2022

Simulation To Improve Dementia-Related Care of Veterans

Brandy Wardrip
Eastern Kentucky University, brandyl.wardrip@gmail.com

Eastern Kentucky University

College of Health Sciences

School of Nursing

Doctor of Nursing Practice Program

DNP Project Final Report

Simulation To Improve Dementia-Related Care of Veterans

DNP Student: Brandy Wardrip

Date: 7/28/2022

The DNP Project Final Report is submitted in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice (DNP) at Eastern Kentucky University (EKU).

Student Acknowledgement

"I assert that the content of this DNP Project is my original work. Proper citation, credit, and permissions have been obtained and/or given to all external sources. I retain the right to ownership of my work. I further retain the right to use the work in future publications (i.e. articles, books…) all or any part of my work."

EKU DNP Student: Brandy L. Wardrip

Signature: X Brandy Wardrip 7/27/2022 **Date: 7/27/2022**

Signed by: 76ceb925-22ea-40d5-8fc9-a72813933b86

Review & Approval of DNP Project Final Report

The DNP Project Final Report has been reviewed and approved by the DNP Project Team, which includes the DNP Project Chair and the DNP Project Team Member(s). The DNP Project meets the satisfactory requirements for the DNP Project Final Report outlined in the EKU DNP Project Guidelines. The EKU DNP Project Guidelines are based on best practices outlined by the American Association of Colleges of Nursing (AACN) and external evidence-based sources. The DNP Committee develops, maintains, and monitors these standards on behalf of the Department of Baccalaureate and Graduate Nursing at Eastern Kentucky University.

"We assert that we have reviewed and approved this DNP Final Project Report."

EKU DNP Project Chair: Nancy G. Owens DNP, APRN, FNP-C

Signature: **Date:**

EKU DNP Team Member: Molly J. Bradshaw DNP, APRN, FNP-BC, WHNP-BC

Signature: **Date:**

EKU DNP Coordinator: Molly J. Bradshaw DNP, APRN, FNP-BC, WHNP-BC

Signature: **Date:**

EKU School of Nursing Department Chair: (Type Name + Credentials)

Signature: **Date:**

Acknowledgments:

As I close out my terminal nursing degree, I reflect on my personal, professional, and educational journey that I have been blessed to experience. I sit and think back to the very beginning, I see myself sitting on the couch helping my mom, who was almost 40 years old, study for her practical nursing program. She became the first person in my family to graduate from a college program. I was a junior in high school with aspirations of becoming a mathematics professor thanks to my dad who endured the painful hours of not only helping me understand but learn to love math. Mom's nursing studies fascinated me. As I graduated high school, married just days after, and started my life journey, I found myself enrolling in the practical nursing program at the local technical college. That was it. I knew that very first day sitting in class that my calling was to become a nurse educator. My instructors were so inspiring, and it was so remarkable to think of all the lives they have touched through the students they taught.

Drs. Owens and Bradshaw, thank you for your kindness, patience, and reassurance throughout these two-plus years. Dr. Dahl, thank you for allowing me to be part of your journey for that was instrumental in my decision to enroll in Eastern Kentucky University. Dr. Sprigler, I greatly appreciate all your support, flexibility, and encouragement in pursuing my degree and choosing my topic for I know the subject was dear to your heart.

I would not be here today without the inspiration and encouragement of so many. Mom, I pray I made you proud and that you will continue shining down on me. Dad, thank you for my tenacity in learning and your unwavering support throughout my life. You have made me strong. To my sister, thank you for always having faith in me. John, thank you. Thank you for our journey in life together, for your encouragement, and for wiping the tears away on the first day of nursing school when I began to instantaneously feel overwhelmed by the nursing books around me. Those times were foundational in who we are today. I thank you so much for lovingly caring for our babies while I studied. To my beautiful blessings, my children. I apologize for the hours spent away from you during my educational journey. Balancing life and personal dreams is so hard. I pray I never made you feel second. I treasure your patience, understanding, and unconditional love. I hope I have inspired you to pursue wherever your dreams take you. To my friends and colleagues, what a ride! Thank you for my countless energy drinks, laughs, texts, and mental reprieves during my stressful days. I truly appreciate each one of you. To Doug, my rock. Your gentle patience is like no other I have ever known. I thank you for not allowing me

to give up. I am grateful for your relentless efforts of keeping me focused and on track for that certainly was not an easy feat. I thank you for the peace you bring on those long, unforgiving days. To you all, I thank you. You are all gifts, and you are all appreciated.

Simulation To Improve Dementia-Related Care of Veterans

Brandy L. Wardrip

School of Nursing, Eastern Kentucky University

NCS 994: DNP Project

Dr. Owens

July 27, 2022

Abstract

Millions of Americans, including Veterans, are diagnosed with dementia. Healthcare staff may benefit from dementia-related training. This Doctorate in Nursing Practice (DNP) project evaluated the effectiveness of the Virtual Dementia Tour (VDT) as a learning tool to improve staff's knowledge of dementia, enhance their empathy and attitudes when interacting with Veterans diagnosed with the disease, and increase awareness that behaviors commonly seen with dementia may be forms of communication. Interprofessional healthcare staff (N=33) at a Veterans hospital participated in the experiential simulation. A pre-and post-test design utilized the Dementia Knowledge Assessment Scale (DKAS) and the Dementia Attitude Scale (DAS). Results: A paired-sample t-test indicated the scores were significantly higher for the post-tour DKAS (M = 27.51; SD = 7.68) than for the pre-tour DKAS (M = 35.12; SD = 7.89), $t(32)$ = -6.045, $p < .001$, and d = 0.969 suggesting the VDT was an effective tool for improving staff knowledge. A Kendall's Tau-b revealed a significant difference in the DAS ($p < .03$ in all but one statement; $\alpha = .754$) signifying enhanced empathy, attitudes, and awareness. Conclusion: The Virtual Dementia Tour was an effective learning tool to improve the healthcare staff's knowledge, empathy, attitudes, and awareness of behaviors when caring for Veterans with dementia.

Keywords: dementia, dementia training, dementia simulation, disruptive behaviors, empathy, simulations, Veterans with dementia, virtual dementia tour, virtual simulation

Table of Contents

Simulation To Improve Dementia-Related Care of Veterans

Veterans diagnosed with dementia may exhibit behavioral and psychological symptoms of dementia (BPSD) such as anxiety, hallucinations, delusions, paranoia, and a distrust of both their environment and of those around them (Cloak & Khalili, 2022). BPSD may result in disruptive, aggressive, and sometimes violent behaviors that can present dangerous situations for the Veteran, other patients, and healthcare staff (Baharudin et al., 2019; Van der Linde et al., 2016). Anderson et al. (1996) explains that dementia patients may not be able to relate to reality. In their world, they may have rational reasoning for their behaviors. Behaviors, including disruptive, may be a method of communication and caregivers should seek to understand their meaning.

Caring for Veterans with dementia can be challenging and overwhelming for healthcare staff with little dementia-related training for it is a disease with no visible injuries to serve as reminders, each person diagnosed endures unique challenges specific to them, and patient's mental awareness and personality changes may vary throughout the day (Cloak & Khalili, 2022; Yang et al, 2020). Therefore, healthcare staff may benefit from dementia-related training promoting a better insight to the world of the Veteran with dementia.

Staff within the host facility voiced concerns regarding limited dementia-specific training options. This Doctorate in Nursing Practice (DNP) project evaluated the effectiveness of the Virtual Dementia Tour (VDT) as a training tool to improve dementia-related care.

Background and Significance

The Alzheimer's Association (2021) reports there are over five million Americans have dementia. This number is expected to increase to 14 million by 2050. Veterans are at a higher risk for developing dementia than the general population due to increased rates of traumatic brain

injuries, post-traumatic stress disorder (PTSD), and depression (Barnes et al., 2014; Mawanda et al., 2017; Flatts et al., 2018; Yaffee, et al., 2019; Raza et al., 2021).

Barnes et al. (2014) found that older veterans who had suffered traumatic brain injuries were 60% more likely to develop dementia compared to those without brain injuries and suffered from earlier onset. Flatt et al. (2018) found male Veterans who suffer from PTSD have a 70% higher chance of developing dementia compared to someone who has not experienced PTSD. Female Veterans have a 60% higher chance. Their report suggests this might be related to psychological consequences of acute and chronic stress which produce pro-inflammatory cytokines, increase in c-reactive proteins, and elevated homocysteine levels.

Criteria for Diagnosis

The American Psychological Association (2013) offers the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 diagnostic criteria for severe dementia. DMS-5 diagnostic criteria for dementia include (1) memory loss, (2) at least one other of the following qualifying diagnoses such as: aphasia (difficulty with comprehension and communication), apraxia (difficulty executing simple daily tasks), agnosia (inability to identify objects using one or more senses), or disturbance in executive functioning (which includes judgement, disorganization, inappropriate social behaviors, poor planning, and apathy to their actions impact on others); and, (3) impairments cause significant is decrease in social and occupational abilities which interfere with independent daily living requiring assistance of some magnitude.

Causes of Dementia

Calsolaro et al. (2021) identified Alzheimer's dementia as the most common cause of dementia representing 80% of the cases. Other causes included vascular dementia, Lewy bodies, frontotemporal dementia, and Parkinson's disease. The behavioral and psychological symptoms

of dementia (BPSD) exhibited by patients depends on the cause(s) of dementia. Though BPSD can be seen in all causes of dementia, Yang (2020, p. 55) reported that Alzheimer's dementia is more likely to have delusions compared to vascular dementia; vascular dementia more frequently experiences depression, apathy, and mood changes. Patients with Lewy body dementia more frequently hallucinate while those with frontotemporal lobe dementia display impulsive, aggressive personalities including lack of restraint and excessive sex drives.

Behavioral And Psychological Symptoms of Dementia

Cloak and Khalili (2022) classified BPSD into five domains: "cognitive/perceptual (delusions, hallucinations), motor (e.g., pacing, wandering, repetitive movements, physical aggression), verbal (e.g., yelling, calling out, repetitive speech, verbal aggression), emotional (e.g., euphoria, depression, apathy, anxiety, irritability), and vegetative (disturbances in sleep and appetite)."

Need For Dementia-Related Training

Veterans with dementia often require multiple healthcare providers from different disciplines to ensure all aspects of health are met. Some of the healthcare team who care for Veterans with dementia include physicians, physician assistants, nurse practitioners, nurses, nurse assistants, health technicians, social workers, psychologists, and rehabilitation therapists (Cloak & Khalili, 2022).

Dementia-related training is essential to all healthcare staff. Training provides staff opportunities to enhance their knowledge, interpersonal skills, and improve their ability to effectively engage Veterans exhibiting BPSD. Peng et al. (2021) suggests dementia-related education can improve empathy and lessen the challenges dementia patients face providing effective dementia related care.

Current State of Practicing Facility

Veterans actively exhibiting BPSD can pose a risk to themselves and those around them. At the host facility for this project, staff who perceive danger when encountering Veterans displaying aggressive behaviors call for assistance from the Behavior Response Team (BRT). The BRT includes a registered nurse from inpatient psychiatry, federal police, and other staff who are trained in interpersonal communications, de-escalation, and self-defense techniques including containment. The BRT offers support, de-escalates the situation, and if need restrain/contain the Veteran.

In a 2019 study, Leach et al. suggested that attending de-escalating training may help staff improve de-escalating communications and better manage patient violence and aggression; however, this training did little to decrease the number of disruptive episodes nor curb repeated episodes. The study recommended comprehensive multi-modal trainings that includes learning to look meanings behind the behaviors, early recognition of disruptive behaviors, identify possible patterns, and develop prevention strategies in addition to the de-escalation training.

The Veterans hospital that hosted this project acknowledged that healthcare staff, including BRT, may have limited knowledge regarding dementia and the challenges associated with the disease. Dementia-specific training is not a requirement for most roles. This may be reflected in the number of disruptive behavior calls. In 2021, 80% of the calls for help were related to disruptive Veterans with dementia (R. Hosey, personal communication, October 1, 2021). Dementia-related training can be a supplement to the staff who initially encounter the Veterans and those who respond with the BRT.

Proposed Evidence Based Intervention

Purpose Statement

The purpose of this Doctorate in Nursing Practice (DNP) project was to evaluate the effectiveness of the Virtual Dementia Tour (VDT) as a training tool to (1) improve staff's knowledge of dementia, (2) enhance their empathy and attitudes when interacting with Veterans diagnosed with the disease, and (3) increase awareness that behaviors commonly seen with dementia may be forms of communication.

Review of Literature

The PICO question for this project was, for frontline staff working in a Veteran's hospital (P), what impact does the Virtual Dementia Tour (I) have on knowledge (O), empathy (O), attitudes (O), and recognition of behaviors, including disruptive, as forms of communication (O), within two months of participating (T)? Databases utilized for this project's literature review included Cumulative Index to Nursing and Allied Health Literature (CINHAL), Google Scholar, and Elsevier Clinical Key. The keywords entered included *dementia, dementia training, dementia simulation, disruptive behaviors, empathy, simulations, Veterans with dementia, virtual dementia tour, and virtual simulation.* For years 2016-2021, there were 3,643 items available. The findings were further narrowed by limiting the search to electronic publications, academic journals written in English, full text, peer reviewed articles yielding 133 articles. The articles were then scanned for relevance to in-hospital educational training for nursing staff taking care of dementia patients. The search yielded 12 articles of which six were utilized for the literature search offered in this paper.

Relevant Studies

Six articles were analyzed using Melnyk and Fineout-Overholt's (2015) Hierarchy of Evidence and Intervention Tables (see Appendix A), as well as Summary of Evidence using Rapid Critical Appraisal Tool (see Appendix B) to evaluate how dementia simulation experience impact frontline staff's knowledge, empathy, and attitudes towards dementia patients.

A systematic literature review was published identifying, critically appraising, and synthesizing evidence of employing simulations to promote empathy in undergraduate nursing programs (Levette-Jones et al., 2019). The authors reviewed 23 articles using the Preferred Reporting Items for Systematic Review and Meta-Analysis and validated their findings with Medical Education Research Study Quality instruments with Cohen's effect size correlation of $r \geq 0.2$. Four of the studies were experimental, four were case-controlled, and the remaining were single-group studies. The four experimental and four case-controlled studies with $r=0.45$ and 10 single-group studies with $r=0.26$ support the most effective learning method to promote empathy involved immersive and experimental simulation-based interventions.

Chua et al. (2021) published a systematic review and meta-analysis to evaluate the effectiveness of simulation-based interventions on empathy in healthcare students. This analysis reviewed randomized and clinical control trials of healthcare students participating in simulation training aimed at improving empathy. Data was assessed using I^2 statistics and Cochran Q chi-squared test with values interpreted as <40% low importance, 30-60% moderate, 50-90% substantial, and 75-100% considerable importance. For the chi-squared test, significant heterogeneity was $p<0.10$. Students' empathy was evaluated by self-report (I^2 =64%, $p=0.76$), by faculty (I^2 =0%, $p=0.48$); and simulated patients (I^2 =83%, $p=0.003$). They found simulation-based intervention improved empathy.

Campbell et al. (2021) invited 163 Bachelors of Science Nursing students to participate in the Virtual Dementia Tour (VDT). The authors assessed the impact of the VDT using the Dementia Attitude Scale (DAS), the Knowledge About Memory Loss and Care scale (KAML-C), student reflections, and the tour surveys. Their study showed an improvement in the DAS with a median score of -2 and p value < 0.001 indicating an increase in awareness and sensitivity to dementia but no significant change in knowledge of dementia on the KAML-C. The thematic analysis of the student reflections did demonstrate an increase in awareness, knowledge, and a need for practice change. Compared to pre-tour surveys, the post-tour surveys revealed students felt more agitated, believed it would be unbearable to live with dementia, and that dementia patients do not receive the care they need.

Peng et al. (2021) completed a study using video-based learning and virtual dementia simulation which demonstrated an increase in empathy, compassion, and improved attitudes towards dementia patients. This quasi-experimental study of 45 sophomore nursing students evaluated results with pre- and post-surveys utilizing the Jefferson Scale of Empathy-Health Professional Students. Empathy levels increased from 106.69 ± 9.49 to 115.51 ± 10.16 using $p<0.1$. Feedback from the participants indicated the simulation helped them empathize and better understand dementia patients' frustration, anxiety, and daily challenges. This knowledge will help them provide more effective patient centered care.

Solecki et al. (2021) studied the effects of experiential learning through the VDT. This quasi-experimental study examined knowledge and appreciation of the emotional needs of dementia patients, perception of care, and staff awareness of dementia's disease process. For this study, 113 nurses and assistants from a southwest US hospital were divided into two groups. One group received only in-class lecture and the other group received in-class lecture plus the VDT.

Findings suggested the staff initially overestimated the idea that dementia patients receive the care they needed with 63% agreeing pre-tour compared to 36% post-tour response. Staff responses indicated the VDT increased their understanding of the challenge dementia patients experience (rise from 67% to 98%) and 95% of staff recognize the need for dementia training. This study validates the significance dementia simulation has on staff's perception and awareness.

