

COMPARING OCCUPATIONAL ADAPTATION-BASED AND TRADITIONAL
EDUCATIONAL PROGRAMS FOR DEMENTIA CARE TEAMS:
AN EMBEDDED MIXED METHODS STUDY

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ABSTRACT

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COMPARING OCCUPATIONAL ADAPTATION-BASED AND TRADITIONAL EDUCATIONAL PROGRAMS FOR DEMENTIA CARE TEAMS: AN EMBEDDED MIXED METHODS STUDY

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With growing demand for an effective dementia care workforce, attention is shifting from disseminating knowledge of proven care strategies to considering knowledge transfer frameworks that help interdisciplinary teams implement knowledge in practice. Occupational Adaptation (OA) is a theoretical framework used by occupational therapists to support clients' ability to respond to real-world challenges through an active problem-solving process (Schkade & Schultz, 1992). Applied in educational program development for dementia care teams, this framework includes *relative mastery*, in which teams evaluate their actions based on effectiveness, efficiency, and satisfaction to self and others (George, Schkade, & Ishee, 2004). Added to the OA-specific outcome, an OA-based program for teams also targets *team development*. To investigate whether an OA-based educational program improves a dementia care team's relative mastery and team development more than a skills-based program, this study compared effectiveness of each program and explored participants' experiences. A quasi-experimental embedded mixed methods design drove concurrent collection of quantitative and qualitative data, analyzing each separately first, then merging for mixed comparisons. In the quasi-experiment phase, 28 employees were divided into two equally blended groups for nine-week educational programs in one continuing care retirement

community in North Carolina. Quantitative data was collected using two surveys pre-, mid-, and post-intervention and analyzed using a 3(time)x2(group) analysis of variance. Qualitative data from the 28 direct participants and 7 key informants was analyzed using a descriptive qualitative approach to produce an accounting of the events. Results of the two data sets were merged to deepen understanding of both programs and clarify exemplar and exception cases. Quantitative results show, as expected, the OA-based group experienced significantly greater improvement in relative mastery and team development than the control group. Qualitative findings describe how participants' actions, behaviors, and perceptions differed when merely learning about dementia care versus engaging in a collaborative process of occupational adaptation. The mixed comparison results elucidate how the OA-based program achieved better results for the team, but did not work for everyone. I recommend a larger mixed methods study to further examine an OA-based program's effects for other dementia care teams, including its costs and benefits to organizations.

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CHAPTER I

STATEMENT OF THE PROBLEM AND SPECIFIC AIMS

Introduction

Creating dementia-friendly environments, engaging residents with dementia in meaningful activities, assisting with residents' personal care, communicating to reduce a resident's distress, supporting grieving family members, adjusting interventions throughout the progression of dementia—these are just some of the countless duties for employees providing dementia care in long-term care settings. In these residential facilities, dementia care teams are diverse groups of employees including, but not limited to, traditional health care workers, administrators, and support staff. Accepting the dementia care challenge means such diverse teams engage in a collaborative process of collecting knowledge (both information and hands-on skills), sharing their knowledge with others, and calling on this knowledge to solve problems through teamwork. The good news for dementia care teams is that research exists regarding types, symptoms, and progression of dementia, as well as effective dementia care strategies (Gitlin, Marx, Stanley, & Hodgson, 2015).

Today, a plethora of dementia care educational programs incorporate information about the disease and research-informed interventions (Balzer et al., 2016; Surr et al., 2017). However, despite robust evidence for effective care strategies and ample educational programs designed to disseminate knowledge to caregivers and improve care, *knowledge alone* is inadequate to improve a team's performance (Fraker, Kales, Blazek, Kavanagh, & Gitlin, 2014; Kales, Gitlin, & Lyketsos, 2014). The gap between knowledge

and implementation is due in large part to an essential design flaw in dementia care education programs: such teams often lack opportunities to plan, test, evaluate, and reflect *as a team* on the process of adapting research-informed responses to real-world challenges (Gitlin et al., 2015). The resulting societal problem is a persistent gap between research evidence and practice in dementia care; current dementia care often does not reflect what research evidence suggests would improve outcomes (Burke & Gitlin, 2012; Kales et al., 2014; Lourida et al., 2017; Surr et al., 2017).

The current consensus is that a major contributing factor to this research-practice fissure is a failure to implement adequate knowledge transfer frameworks and theoretical constructs in educational programs to help teams implement and evaluate knowledge in practice (Burke & Gitlin, 2012; Gitlin et al., 2015; Kales et al., 2014). Occupational Adaptation (OA), one such theoretical perspective designed for clinical application and based on fundamental occupational therapy principles (Schkade & Schultz, 1992; Schultz & Schkade, 1992) could provide a means of improving a team's process of applying knowledge through ongoing, active problem-solving. According to OA, in addition to knowledge and skills, people have a capacity to adapt (*adaptive capacity*), and one can enhance her occupational performance by increasing her adaptive capacity (Schkade & Schultz, 2003). A range of adaptive capacity between teams can be observed in everyday work situations, similar to Schultz and Schkade's (2003) description of the range of adaptive capacity observed in individuals. For instance, some teams appear ready for change and respond cooperatively with creative solutions and a high degree of flexibility. Conversely, some teams approach changes reluctantly. In challenging situations, the

latter teams tend to respond in predictable, long-standing dysfunctional patterns. An OA-based intervention taps into the normal process of adaptation and aims to increase the health and strength of the client's adaptive capacity (Schkade & Schultz, 2003). OA includes a self-evaluation component referred to as *relative mastery* in which team members evaluate their actions based on effectiveness, efficiency, and satisfaction to self and others (George et al., 2004). OA includes a second observable outcome referred to as *overall adaptiveness* as indicated by the team's ability to generalize adaptive responses to novel situations. In addition to the OA-specific outcomes, an OA-based educational program designed for groups of caregivers would also involve another element at the heart of the dementia care implementation challenge: *team development*.

Problem of Study

To excel in evidence-based practice, dementia care teams need educational opportunities that are occupation-centered, action-oriented, and team-focused. New programs are needed which, by design, allow teams to better identify and analyze real challenges in the dementia care environment, collaborate to create plans for new or modified team responses based on case-specific information, work together to implement those plans, and return to the collaborative process for ongoing problem-solving. Such a program, based on the theory of OA, would target the teams' adaptive capacity without ignoring the need for new skills and dementia-related knowledge.

