Concept evaluated	% Total Participants correct	% Ambulatory Unit correct
3. Lower stress level theory in PWD	62%	59%
4. REAL communication	24%	40%
5. STAR-VA meaningful activities decrease BPSD	84%	89%

Appendix F (continued)

Statement with Concept evaluated	% Total Participants Agreed or strongly agreed	% Ambulatory Unit Agreed or strongly agreed
6 PWD can have a purposeful life	91%	89%
7 Personal accountability for improving PWD quality	87%	100%
8 STAR-VA meaningful activities decrease BPSD	93%	96%
9 Staff has confidence in caring for PWD with BPSD	88%	74%
10 Staff's willingness to utilize meaningful events	85%	93%