Slater et al. (2019) published a qualitative exploratory study evaluating VDT's impact on empathy for those providing dementia-related care. Eighteen participants comprised of a variety of Ireland healthcare workers and caregivers participated in the VDT tour and de-briefing discussion. The aim of their study was to examine the four components of empathy: emotive, moral, cognitive, and behavioral. All participants were interviewed via telephone within four to six weeks post-tour and their responses were thematically analyzed using Maryring's approach. For the emotive component, participants reported feeling fear, anxiety, and frustration during the tour. Their actions during the tour were reported as slow and deliberate to erratic and wondering while they struggled performing simple tasks. For the moral component, the participants reported appreciating the experience and allowed the opportunity to reflect on their experience and how they have interacted those diagnosed with dementia. For the cognitive component, participants shared that the experience allowed them a glimpse into the life of one struggling with dementia. This first-hand experience improved their knowledge of the disease and enhanced their awareness of why people with dementia exhibit behaviors or responses to stimuli. Lastly, for the behavior component, 100% of the participants verbalized a better appreciation for the effect environmental stimuli has on patients and the simulation experience enhanced their learning.

Synthesis of Literature

Knowledge

Simulations provide a safe, non-judgmental learning environment where frontline staff can immerse themselves in the learning experience (Solecki et al., 2021). An experiential learning experience, such as the VDT, expands on didactic knowledge and allows participants to experience challenges firsthand offering a unique perspective otherwise not taught in a classroom setting (Levette-Jones, 2019).

Empathy and Attitudes

Simulations are educational tools that can enhance empathy enabling staff members to be immersed in the patient's world. Levette-Jones et al. (2019) found that the most effective simulation for developing empathy is when the learner assumes the patient role. They create realistic views by having staff members assume the role of the patient allowing them to share in the experience, to feel what it is like to live in their shoes even for a moment (Levette-Jones et al., 2019; Slater et al., 2019; Solecki et al., 2021).

These experiences allow frontline staff to connect with dementia patients creating an enhanced understanding and awareness (Chau et al., 2021; Slater et al., 2019). Empathy improves staff's ability to relate to patient concerns, improve communication, and is important to the patient-nurse relationship (Peng et al. 2021). Simulations foster deeper understanding of patients with dementia an promote positive attitudes. (Levette-Jones et al., 2019; Peng et al., 2021; Solecki et al. 2021). Positive attitudes improve patient-centered care and outcomes (Peng et al., 2021; Slater et al., 2019; Solecki et al. 2021). Staff who participate in simulations and debriefings often reflect on their experience. This can help make them more situationally aware

and disease sensitive when providing care promoting practice changes. (Chau et al., 2021; Levette-Jones et al., 2019; Slater et al., 2019; Solecki et al., 2021).

Recognizing Purpose of Behaviors

Simulated learning experiences can help staff relate to what patients see, hear, and feel. Experiences that mimic challenging situations offer staff members unique perspectives that allows them to reason and rationalize behaviors when patients do things that do not correlate to the task at hand (Solecki et al., 2021). Understanding the why behind behaviors, may help frontline staff members recognize that those behaviors may be responses to anxiety, fear, or frustration (Peng et al., 2021; Slater et al., 2019; Solecki et al., 2021).

Guiding Theory

Malcom Knowles' Adult Learning Theory (1984) guides the development of learning events used for this project. The theory includes five guiding principles to follow when creating meaningful adult education. These principles include self-concept, need to know, learner experience, readiness to learn, and motivation for learning.

Self-Concept

Adults are self-directed and desire to have input in their learning experiences. Adults are autonomous learners but need guidance and tools to be successful. Educators can meet learner needs by providing clear instructions, effective timely communications, and useful resources.

Need to Know

Adult learners need to have a vest interest in education. They need to understand why the material is pertinent to them and how they will benefit from it. This can be achieved by sharing objectives, giving background information as to why the training is taking place, and offer debriefings after simulations.

Learner Experience

Adults have a vast amount of life experience to draw from. These experiences allow adults to conceptualize innovative ideas. Their experiences may also bring different perspectives, knowledge, and may influence their learning. It is important for educators to provide opportunities and platforms for learners to share their experiences and provide input during training.

Readiness to Learn

Adult learners recognize the need to be trained for their roles. They value the education when offered and are ready to engage the content.

Motivation

. Mature adult learners are internally motivated to learn new things.

Organizational Description

Setting, Mission, Goal, Strategic Plan

This project was completed at a Veterans Health Administration (VHA) hospital in the southern region of the United States. The facility has approximately 100 inpatient beds, in primary and specialty medical clinics, an on-campus 10-bed substance abuse domicile, and eight community-based outpatient medical clinics. The organization's mission is to "honor American's Veterans by providing exception health care that improves their health and well-being" (VHA, nd). VHA's goals are to provide patient-centered care, improve patient outcomes, and synergize resources sustain added value for its patients. The facilities strive to meet this goal by being an integral part of the healthcare system, engaging in research, striving to be the best place to work, providing learning opportunities for affiliates, and being a valuable member to its community.

Relevant Policy (National, State, Local, Organizational)

In 2014, The American Nurses Association (ANA) released a Position Statement on Professional Role Competence stating that to ensure public safety, employers are to provide adequate training opportunities for staff development and ensure staff competency. It is the nurse's professional responsibility to seek knowledge and demonstrate professional competence in their assigned roles.

The Joint Commission, Kentucky Board of Nursing, Veterans Administration, nor the medical facility at which this project is implemented, require frontline staff to attend any dementia-specific professional development or continuing education such as recognition of behavioral triggers and responses, effective communication, or de-escalation techniques.

Stakeholders

Organizational Stakeholders

Stakeholders included the Veteran diagnosed with dementia, their family, nurses, assistants, nurse managers, social workers, psychologists Executive Leadership Team, police, PMDB Coordinator, and all other frontline staff that provides care.

Intervention Group

The VDT was open to all frontline healthcare staff who directly engage hospitalized Veterans diagnosed with dementia. This included nurses, assistants, licensed independent providers, social workers, respiratory therapy, rehabilitation therapists, dietary staff, and police officers.

Impact Populations

The population impacted by the implementation and outcome of this project included Veterans diagnosed with dementia, their families who care for them, the frontline staff that

provide care, police officers who respond to disruptive behavior events, and the facility leadership team.

Organizational Assessment

The principal investigator for this project performed an assessment of the organization's current state prior to the project proposal. The host for the project was a federally funded healthcare facility guided by national, regional, and local policies which are available electronically. The facility policy for Behavior Emergencies does not acknowledge the need to identify and address neurological-disease related issues such as how to effectively interact with Veterans with dementia.

A SWOT analysis of the facility was performed looking at strengths, weaknesses, opportunities, and threats that would impact the project. Strengths (internal positive factors) include the facility is an established, federally funded medical facility that solely cares for veterans. The facility offers in-house geriatric physicians, psychologist, psychiatrists, and social workers. The facility leadership supports ongoing professional development and has five full-time clinical educators to provide education and support to healthcare staff. Three areas of weakness (internal negative factors) were identified. The facility does not require staff to have dementia specific training. The policy for disruptive behaviors does not offer special guidance for encounters with those diagnosed with dementia. Lastly, a lack of nursing staff which makes it difficult for frontline staff to attend initial or ongoing training. Opportunities (external positive factors) included growth and expansion of the VDT to impact other Veterans throughout the Veteran hospital systems. Since Veteran hospitals are not long-term care facilities, they are not required to participate in dementia training. However, the regional network for this facility has four other sister facilities that could utilize this training to positively impact their patients, staff,

and number of disruptive behavior response calls. Given the unpredictability of the Novel Corona Virus, the threat (external negative factors) would include cancelling the face-to-face interactive simulation should infection rates increase. Online learning was not an available option for this program.

Congruence of DNP Project to Organization

Educating frontline staff on dementia was in congruence with the organization's desire to provide a caring and supportive environment to both its employees and Veterans. The VHA has adopted core values of integrity, commitment, advocacy, respect, and excellence (ICARE) to meet its mission to "serve all those borne to battle" (VHA, nd). The values are bases for all the organization strives to do. This project incorporated these values with the goal of patient-centered call, meeting the needs of the patients in the world in which they live in.

Statement of Mutual Agreement

A statement of Mutual Agreement describing the purpose of the project, delineated clear objectives, and associated costs were agreed upon by the principal investigator for this project and facility Director (see Appendix C).

Methodology

Aims and Objectives

The aim of this project was to improve dementia-related care of veterans. To achieve this aim, the following objectives included:

1. Implement the VDT to improve staff's knowledge, empathy, attitudes, and awareness of behaviors commonly seen with dementia. Utilizing the Dementia Knowledge Assessment Scale (DKAS) to measure knowledge. And, the Dementia Attitude Scale (DAS) to measure change in empathy, attitude, and awareness that behaviors

commonly seen with dementia may be forms of communication. The VDT pre- and post-testing for this project will assess for a 10% increase in knowledge and a significant positive difference for empathy, attitude, and awareness of behaviors.

2. Staff were encouraged to seek meaning behind the behavior, identify potential triggers, and de-escalate the situation if needed. Pocket reminder cards were issued upon completion of the training. On post-course evaluation, 10% will report referring to the badge reminder card after exiting the tour.
3. 100% of Staff will complete pre- and post-tour assessments. Data will be analyzed and evaluated to assess VDT as an effective training tool.

Design and Implementation Framework

A pre- and post-test design to evaluate the effectiveness of the VDT as a training tool to improve staff's knowledge, empathy, attitudes, and aware of behaviors commonly seen in dementia.

A Plan-Do-Study-Act Model for Improvement framework (Appendix D) guided the development this project. This four-step cyclic learning model includes 1) determining the purpose or goal, theory, and metrics measured, 2) implementing the project, 3) study the outcomes, and 4) integrate learning and re-evaluate goals (The Deming Institute, 2022). Communications between frontline staff, the PMDB coordinator, and the principal investigator identified the need for dementia-related training (Plan). The participants attended a one-hour simulation and debriefing session. (Do). Results of the VDT were evaluated. The findings may encourage more ongoing dementia training for frontline staff (Act).

Interventions Descriptions

The simulation instrument used for this project was the VDT, an evidenced-based interactive instructor-guided experience designed mimic life with severe Alzheimer's dementia (Beville, 2002). Using patented sensory tools, participants received a first-hand experience the challenges of living with dementia. The goal of the VDT was to improve knowledge of and sensitivity to dementia as well as enhance confidence for caring those diagnosed (Second Wind Dreams, 2019).

VDT was offered on two different dates with eight start times each day, four before lunch and four after. Tours started every 30 minutes beginning at 9:00 am and 1:00 pm. Each date allowed for 32 participants for a total of 64 opportunities.

Setting

The VDT simulation experience took place at a Veteran's hospital in the Education Service wing. Permission to use the VDT was granted by Second Wind Dreams (Appendix E) The tour requires four separate stages areas for events. A facilitator escorted the participants through the staging locations. The staging locations included a donning area, simulation room, doffing area, and a debriefing session room.

Participants reported to the VDT stage 1 room to sign attendance, review the instructions, obtain the participants consent, complete the pre-tour survey, and don the VDT equipment. VDT facilitators escorted participants to the simulation room, stage 2, which is a one bed on-call room with a bed, closet, and adjacent bathroom. After exiting the simulation room, the facilitator escorted the participant to Stage 3, the doffing area, where the participant doffs the equipment, completes the immediate post-tour survey. A facilitator was available at this station to provide comfort and support to participants who may feel overwhelmed or anxious after the

experience (Lewis, 2017). Stage 4 served as the debriefing room. The tables were arranged in a face-to-face setting promoting interaction amongst participants.

Stage 1

Waivers, Consents, and Pre-Tour Surveys. Stage 1 served as the welcoming room where participants were greeted by a train facilitator and given a clipboard with forms pertinent to the VDT and the DNP project. This stage takes approximately 10-15 minutes to complete depending on the participant.

Second Wind Dreams, the proprietary owner of the VDT, requires each participant to fill out a Hold Harmless Statement (Appendix F). This statement releases Second Wind Dreams from liability related to any injuries sustained during the tour, explains that strobe lights were used, and that the program could not be reproduced without permission. Participants who chose not to sign this release form were not permitted to go through the tour. When possible, facilitators made concessions for participants who needed alterations to the tour for physical or mental liabilities, such as turning off the strobe lights when requested.

Participants were introduced to the DNP project via an informed consent cover letter (Appendix G) attached to VDT pre- and post-tour survey. The Stage 1 facilitator provided participants who choose to participate in the project an additional randomly numbered folder that contained the Dementia Knowledge Assessment Scale tests, the demographics questionnaire, the Dementia Attitude Scale survey.

Instructions. When their paperwork was complete, the facilitator read scripted general instructions provided by Second Wind Dreams that started the tour (Appendix H). This script provided a brief description of the tour and simple instructions to follow. Per the guidance of the VDT, once the facilitator reads the script, the facilitator no longer interacts with participants or

answer any questions. This mimics patient experiences when trying to interact with hospital staff who ignore patients when providing care or passing by them in the hallways without acknowledging them.

Donning the VDT Equipment. The facilitator provided each participant the VDT simulation items to don. Each were given loose plastic glove inserts and VDT specific gloves that have two fingers sewn together. This limited participants fine dexterity skills. They received plastic shoe inserts that plastic prongs that are inside of plastic insert covers. The prongs provided simulation of the patient walking with neuropathy. The disposable plastic glove and insert covers kept the items clean between participant uses. Next, the participant received a pair of modified dark glasses with a distorted vision center in each lens. This mimicked severe cataracts. Finally, the last item provided are earphones that played loud, multiple overlapping noises that mimicking hallucinations. The participants put the headphones on while in Stage 1 to muffle sounds to simulate hearing loss but were not turned on until the they entered the door to the simulation room.

Stage 2

Entering The Simulation Room. A facilitator retrieved the participant and escorted the participant to Stage 2, the simulation room. The simulation room was a mock patient room with a bed, bedside table, closet, and restroom. At the doorway, the facilitator turned on the headset and asked if the participant can hear them. The goal was for the earphones and noise to drown out the instructions making it difficult, if not impossible, to hear the facilitator. The facilitator read the instructions from one of two task list (Appendix I). Each task list was associated with the color glasses the participant was wearing, black or white. Since two participants were in the room together, two task list avoided duplicate task instructions. Participants were instructed to perform

five simple everyday task such as stack the dishes, write a word on a piece of paper, and put on a jacket.

In Room Observation. The VDT simulation room was dimly light, with a strobe light, to further making it challenging to see, like the struggles one with macular degeneration and cataracts experiences. A facilitator was stationed in a corner of the room to monitor the participant's actions, reactions, and interactions. The facilitator wore a white full length medical coat and will record actions and verbiage on the task list. The participants received the list as they exited the simulation room. The in-room facilitator did not interact with the participants and did not answer questions. This simulated interactions with medical personnel.

Timed Event. Participants were in the room for four minutes by themselves and then paired with a second participant for four minutes, for a total of eight minutes in the simulation. This design was to evaluate how the participant functioned independently, then allowed comparison when paired with another participant. The participants were encouraged to stay in the room the entire time but are permitted to exit should they feel the need. If a second participant was not available to enter the room, a VDT facilitator assumed the role to allow for that experience.

Stage 3

Reflection. At the end of eight minutes, a facilitator retrieved the participant from the simulation room. Once in the hall, the facilitator turned off the earphones, engaged with the participants, and escorted them to the doffing area. There, the participant doffed the equipment and filled out the post VDT survey. The facilitator stayed with the participant and provided empathy and comfort if the participant appeared anxious or upset. It was not unusual for VDT participants who have family members lost to dementia to become tearful with the event for it

simulates a look into what a daily life with dementia may be like. A facilitator offered emotional support and talked with the participant when needed. When ready, the participant moved to the Stage 4, the debriefing area. The facilitator cleaned the equipment and returned it to Stage 1 for the next participant. This stage on average lasted two to five minutes depending on the participant and their needs.

Stage 4

Debrief. The final stage of the tour was the debriefing area. A dedicated facilitator hosted round-robin style debriefing sessions with participants post tour. The facilitator and participants discussed actions, comments, and interactions with other participants that occurred in Stage 2. The facilitator explained each item of the VDT and how it could reflect a piece in the world of someone with moderate severity Alzheimer's disease. It is during this stage, that reflection and comprehensive learning occurred (Adelia, 2016; Coomes, 2019). Participants gained insight to what dementia patients might be thinking or going through daily. Going through the tour helped participants understand potential reasoning for behaviors, actions, and words. This insight and understanding helped foster empathy and compassion (Levette-Jones et al., 2019; Slater, 2019; Solecki et al., 2021).

Star-VA handouts. Star VA is a dementia care model used in Veterans Administration long term care facilities that utilizes collaborative interprofessional rounding to improve dementia-related care. Behavior and psychological symptoms of dementia (BPSD) may be interpreted by healthcare staff as disruptive or threatening; however, Baharudin et al. (2019) explain that dementia patients may perceive healthcare workers as strangers causing them to be frightened or defensive leading to disruptive behaviors. Kang et al. (2021) found Veterans who experienced unsolicited direct care despite their rejection and interpersonal interactions

interfering with their autonomy are two major triggers that to refusal, resistance, aggression, and even combativeness. The Star-VA handouts provided simple reminders for healthcare staff on how to engage Veterans effectively, compassionately during bathing, dressing, toileting, eating, angry or agitated behavior, paranoia or suspicious behavior, hallucinations, and delusions (Appendix J).