Rationale for the Study

Currently, there is no information available on the efficacy of an OA-based program to improve a dementia care team's relative mastery and teamwork compared to traditional, skills-based dementia care education. Therefore, a description of such a program and testing with dementia care teams was required. First, a program design was needed. Then, testing the new OA-based program with a dementia care team in practice was the logical next step. Direct comparison of two dementia care educational programs was the primary purpose of this quasi-experimental, embedded mixed-methods investigation. Using both quantitative and qualitative data collection methods, this study describes the development and evaluates the efficacy of an OA-based dementia care educational program compared to the skills-based approach. Quantitative measures of relative mastery and team development form the primary outcomes, as measured by the Relative Mastery Measurement Scale (RMMS) (George-Paschal & Krusen, 2017) (see Appendix A) and Team Development Measure (TDM) (Stock, Mahoney, & Carney, 2013) (see Appendix B). Qualitative data from observations, journals, and semi-structured interviews deepen the understanding of experimental results by incorporating the perspectives of participants and investigator.

Specific Aims, Hypotheses, and Research Questions

Specific Aim 1

The Relative Mastery Measurement Scale (George et al., 2004) implemented pre-, mid-, and post-intervention, was used to measure change within and between groups' relative mastery of challenges in the dementia care environment.

Hypothesis 1. A team that receives a nine-week, OA-based intervention will experience greater relative mastery over challenging dementia care cases than a team that receives a nine-week, skills-based program, as measured by the RMMS, pre-, mid-, and post-intervention.

Specific Aim 2

The Team Development Measure (Stock, Mahoney, & Carney, 2013) implemented pre-, mid-, and post-intervention was used to measure change within- and between-groups' team development, including four subdomains (cohesion, communication, roles and goals, team primacy).

Hypothesis 2. A team that receives a nine-week, OA-based intervention will experience greater overall team development than a team that receives a nine-week, skills-based program, as measured by the TDM, pre-, mid-, and post-intervention.

Specific Aim 3

Using qualitative methods, the study aimed to explore differences, in terms of participants' actions and perceptions, that may exist between the OA-based intervention program and skills-based program—and how stakeholders feel about these differences.

Research question 1. What differences, if any, in participants' actions and behaviors exist between the OA-based program and skills-based program?

Research question 2. How do participants' perceptions of experiences in their respective programs differ between the OA-based program and skills-based program?

Assumptions and Limitations

Like all studies, this one has assumptions and limitations. First, it was assumed that the participants were fully vested in the dementia care programs. It was assumed that volunteer participants had a desire to learn and change their own behaviors. Also, it was assumed that participants would answer questions truthfully. A limitation of the study was that it only examined individuals at one CCRC. Findings may not generalize to other CCRCs or different types of care facilities.

CHAPTER II

BACKGROUND AND SIGNIFICANCE

This chapter provides a review of the literature related to the development of the proposed study. The chapter starts with an overview of dementia, the need for a dementia-capable workforce, the composition of the “dementia care team,” and the current trends in education for those blended groups of professionals and paraprofessionals. Next, implementation problems related to traditional program designs illuminate the need for a new approach to dementia care education. Then, the OA framework, both generally and as it translates to dementia care teams, is described as a suitable solution to guide program development for dementia care teams aiming to apply knowledge in real-world challenges via a collaborative process of adaptation. The section concludes with a description of the OA-based program, known as The Learning Circle (TLC), which was developed for the proposed study.

Dementia and the Need for a Dementia-Capable Workforce

Basics of Dementia

Dementia is an umbrella term used to describe a level of neurocognitive impairment—loss of cognitive functions such as remembering, reasoning, and behaving—to such an extent that it interferes with the person’s daily life (Deb, Thornton, Sambamoorthi, & Innes, 2017). Functions affected by dementia include memory, language production and comprehension, visual perception, problem solving, self-management, emotional regulation, and the ability to focus and pay attention. The

observable symptoms of dementia are caused by an internal deterioration in the brain, where once-healthy neurons lose synaptic connections with other cells and die (Theofilas et al., 2018). While a relatively small amount of neuronal loss is typical during the normal aging process, the loss is far greater in dementia (National Institute on Aging, 2017). For people living with dementia, these symptoms worsen over time, starting in the mildest stage when the person may still drive and function independently but may notice difficulty recalling names, performing work tasks, or organizing daily activities. Symptoms build to the most severe stage when the person is rendered dependent on others for every aspect of daily life (Alzheimer's Association, 2018a). Under the umbrella of dementia, Alzheimer's disease is the most prevalent type (accounting for 60–80% of all dementia cases), but other types include vascular dementia, Lewy Body dementia, frontotemporal dementia, among others (Alzheimer's Association, 2018b). Types of dementia vary in their cause, age of onset, trajectory, and combination of symptoms. For example, patients with early-stage Alzheimer's disease have more cognitive deficits in memory and language, while patients with early-stage vascular dementia have more difficulty with attention and processing speed (Park, Kyung Min, & Byoung Sun, 2017). It is common for people to have more than one type of dementia. For example, some people have both Alzheimer's disease and vascular dementia (National Institute on Aging, 2017).

Incidence: An Issue of Global and National Concern

In tandem with an aging population, the number of people living with dementia will continue to increase worldwide until preventative or disease-modifying treatments

are discovered. In 2015, there were an estimated 46.8 million people globally living with dementia, and experts expect the number to double every two decades (Prince et al., 2015). In the United States, Alzheimer's disease is now the sixth leading cause of death, with an estimated 5.8 million Americans currently living with the disease (Alzheimer's Association, 2019). Hebert, Weuve, and Scherr (2013) used incidence data from the Chicago Health and Aging Project to predict a threefold increase of individuals afflicted with Alzheimer's disease and other types of dementia by 2050, due to the rapid growth of the elderly population in this country.

As the disease progresses, individuals with dementia require increased levels of medical care, caregiver support, and long-term care, which can lead to substantial economic burden (Deb et al., 2017). In 2016, the global cost of dementia was a staggering \$818 billion, and the price is expected to reach \$1 trillion by 2020 (Nair, Mansfield, & Waller, 2016). According to recent estimates from the Alzheimer's Association (2019), the total direct medical expenditures associated with dementia in the United States will increase from \$290 billion in 2019 to more than \$1.1 trillion in 2050. However, costs to families involve more than merely direct medical expenses. Deb et al. (2017) synthesized findings from studies of dementia care costs in the United States published between January 2006 and February 2017 and found that the average medical, non-medical, and indirect costs for individuals with dementia are higher than for those without dementia. For example, in 2018, more than 16 million unpaid caregivers provided approximately 18.5 billion hours of assistance, and this care has been valued conservatively at \$234 billion (Alzheimer's Association, 2019). Furthermore, the full

economic impact of dementia may be underestimated, because many components—such as direct non-medical costs for home safety modifications and adult day care services, and indirect costs due to caregivers’ adverse health outcomes and lost productivity, sometimes referred to as the caregiver burden—are not included in cost estimates (Deb et al., 2017).

Implications for Developing a Dementia-Capable Workforce

Ensuring an informed and effective dementia care workforce garners national attention, as people with dementia and their families utilize the nation’s long-term services and supports at higher rates than the general population (Alzheimer’s Association, 2019; Borson et al., 2016; Levy-Storm, Love, & Pinkowitz, 2013; U.S. Department of Health and Human Services, 2017; Weiss et al, 2017). The dementia workforce faces special challenges, including but not limited to assisting the person with dementia in the performance of daily activities (e.g., eating, making meals, bathing, and paying bills) and educating family caregivers. The care is complicated by the patients’ wide range of neuropsychological symptoms (e.g., depression, anxiety, agitation, apathy, delirium, and psychosis) that pose myriad risks to patients and caregivers (Fraker et al., 2014). Therefore, stakeholders including policy makers, administrators, families, and people living with dementia continuously emphasize interdisciplinary staff education to create a more dementia-capable system (Alzheimer’s Association, 2018; Borson et al., 2016; Levy-Storms et al., 2013).

Research-Informed Curricula for Dementia Education (What to Know)

Understanding how dementia care differs from other types of caregiving is the first step in designing effective dementia care education. Specifically, managing dementia is complicated by the presence of behavioral symptoms (also known as neuropsychiatric symptoms) including but not limited to wandering, depression, suspiciousness, insomnia, sexual behavior in public, personality clashes (e.g., arguing, accusations, screaming, physical aggression), and resistance to help with personal care (e.g., dressing, bathing, toileting, eating, etc.) (Brodaty & Arasratnam, 2012). Dementia-related behavioral symptoms are among the most complex, stressful, and/or costly aspects of care, leading to frequent hospitalizations, early nursing home placement (Maust et al., 2017), and early mortality (Wancata, Windhaber, Krautgartner, & Alexandrowicz 2003). These behavioral symptoms tend to pose the most challenges to caregivers (to say nothing of the difficulties for people living with symptoms and their families)—more than the physical dependence or functional impairments typical of other types of caregiving (Brodaty & Arasratnam, 2012). In fact, upon closer investigation of the costs associated with dementia’s behavioral symptoms, Maust et al. (2017) found that increased healthcare utilization and costs were associated with a high level of informant/caregiver distress related to these behaviors, rather than the symptoms themselves. For instance, stressed caregivers, at a loss for what to do, transported the person with dementia to the hospital with no other medical necessity for hospitalization. Since pharmacological treatments for behavioral symptoms of dementia have limited efficacy and pose adverse side effects, caregiver education takes top priority and generally centers around finding effective ways

of managing behavioral symptoms for reduced frequency and/or severity for the people living with the disease, and reduced severity of the caregivers' reactions to the symptoms (Brodaty & Arasaratnam, 2012; Gitlin et al., 2015).

The good news is twofold. Over the past 30 years, more than 200 dementia caregiver interventions were tested and found to be efficacious (Gitlin et al., 2015), which led to a proliferation of educational programs for dementia care providers to disseminate research findings (Surr et al., 2017). Of those treatments categorized as pharmacological, medical, or non-pharmacological (which experts also refer to as “behavioral and environmental modifications”), the non-pharmacological interventions have the strongest evidence base and fewest risky side effects (Kales et al., 2014). In a meta-analysis of non-pharmacological interventions focused on caregiver education, elements of caregiver training programs included the following psychoeducation about the disease and skills training (Brodaty & Arasaratnam, 2012):

- **General education**—Information about dementia, signs, symptoms, and progression; tips for improving care in the home environment; tailored advice and recommendations; problem-solving methods; improving support network; using technology; planning.
- **Skills training**—Managing behavioral and psychological symptoms of dementia; communicating better with care recipient; using role play, videos modeling behavioral management strategies, cognitive behavioral interventions, vignettes, and live interviews; enhancing care recipient's quality of life (e.g., improving daily activities, increasing pleasant events).

- **Activity planning and environmental redesign**—Planning with caregivers and care recipients, modifying care recipient’s physical and social environments.
- **Enhancing support for families**—Social support, web or telephone support, strategies for accessing support, family counseling.
- **Self-care techniques for caregivers**—Health management, stress management, coping with change as a result of caregiving, music therapy, counseling.
- **Miscellaneous**—Collaborative teamwork with a health professional or care manager, exercise for the care recipient.

Currently, there is no national standard or minimal set of dementia-specific competencies needed by health care professionals or the direct care workforce to provide dementia-capable care (Weiss et al., 2017). Common among existing caregiver education programs is the message that neuropsychiatric behaviors stem from unmet needs, environmental overload, and the interaction between the care recipient, caregiver, and environment (Kales et al., 2014). Therefore, caregiver training emphasizes managing behavioral symptoms of dementia through a thorough assessment of underlying causes (e.g. urinary tract infections as a cause of new and difficult behaviors) (Cohen-Mansfield, Juravel-Jaffe, Cohen, Rasooly, & Golander, 2013).

Composition of Blended Dementia Care Teams (Who Should Know)

Identifying the vast community of caregivers who need training to support people living with dementia is just as important as identifying the pertinent content for research-informed educational programs. Nomenclature used to identify different types and groups of caregivers can make it difficult to understand *whom* the dementia care team includes. The Workforce Development Workgroup, a sub-committee of the 2017 National Research Summit on Dementia Care, acknowledged that “informal” and “formal” caregivers are an integral part of the dementia care workforce and distinguished the two groups (Weiss et al., 2017). Broadly, informal caregivers are defined as family members, friends, and neighbors who provide unpaid care. Formal caregivers cover the spectrum of positions from home health aides to health care professionals who are paid for their work and have some training in the care of persons living with dementia.

The Workgroup explained that many of the educational gaps are the same for both informal and formal caregivers, and much of the educational content from proven effective family caregiver programs can be borrowed when training professionals (e.g., communication strategies that are effective for a spouse who’s supporting her husband with dementia can also benefit a certified nursing assistant and physician). Furthermore, many of the same skills and knowledge are beneficial to other members of the community—such as police officers, financial advisors, and business leaders, to name a few (Weiss et al., 2017). Due to the nature of dementia care requiring coordination of many services on behalf of the people living with dementia and their family, the broadest perspective of the team includes *everyone*, not the least of whom is the person living with

dementia. Therefore, it is practical to define the dementia care team on a more situational level.