IDEA! Strategy handout and pocket card. The IDEA! Strategy Caregiver Tips (Appendix K) is a three-step strategy to help frontline staff members identify causes for disruptive behaviors and workable solutions to de-escalate the situation (Los Angeles Alzheimer's Association, 2018). The IDEA! Strategy is to 1) identify the problem or challenging behavior, 2) explore the underlying cause, and 3) adjust to the Veteran's needs in that moment. Participants received IDEA! pocket card (Appendix L) that they could refer to when needed to help during disruptive episodes instead of immediately calling a disruptive response team. In the evaluation section of Cloak & Khalili (2022), pain is associated with 46-56% of increased BPSD.

Recruitment

Subjects

Participants included full and part-time employees at the facility. Participants from all disciplines were encouraged to attend for dementia care occurs in all healthcare settings. Participation was voluntary. Staff could choose to attend the VDT without agreeing to participate in the DNP project.

Inclusion/Exclusion Criteria

The principal investigator invited all staff at the facility to attend. Family of the patients diagnosed with dementia were not invited to participate in this project as it was designed for staff development.

Access

After receiving their manager approval, staff signed up electronically through the facility online education system known at Talent Management System (TMS).

Recruitment Strategies/Flyer

The VDT was advertised multiple avenues to increase awareness of the learning opportunity. The classes were listed on the internal intranet front page with a link directly to the offerings. A flyer (see Appendix M) was shared with managers via email, was printed and placed in the employee breakrooms throughout the facility and was included in the daily Director's Message that staff receive via email. Employees received manager consent to attend since this will occur during working hours.

IRB, Ethics, and Consent

This project deemed a non-research activity by the Veterans Hospital Research Department (Appendix N). Eastern Kentucky University's Institutional Review Board deferred to the determination to the facility. There were no ethical concerns identified with this project. All participants received a letter of invitation at the start of class explaining the project objectives, methods of intervention, and promise of anonymity. The participants were given the opportunity to opt out of the participating in the DNP project. Should they opt out, they were still invited to the tour and debriefing. Completing the survey implied agreement to participate in the study. Individual's responses to surveys were confidential, hence there was no impact on the participants employment.

Data

Instruments

Five instruments were used for this project. Frontline staff member who agreed to participate in the project were asked to complete a demographic and basic information questionnaire, Dementia Knowledge Assessment Scale (DKAS), pre-and post-tour surveys, the Dementia Attitude Scale (DAS), and program evaluation. The DKAS, pre- and post-tour surveys, and DAS surveys were given both at the beginning of the tour. The test and surveys will take about three to five minutes to complete.

Demographic Data. Basic demographic information form developed by this author gathers information about the participants (Appendix O). This information includes the participant's age, their role in healthcare, years of experience, information regarding their experience with dementia patients and any training related to, and if they call for assistance using the BRT.

Dementia Knowledge Assessment Scale. The DKAS, developed by Annear et al. (2017), is a valid and reliable assessment test that assessed both a baseline knowledge of dementia and knowledge after a learning opportunity (Appendix P) . The test assessed knowledge related biological and psychosocial issues including causes for dementia, characteristics, communication, behavior, care, risks, and health promotion and knowledge changes after learning opportunities. The DKAS consists of 25-item knowledge assessment in which the participants reviewed statements regarding four health-related domains associated with dementia care including causes and characteristics, communication and behavior, care considerations, as well as risk and health promotion. The participants were asked to determine if the statements were false, probably false, probably true, or true. If the participant could not

decide, they were to mark I do not know. Each correct answer received two points and each correct probably answer received one point awarding partial credit. Incorrect answers and those marked “I don’t know” did not receive points. The max score for the tool is 50 points. An increase in score from the baseline to the post-tour implies an increase in knowledge regarding dementia.

Annear et al. (2017, p. 8) reported that confirmatory actor analysis using internal consistency, Spearman Correlation, and Kruskal-Wallis ANOVA findings showed acceptable correlation without redundancy, and good discrimination between cohorts or respondents with different education and knowledge levels. The DKAS was used with permission from the Wicking Dementia Research and Education Centre at the University of Tasmania (Appendix Q).

Pre- and Post-Tour Survey. The pre- and post-tour surveys are part of the patented VDT tour and could not be modified. The pre-tour survey tool each asks participant a few simple questions regarding their current state (Appendix R). The pre-tour survey consists of three yes and no questions including does the participant feel capable of performing simple tasks, are they relaxed, and do they believe dementia patients received the care they need. The fourth question has the participants identify certain behaviors they have recently experienced prior to the tour. The post-tour survey asks the same question allowing for comparison to the pre- but also allows the participants to share how this experience would change their practice (Appendix S).

Dementia Attitude Scale. The DAS (Appendix T) is a validated, evidenced-based tool that measures affective, behavioral, and attitudes towards patients diagnosed with dementia (O'Conner & McFadden, 2010). Participants completed a 20-item Likert scale survey rating their agreement towards each statement using 1 = strongly disagree and 7 = strongly agree. A variety of comfort questions were asked such as "I am confident to work with dementia patients", "I am afraid to be around dementia patients", and "I feel relaxed around people with dementia". O'Conner and McFadden performed a confirmatory factor analysis against five other attitude scales using Cronbach's alpha, one-way ANOVA, and Pearson correlations to prove validity and reliability. This tool was used with permission from their author O'Conner and McFadden (Appendix U).

Post-Course Evaluation. Lastly, the post-course evaluation designed by the principal investigator assessed the participants' overall experience with the VTD. To allow participants an opportunity to absorb and reflect upon their experience, as well as an opportunity to review and use the pocket cards, this survey was not immediately available to the participants at the time of the tour. The survey was attached to the online learning platform and issued three weeks post-tour. The first section of the post-course survey used consisted of a 5-point Likert scale to rate their experience and queried feedback regarding the IDEA! Strategy pocket cards. The survey also offered the participant an opportunity to narrate their experiences with the VDT (Appendix V).

Data Collection Process

Upon arrival to the tour, each participant signed the attendance roster for the program and received an invitation to participate in the DNP project. When the participant agreed to participate, they received a randomly numbered manilla folder containing the liability release form required by Second Wind Dreams and surveys. The left side of the folder contained the paper pre-tour demographics form, DKAS, and DAS. The right folder contained the paper post-

tour DKAS and DAS. The forms were stapled in the folders to ensure each participants results stay together decreasing the chance of error of mixing results. Results were uploaded into Statistical Package for the Social Sciences (SPSS) for analysis using the random folder number as the identifying variable. Once the participant received credit in TMS for attending, they completed an online post-tour survey. The results were electronically generated without any identifying markers.

Proposed Data Analysis Plan

IBM SPSS version 26 was used to analyze the data by performing frequencies, descriptive, and correlating formulas.

Storage and Security of Data

The sign in roster and hold harmless forms are the only identifying forms and were property of the facility and stored in the facility Education Services. The principal investigator did not keep any identifying information, only the randomized numbers. The data created by the demographics, DKAS, pre-and post-tour surveys in SPSS data was saved on the principal investigator's personal laptop using both file encryption and software password. Paper copies of the training material, surveys, and SPSS will be held in the office of Eastern Kentucky University Doctor of Nursing Practice Program Coordinator, Dr. Molly Bradshaw, DNP, APRN, FNP-BD, WHNP-BC located at 521 Lancaster Avenue, Office: Rowlett 214, Richmond, Kentucky 40475.

Anticipated Implementation Barriers/Facilitators

Barriers

Nursing shortages and staffing issues were anticipated challenges when attempting to register staff for training. The facility offers inpatient and outpatient services including

emergency care, inpatient care, primary and specialty care offices, mental health services, physical and occupational therapy, radiology, pharmacy in addition to other services. For frontline staff to attend training, staff will need to be relieved of their duties for approximately an hour. The need for coverage may limit bedside staff ability to attend the program.

Space may be an additional barrier. Four independent staging areas are needed in proximity and preferably with the ability to mimic a patient room to host the event to the expectations set forth by Second Wind Dreams. Space in the education department of the facility was limited and availability varied.

Facilitators

To provide the full impact of the program, the participant has time in the simulation both alone and paired with another participant. Since Veterans with dementia are encountered in all areas of the facility, the program was offered to different service lines and disciplines. Recognizing the challenge of registering multiple bedside staff at a single time, the mixture of different disciplines allowed more participation and pairing.

Timeline, Resources, and Budget

Timeline

This project was completed during June of 2022. Registration for the VDT was posted one to two weeks in advance. Participants completed surveys at the time of the event. Findings were analyzed by the principal investigator and reviewed with facility stakeholders and EKU DNP Chairs in July 2022.

Resources

Resources for this project included (1) the VDT program, (2) physical location to host the program, (3) surveys, and (4) staff to both host and attend the program.

Budget

The annual licensing fee for the VDT is $210, which was funded by the facility (G. Sprigler, personal communication, January 26, 2022). The copies of the VDT required forms were printed at Education Service expense being they were required by the proprietary owner. The remainder pre- and post-surveys and pocket cards cost approximately $100 for materials and ink. Staff facilitating and attending the program received their routine salaries and the program was conducted during regular business hours.

Feasibility for Sustainability

The Virtual Dementia Tour can be a feasible learning opportunity offered by the facility despite anticipated challenges. Training space can be a challenge in the facility. The tour requires the simultaneous use of four rooms in proximity per Second Wind Dreams requirements. Ideally, the rooms would be requested and approved at the beginning of the fiscal year when planning the Education Service annual offerings. To offer the maximum impact during the tour, participants should be paired with one other participant. Ongoing staffing challenges could impact the ability to offer the program. Effective communication, pre-planning, and frequent advertisement may help sustain the program.

There may be potential to expand the VDT to staff outside of the main facility campus. The Chief of Geriatrics and Extended care has asked the education team to explore possibilities of offering it to the ambulatory clinics which house primary and mental health practitioners and staff. Additionally, the Chair of Research and Development has expressed interest in evaluating the impact at our facility. If ongoing evidence suggests a significant increase in staff knowledge and decrease number of dementia-related BRTs, grants can be explored to expand the VDT to other facilities within the region and throughout the US.

Results

Four questions were formulated to determine the effectiveness VDT had on knowledge, empathy, attitudes, and awareness that disruptive behaviors may be a means of communication within two months of participating. Questions included:

1. Is there a statistically significant difference in the participants' knowledge of Alzheimer's disease and related dementias (ADRD) after participating in the VDT compared to before?
2. Is there a significant difference in participants' feelings, attitudes, and actions after participating in the VDT compared to before?
3. Is there a relationship between participating in the VDT and increased empathy and attitudes when interacting with Veterans with dementia?
4. Is there a relationship between participating in the VDT and an increase in staff's awareness that behaviors, including disruptive, may be a means of communication for Veterans with dementia?

Data analysis was computed using IBM SPSS Statistics software version 26.0. All participants (N=33) of the VDT volunteered to participate in the DNP project. Participants completed the forms with a 100% response rate.

Demographics

Each participant completed the 8-item demographic questionnaire to understand the population, healthcare role, educational experience, experience with dementia, and utilization of disruptive BRT (see Appendix O). The information was examined utilizing frequencies (see Table 1). The Majority of participants were female, 50-59 years of age, and nurses. Other disciplines included chaplaincy, dietary, nutrition, research, and the Whole Health partners. With

the majority having more than five years of experience. The frequency of caring for dementia patients are evenly distributed between never and very often. Fifty percent of the participants have received dementia-specific training and 27.3% of the participants have called BRTs, with three staff members activating the team greater than five times.

Table 1.

Dementia-related Experiences of Participants

Characteristics	N=*33*	*%*
How often do you work with dementia patients?		
Never	5	15.2
Seldom	12	36.4
Often	8	24.2
Very Often	8	24.2
Have you received previous dementia training?		
Yes	17	51.5
No	16	48.5
Have you called a Behavior Response Team?		
Yes	9	27.3
No	24	72.7
If yes, how many times have you called a Behavior Response Team?		
Just Once	4	44.4
2-5 times	2	22.2
more than 5 times	3	33.3

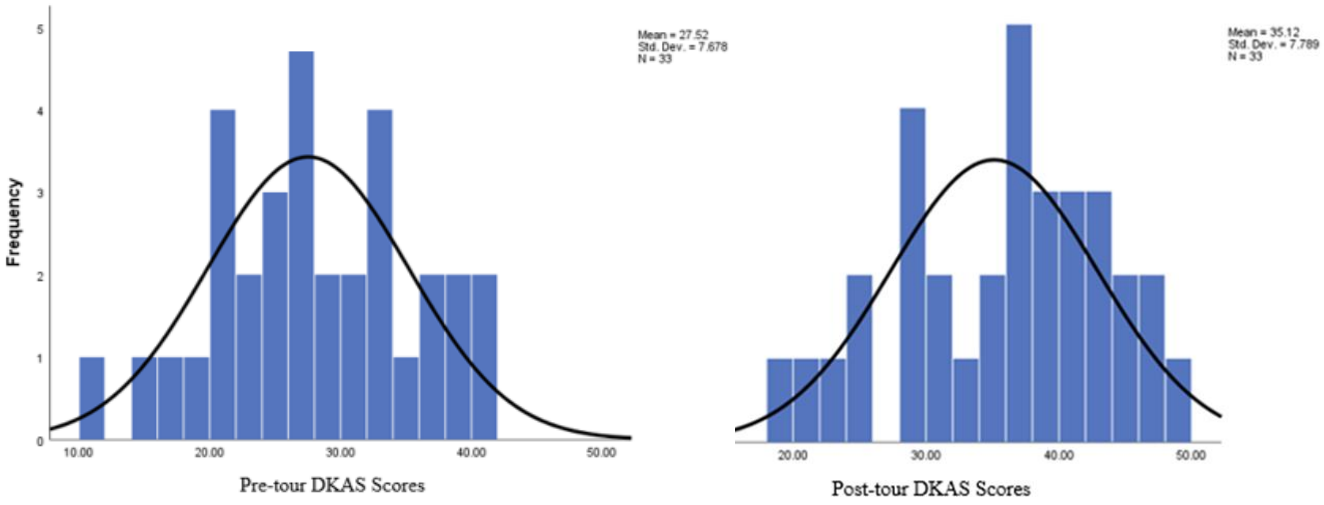
Dementia Knowledge Assessment Scale

The DKAS is a 25-item knowledge assessment in which the participants mark false, probably false, probably true, true, or I do not know to facts related to Alzheimer's disease and related dementias (Annear et al, 2017). The pre-tour DKAS and post-tour sums were calculated and compared.

Findings

A paired-sample t-test indicated the scores were significantly higher for the post-tour DKAS (M = 27.51; SD = 7.68) than for the pre-tour DKAS (M = 35.12; SD = 7.89), $t(32)$ = -6.045, p < .001, and d = 0.969) suggesting the VDT effectively impacted the knowledge scores. Figure 1 shows the right shift in scores from pre-tour DKAS assessment to post.

Figure 1



Virtual Dementia Tour Pre- and Post-Tour Surveys

Second Wind Dreams requests that all participants complete a proprietary designed pre- and post-tour self-reflection survey immediately before and after the tour (Second Wind Dreams, 2019). The pre- and post-tour surveys are comprised of two sections with binomial responses of yes or no. The first section asked about the participant's current state. The second assessed if the participant was experiencing characteristic consistent with DSM-5 dementia characteristics: pacing, negative thoughts about yourself, talked to self, following others, searching for lost items, difficulty following directions or none of the above (Cloak & Khalili, 2022).

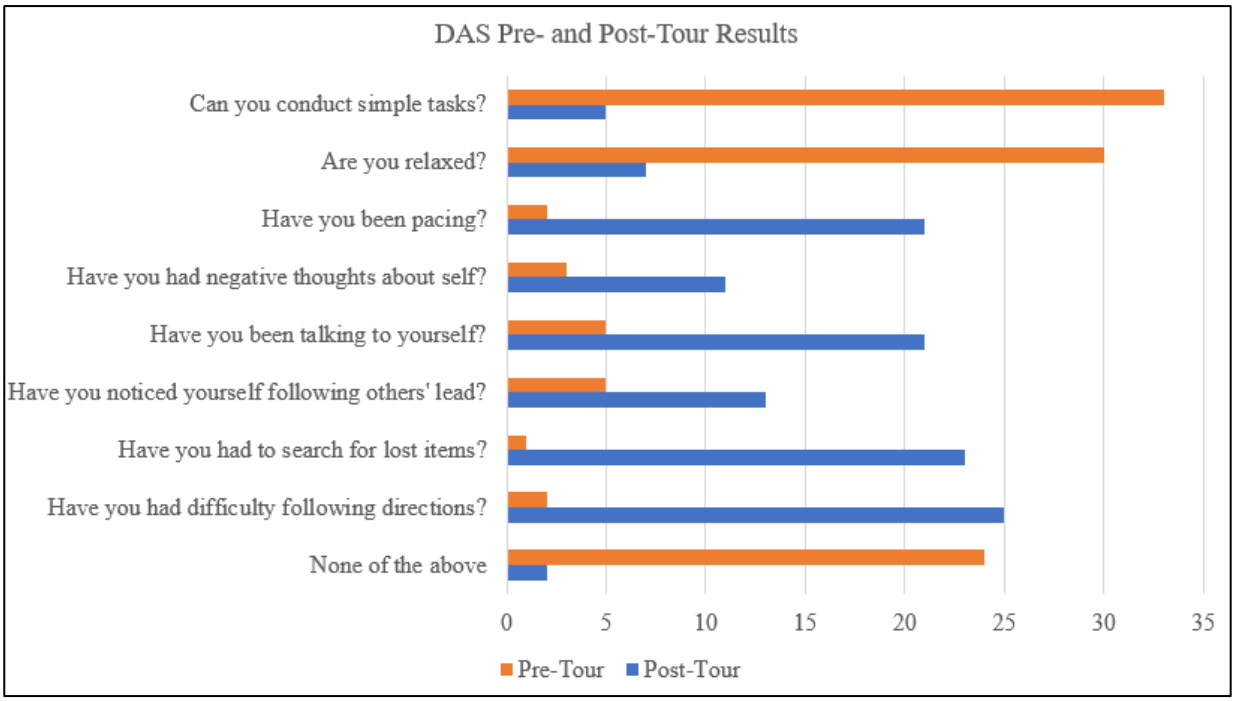
Given the response options to the survey were binominal, a McNemar Test was performed to determine if there was a statistically significant difference in the before and after

VDT responses. All assumptions to perform the test were met including 1) dichotomous variable and two related groups, 2) groups are mutually exclusive, and 3) the sample was random (Laerd Statistics, 2018).