For the purpose of this study focused on training employees in a continuing care retirement community (CCRC), an institutional setting where people with dementia can live with graduated levels of care and social support, the team is comprised of employees including, but not limited to, traditional healthcare workers, support staff, and administrators—all of whom are involved directly or indirectly in the care of residents with dementia and their families. The team is referred to as “blended,” because it includes employees such as maintenance workers and housekeepers; they were once excluded from dementia care education on the basis of their “non-professional” or “para-professional” status, despite the fact that these employees frequently encounter people with dementia and their families during everyday work situations. This blended composition follows one of the main recommendations of the 2017 National Research Summit on Dementia Care: examine and include interdisciplinary teams in all phases of research, and target varied professional and non-professional groups to account for the real-world nature of dementia care services (Gitlin & Maslow, 2018). Hence, the dementia care team, by this definition, is a diverse group of paid employees that has close connection to family members and shares relevant education with those individuals but engages in on-the-job training that does not include family caregivers.

Implementation Problems Related to Program Designs (Knowing Is Not Enough)

Today, there is no shortage of dementia care education programs that incorporate information about the disease and research-informed interventions (Balzer et al., 2016). However, despite the abundance and availability of proven dementia care strategies, currently provided dementia care often does not reflect what research evidence suggests would improve outcomes (Lourida et al., 2017). A major factor in this implementation problem—increased knowledge does not automatically translate into behavior change in practice (Surr et al., 2017)—is an essential design flaw in dementia care education programs: such teams often lack opportunities to plan, test, evaluate, and reflect *as a team* on the process of adapting responses to real-world challenges (Gitlin et al., 2015). Specifically, teams are often deprived of learning opportunities which acknowledge the ongoing, dynamic, self-organizing process of adaptation involved in team caregiving. Instead, education occurs as a didactic, episodic event. As a result, caregivers struggle to apply knowledge after the class in the care environment (Burke & Gitlin, 2012; Kales et al., 2014; Surr et al., 2017). With the research in mind, dementia care educators should not assume that an increased volume of caregiver training would lead to changes in practice, as in the poorly conceived “more is better” notion. Therefore, it is equally important to investigate beyond *what* and *who* is taught to consider *how* diverse groups of caregivers engage in a collaborative, active process of adaptation in response to real-world challenges, without ignoring the need for knowledge and skills.

Other Lessons Learned from Existing Workforce Education

Surr et al. (2017) performed a systematic review of 152 studies describing a wide range of dementia care training programs to identify the most effective curricular design features. Among the 60 studies reporting on staff behavior change, the most effective teaching method for affecting behavior change was the inclusion of structured application of learning into practice. Approaches to achieving behavior change included in-service activities or projects implemented as part of, between, or after training sessions. An even smaller number of studies (39) reported outcomes for people with dementia ranging from impact on behavioral symptoms, quality of life, depression, communication, and activities of daily living. In programs with positive outcomes in these areas, participants discussed examples from their own practice and engaged in collaborative problem solving guided by an experienced trainer (Surr et al., 2017). While the review described relatively effective curricular design features from many programs, additional research was recommended to study programs incorporating as many of these features as possible. The review of the evidence base suggested including the following additional curricular features, which easily align with an educational program based on OA (Schkade & Schultz, 1992; Schultz & Schkade, 1992): role-relevant experiences; active face-to-face participation; practice opportunities underpinned with knowledge and theory; adequate time for debriefing and discussion following new experiences; enlistment of an experienced facilitator; a total duration of eight-plus hours with individual training sessions of at least 90 minutes; activities that support the application of training into practice; and provision of a structured tool, method, or practice guideline. Finally, the use

of mixed methods was recommended, which can provide robust evidence of effectiveness *and* explain findings through learners' and facilitators' perspectives (Surr et al., 2017).

While some of the studies reviewed by Surr et al. (2017) described attempts to make learning more active with a variety of different teaching methods, the explicit process of trying something new (carrying out an evidence-informed plan complete with who does what, when, where, and with what results) in a challenging situation was not addressed in any of the 152 studies. Such details of the team's experience and context are crucial to mapping the extent and nature of the team's ongoing process of problem solving, and to illuminate areas of care for knowledge translation that may be particularly relevant to each challenging case. The coding of staff's behavior changes was also vague due to inadequate reporting of the activities employed for implementation.

This lack of clarity adds to the challenging task of distinguishing between implementation of frontline care strategies and educational programs, due to overlaps in terminology and interpretation. Overall, there is a need for better reporting of the theoretical knowledge-transfer framework embedded in the educational program's design at all stages—from planning to implementation to evaluation. The theoretical framework of OA is suitable to guide a team's *process* for analyzing a challenging situation, drilling down to potential root causes of the problem, selecting a new response that is well suited for the real-world challenge from a wide range of evidence-based interventions, planning and implementing the new response with teamwork, returning to the same ongoing process with new information if resolution is not met on the first attempt, and measuring results that are relevant to all stakeholders in the situation—to promote study

identification, increase transparency and replicability, and improve the evaluation of studies (Lourida et al., 2017).

Occupational Adaptation as a Possible Solution

Theoretical Framework

Schkade, Schultz, and colleagues broke ground in the early 1990s with a theoretical perspective called Occupational Adaptation (OA) (Schkade & Schultz, 1992; Schultz & Schkade, 1992). OA constructs were derived from the adaptive process witnessed with occupational therapy clients, offering a holistic theoretical framework focused on one's personal adaptiveness (Schultz & Schkade, 1997). In the OA model, the term *occupational adaptation* denotes a process and state. Likewise, *occupation* is both the means by which adaptation (the process) occurs and the end for which occupational adaptation (the state) is desirable. In this report, OA is abbreviated when referring to the theoretical perspective and its body of knowledge, but the term is spelled out when referring to the process or state of occupational adaptation.

Some basic assumptions undergird OA and explain adaptation as normative (Schultz, 2013). First, competency in occupation is a lifelong process of adaptation to natural internal desires and external demands to perform. Dysfunction occurs because one's ability to adapt (adaptive capacity) is inadequate to satisfy desires and/or demands, and any problem may overwhelm one's adaptive capacity. Success in occupational performance is a result of an ability to adapt with sufficient mastery to satisfy one's self and others. The theorists elaborated on the *process* of occupational adaptation as a focus

for intervention with relative mastery and overall adaptiveness as its measurable outcomes (Schultz, 2013).

Steps of the Occupational Adaptation Process

Occupational adaptation consists of three elements: person, occupational environment, and the interaction of the two. Each element involves a constant driving force that is invariably present as a person engages in occupation. For the person, the constant force is a desire for mastery. Likewise, the environment provides a constant demand for mastery. The desire and demand for mastery come together in the interaction of person and occupational environment to produce a constant press for mastery (Schultz & Schkade, 2003). The person uses all his/her resources (sensorimotor, psychosocial, and cognitive subsystems) to continuously generate, evaluate, and integrate responses as he/she operates through physical, social, and cultural subsystems of the environment. The OA process is transactional and ongoing, as people are constantly shaping and shaped by multiple occupational challenges simultaneously. Relative mastery is a four-part, self-evaluative measure of these factors: 1) Efficiency (*Was this a good use of my time, energy, and resources?*); 2) Effectiveness (*To what extent did I achieve my goal?*); 3) Satisfaction to self (*To what extent am I satisfied?*); and 4) Satisfaction to society (*How do others regard the outcome?*). Over a lifetime, a person develops a repertoire of adaptive responses which contribute to overall adaptive capacity—including perceiving the need to change, modify, or refine (adapt) an occupational response and implement with positive relative mastery (Schkade & Schultz, 2003, p. 185).

Key constructs of the occupational adaptation process.

- Internal factors (sensorimotor, cognitive, psychosocial systems including genetic, biological, phenomenological makeup) occurring within the person create a constant *desire for mastery*.
- External factors (complex and dynamic contexts) occurring in the *occupational environment* create a constant *demand for mastery* in specific occupations to fulfill an *occupational role*.
- Ongoing interaction of personal desire for mastery and the environment's demand for mastery creates a third constant: *press for mastery*, which defines the *occupational challenge*.
- *Occupational role expectations* held by both the person and environment intersect with the occupational challenge and produce a need to adapt.
- In anticipation of a new response, the person undergoes a collection of *adaptive response generation sub processes* in which he/she integrates the following aspects of past performance: *adaptive energy*, *adaptive response modes*, and *adaptive response behaviors*. Based on previous experience and analysis of what worked and what did not work, a plan for the new response is generated.
- The outcome of the entire process is an observable *occupational response*.
- The *adaptive response evaluation sub process* is when the individual assesses the quality of the occupational response by evaluating his/her level of mastery.

Relative mastery is a four-part self-assessment of efficiency (use of time and resources), effectiveness (extent to which the desired goal was achieved),

satisfaction to self, and satisfaction to other stakeholders. If the assessment is positive, the situation is stable with little need for further adaptation. If the assessment is negative, the person may cycle through the process again to generate a new or modified response.

- *Occupational adaptiveness* is determined to be improved when the experience of relative mastery is positive, and the individual initiates future adaptations and generalizes *knowledge of the process* in novel situations.

Intervention Guided by OA

OA-based practice is distinct, because it directs intervention with the therapeutic use of occupation to improve the client's adaptiveness. That target for change distinguishes OA from other occupation-based practice models whose goals are increased skills or performance, assuming adaptation will automatically follow (Schultz, 2013). Johnson (2006) described the therapeutic climate of OA-based intervention as collaborative. The occupational therapist serves as a consultant or facilitator—empowering the client to function as the change agent. Sessions begin with the client identifying the occupational challenge or goal embedded in an occupational role and reflecting on past experiences. Role-relevant activities are used to observe the client's adaptation process and illicit reflection. The occupational therapist assesses the client, environmental supports, and barriers impacting the client's ability to succeed. Adaptation patterns that interfere with success are observed. The client and therapist collaborate to modify strategies to meet the challenge. The occupational therapist guides ongoing problem-solving with thought-provoking questions, suggestions for role-relevant

activities, new knowledge and skills, and feedback from the client's actions and reflections. Evaluation involves the therapist documenting the client's adaptation process outcomes, the client's self-assessment of relative mastery, and the therapist's observations and interpretations of adaptiveness (Johnson, 2006; Schultz, 2013).

OA Applied to Program Development

Most of the OA-based practice examples come from direct intervention (Buddenberg & Schkade, 1998; Dolecheck & Schkade, 1999; Gibson & Schkade, 1997; Jack & Estes, 2010; Jackson & Schkade, 2001; Johnson & Schkade, 2001). However, the original theorists explained that OA could also be used by consulting occupational therapists to guide program development for specific populations (Schkade & Schultz, 2003). For example, Schultz developed a rehabilitation program in a forensic hospital for incarcerated individuals with mental illness. In that programmatic application, the consulting occupational therapist developed an OA-based curriculum template to apply across all rehabilitation services and guided staff in creating its unique content. Schultz's program evaluation reported positive outcomes of the OA-based program by participants, facilitators, and organizational leaders (Schkade & Schultz, 2003).

Stelter and Whisner (2007) developed an OA-based sheltered workshop program in a similar forensic hospital setting, focusing on role performance—rather than skill-acquisition. Curricula incorporated role-relevant activities, measurement of relative mastery, and graded challenges to increase the demand for adaptation through personally meaningful work. Outcomes were positive. Participants acquired new practice skills,

incorporated new social behaviors, and exhibited greater adaptability to challenges (Stelter & Whisner, 2007).

Last, an example of the programmatic use of OA in consultation was initiated at a shelter for homeless and disabled people (Schkade & Schultz, 2003). Despite a history of providing work opportunities in a sheltered workshop, the program was plagued with high dropout rates and recidivism. Based on the assessment that clients experienced a long-standing inability to adapt with no program targeting adaptiveness, an interdisciplinary approach was developed to identify participants' adaptive capacity, clarify blocks to adaptation, and promote occupational adaptation. The program results, again, were positive for participants and administrators. For example, the interdisciplinary team reported decreased turmoil with clients, fewer crises, and more self-reliance. Furthermore, interventionists suggested the theoretical approach could help *the team itself*—not just care recipients—determine adaptive strategies (Schkade & Schultz, 2003). The interdisciplinary team's adaptive process is the focus of this dissertation.

OA Translated with Dementia Care Teams

For a review of Schkade and Schultz's (1992) core assumptions of the OA theory and translation with dementia care teams, see Table 1.

Table 1

Core Assumptions of OA Applied with Dementia Care Teams.