Findings

McNemar's Test verifies there was a statistically significant difference in participants' feelings, attitudes, and self-reported experiences of characteristics commonly seen in dementia after the VDT simulation (see Figure 2).

Figure 2



Note: McNemar Test was performed with binominal distribution.
Exact Sig. (2-sided), 95% confidence level, $p<0.05$.

Written Comments from Post-Tour Survey

The pre-tour and post-tour surveys created by Second Wind Dreams allowed the participants to have a real time comparison of what they were feeling and experiencing before, during, and after the tour. The VDT post-tour assessment elicited qualitative feedback on anticipated change of practice after attending the tour. Responses were grouped using a thematic

approach. Participants mentioned they should be more aware of the challenges Veterans with dementia may be facing and be more cognizant of their actions and the meaning behind their actions while trying to identify the purpose behind their behavior. Using more patience, having more empathy, and be more compassionate were also frequently identified as things healthcare staff can do differently when engaging with Veterans who are diagnosed with dementia. One respondent wrote, “I will remember how lonely I felt.”

Dementia Attitude Scale

All participants voluntarily completed the pre- and post-tour Dementia Attitude Scale identifying changes in empathy and attitudes towards patients with dementia (O’Conner & McFadden 2010). Each participant ranked their agreement to statements on a scale from 1= strongly disagree to 7 = strongly agree. Two variables were created with values ranging from 1-7 correlating with the responses to each statement. Items 2, 6, 8, and 16 were reverse coded in both variables to align with the positive direction Likert scale mimicking the technique in O’Conner and McFadden, 2010.

Kendall’s Tau-b rank-order correlation was chosen for this analysis due to the small sample size and ordinal characteristics of the survey. This correlation examined the relationship between attitudes and empathy towards Veterans with dementia before participating in the VDT and after. Both variables met Kendall’s Tau-b assumptions of 1) being ordinal and 2) follows a monotonic relationship (Laerd Statistics, 2018).

Findings

There was a significant and positive correlation with $p < 0.05$ in 24 of 25 items with a Cronbach’s alpha of .754 verifying the reliability of the findings (see Table 3). The findings conclude the Virtual Dementia Tour is an effective tool to enhance empathy and attitudes

towards Veterans with dementia. Kendall's Tau-b = .53 ($p < .001$) on item 20 signified a significant increase in recognition of behaviors, including disruptive, as forms of communication for Veterans with dementia.

Table 3

Correlation Between Dementia Attitude Scale Pre-tour and Post-tour Results

Dementia Attitude Scale survey items	Ŧ	*p*
1. It is rewarding to collaborate with people who have ADRD.	.44**	.004
2. I am afraid of people with ADRD. [a]	.49**	.001
3. People with ADRD can be creative.	.50**	.001
4. I feel confident around people with ADRD.	.58**	.000
5. I am comfortable touching people with ADRD.	.59**	.000
6. I feel uncomfortable being around people with ADRD. [a]	.33*	.022
7. Every person with ADRD has unique needs.	.62**	.000
8. I am not familiar with ADRD. [a]	.31*	.027
9. I would avoid an agitated person with ADRD.	.18	.222
10. People with ADRD like having familiar things nearby.	.35*	.027
11. It is important to know the past history of people with ADRD.	.65**	.000
12. It is possible to enjoy interacting with people with ADRD.	.37*	.022
13. I feel relaxed around people with ADRD.	.45**	.003
14. People with ADRD can enjoy life.	.53**	.000
15. People with ADRD can feel when others are kind to them.	.54**	.001
16. I feel frustrated because I do not know how to help people with ADRD.[a]	.57**	.000
17. I cannot imagine taking care of someone with ADRD.[a]	.57**	.000
18. I admire the coping skills of people with ADRD.	.36*	.020
19. We can do a lot now to improve the lives of people with ADRD.	.34*	.030
20. Difficult behaviors may be a form of communication for people with ADRD.	.53**	.001

Note: ADRD = Alzheimer's Disease and Related Dementias
[an] Items score was reverse coded.
Ŧ = Kendall's Tau-b test.
p = significance level
**. Correlation is significant (*p)* at the 0.01 level (2-tailed)
*. Correlation is significant (*p*) at the 0.05 level (2-tailed)
Cronbach's α = .754

Post-Course Evaluation

The post-course evaluation assessed the participants' overall experience with the VTD. To allow participants an opportunity to absorb and reflect upon their experience, as well as an

opportunity to review and use the pocket cards, this survey was not immediately available to the participants at the time of the tour. The survey was attached to the online learning platform and issued three weeks post-tour. The first section of the post-course survey consisted of a 5-point Likert scale to rate their experience and queried feedback regarding the IDEA! Strategy pocket cards. The survey also offered the participant an opportunity to narrate their experiences with the VDT.

Findings

Twenty participants completed the post-course evaluation (see Table 4). Not all participants responded to the survey. This is an expected finding since the survey is attached to an electronic learning platform and not available on paper at the time of the tour as mentioned above.

Table 4

Post-Course Evaluation of the Virtual Dementia Tour

Statements	Agree/Strongly Agree
I found the VDT pertinent to my role.	89.4%
I will modify my practice based upon what I have learned from the VDT	94.4%
I feel more confident taking care of a patient with dementia since attending the Virtual Dementia Tour.	100.0%
I have a better understanding of dementia following this training.	100.0%
I would recommend the Virtual Dementia Tour to others.	100.0%
I found the IDEA! Pocket cards beneficial to have.	78.9%
I have referred the IDEA! pocket card since attending training.	50.0%

Written Comments from Post-Course Evaluation

Participants were given an opportunity to narrate their overall experience with the VDT. 100% of the comments were positive in nature. Some of the comments included were, “Profound experience! Completely changed my perspective,” “Very enlightening and corrected many misconceptions,” “One of the most beneficial trainings that I have ever had.”

Discussion

Simulation can create a safe effective learning environment allowing healthcare staff to improve their knowledge, empathy, and attitudes as demonstrated with the VDT (Levette-Jones, 2019). The participants' DKAS scores improved 24.3% after the experience and debriefing. It allowed the participants to assume the role of the patient and immerse themselves into the world of dementia which modified feelings and emotions as evidenced by the VDT post-tour survey with a statistically significant increase in dementia-related characteristics not present prior to the experience (Levette-Jones et al., 2019; Slater et al., 2019; Solecki et al., 2021). Consistent with the literature, this experiential simulation enhanced empathy, attitudes, and helped staff recognize that behaviors may be more than actions. The behaviors exhibited may be a form of communication in the world of a Veteran with dementia (Cloak & Khalili, 2022).

Limitations

The population consisted of a convenience sample. Low participation and limited offerings of the VDT limited the impact of change. The program offered training opportunities for 64 staff members, only 33 participated (51.5%). The low participation rate was a result of staffing challenges in the facility which limited the ability for managers to relieve staff from their patient duties. And, the VDT was only offered during day shift hours and not available to night shift employees. Cloak and Khalili (2022) report sundowners, a frequent enhanced agitation dementia behavior, occurs during early evening into night hours. Therefore, night shift staff could benefit from the VDT training. To rectify these limitations in the future, the VDT would need to be offered on an ongoing monthly or quarterly basis across different shifts. Data on the BRTs can then be reviewed to assess for impact.

Implications

Clinical Practice

The evidenced-based DNP project has not only enhanced participants dementia-related knowledge, empathy, and attitudes, it has also been a gateway to other interprofessional discussions on ways to improve dementia-related care throughout the facility. The Chief of Geriatrics and Extended Care approved of the training and strongly encourages her staff to attend future offerings. Additionally, the Chief inquired the feasibility of being able to offer this program to the facility's outlying ambulatory care facilities where primary and mental health care is provided. The social workers who attended verbalized their opinion that the civilian care givers who provide care to their Veteran family members or participate in the VHA caregiver support program could benefit from this training.

While in the debriefing, the police officer who attended recognized and appreciated the implications this training can have on the police staff who respond to BRT calls. He has strongly encouraged his team to attend an offering when available. In discussion regarding the police involvement with Veterans with dementia experiencing BPDS, the police were not aware the facility had a Dementia Steering Committee. A representative of the police force has since been invited and accepted as a member of the Dementia Steering Committee as a representative. Education Service is also newly invited to the committee.

Information regarding the need for dementia training, handouts, and VDT assessment tools were shared with a Transitions to Practice (TTP) group within the facility. Their interest and devotion to improving Veteran dementia-related care has grown. For their evidenced-based project required for graduation, the team chose to focus their efforts on improving bedside staff communication regarding Veterans' dementia diagnoses, things they prefer to do, what triggers

BPDS, and what things help de-escalate when behaviors occur. The TTP group presented their project to the facility Executive Leadership Team and inpatient managers. They have been approved to launch a pilot project utilizing the dementia communication tool assessing the impact on Veterans' care and need for BRTs.

Policy

Currently, members of the BRT attend four trainings on the prevention and management of disruptive behaviors. These classes teach staff from all disciplines how to effectively utilize interpersonal communication skills when encountering an agitated person, methods, and techniques of de-escalation of disruptive behaviors, how to evade being detained by a Veteran, and how to detain Veterans if the situation presents. There is not a requirement for the BRT members to receive dementia-related training. The VDT proves to be a valuable effective tool for improving knowledge, empathy, attitudes, as well as enhancing understanding that the disruptive behaviors may have underlying meaning and to look beyond the behavior to better understand the needs of the Veteran. It may benefit the facility to add dementia-specific training, such as the VDT, as a requirement in the BRT policy.

Safety/quality

Dementia training can lead to more empathetic, compassionate care towards Veterans with dementia (Chau et al., 2021; Levette-Jones et al., 2019; Slater et al., 2019; Solecki et al., 2021). Staff are equipped with more knowledge and a better understanding of this challenging disease. The VDT trains staff to explore potential rationales for BPDS, to interpret the true root of the actions, including looking at their own potential behaviors and reactions. Feast et al. (2020) suggests that dementia training is just one piece of a multi-modal approach to improving care for Veterans with dementia. Dementia training can offer staff a better understanding of

Veterans behaviors which may reduce episodes of BPDS and limit interventions such as antipsychotic medications, chemical or physical restraints, BRT calls, and reduce the risk of injury to staff and patients.

Education

The VDT is a unique educational simulation that engaged staff in a variety of ways by enhancing their senses, engaging their emotional responses, and immersing them in an open-discussion debriefing allowing them to share their experiences with other participants. Consistent with Knowles Adult Learning Theory (1984), this learning event excited interest amongst staff and generated quality reflective discussions about patients they have encountered in the past and brainstorm how they may interact differently in the future. Participants have voiced their willingness to encourage others to attend. The VDT will continue to be offered and possibly extended beyond inpatient staff.

Sustainability

Costs

The VDT is an affordable proprietary product with an annual renewal cost of $210 allowing unlimited number of participants. Future costs associated with the tour include additional facilitator training when needed; per Second Wind Dreams, only a trained VDT facilitator can host debriefing sessions. Staff will continue to earn their salary while attending the training event; however, it should be counted as productivity for it is training.

Resources

To train by the guidance of Second Wind Dreams, four training spaces in proximity are needed to conduct the training in the prescribed manner including an area that can model a living area/bedroom. This can be challenging given limited dedicated training space. However, with

pre-planning, communication with other services, and creativity this should be feasible. Grants for additional training space may also be a possibility.

Staffing

Staffing will continue to present challenges to attendance and is not unique to the host facility given the challenges in healthcare across the nation. Acknowledging that Veterans with dementia are encountered by all healthcare disciplines, opening registration to all staff will ensure a wider pool of participants.

Future Scholarship

Currently, this facility is the only Veterans hospital in the region that has offered the Virtual Dementia Tour for dementia-related training. The Chair of the facility's Research and Development has expressed interest in assisting with writing a grant proposal to expand this study to other facilities in the region; and if effective, the remainder of the facilities nationwide.

Dissemination of the findings include a virtual presentation to the DNP committee at Eastern Kentucky University, virtually presented to the host facility Dementia Steering Committee this fall, and a poster presentation at Research Louisville in September 2022. Publication of findings will be considered in the future.

Conclusion

The evidence in this DNP project concludes the VDT as an effective, impactful training tool for dementia-related care and this investigator recommends continued frequent offerings for all shifts. This project has demonstrated both statistically significant and clinically significant increases staff's knowledge of dementia; and improved empathy, attitudes, and awareness about behaviors associated with disease including disruptive behaviors. This unique learning simulation has offered staff a glimpse into the daily life of someone with severe dementia and

allowed the opportunity to experience it first-hand by walking in the shoes. This relatable experience promoted staff's ability to provide meaningful, compassionate dementia-related care for our Veterans.

References

Adefilia, A., Graham, S., Clouder, L., Bluteau, P., & Ball, S. (2016). myShoes-the future of experiential dementia training? *The Journal of Mental Health Training, Education and Practice, 11*, 91-101.

Alzheimer's Association. (2021). *2021 Alzheimer's disease facts and figures- Special report: On the front lines: Race, ethnicity and Alzheimer's in America.* https://www.alz.org/media/Documents/alzheimers-facts-and-figures.pdf

American Psychiatric Association. (2013). DSM-IV and DSM-5 criteria for dementia. *UptoDate*. Retrieved June 24, 2022, from https://www.uptodate.com/contents/image?imageKey=NEURO%2F91276#!

Anderson, D., Beck, C., Kolanowski, A., Whall, A., Berent, S., Richards, K., & Beattie, E. (1996). Need-driven dementia-compromised behavior: An alternative view of disruptive behavior. *American Journal of Alzheimer's Disease and Other Dementias, 11*(6), 10-19. doi: 10.1177/153331759601100603

Annear, M., Toye, C., Elliott, K., McInerney, F., Eccleston, C., & Robinson, A. (2017). Dementia knowledge assessment scale (DKAS): confirmatory factor analysis and -- comparative subscale scores among international cohort. BMC Geriatrics, 17(1), 168. doi: 10.1186/s12877-017-0552-y

Baharudin, A., Din, N., Subramaniam, P., & Razali, R. (2019). The association between behavioral -psychological symptoms of dementia (BPSD) and coping strategy, burn of care and personality style among low-income caregivers of patients with dementia. *BMC Public Health, 19*, 447. https://doi.org/10.1186/s12889-019-6868-0

Beville, P. (2002). Virtual dementia tour help sensitize health care providers. *American Journal of Alzheimer's Disease & Other Dementias, 17*, 183-90.

Calsolaro, V., Emmanuella, G., Rogan, S., Esposito, S., Franchi, R., Okoye, C., Rengo, G., & Manzana, F. (2021). Behavioral and psychological symptoms in dementia (BPSD) and use of antipsychotics. *Pharmaceuticals, 14*(3), 246. doi: 10.3390/ph14030246

Campbell, D., Lugger, S., Sigler, G., & Turkelson. (2021). Increasing awareness, sensitivity, and empathy for Alzheimer's dementia patients using simulation. *Nurse Education Today*, *98*, 104764. doi: 101016/j.nedt.2021.104764

Chau, J., Ang, E., Lau, S., & Shorey, S. (2021). Effectiveness of simulation-based interventions at improving empathy among healthcare students: A systematic review and meta-analysis. *Nurse Education Today*, *104*. https://doi.org/10.1016/j.nedt.2021.105000

Cloak, N. & Khalili, Y. (2022, January 20). Behavioral and psychological symptoms of dementia. *Stat Pearls*, https://www.ncbi.nlm.nih.gov/books/NBK551552/

Coomes, G. (2019). Debriefing in simulation-based learning experiences: A concept analysis. Midwest Quarterly, 60(3), 298-310. https://link.gale.com/apps/doc/A583693214/AONE?u=anon~d2785b8b&sid=googleScholar&xid=a4d638f2

Feast, A., White, N., Candy, B., Kurelic, N., & Sampson. (2020). The effectiveness of interventions to improve the care and management of people with dementia in general hospitals: A systematic review. *International Journal of Geriatric Psychiatry, 35*(5), 463-488. https://doi.org/10.1002/gps.5280

Flatt, J., Gilsanz, P., Quesenberry, C., Albers, K., & Whitmer, R. (2018). Post-traumatic stress disorder and risk of dementia among members of a healthcare delivery system. *Alzheimer's Dementia, 14(1*) 28-34. doi: 10.1016/j.jalz.2017.04.014

Han, A. & Brown, D. (2020). Experiences of caregivers in a dementia simulation program. *Journal of Social Service Research, 46*(1), 71-80. https://doi.org/10.1080/01488376.2018.1524814

Kang, B., Karel, M., Corazzini, K., & McConnell. (2021). A mixed methods study on the manifestations of behavioural symptoms of dementia among veterans with and without posttraumatic stress disorder. *Journal of Advanced Nursing, 77* (7), 3176-3188. doi: 10.1111/jan.146864

Knowles, M. (1984). *Andragogy in action: Applying modern principles of adult learning.* Jossey-Bass.