OA Assumption	Application with Dementia Care Teams
People are capable of adapting toward relative mastery when faced with occupational challenges.	Teams are capable of adapting cooperatively in response to challenges in the dementia care setting. United by the organization's mission and press for mastery, teams face shared challenges and coordinate an adaptive process that is intrinsically social. Therefore, a team can be the unit of analysis for OA.
Demands to perform occur naturally as part of the person's occupational roles and context (person-occupation-environment interactions) in which they occur.	Given the complex challenges facing care teams, demands are constant to generate modified and new adaptive responses in emerging situations to improve the lives of people with the disease and their myriad of caregivers.
The person's adaptive capacity can be overwhelmed by impairment, physical or emotional disabilities, or stressful life events.	Dementia care teams may become stuck in primitive response behaviors or existing modes—impeding anticipation, generation, implementation, evaluation, and integration of adaptive responses—when the challenge is beyond the team's current capabilities.
Successful occupational performance in any given challenge directly results from a person's ability to adapt with sufficient mastery to satisfy self and others (relative mastery).	Becoming a functional dementia care team involves more than the accumulation of knowledge about the disease or technical caregiving skills by each individual. Success is not measured by completion or equilibrium (even the makeup of the team is not static) but rather the ease with which the team functions to meet the press for mastery.
Occupational adaptiveness (a desired state) is a function of a person's occupational responses to internal/external demands—and competence to adapt throughout a lifetime—thus effectively producing relative mastery over many occupational challenges which are then successfully generalized.	The strength of a team's occupational adaptiveness is a function of the extent to which the team responds with relative mastery over a wide variety of occupational challenges in the dementia care setting—through a continuous process of order, disorder, and reorganization—using strategies (dementia-related <i>and</i> problem-solving) in novel situations. The team's OA process is a better indicator of the team's ability to plan, implement, and evaluate occupational responses in the context of caregiving than demonstration of didactic knowledge or performance competencies.

Note. OA=Occupational Adaptation.

Breakdown for Teams in Terms of OA

Despite a strong press for mastery, when the team's occupational adaptation process is underdeveloped, the result is occupational dysfunction for the team.

Traditional education is viewed as an episodic event rather than an ongoing, action-based process of applying knowledge in real situations. The resulting dysfunction can take many forms (e.g., occupational disengagement) because the team perceives limited ability to influence the environment of care; once strong internal desires give way to apathy, channels of communication are broken, and the team splinters due to member marginalization—creating conflict at multiple organizational levels. All these challenges impede the team's ability to implement evidence-based interventions. Regardless of the manifestation, dysfunction is driven by the team's limited opportunities to plan, execute, evaluate, and reflect together on occupational responses in a collaborative, systematic way. Limited opportunities to practice adaptive response generation subprocesses as a team impede the team's ability to plan and coordinate behavioral and environmental modifications in the natural setting.

In the absence of a coordinated response, ideas are not tested, which leads to a team's impoverished repertoire of adaptive responses (Spencer, Davidson, & White, 1996). Additionally, in the absence of a subprocess for *evaluating* responses, it is more difficult for the team to continuously modify during a single challenge, project how the situation may evolve in the future, or generalize and integrate a successful response in a variety of situations. For example, a team may try a new occupational response but abandon the novel approach if it does not automatically work, because the team has no

ongoing process for matching members’ capabilities with demands of the occupational environment—never achieving “flow.” Finally, without a system of evaluating responses, a team has more difficulty identifying and understanding root causes of common problems in dementia care and matching evidence-based interventions; thus, problems persist.

Guiding Principles for OA-Based Programs with Teams

Six steps in OA framework as seen in Table 2 show how to apply the concepts to a team’s real-world situation (Schkade & McClung, 2001). The guiding principles for OA-based intervention, according to Schultz & Schkade (1997), steer the occupational therapist’s thinking about programming to promote the team’s adaptation process, as they implement research-informed strategies in dementia care environments. Some expectations and ways of interacting with the dementia care team are considered key ingredients for programs in which team members assume an active role in identifying the occupational challenge and continuously reflecting on their collaborative process of adapting to the challenge.

Table 2

Guiding Principles for OA Interventions with Dementia Care Teams.

OA Step	Guiding Principles for Intervention	Key Ingredients for Dementia Care Teams
Life Event	OA is a way of directing the therapist’s thinking about the team’s adaptive process, not a collection of techniques.	OA is a means for analyzing <i>how</i> the team actually goes about implementing the myriad of interventions in their toolbox. Understand that OA does not replace the team’s extensive list of evidence-based, non-pharmacologic interventions for patients. Nor does it replace a clinical reasoning model for

		choosing appropriate interventions for a particular patient.
Occupational Challenge	Intervention is guided by the requirements of a meaningful occupational role, not by concerns about skill development. A contextually relevant intervention focused on the team's adaptation process will be more efficient—with outcomes more applicable to other contexts—than interventions focused on general skill development.	Gather a more diverse group than usual. Gain an understanding of the team's role as a whole. Find out about the team's shared mission. Assess team knowledge from previous training, classes, personal experience, years on the job (collective adaptive repertoire). Discover motivations and environmental demands (press for mastery). Facilitate the team selecting and analyzing a currently challenging case with increased focus on the contexts surrounding the NPS.
Adaptive Response Generation	The team reflects on previous responses to the challenge, paying close attention to their own adaptive energy, response modes, and response behaviors in order to generate a more adaptive response.	Construct knowledge of the case in a way that is social and collaborative. Understand previous responses tried and their results. Add just-in-time knowledge from research. Focus on <i>how</i> the team describes the challenge, what tools they use to gather and share information about the case, who participates in that discussion, and how team problem-solving is built into caregiving. Uncover breakdowns in the team's communication. Adopt a systematic approach for gathering information.
Plan of Action	Intervention is a combination of methods: Occupational readiness is designed to address deficits in the sensorimotor, cognitive, and/or psychosocial systems. Occupational activities simulate or replicate tasks of the meaningful occupational role that will guide intervention and direct the focus on the team's collaborative adaptation process. These activities must meet the	Investigate factors contributing to the challenge in order to state a hypothesis about what is limiting relative mastery. Select interventions aimed at addressing the root cause of the NPS based on the team's hypothesis. Coordinate responses to test the hypothesis. Explicitly state specific action steps for each team member. Set expectations with timeframes and means of reporting results for ongoing problem-solving.

	three required properties for occupations: active participation by the client, meaning to the client, and process ending in a tangible or intangible product.	Make thoughtful predictions but expect surprises.
Adaptive Response Implementation	Action is inherent in OA. Problem-solving is ongoing. The team evaluates its progress in terms of relative mastery: Use of time, energy, and resources (efficiency); Extent to which a desired goal was achieved (effectiveness); Degree to which the team's actions producing the outcome were personally and socially satisfactory.	Test ideas with teamwork. Gather new information to inform next steps. Notice what is working or not. Adjust actions based on what's happening. Reconvene to generate new ideas. Simultaneously attend to the team's process and changes while also attending to the outcomes for the person with dementia.
Adaptive Response Evaluation	The therapist assesses client progress with standard assessment tools and indications that the team's adaptation process has been affected such as: Spontaneous generalization to other activities; Initiations of new approaches in novel situations; Increase in relative mastery.	Track frequency of NPS, medications. Assess teamwork. Celebrate small improvements as they move the team closer to major breakthroughs.