Laerd Statistics. (2018). *Kendall's Tau-b using SPSS Statistics.* https://statistics.laerd.com

Leach, B., Lainson, E., Sutherland, A., & Whitmore, M. (2019). Reviewing the evidence base for de-escalation training: A rapid evidence assessment. RAND Corporation. https://doi.org/10.7249/RR3148

Levette-Jones, T., Can't, R., & Lapkin, S. (2019). A systematic review of the effectives of empathy education for undergraduate nursing students. *Nurse Educator Today, 75*, 90-94. Doi: 10.1016/j.nedt.2019.01006

Lewis, K., Bohnert, C., Gammon, W., Holzer, H., Lynman, L., Smith, C…., & Gliva-McConvey, G. (2017). The association of standardized patient educators (ASPE) standards of best practice (SOBP). *Advances in Simulation, 2*(1), 10.

Los Angeles Alzheimer's Association. (2018). *Caregiver Tip Sheets: IDEA! Strategy.* https://www.alzheimersla.org/wp-content/uploads/2016/01/Dementia-Care-Toolkit-IDEA-strategy.pdf

Mawanda, F., Wallace, R., McCoy, K., & Abrams, T. (2017). PTSD, psychotropic medication use, and the risk of dementia among US Veterans: A retrospective cohort study. *Journal of the American Geriatrics Society, 65*(5), 1043-1050. doi:10.1001/archgenpsychiatry.2010.61

O'Connel, M. & McFadden, S. (2010). Development and psychometric validation of the dementia attitudes scale. *International Journal of Alzheimer's Disease*. Doi: 10.4061/2010/454218

Peng, X., Wu, L., Xie, X., Dai, M., Wang, D. (2021). Impact of Virtual Dementia Tour on empathy level of nursing students: A quasi-experimental study. International Journal of Nursing Sciences, 7(3), 258-261. Doi: 10.1016/jijnss.2020.06.010

Raza, Z., Hussain, S, Froutni, S, Spitz, G., Caplin, N., Foster, R., & Gomes, R. (2021). Dementia in military and Veteran populations: a review of risk factors- traumatic brain injury, post-traumatic stress disorder, deployment, and sleep. *Military Medical Research, 55(*2021). https://doi.org/10.1186/s40779-021-00346-z

Second Wind Dreams. (2019). Virtual Dementia Tour®: a window into the world of dementia through the evidence-based dementia simulation training. Retrieved from https://www.secondwind.org/virtual-dementia-tourreg.html?gclid=Cj0KCQiA4a XiBRCRARIsAMBZGz9eSWTZcZOU9zLIdQjfAKnoTKVzdcVEllzR_svDrlskHT0d41 bMj 1saAgbBEALw_wcB.

Slater, P., Hasson, F., Gillen, P., Gallen, A., & Parlour, R. (2019). Virtual simulation training: Imaged experience of dementia. *International Journal of Older People Nursing, 14*(3), e12243. Doi: 10.111/opn.12243

Solecki, C., Turkelson, C., & Harris, M. (2021). Experiential learning through a dementia simulation. *Journal of Gerontological Nursing, 47*(11), 39-47. doi:10.3928/00989134-20211013-03

The Deming Institute. (2022). *PDSA Cycle*. https://deming.org/explore/pdsa/

Veterans' Health Administration. (nd). VHA Mission & Vision. https://www.va.gov/health/aboutVHA.asp

Yang, Y., Kandiah, N., Kim, S., Kwak, Y. (2020). Clinical aspects of neurobehavioral symptoms of dementia. *Dementia and Neurocognitive Disorders*, *19*(2), 54-64. doi: 10.12779/dnd.2020.19.2.54

Yaffee, K., Lwi, S., Hoagn, T., Xia, F., Barnes, D., Maguen, S., & Peltz, C. (2019). Military-related risk factors in female Veterans and risk of dementia. Neurology, 92(3), e205-211. doi: 10.1212/WNL.0000000000006778

Appendix A

Hierarchy Table of Evidence

Melnyk Scale	Evidence 1 Levette-Jones (2019)	Evidence 2 Chau (2021)	Evidence 3 Solecki (2021)	Evidence 4 Peng (2021)	Evidence 5 Campbell (2021)	Evidence 6 Slater (2019)
Level I	X	X				
Level II						
Level III			X	X		
Level IV						
Level V						
Level VI					X	X
Level VII						

Intervention Table

Intervention / Impact from Virtual Dementia Tour	Evidence 1 Levette-Jones (2019)	Evidence 2 Chau (2021)	Evidence 3 Solecki (2021)	Evidence 4 Peng (2021)	Evidence 5 Campbell (2021)	Evidence 6 Slater (2019)
Increases Empathy	X	X	X	X	X	X
Increases understanding disease process	X		X	X	X	X
Improves attitudes	X		X	X	X	X
Increases awareness of daily challenges			X	X	X	X
Contribute to change in practice	X	X	X	X	X	X

Appendix B

Summary of Evidence Table

Evidence 1

Evidence: Levette-Jones								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Levette-Jones et al. (2019). Nurse Educator Today, 75, 80-94. Doi: 10.1016/j.nedt.2019.01.006		Systematic Literature Review Purpose: Identify, critically appraise, and synthesize evidence of empathy interventions in undergraduate nursing Method: Preferred Reporting Items for Systematic Reviews and Meta-Analysis Includes: English, published between 2000-2018	N=23 Sample: 4 experimental, 4 case-control studies, the remaining are single group studies Audience: Nurse 34% Aides 37% Staff in care homes 49%		MERSQI Cohen's effect size correlation (r) Effective= r≥0.2	Of the 4 experimental and 4 case-controlled studies, r=0.45 10/13 single group studies with pre/post r=0.26	Most effective empathy education involved immersive and experimental simulation-based interventions	**Level:** I **Strength:** Validated using MERSQI **Weakness:** Search limited to in terms of level of evidence to identify unequivocal outcomes **Contribution:** Supports simulation to promote empathy
Level of Evidence (Melnyk et al. 2010) = Level I: systematic review or meta-analysis of randomized control trials; Level II: randomized control trial; Level III: controlled trial without randomization; Level IV: case-control or cohort; Level V: systematic review of qualitative or descriptive studies; Level VI: qualitative or descriptive study; Level VII: expert opinion or consensus **Key:** MERSQI= Medical Education Research Study Quality Instrument; N= sample;								

Evidence 2

Evidence: Chau								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Chau et al (2021), Nurse Education Today, 104. doi: 10.1016/j.nedt.2021.105000	PRISMA guidelines	Systematic review and meta-analysis of RCT and CCT from English, peer reviewed journal articles	16 studies Population: healthcare students (radiography, nursing, pharmacy, medical, dietary, physiotherapy, occupational therapy, dentistry, midwifery, and paramedic).	SREHS HSESP HSEO	I-statistics (I) and Cochran Q chi-squared tests I: <40% low importance, 30-60% moderate, 50-90% substantial, 75-100% considerable	SREHS p=0.76, I=64% HSESP p=0.48, I= 0% HSEO p=0.003, I=83%	Simulation-based interventions improve empathy Statistical improvement of self-reported empathy	**Level:** I **Strength:** Validated tools **Weakness:** Only included English articles, some articles had inconsistencies of definition of empathy. Does not follow post-graduation. **Contribution:** Recommend regular simulation-based interventions for students

Level of Evidence (Melnyk et al. 2010) = Level I: systematic review or meta-analysis of randomized control trials; Level II: randomized control trial; Level III: controlled trial without randomization; Level IV: case-control or cohort; Level V: systematic review of qualitative or descriptive studies; Level VI: qualitative or descriptive study; Level VII: expert opinion or consensus

Key: CCT= clinical control trials; HSESP= Healthcare students' empathy as reported by faculty members, independent observers and examiners; PRISMA= Preferred Reporting Items for Systematic Reviews and Meta-Analyses; RTC= randomized control trials; SREHS= Healthcare student's empathy as reported by simulated patients

Evidence 3

Evidence: Solecki								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Solecki. (2021). Journal of Gerontological Nursing, 47(11), 39-47. Doi: 10.3928/00989134-20211013-03		Quasi-experimental study Purpose: Evaluate sensitivity, awareness, and perceptions of frontline staff (RNs and NAs) Tools: LTS, ADQ pre/post VDT & POC 3-6 weeks post	N=113 Convenience sample RNs and NAs from 280-bed community hospital in Midwest US	Pre Post	LTS ADQ POC	ADQ Cronbach's alpha 0.86	LTS: Dementia pts receive need care= 64% pre, 32% post Difficult for dementia pts to get through the day= 83% pre, 94% post Emo: Pre- 67% strongly agree Post- 98% strongly agree Care: Pre- 63% strongly agree, 17% no Post- 36% strongly agree, 44% no ADQ: Slight improvement in perception of hope POC: 95% stated needed more training on dementia	**Level:** III **Strength:** Utilized LTS which is a validated tool by Second Wind Dreams used in other comparable articles. **Weakness:** Poor participation (10%) in the 3–6-week post experience survey; does not study long term affects **Contribution:** LST validated staff perceptions pre simulations significantly differ post simulation.

Level of Evidence (Melnyk et al. 2010) = Level I: systematic review or meta-analysis of randomized control trials; Level II: randomized control trial; Level III: controlled trial without randomization; Level IV: case-control or cohort; Level V: systematic review of qualitative or descriptive studies; Level VI: qualitative or descriptive study; Level VII: expert opinion or consensus

Key: ADQ: Approaches to Dementia Questionnaire; Care: Do people with dementia get the care they need?; Emo: Do you understand the emotional needs of dementia patients?; LTS: Long Tour Survey; N= sample; Pre: Pre-Virtual Dementia Tour; POC: Perception of Caring survey; Post= Post Virtual Dementia Tour; SA: staff awareness of dementia; SP: staff perceptions of caring for patients with dementia; SS: staff sensitivity to dementia patients; VDT= Virtual Dementia Tour

Evidence 4

Evidence: Peng								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Peng et al. (2021). International Journal of Nursing Science, 7(3), 258-261. Doi:10.1016/j.ijnss.2020.06.010		Quasi-experiment with pre and post test Purpose: Identify impact VDT and movie may have on nursing student empathy Tools: Watched a movie and participated in VDT Tool: Jefferson Empathy-Health Professional Students Scale	N=45 Sample: Convenience sample BSN students, full time second year, completed ethics course, volunteer participant Setting: Medical university in central south China.	PT CC SPS	Paired t test	PT: t - 5.481 CC: t -5.211 SPS: t -4.062 Total JSE: -6.669	Students were able to appreciate different perspectives, improved compassionate care, and found it difficult to walk in patient shoes	**Level:** III **Strength:** Used validated JSE **Weakness:** Does not address limitations **Contribution:** Supports VDT improves empathy

Level of Evidence (Melnyk et al. 2010) = Level I: systematic review or meta-analysis of randomized control trials; Level II: randomized control trial; Level III: controlled trial without randomization; Level IV: case-control or cohort; Level V: systematic review of qualitative or descriptive studies; Level VI: qualitative or descriptive study; Level VII: expert opinion or consensus

Key: CC= compassionate care; N= sample; Pre: Pre-Virtual Dementia Tour; Post= Post Virtual Dementia Tour; PT= perceptive taking; SPS= standing in patient shoes; VDT= Virtual Dementia Tour

Evidence 5

Evidence Campbell								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Campbell et al (2021). *Nurse Education Today,* 98, 104764. doi: 10.1015/j.nedt.2021.104764	Kolb's experiential learning theory	Quasi-experimental repeated measure pre-post design Purpose: evaluate perceptions of awareness, knowledge, and sensitivity towards patients with AD	N=163 BSN nursing students. 70 complete both pre & post surveys Setting: Large public university in Midwest		DAS KAML-C test SR HCTS	DAS, KAML-C, and SR used Wilcox Signed-Rank test Thematic analysis of SR	DAS- 11 questions scored median of -2 with a *p*-value <0.001 KAML-C did not show any significant differences SR resulted int 5 themes: personal experience, awareness, knowledge, change in practice, and unexpected findings. HCTS showed more agitation, unbearable to live with dementia, and patients do not receive care they need	**Level:** VI **Strength:** SR and DAS supports VDT improvement of knowledge and sensitivity. **Weakness:** KAML-c did not show increase in knowledge; however as stated in the article high pre-test scores may not change after simulation **Contribution:** Supports intervention to improve dementia related care

Level of Evidence (Melnyk et al. 2010) = Level I: systematic review or meta-analysis of randomized control trials; Level II: randomized control trial; Level III: controlled trial without randomization; Level IV: case-control or cohort; Level V: systematic review of qualitative or descriptive studies; Level VI: qualitative or descriptive study; Level VII: expert opinion or consensus

Key: AD= Alzheimer's dementia; BSN= Bachelor of Science in Nursing; DAS= Dementia Attitude Scale; HCTS= healthcare tour survey; KAML-C= Knowledge about Memory Loss and Care; N= sample; SR= student reflections

Evidence 6

Evidence: Slater								
Author	Conceptual Framework	Design/ Method	Sample/ Setting	Major Variables Studied	Measurement	Data Analysis	Findings	Appraisal/ Worthy of Practice
Slater et al. (2019). *International Journal of Older People Nursing, 14*:e12243. Doi: 10.1111/opn.12243		Qualitative exploratory Purpose: explore impact of interactive training experience on moral, emotive, behavioral, & cognitive elements of empathy Tools: 15-35 interactive one-on-one interviews	N=18/52 Participants: Healthcare 27.8%, social work 5.6%, caregivers 22.2%, management 33.3%, Allied health professionals 5.6% other 5.6% all >18 yrs PE: several comments expressing concern little previous dementia specific training	EC MC CC BC	Qualitative Thematic	Utilized COREQ to ensure quality of research process	EC: response affected behavioral and cognitive changes, powerful, appreciate behaviors, frustrated, increased stress MC: revise practice and approach, felt shame/guilt CC: increased awareness that dementia is more than just memory loss, helped understand actions/behaviors BC: more confident to care, more empathetic going forward, change communication styles	**Level:** VI **Strength:** Supports empathy promotes change in cognitive, behavioral, emotional, and moral thinking **Weakness:** Does not monitor long term changes in EC, MC, CC, & BC **Contribution:** Virtual reality offers educational opportunity to increase empathy

Appendix C

Statement of Mutual Agreement

Eastern Kentucky University
Doctor of Nursing Practice (DNP) Program
Statement of Mutual Agreement

The purpose of this document is describe the nature of the agreement for the Doctor of Nursing Practice (DNP) Project between:

Student Name: Brandy Wardrip
Partnering Organization Name: Robley Rex VA Medical Center

This statement of mutual agreement is completed in the DNP Project planning phase as a precursor to the Institutional Review Board (IRB) and to show general organizational support for the DNP Project.

General Information:

DNP Project Title:	Simulation To Improve Dementia-Related Care of Veterans
Partnering Organization:	Name of Organization: Robley Rex VA Medical Center Name of Organizational Contact: Laura Williams, MSN Ed, RN Phone: (502) 287-6871 Email: laura.williams17@va.gov

Brief Description of the Project:

Identified Problem/Gap:	Veterans with dementia account for 80% of all control groups called in the facility.
Proposed Intervention(s):	Healthcare staff will voluntarily participate in the Virtual Dementia Tour. This pre- and post-tour design study will determine if the Virtual Dementia Tour is an effective tool to improve dementia-related care.
Proposed Evaluation of: • Outcomes • Process	Participants will participate in a comparative assessment using the Dementia Knowledge Assessment Tool, Virtual Dementia Tour pre- and post-tour surveys, and the Dementia Attitude Scale. The goal of participating in the Virtual Dementia Tour is to improve staff's knowledge of dementia; 2) enhance staff's empathy and attitudes when interacting with dementia patients; 3) help staff understand recognize that behaviors, including disruptive, may be a means of communication for those diagnosed with dementia and

	to identify triggers that may lead to disruptive behaviors thus improving Veteran dementia related care.
Description of On-Site Activities: • Student's Role • Meetings • Access to Data	The student role will be to do analyze the survey results and interpret the findings. The student will have no access to patient data. If available, the student will be privy to the impact the VDT has on the number of dementia-related control group calls to determine a quantitative difference in pre- and post-tour.
Intellectual Property: • Ownership • Plans for Dissemination • Non-disclosure expectations • Publication Plans	The VDT is a proprietary product purchased by the facility. All items associated with the VDT will remain. Dissemination of the findings include a virtual presentation to the DNP committee at Eastern Kentucky University, virtually presented to the host facility Dementia Steering Committee this fall, and a poster presentation at Research Louisville in September 2022. Publication of findings will be considered in the future. There is nothing to disclose with this project. *** All EKU DNP Projects will require at minimum a de-identified abstract to be uploaded into the digital repository as a marker of academic work.