Note. OA=Occupational Adaptation. Adapted from Schultz, S. & Schkade, J. (1997). Adaptation. In C. Christiansen & C. Baum (Eds.), *Occupational Therapy, Enabling Function and Well-Being*. (2nd Ed.), p.476. Thorofare, NJ: SLACK Incorporated.

Occupational Concepts Applied to Teaching and Learning

One final area of literature in occupational therapy also offers a philosophical basis by which occupational therapists understand learning. The pedagogical ideas that flow from John Dewey's educational theory are part of a larger philosophy of pragmatism (Dewey, 1897). Dewey's theory provides constructs, which Coppola (2013) applied to occupation-centered curricula and enhanced classroom experiences. First, Dewey viewed education as a social process (Dewey, 1963). A group's knowledge and

experience are more valuable than that of any one member. Classroom experiences designed by the learning-as-social construct allow for analysis of the group's shared experience of learning *as a whole* (Coppola, 2013). Second, according to Dewey, learners' success is measured by an expanded ability to tap learning in novel situations (Dewey, 1929). Educational programs thus involve activities to reflect on the process, not just content (Coppola, 2013). One last pertinent construct is Dewey's (1963) view of learning as contextualized, problem-based, action-oriented, and ongoing. Traditional education's main goal is to acquire knowledge or skills, thus employing a pedantic teaching method (Coppola, 2013). In contrast, Dewey's philosophy views education as a dynamic process of problem-solving, reasoning, and reflection on experiences (Dewey, 1963). Teaching aligned with Dewey's theory uses challenges from real life as fuel for change. The learners' personal and shared goals provide the end-in-view, and the teacher moves into the role of facilitator to guide an unfolding process of trial and discovery (Coppola, 2013). For dementia care teams, an OA-based curriculum infused with Deweyan principles aligns easily with the OA framework, case-based teaching methods, and corresponding measures of relative mastery and adaptiveness, with one important enhancement—a view of adaptation that is at once personal *and* intrinsically social.

Developing and Testing An OA-Based Program for Dementia Care Teams

Program Development

The program tested in this study was established through a partnership between a CCRC in North Carolina, educational experts, and me. To understand how the program evolved into the version to be studied, it is important to examine an earlier, preliminary

version of the program to appreciate what distinguishes an educational program based on principles of problem-based learning from one that is occupation-centered.

The situation. In 2014, the existing approach to staff education at the CCRC used a variety of modalities to promote skill acquisition. For example, computer-based modules provided didactic information, dementia care training programs taught behaviors associated with that disease and research-supported interventions, staff orientation emphasized team communication. The community was among the most desirable CCRCs in North Carolina in which to live and work. However, the organization's leadership (i.e., management and a board of directors) and direct-care staff acknowledged that despite extensive caregiver education, supervision, and evaluation, room for growth remained. Members reported personal desire to continuously improve. They also reported external demands to *apply* education during real-world challenges to improve the lives of residents and colleagues. The CCRC contracted with a consulting occupational therapist and dementia care specialist (myself), education specialist, and medical anthropologist to redesign the overall approach to staff education. The impetus was an observation that concepts taught in myriad of existing classes did not automatically translate into team problem-solving. Instead, employees in all areas of the organization described "silos" of disjointed work. The plan aimed to create what Senge (2006) called a "learning community" and thus build the infrastructure for ongoing adaptation and professional development of all paid employees.

Advisory committee. Execution of the strategic plan was delegated to an advisory committee, comprised of the following people: one board member, CEO, quality

improvement officer, director of staff development, social worker, two unit managers, consulting educational specialist, and the consulting occupational therapist. The role of the advisory committee involved managing logistics of staff training including securing time and resources, scheduling classes, arranging work coverage while employees attended on-the-job training, discussing program activities, and aligning outcomes with the goals of the organization. Senior leaders in the organization served on the advisory committee, demonstrating the organization's commitment to change. The advisory committee chose to address the educational area of dementia care as residents with dementia were represented in all areas of the community, and all employees were either directly or indirectly involved in caring for people living with dementia and their families. See the method section for the role of the advisory committee in this study.

Early attempts at program design. Based on the committee's description of existing dementia care training programs, the existing approach to dementia care education lacked opportunities for teams to consider genuine challenges from their practice and share information in a structured way to consider alternative actions, collaborate on a plan to try something new, and evaluate the outcome for ongoing problem-solving. The consultants developed a preliminary program design and named it *The Learning Circle*. The name was chosen to reflect the double purpose: to *learn* rather than be *trained*; and to do it in an intentionally collective, collaborative, community fashion.

The preliminary design of The Learning Circle included methodological choices which actively fed problem-solving, swapping a content-focused design for case-based

learning (CBL)—also referred to as problem-based learning (PBL)—to promote higher-level critical thinking and clinical problem-solving (Yoo & Park, 2014). According to Kantar and Massouh (2015), case-based learners first recognize a situation as a problem and define its details in contextual terms. Employees in preliminary rounds of the program began with real world cases, assimilated knowledge from previous experiences and dementia care research to generate better hypotheses about the problem's root cause and possible solutions. Finally, employees in the preliminary program selected appropriate actions for implementation in the case (Kantar & Massouh, 2015). The learning environment for the preliminary program was intentionally interdisciplinary and engaged employees from different departments on blended teams to maximize the social aspects of learning (Coppola, 2013) and promote collaboration across departmental boundaries.

During early discussions of the program design, the occupational therapist emphasized learning through reflective action, which moves through place and time (Coppola, 2013; Dewey, 1963). The idea was to view active learning beyond merely activities in the classroom, to engage learners in ongoing action between Learning Circle sessions. During these action periods (the time between Learning Circle sessions), the team could try something new in the dementia care environment, then return to the Learning Circle to share impressions and implications of what happened. To build in action-oriented, ongoing problem-solving in the preliminary design, the occupational therapist incorporated the temporal flow of the breakthrough series model of collaborative learning developed by the Institute for Healthcare Improvement (2004). The

breakthrough series model illustrates the following phases of improvement collaboratives (several of which the Learning Circle advisory committee had begun naturally): (a) select a topic; (b) convene a planning group; (c) identify change concepts; (d) enroll participants; (e) complete pre-work; (f) alternate learning sessions with action periods; (g) upon conclusion of the program, produce printed reports; and (h) disseminate results in larger meetings. In addition to the overall flow of a collaborative project, the breakthrough series includes a specific methodology known as the “Plan-Do-Study-Act” cycle developed by Associates in Process Improvement (Langley, Nolan, Nolan, Norman, & Provost, 1996) to lend structure to the action periods. Specifically, the breakthrough series model guides teams in planning action periods with three questions:

1. What are we trying to accomplish?
2. How will we know that a change is an improvement?
3. What changes can we make that will result in an improvement?