Institutional Review Board:

EKU is the IRB of Record	The organization agrees to let EKU be the IRB of Record. ☐ Yes ☑ No ☐ Other: (Explain) ☐
Organization is the IRB of Record	The organization prefers to be the IRB of Record. ☑ Yes ☐ No ☐ Other: (Explain)

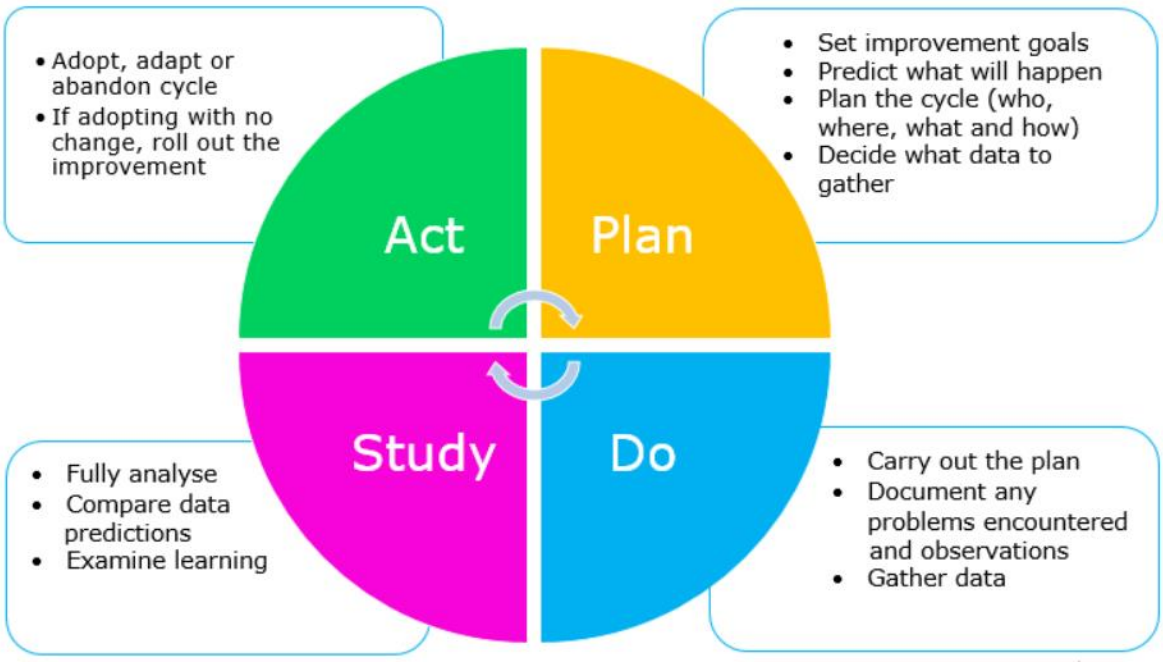
Other elements for clarification prior to implementation of the DNP Project. Describe.

DNP Student Signature: Brandy Wardrop
Date:

Partnering Organization's Signature: Laura Williams
Date: 6/1/22

Appendix D

PDSA Cycle Framework



Appendix E

Hold Harmless Statement

SECOND WIND DREAMS®

VIRTUAL DEMENTIA TOUR®
YOUR WINDOW INTO THEIR WORLD

HOLD HARMLESS STATEMENT

By using the Virtual Dementia Tour® and the products associated therein, the participant, or any other party associated with the participant, assumes all risks associated with the use of the VDT® and agrees to release, hold harmless, and indemnify Second Wind Dreams® Inc. (SWD®) and all associated parties from any and all liability, claims, demands or actions that the participant or any other party may now have or may have in the future for personal injury or property damage arising from the use of the products in the VDT, even if such injury or damage is caused by the negligence of SWD or any participant.

Please be aware that a small strobe light/flashing light is used during the course of this simulation. If you are prone to migraines or seizures, you MUST inform the SWD staff BEFORE you take the tour.

The VDT is the intellectual and proprietary program of Second Wind Dreams. As such, the VDT components utilized during this experience may not be reproduced. Disclosure of or reproduction of the concepts and process of the patented Virtual Dementia Tour will result in legal action taken by the owner of the VDT, Second Wind Dreams.

I give permission for Second Wind Dreams to use a photograph of my likeness in any newsletters, newspapers, television or other media.

☐ Yes ☐ No

This is a simulation of what dementia might be like and is NOT a test to assess dementia including Alzheimer's disease.

Name: _____ Date: _____
(Please print clearly)

Signature: _____

Organization: _____

Address: _____

Email address: _____ Mobile #: _____

11115 Houze Road, Suite 150, Roswell, GA 30076 | 678-624-0500 | www.secondwind.org

Appendix F

Permission to use VDT

From: Melora Jackson <Melora@secondwind.org>
Sent: Tuesday, September 21, 2021 10:45 AM
To: Wardrip, Brandy L. <Brandy.Wardrip@va.gov>
Cc: Margaret Gardner <margaret@secondwind.org>
Subject: [EXTERNAL] RE: Permission to use

Hi Brandy,

That sounds like a good project, and I approve it with the caveat that you share the final paper with us when completed. I am attaching a list of research on the VDT and a few posters of similar research studies that may help you. If you have any questions, or need additional information, please contact me any time.

Thank you,

Melora Jackson | VDT® Clinical Manager
SECOND WIND DREAMS®
Featuring the Virtual Dementia Tour®
470-242-0358 | www.secondwind.org
Changing the Perception of Aging!

Appendix G

Informed Consent Cover Letter for Non-Research Activity

Participant,

You are being invited to participate in a Doctorate in Nursing Practice (DNP) project to examine if participating in the Virtual Dementia Tour (VDT), which is an evidence-based virtual simulation experience, will 1) improve staff's knowledge of dementia; 2) enhance staff's empathy and attitudes when interacting with dementia patients; 3) recognize triggering behaviors that may lead to disruptive behaviors; and 4) decrease the number of disruptive behavior calls. The project is conducted by Brandy Wardrip, MSN, RN at Eastern Kentucky University (EKU).

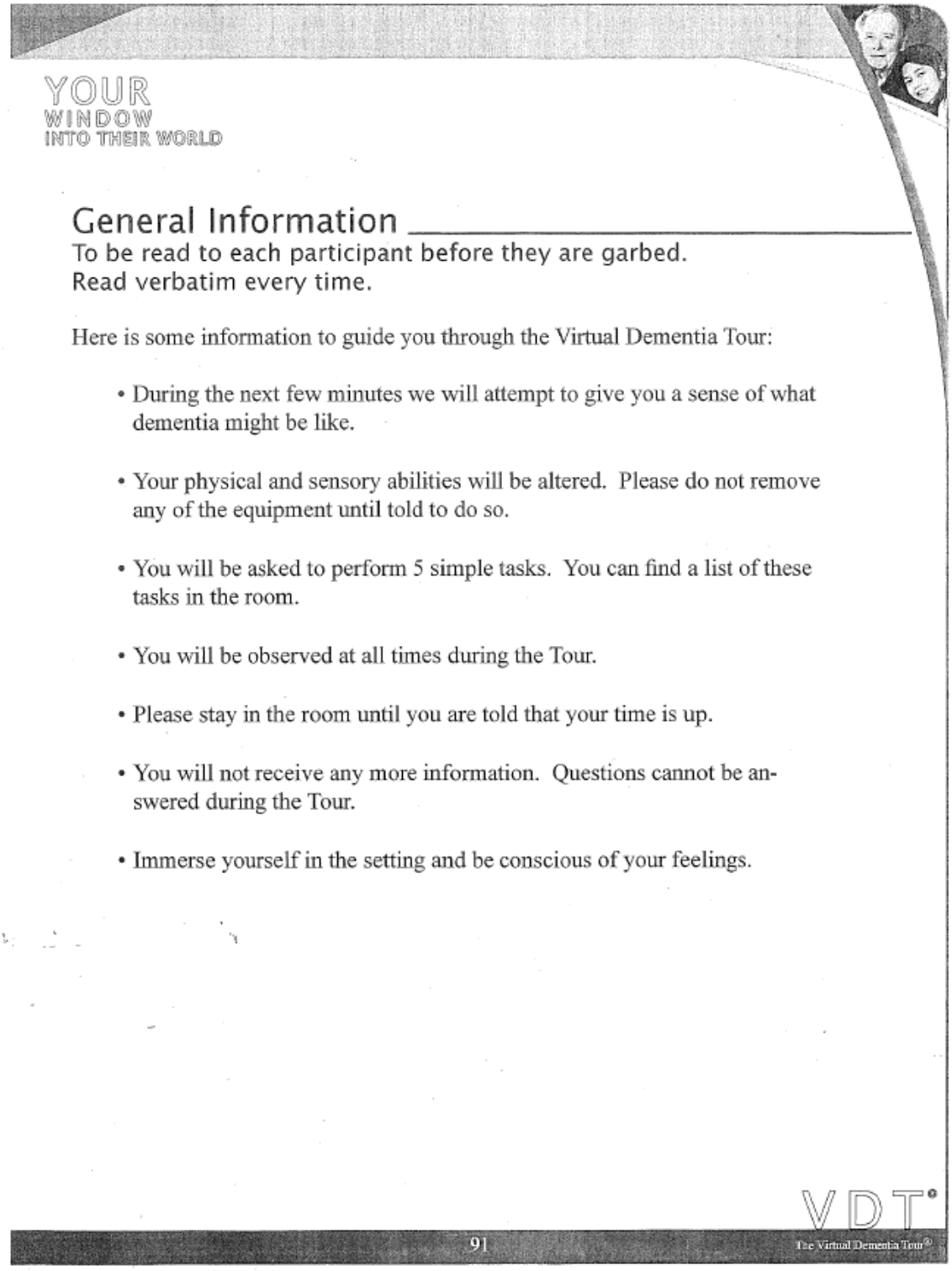
Participants in this DNP project will be asked to complete a demographic and basic information questionnaire, Dementia Knowledge Assessment Scale, the Dementia Attitude Scale, pre-tour survey, post-tour survey, and program evaluation. Participation in the project is expected to take about an hour.

Your participation in this project is voluntary. You may participate in the VDT without participating in the project. You may opt out of the project at any time. Participants will be asked to put the first initial of their last name and the last four numbers of their social security number on both their pre and post surveys compare findings.

This project has been reviewed by medical center's research department and has been found to be non-research, evidenced-based practice activity. EKU has deferred Institutional Review Board decision to the facility. If any you have any questions or concerns regarding this project, please contact Brandy Wardrip via email at brandy_wardrip1@mymail.eku.edu. For questions regarding your rights as a participant, contact Division of Sponsored Programs at Eastern Kentucky University by calling 859-622-3636.

Appendix H

Virtual Dementia Tour General Information



YOUR
WINDOW
INTO THEIR WORLD

General Information

To be read to each participant before they are garbed.
Read verbatim every time.

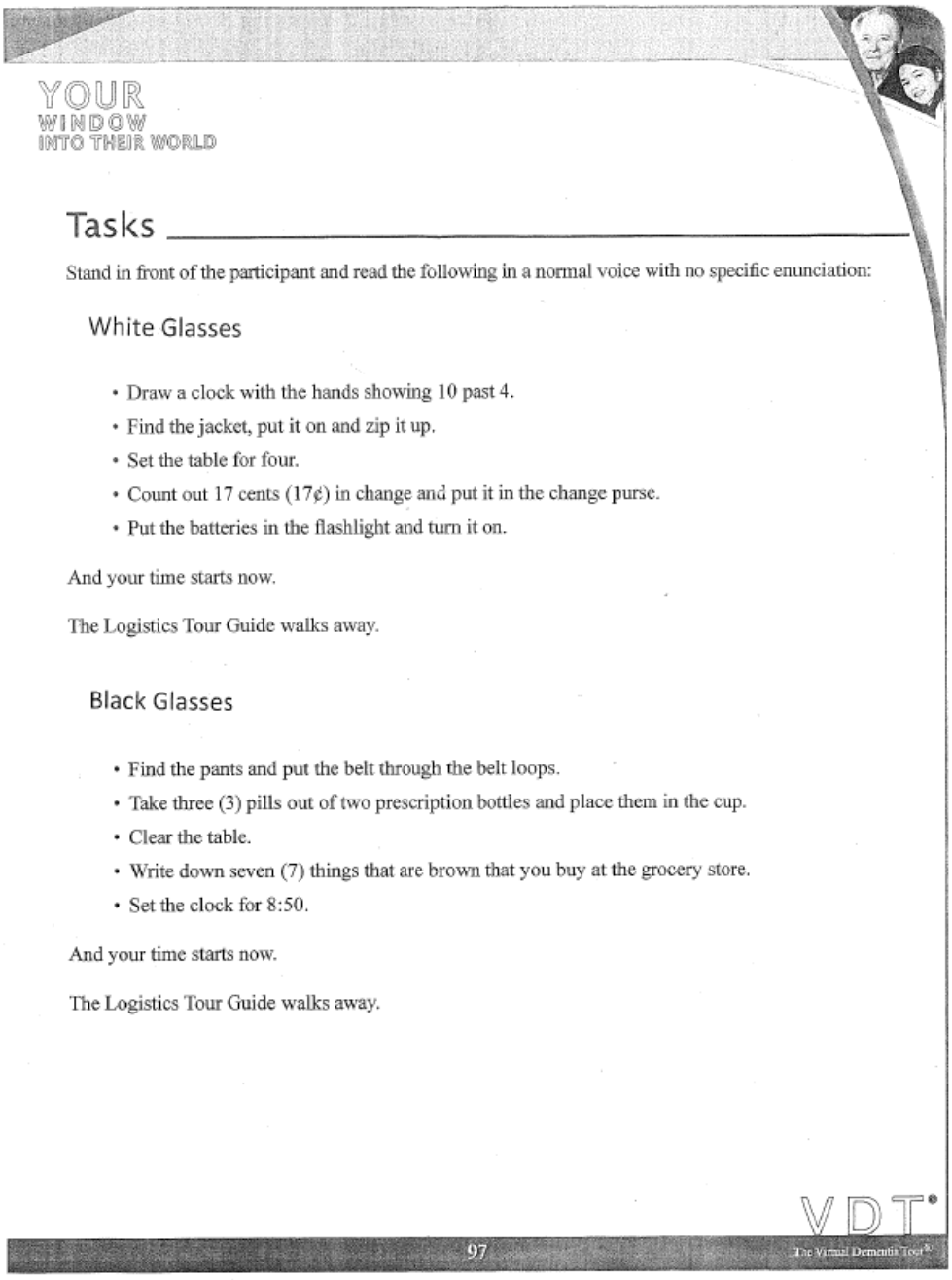
Here is some information to guide you through the Virtual Dementia Tour:

- During the next few minutes we will attempt to give you a sense of what dementia might be like.
- Your physical and sensory abilities will be altered. Please do not remove any of the equipment until told to do so.
- You will be asked to perform 5 simple tasks. You can find a list of these tasks in the room.
- You will be observed at all times during the Tour.
- Please stay in the room until you are told that your time is up.
- You will not receive any more information. Questions cannot be answered during the Tour.
- Immerse yourself in the setting and be conscious of your feelings.

VDT®

Appendix I

Virtual Dementia Tour Tasks



YOUR
WINDOW
INTO THEIR WORLD

Tasks

Stand in front of the participant and read the following in a normal voice with no specific enunciation:

White Glasses

- Draw a clock with the hands showing 10 past 4.
- Find the jacket, put it on and zip it up.
- Set the table for four.
- Count out 17 cents (17¢) in change and put it in the change purse.
- Put the batteries in the flashlight and turn it on.

And your time starts now.

The Logistics Tour Guide walks away.

Black Glasses

- Find the pants and put the belt through the belt loops.
- Take three (3) pills out of two prescription bottles and place them in the cup.
- Clear the table.
- Write down seven (7) things that are brown that you buy at the grocery store.
- Set the clock for 8:50.

And your time starts now.

The Logistics Tour Guide walks away.

VDT®

97

The Virtual Dementia Tour®

Appendix J

Star-VA Handouts

STAR-VA

Managing Challenging Behaviors

All of us behave differently depending on the situation. If we become upset or confused, we can act in ways that others find challenging. People with dementia are no different. This handout describes some simple techniques to help people with dementia during different types of care activities or when they become upset or confused as a result of the dementia. Try to remember that people with dementia are not purposely trying to be challenging. They are just trying to make sense of their situation, and you can be a key to helping them feel more comfortable, happy and calmer.

Bathing

Residents with dementia may forget that they need to bathe. They may feel frightened of bathing or feel uncomfortable having someone help them with such a private task. To make bathing as easy as possible try to:

- Ensure privacy.
- Let the resident touch the water.
- Go slowly.
- Give one instruction at a time.
- If a resident won't cooperate, give a choice: "do you want to take a bath or shower"?
- Schedule baths around upcoming events: when residents have reasons to be clean such as going to church or having visitors, they are often more willing to bathe.
- Consider providing sponge baths.
- Make sure that the temperature is comfortable. Persons with dementia may not be able to detect changes in temperature.

Dressing

Being comfortably and nicely dressed is important to a resident's sense of well being. With clear suggestions and directions, residents are often able to do a fair amount for themselves. Encourage residents to do as much as possible. Eliminate frustrations by limiting choices and providing items that are easy to fasten. When assisting a resident with dressing:

- Lay articles of clothing out in the order they will be put on.
- Give one simple instruction at a time and wait until the resident is finished before moving on.
- Undress only one part at a time; have the next article of clothing ready to put on.

(Continued on next page)

Adapted with permission from Teri, L., Huda, P., Gibbons, L., Young, H., & van Leynseele, J. (2005). STAR: A dementia-specific training program for staff in assisted living residences. Gerontologist, 45, 686-693.

Toileting

Good toileting habits can prevent an array of health and behavioral problems. Some things to consider:

- If the resident begins having trouble with incontinence, take him or her to the bathroom every 2 to 4 hours; do this on a routine basis.
- Make sure the bathroom is clearly marked with a sign (use a picture if s/he doesn't understand signs).
- Provide adequate lighting along the way to the bathroom.

Eating

Many residents with dementia have difficulty with eating. Here are some ways to prevent such problems:

- Offer one food at a time.
- Provide a relaxing eating area.
- Provide enough fluids; serve Jello, popsicles, juices, and ice cream to increase fluids, and avoid caffeine.

Angry or Agitated Behavior

Residents can demonstrate angry or agitated behaviors. The best strategy is to prevent these behaviors to begin with. Potential triggers include:

- Too many demands or questions at once
- Too much noise and activity
- Fatigue

You can decrease the behaviors by:

- Completing each demand before moving on to the next
- Speaking slowly and softly
- Taking a break and trying again later

Once the behaviors have begun, there are some ways to potentially stop them. Try to:

- Soothe the resident by trying to see the situation from their view point.
- If possible, remove the resident from the scene of conflict
- Distract or redirect the resident—offer an alternative activity the resident enjoys

Keep your responses kind and supportive during a crisis and remember to give praise and pay attention to the resident at times when he or she is cooperative and pleasant. You will reinforce the resident's behavior when he or she is behaving well and make it more likely that he or she will behave well more often.

(Continued on next page)

Adapted with permission from Teri, L., Huda, P., Gibbons, L., Young, H., & van Leynseele, J. (2005). STAR: A dementia-specific training program for staff in assisted living residences. Gerontologist, 45, 686-693.

STAR-VA

Paranoia or Suspicious Behavior

About one-third of residents with dementia develop paranoid or suspicious behaviors. It is important not to take these behaviors personally. Be aware of factors that can make paranoia worse.

- Problems with hearing or vision can cause the resident to withdraw or to misunderstand events
- Dim lighting and loud noises
- Changes in daily routine or the environment

When the behavior occurs, don't try to correct or argue with the resident. Instead, try to:

- Use gentle touch when appropriate
- Reassure the resident that he or she is safe and you will take care of him or her.

Some ways to avoid paranoid or suspicious reactions are to:

- Maintain a daily routine and minimize changes
- Regulate people contact
- Increase lighting and decrease noise

Hallucinations and Delusions

Hallucinations are seeing, hearing smelling, tasting, or feeling, things that aren't there. Some residents with dementia have hallucinations. The most common hallucinations are visual or auditory. Delusions are ideas that are not true.

Both hallucinations and delusions are symptoms of the disease and do not mean that the resident is "going crazy". It is important to remain calm, consistent, and supportive of the resident when hallucinations or delusions occur. The following are some suggestions for managing these symptoms:

- Respond to the fears and the feelings being expressed by saying, "that must be scary" or "it must be difficult."
- Don't argue with the resident about what they are seeing, hearing, or believing.
- Check the environment for glare, shadows, or objects that might be triggering the hallucination or delusion (sometimes events or people on television seem real to residents with dementia; mirrors may also be confusing).
- Don't say, "you are imagining things"—this often just upsets the resident.

Adapted with permission from Teri, L., Huda, P., Gibbons, L., Young, H., & van Leynseele, J. (2005). STAR: A dementia-specific training program for staff in assisted living residences. Gerontologist, 45, 686-693.

Appendix K

IDEA! Strategy Caregiver Tip Sheet

Caregiver Tip Sheets

IDEA! Strategy

An approach to help you figure out why a behavior is happening and what you can do about it.

IDentify the behavior

- What is the behavior that is difficult for you to deal with? Be specific.
- Can you see it? Does it bother others? When does it happen? Who's around when it occurs?

Explore what may be causing the behavior

Understand the cause of the behavior

- **HEALTH:** Is the person taking a new medication, getting sick, or in pain?
- **ENVIRONMENT:** Is it too noisy? Is it too hot? Is the place unfamiliar?
- **TASK:** Is the activity too hard for them now? Are there too many steps? Is it something new?
- **COMMUNICATION:** Is it hard for the person to understand what you are saying?

Understand the meaning of the behavior to the person

- Does the person feel confused, scared, nervous, unhappy, or bored?
- Does the person feel like they are being treated like a child?
- Are there things that remind the person of something that they used to do when they were younger like go to work or pick up the children from school?

Adjust what can be done

You are the one who will need to change, the person cannot. Try different things. Pay attention to the person's feelings. Practice being calm, gentle, and reassuring.

- address what is causing the behavior
  - keep tasks and activities simple
  - keep the home as calm as possible
  - speak slowly and gently — try not to say too much at once
  - do not argue — agree and comfort the person whether they are right or wrong
  - find meaningful, simple activities so the person isn't bored
- distract or redirect by:
  - offering something they like to eat
  - watching a TV show or listening to music
  - asking for their help with a simple activity
  - leading them to a different room
- accept the behavior
  - some behaviors you may need to accept rather than change
  - if there are no safety concerns and it doesn't bother the person, you may need to find ways to live with it

Alzheimer's LOS ANGELES

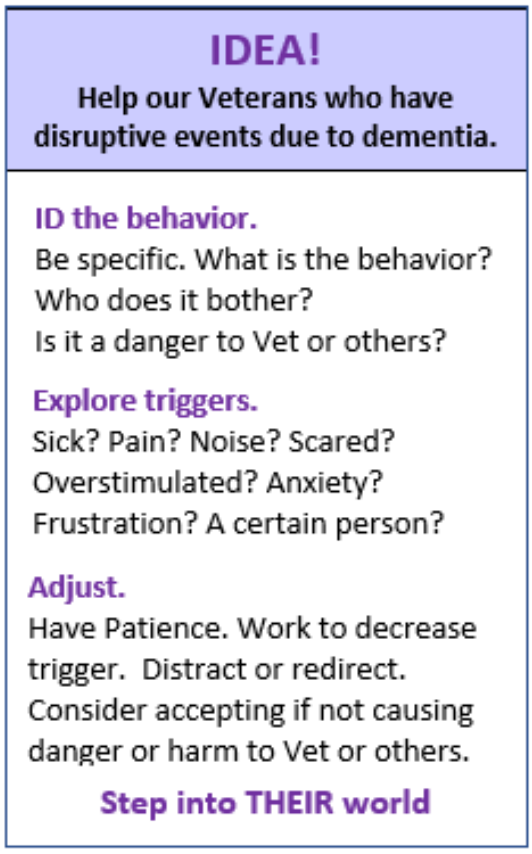
844.HELP.ALZ

AlzheimersLA.org

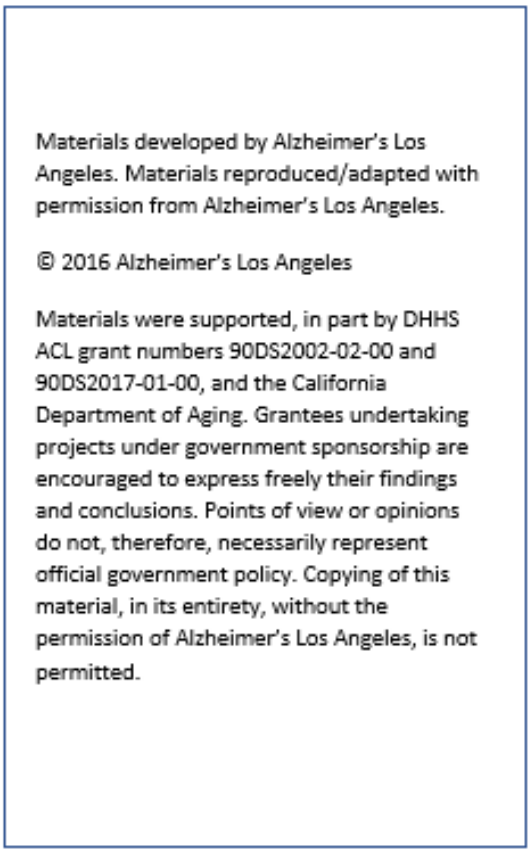
Supported by DHHS, ACL (#90ALO003-01-00)

Appendix L

IDEA! Strategy Pocket Card



Front



Back

Appendix M

Informational Flyer

Have you ever wondered what it would be like to walk in the shoes of someone diagnosed with dementia?

The **Virtual Dementia Tour** is an interactive, simulated experience that mimics the daily challenges of living with dementia. The tours start every 30 minutes and last about an hour. Each tour will allow an opportunity to participate in an open discussion debriefing session to enhance your learning experience.

The **Virtual Dementia Tour** is an evidenced-based simulation experience aimed at improving frontline staffs' empathy, understanding, and knowledge behaviors of those living with dementia.

Come join us! Sign up from the Education Tab on the intranet.

June 23rd and June 30th

Register in TMS via the yellow Education Tab located on the Intranet

*All attendees are invited to voluntarily participate in a doctoral capstone project aimed at improving Veteran dementia related care. Participation in the project is not required to attend the Virtual Dementia Tour.

If you have any questions, please reach out to Education Services @ ext 55781

Appendix N

IRB & Ethical Review

Robley Rex VA Medical Center
Determination and Documentation of
Non-Research Operations Activities versus Research

Definitions:
Research. Research is a systematic investigation (including research development, testing, and evaluation) designed to develop or contribute to generalizable knowledge. In accordance with the definition of generalizable knowledge in VHA Handbook 1058.05, research may be defined as a systematic investigation designed to produce information to expand the knowledge base of a scientific discipline (or other scholarly field of study).
Operations Activities. Operations activities are certain administrative, financial, legal, quality assurance, quality improvement, and public health endeavors that are necessary to support VHA's missions of delivering health care to the Nation's Veterans, conducting research and development, performing medical education, and contributing to national emergency response. Operations activities may or may not constitute research.

Research requires sound methodological design, non-research operations activities also employ sound design to ensure reliable outcomes that fulfill program needs. Sound design characteristics do not, in and of themselves, define research. In determining whether an activity constitutes research, it is important to consider carefully whether design characteristics are included for the purpose of fulfilling operational needs versus expanding the knowledge base of a scientific discipline or other scholarly field of study.

Careful review is warranted in making such determinations. Per VHA Handbook 1058.05, whenever the research versus non-research status of an operations activity may be in doubt, a determination of such status must be documented.

Name of Employee: Brandy Wardrip

Service: DNP student

Contact information: brandy_wardrip1@mymail.eku.edu

Description of Proposed Activity:
This evidence-based capstone project is required for the Doctor of Nursing Practice degree from Eastern Kentucky University. The purpose of capstone project is to examine if participating in the Virtual Dementia Tour, which is an evidence-based virtual simulation experience, will 1) improve staff's knowledge of dementia; 2) enhance staff's empathy and attitudes when interacting with dementia patients; 3) recognize triggering behaviors that may lead to disruptive behaviors; and 4) decrease the number of disruptive behavior within two months of participating using a pre/post-test design. This tour is an hour-long interactive immersion where the participant steps into the world of dementia being asked to perform five simple daily tasks while wearing sensory tools such as eyeglasses, gloves, sole inserts, and headphones. Five instruments will be utilized for this project. Participants in the capstone project will be asked to complete a demographic and basic information questionnaire, Dementia Knowledge Assessment Tool Version 2 (DKAT2), the Dementia Attitude Scale (DAS), pre-tour survey, post-tour survey, and program evaluation. The DKAT2, DAS, pre-tour, and post-tour surveys will be given both at the beginning of the simulation and after the debriefing. Surveys will take about 3-5 minutes to complete. A paired t-test with repeated measures will be used to analyze confidence and knowledge levels for pre- and post-simulation results. Correlations will be used to determine relationships between demographics, experiences, pre- and post-surveys. This project will be used to improve dementia related care. Dissemination of findings will be

shared via an oral presentation to university faculty, facility leadership, facility Dementia Steering committee, as well as other Veteran Hospital educators.

Attestation of Designated Program Office or Facility Official

As the designated representative of the VHA Facility listed below, I have reviewed the activities to be conducted and have made the following determination based on in VHA Handbook 1058.05:

X Operational non-research activity

☐ Research activity, full Research application required.

Gerald Dryden 201178 Digitally signed by Gerald Dryden 201178 Date: 2022.04.12 17:10:59 -04'00'

Signature of Designated Official
Gerald Dryden, MD, PhD, MSPH
ACOS Research & Development

04/12/2022

Date:

Appendix O

Participant Demographics Questionnaire

Demographics	
What gender do you identify with?	1) Male 2) Female 3) Other
Age	1) 20-29 2) 30-39 3) 40-49 4) 50-59 5) 60+
What is your healthcare role?	1) Nurse 2) Nursing Assistant 3) Health Technician 4) MSA 5) Physician, PA, NP 6) Social Worker 7) Psychologist 8) Police 9) Rehab (PT, OT) 10) Respiratory Therapists 11) Radiology Technician 12) Other _____
How long have you been working the healthcare field?	1) Less than 1 yr 2) 2-3 years 3) 4-5 years 4) >5 years
How often do you collaborate with patients diagnosed with dementia?	1) Never 2) Seldom 3) Often 4) Very Often
Have you ever attended any dementia-specific training?	1) Yes 2) No
Have you attended the Hand-in-Hand Dementia training?	1) 0-1 2) 2-3 3) 4-5 4) 6-9 5) >10
Have you ever had to activate a "Control Group" for a patient with dementia exhibiting disruptive behavior? Note: A "control group" is a disruptive behavior response call	1) No 2) Yes

Note: MSA= Medical Support Assistant; NP= Nurse Practitioner; PA= Physician's Assistant

Appendix P

Dementia Knowledge Assessment Scale Survey & Scoring,

UNIVERSITY of TASMANIA
WICKING
Dementia Research and Education Centre

The Dementia Knowledge Assessment Survey (DKAS)

Below are some statements about dementia. The statements are about the most common forms of dementia (those that occur most frequently). Please read each statement carefully and tick (☑) the appropriate box to indicate how true or false you believe each statement to be. Please answer each question to the best of your knowledge.
If you do not know how to respond to a statement, please show us that you ***don't know*** by ticking (☑) the box on the right of the page.
Please DO NOT refer to any printed, online, or other information about dementia while you are undertaking the scale.

Q#	Statements about dementia	Response scale (Please tick one box ✓)				I don't know
		False	Probably false	Probably true	True	
1	Dementia is a normal part of the ageing process.					
2	Alzheimer's disease is the most common form of dementia.					
3	People can recover from the most common forms of dementia.					
4	Dementia does **not** result from physical changes in the brain.					
5	Planning for end of life care is generally **not** necessary following a diagnosis of dementia.					
6	Blood vessel disease (vascular dementia) is the most common form of dementia.					
7	Most forms of dementia do **not** generally shorten a person's life.					
8	Having high blood pressure increases a person's risk of developing dementia.					
9	Maintaining a healthy lifestyle does **not** reduce the risk of developing the most common forms of dementia.					
10	Symptoms of depression can be mistaken for symptoms of dementia.					
11	Exercise is generally beneficial for people experiencing dementia.					
12	Early diagnosis of dementia does **not** generally improve quality of life for people experiencing the condition.					

UNIVERSITY of TASMANIA
WICKING
Dementia Research and Education Centre

Q#	Statements about dementia	Response scale (Please tick one box ✓)				
		False	Probably false	Probably true	True	I don't know
13	The sudden onset of cognitive problems is characteristic of common forms of dementia.					
14	It is impossible to communicate with a person who has advanced dementia.					
15	A person experiencing advanced dementia will **not** generally respond to changes in their physical environment.					
16	It is important to correct a person with dementia when they are confused.					
17	People experiencing advanced dementia often communicate through body language.					
18	Uncharacteristic behaviours in a person experiencing dementia are generally a response to unmet needs.					
19	Medications are the most effective way of treating behavioural symptoms of dementia.					
20	People experiencing dementia do **not** generally have problems making decisions.					
21	Movement is generally affected in the later stages of dementia.					
22	People with advanced dementia may have difficulty speaking.					
23	People experiencing dementia often have difficulty learning new skills.					
24	Difficulty eating and drinking generally occurs in the later stages of dementia.					
25	Daily care for a person with advanced dementia is effective when it focuses on providing comfort.					

WICKING

Dementia Research and Education Centre

Scoring the 25-item Dementia Knowledge Assessment Scale (DKAS)

The primary approach to scoring version 2.0 of the DKAS involves recoding responses and the calculation of a total, summative score using SPSS (or similar data analysis software).

Q #	Statements about dementia	Response scale (Please tick one box ✓)				I don't know
		False	Probably false	Probably true	True	
A1	Dementia is a normal part of the ageing process. [FALSE]					
A2	Alzheimer's disease is the most common form of dementia. [TRUE]					
A3	People can recover from the most common forms of dementia. [FALSE]					
A4	Dementia does **not** result from physical changes in the brain. [FALSE]					
A5	Planning for end of life care is generally **not** necessary following a diagnosis of dementia. [FALSE]					
A6	Blood vessel disease (vascular dementia) is the most common form of dementia. [FALSE]					
A7	Most forms of dementia do **not** generally shorten a person's life. [FALSE]					
A8	Having high blood pressure increases a person's risk of developing dementia. [TRUE]					
A9	Maintaining a healthy lifestyle does **not** reduce the risk of developing the most common forms of dementia. [FALSE]					
A10	Symptoms of depression can be mistaken for symptoms of dementia. [TRUE]					
A11	Exercise is generally beneficial for people experiencing dementia. [TRUE]					
A12	Early diagnosis of dementia does **not** generally improve quality of life for people experiencing the condition. [FALSE]					
A13	The sudden onset of cognitive problems is characteristic of common forms of dementia. [FALSE]					
A14	It is impossible to communicate with a person who has advanced dementia. [FALSE]					
A15	A person experiencing advanced dementia will **not** generally respond to changes in their physical environment. [FALSE]					
A16	It is important to correct a person with dementia when they are confused. [FALSE]					
A17	People experiencing advanced dementia often communicate through body language. [TRUE]					
A18	Uncharacteristic behaviours in a person experiencing dementia are generally a response to unmet needs. [TRUE]					
A19	Medications are the most effective way of treating behavioural symptoms of dementia. [FALSE]					
A20	People experiencing dementia do **not** generally have problems making decisions. [FALSE]					
A21	Movement is generally affected in the later stages of dementia. [TRUE]					
A22	People with advanced dementia may have difficulty speaking. [TRUE]					

Remove TRUE/FALSE labels before use.

Wicking Dementia Research and Education Centre, April 2022

Dementia Research and Education Centre

Q #	Statements about dementia	Response scale (Please tick one box ✓)				I don't know
		False	Probably false	Probably true	True	
A23	People experiencing dementia often have difficulty learning new skills. [TRUE]					
A24	Difficulty eating and drinking generally occurs in the later stages of dementia. [TRUE]					
A25	Daily care for a person with advanced dementia is effective when it focuses on providing comfort. [TRUE]					

DKAS total scoring

Step one: In your database, DKAS response categories should be labelled as follows:

False	1
Probably false	2
Probably true	3
True	4
I don't know	5

Step two: Enter DKAS data.

Step three: Recode responses to 'false' statements and apply scoring system. The DKAS scoring system is as follows:

- Score 2 points for an answer of 'true' to a truthful statement.
- Score 2 points for an answer of 'false' to an untrue statement.
- Score 1 point for an answer of 'probably true' to a truthful statement.
- Score 1 point for an answer of 'probably false' to an untrue statement.
- Score 0 points for an answer of 'true' or 'probably true' to an untrue statement.
- Score 0 points for an answer of 'false' or 'probably false' to a truthful statement.
- Score 0 points for an answer of 'I don't know'.

Recoding of DKAS scores can be undertaken using the syntax function in SPSS. Note that the syntax below assumes that the order of items is the same as that presented in the scale. The following syntax can be used:


```
RECODE [item_A1] (3,4,5=0) (1=2) (2=1)into [final_item_A1].
RECODE [item_A2] (1,2,5=0) (3=1) (4=2)into [final_item_A2].
RECODE [item_A3] (3,4,5=0) (1=2) (2=1)into [final_item_A3].
RECODE [item_A4] (3,4,5=0) (1=2) (2=1)into [final_item_A4].
RECODE [item_A5] (3,4,5=0) (1=2) (2=1)into [final_item_A5].
RECODE [item_A6] (3,4,5=0) (1=2) (2=1)into [final_item_A6].
RECODE [item_A7] (3,4,5=0) (1=2) (2=1)into [final_item_A7].
RECODE [item_A8] (1,2,5=0) (3=1) (4=2)into [final_item_A8].
RECODE [item_A9] (3,4,5=0) (1=2) (2=1)into [final_item_A9].
RECODE [item_A10] (1,2,5=0) (3=1) (4=2)into [final_item_A10].
RECODE [item_A11] (1,2,5=0) (3=1) (4=2)into [final_item_A11].
RECODE [item_A12] (3,4,5=0) (1=2) (2=1)into [final_item_A12].
RECODE [item_A13] (3,4,5=0) (1=2) (2=1)into [final_item_A13].
RECODE [item_A14] (3,4,5=0) (1=2) (2=1)into [final_item_A14].
RECODE [item_A15] (3,4,5=0) (1=2) (2=1)into [final_item_A15].
```

Dementia Research and Education Centre

```
RECODE [item_A16] (3,4,5=0) (1=2) (2=1)into [final_item_A16].
RECODE [item_A17] (1,2,5=0) (3=1) (4=2)into [final_item_A17].
RECODE [item_A18] (1,2,5=0) (3=1) (4=2)into [final_item_A18].
RECODE [item_A19] (3,4,5=0) (1=2) (2=1)into [final_item_A19].
RECODE [item_A20] (3,4,5=0) (1=2) (2=1)into [final_item_A20].
RECODE [item_A21] (1,2,5=0) (3=1) (4=2)into [final_item_A21].
RECODE [item_A22] (1,2,5=0) (3=1) (4=2)into [final_item_A22].
RECODE [item_A23] (1,2,5=0) (3=1) (4=2)into [final_item_A23].
RECODE [item_A24] (1,2,5=0) (3=1) (4=2)into [final_item_A24].
RECODE [item_A25] (1,2,5=0) (3=1) (4=2)into [final_item_A25].
EXECUTE.
```

Step four: Sum items to provide a total score. The maximum total score on the DKAS v2.0 is **50**.

Step five: To calculate subscale scores, sum the items for each subscale (see Annear et al. 2017 for subscale items). In order to compare the subscales, you may wish to standardise each subscale to a maximum of 1.

Annear, M. J., Toye, C., Elliott, K.-E. J., McInerney, F., Eccleston, C., & Robinson, A. (2017). Dementia knowledge assessment scale (DKAS): confirmatory factor analysis and comparative subscale scores among an international cohort. BMC Geriatrics, 17(1), 168. doi:10.1186/s12877-017-0552-y

Appendix Q

Permission to Use Dementia Knowledge Assessment Survey

CE

Claire Eccleston <claire.eccleston@utas.edu.au>

To: Wardrip, Brandy L.

Thu 5/26/2022 8:04 PM

DKAS from 6.4.22.zip
3 MB

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Brandy,
Thank you for your interest in the DKAS tool. We are very happy to give permission for its use in your project.
Please find attached the scale and scoring information as well as four publications about its development and validation.
All the best with your studies.
Kind regards,
Claire Eccleston

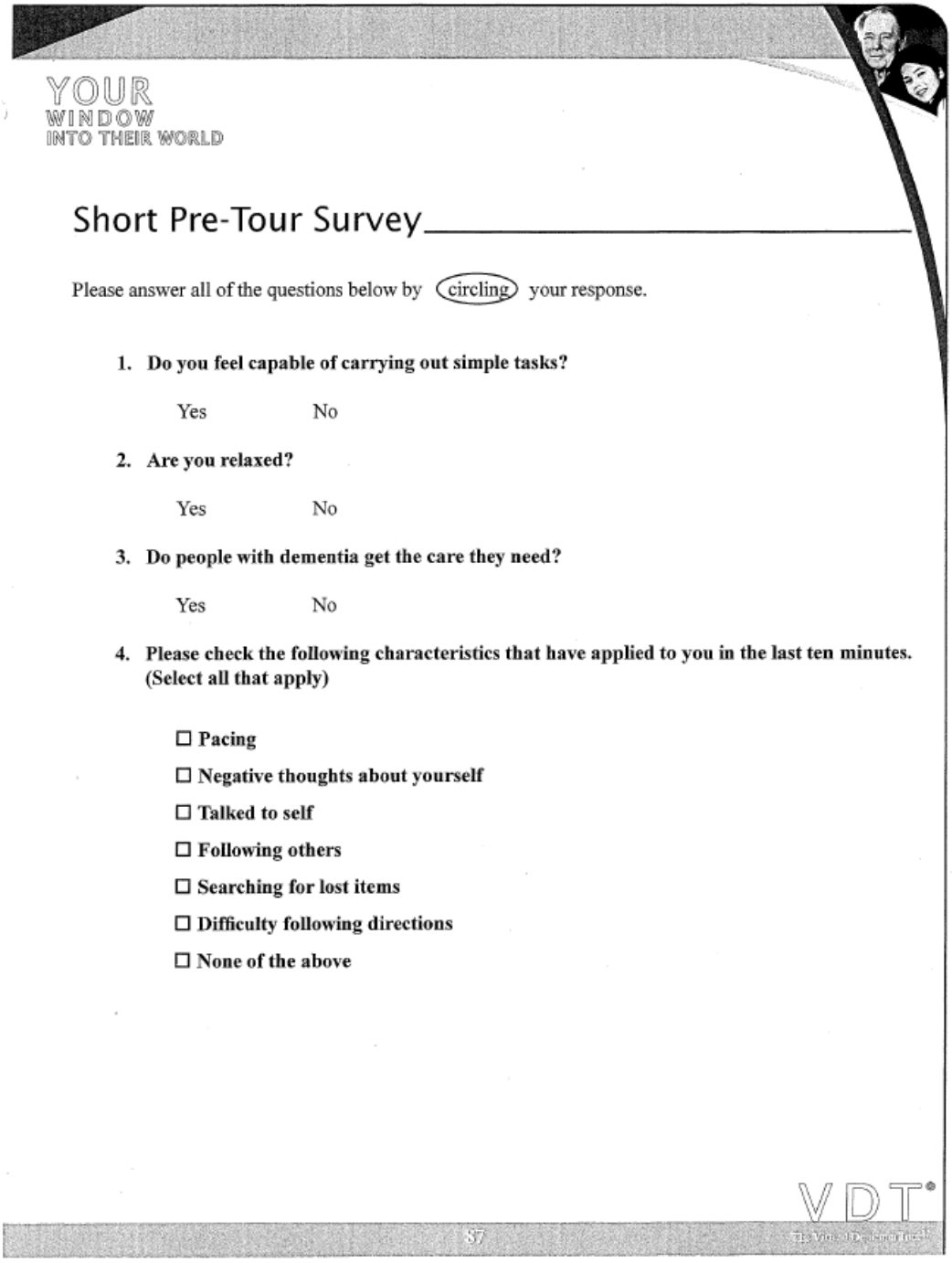
Dr Claire Eccleston
Senior Lecturer, Course Coordinator (Bachelor and Diploma of Dementia Care)

Wicking Dementia Research and Education Centre
University of Tasmania
utas.edu.au

UNIVERSITY of TASMANIA
WICKING
Dementia Research and Education Centre

Appendix R

Virtual Dementia Tour Pre-Tour Survey



YOUR
WINDOW
INTO THEIR WORLD

Short Pre-Tour Survey

Please answer all of the questions below by (circling) your response.

1. **Do you feel capable of carrying out simple tasks?**

   Yes No

2. **Are you relaxed?**

   Yes No

3. **Do people with dementia get the care they need?**

   Yes No

4. **Please check the following characteristics that have applied to you in the last ten minutes. (Select all that apply)**

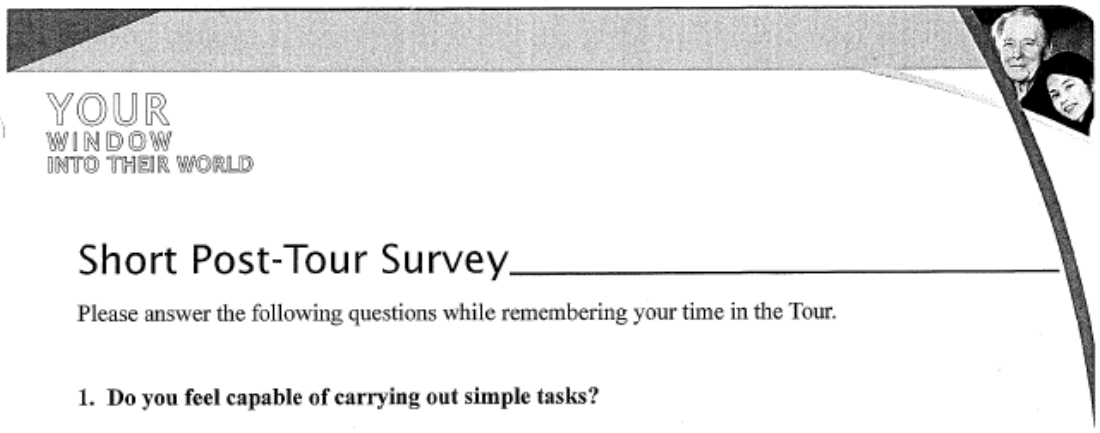
   - ☐ **Pacing**
   - ☐ **Negative thoughts about yourself**
   - ☐ **Talked to self**
   - ☐ **Following others**
   - ☐ **Searching for lost items**
   - ☐ **Difficulty following directions**
   - ☐ **None of the above**

VDT®

87

Appendix S

Virtual Dementia Tour Post-Tour Survey



YOUR
WINDOW
INTO THEIR WORLD

Short Post-Tour Survey

Please answer the following questions while remembering your time in the Tour.

1. **Do you feel capable of carrying out simple tasks?**

   Yes No

2. **Are you relaxed?**

   Yes No

3. **Do people with dementia get the care they need?**

   Yes No

4. **Please Check the following characteristics that have applied to you in the last ten minutes. (Select all that apply)**

   - ☐ **Pacing**
   - ☐ **Negative thoughts about yourself**
   - ☐ **Talked to self**
   - ☐ **Following others**
   - ☐ **Searching for lost items**
   - ☐ **Difficulty following directions**
   - ☐ **None of the Above**

5. **What will you do differently after the VDT experience?**

   _____
   _____
   _____
   _____

VDT®

Appendix T

Dementia Attitude Scale

The Dementia Attitudes Scale

Melissa O'Connor, Ph.D. and Susan H. McFadden, Ph.D.

Please rate each statement according to how much you agree or disagree with it. Circle 1, 2, 3, 4, 5, 6, or 7 according to how you feel in each case. *Please be honest. There are no right or wrong answers.* The acronym "ADRD" in each question stands for "Alzheimer's disease and related dementias."

1. It is rewarding to work with people who have ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
2. I am afraid of people with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
3. People with ADRD can be creative.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
4. I feel confident around people with ADRD	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
5. I am comfortable touching people with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
6. I feel uncomfortable being around people with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
7. Every person with ADRD has different needs.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
8. I am not very familiar with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
9. I would avoid an agitated person with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
10. People with ADRD like having familiar things nearby.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
11. It is important to know the past history of people with ADRD.	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree

Turn Page Over

	1 Strongly Disagree	2 Disagree	3 Slightly Disagree	4 Neutral	5 Slightly Agree	6 Agree	7 Strongly Agree
12. It is possible to enjoy interacting with people with ADRD.							
13. I feel relaxed around people with ADRD.							
14. People with ADRD can enjoy life.							
15. People with ADRD can feel when others are kind to them.							
16. I feel frustrated because I do not know how to help people with ADRD.							
17. I cannot imagine taking care of someone with ADRD.							
18. I admire the coping skills of people with ADRD.							
19. We can do a lot now to improve the lives of people with ADRD.							
20. Difficult behaviors may be a form of communication for people with ADRD.							

Demographic Information

1. Gender: ☐ Male ☐ Female

2. Age: _____

3. Race: ☐ White ☐ Hispanic ☐ African American ☐ Asian ☐ Native American ☐ Other

4. Have you ever known or worked with someone who has ADRD? ☐ yes ☐ no

If yes, please explain. How long have you known, or did you know, the person or people with ADRD? How close was/is your relationship?

_____

_____

_____

_____

You're done! Thank you for your help!

Appendix U

Permission to Use Dementia Attitude Scale

MS

McFadden, Susan <mcfadden@uwosh.edu>

To: Wardrip, Brandy L.

Sun 1/30/2022 2:05 PM

Dementia knowledge, fear, c... 181 KB

DAS paper.pdf 171 KB

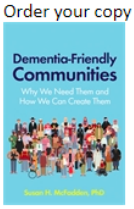
2 attachments (352 KB) Save all to OneDrive - Eastern Kentucky University Download all

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi, Brandy: Yes, you have my permission to use the scale. I wish you well with your research and hope you learn important things about whether the Virtual Dementia Tour helps people understand the experience of dementia. Let me know if you have questions about the DAS. I've attached a couple articles about its development. All the best, Susan

****

Susan H. McFadden, Ph.D.
Co-founder/Volunteer, Fox Valley Memory Project
Order your copy of *Dementia-Friendly Communities: Why We Need Them and How We Create Them* from your local bookseller or Amazon here!



Appendix V

Post Course Evaluation

Survey

Title: LOU - Scheduled Offering (5 Question)
Class:
Instructor:
Primary Location:

This Survey is anonymous

Submit | Save | Close | Previous Page | Next Page

Virtual Dementia Tour Survey — Page 1 of 1

Please select the best response to each of the following questions. Your responses will be used to sustain or improve this course.

1. I found the Virtual Dementia Tour pertinent to my role

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

2. I will modify my practice based upon what I have learned from the Virtual Dementia Tour

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

3. I have a better understanding of dementia following this training

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

4. I feel more confident taking care of a patient with dementia since attending the Virtual Dementia Tour

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

5. I would recommend the Virtual Dementia Tour to others

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

6. I found the IDEA! pocket cards beneficial to have

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

7. I have referred to the IDEA! pocket cards since attending training

Does not apply ○ | Strongly Disagree ○ | Disagree ○ | Neither Disagree nor Agree ○ | Agree ○ | Strongly Agree ○

8. REQUIRED COMMENT Please provide a statement regarding your experience with the Virtual Dementia Tour

3990 character(s) remaining