Benefits of the action periods as described in the Breakthrough Series model include focused attention on a specific clinical challenge, reliance on existing scientific knowledge and experience, and team reflection before and after all action periods (Kilo, 1998; Lang, Franks, Epstein, Stover, & Oliver, 2015).

Between 2014 and 2016, the advisory committee continued to meet while the preliminary program was piloted with small groups of employees. During this development period, discussions in the advisory committee centered on elements that seemed lacking in the preliminary design. While problem-based learning concepts, temporal flow of the program, and productive action periods were perceived as strengths,

the program lacked a clear, unifying theoretical framework. Without a unifying framework, participants had no consistent terminology with which to analyze their actions. Without that framework, the target for change also remained unclear. Was the aim to measure individual's learning, a change in the group, or some other environmental outcome? Because the intended change was unclear in preliminary rounds, no measurement instruments existed by which to evaluate the aims of the program. Furthermore, while theories of active and problem-based learning and Breakthrough model methods formed a hodge-podge approach, none fully integrated the team, the dementia caregiving occupation, and the environment. Finally, the preliminary approach to facilitating group sessions, though highly interactive, did not fully empower learners to command their own *process* of learning and adapting; instead, focus remained on resolving isolated challenges.

OA as the unifying element in program design. In 2017, I introduced the advisory committee to the theoretical framework of OA, with the intention of solving some of the original program design flaws. Because an OA-based re-design encompassed so many of the same features of the preliminary design (focused attention on clinical challenge, collaborative action, ongoing problem-solving, group reflection), the more pertinent question became, "How is an occupation-centered design *different* from a problem-based, active learning design?" First, the occupation-centered theory offered a comprehensive framework for describing the team's *process* of continuously sharing and translating knowledge into action to meet challenges in the dementia care setting. Unlike the preliminary design, the theoretical framework included terminology for analyzing not

only *what* was planned (occupational response) but also *how* the team performed (adaptive energy and adaptive response behaviors), how the new occupational response differed from previous attempts (adaptive response modes), and the resulting satisfaction to self and others (relative mastery). In terms of OA, team members were viewed as having blocks in their occupational adaptation process. The team's occupational adaptation process would be the target for change, and a team would be empowered to assess each new occupational response, as well as mastery of the process. Along with a consistent language for a team's collaborative adaptive process and outcomes, the theoretical framework included a psychometrically sound measurement tool, the Relative Mastery Measurement Scale (George et al., 2004). Finally, the occupation-centered design was the first to fully appreciate and address the transactional relationship of person, occupation, and environment. For example, environmental press, as described by OA, lent a new way of speaking about the transactions of an individual caregiver, her teammates, the person living with dementia, and the family—all as elements of the social environment. Overall, re-designing the program as an occupation-centered program based on the OA framework unified the group's process and shared understanding of occupational adaptation.

Intervention Approach

The OA-based program known as The Learning Circle is occupation-centered, team-driven, contextually relevant, problem-based, and action-oriented. The approach for a consulting occupational therapist throughout the programmatic intervention is multi-dimensional to facilitate the team's adaptive capacity:

1. Examine the occupational environment to determine its influences on program development, teamwork, and implementing new patterns of care—paying attention to cultural factors in the organization to deconstruct obstacles.
2. Deliver educational sessions employing OA theory and methodologies that emphasize learning as an adaptive process, social action, and occupational adaptation for the team.
3. Manage the educational environment to engage learners actively and collaboratively.
4. Manage and challenge the occupational environment to address issues that prevent the team's implementation of new responses.

Intervention Protocol

Teaching methods chosen for The Learning Circle support the team's active participation, address contextually relevant occupational challenges, and end with measurable results of the team's implementation. The consulting occupational therapist uses a combination of methods to focus on the team's occupational adaptation process in the role of caregiving:

- Facilitation replaces lecture-style instruction.
- Collective, just-in-time knowledge is valued.
- Case studies, identified by the team, situate contextually relevant occupational challenges.
- Group interview protocol is a tool for gathering data about the team's challenging case and analyzing OA subprocesses (George-Paschal & Krusen, 2017).

- “Action periods” provide opportunities for the team to test new occupational responses.
- Real-world application is analyzed and measured, informing current relative mastery and future planning.
- Ongoing data gathering via team discussion generates new ideas based on what the team learned during the action period—highlighting the relationship between experience, concepts, action, observation, and teamwork in the context of the work.
- Adaptation process is emphasized as cooperative, generative, and iterative.
- Team adaptation (collective process for the team as a whole) is treated as part of the work process, integral to the role of caregiving.

Phases of Intervention

Phases of The Learning Circle intervention are adapted from the breakthrough series model of collaborative learning, developed by the Institute for Healthcare Improvement (2004), including the cycle “Plan, Do, Study, Act” during action periods developed by Associates in Process Improvement (Langley et al., 1996), as shown in Figure 1. The figure illustrates a four-phase intervention customized for a team of caregivers working in a CCRC.

Phase I (Research Planning Phase)

- Examine the organizational culture.
- Perform needs assessment to identify topic/area for change important to the organization’s mission.

- Complete program development with leaders: theoretical framework, aims, goals, and evaluation plan.
- Develop and submit research proposal; receive IRB approval.

Phase II

- Enroll participants who comprise a blended dementia care team.
- Develop occupational profile of the team (demographics of participants).
- Complete pre-intervention questionnaires.
- Engage participants in “pre-work” to build knowledge of dementia and communication.

Phase III

Convene nine consecutive Learning Circle sessions to analyze challenging cases.

- With each challenging case, engage participants in implementing occupational responses during action periods, with follow-up reflections on the OA process in The Learning Circle for ongoing problem-solving and evaluation of outcomes and process.
- Complete mid-intervention questionnaires.

Phase IV

- Complete post-intervention questionnaires and interviews.
- In the ninth weekly session, share specific outcomes, progress toward the organization’s aims, and reflections gleaned from The Learning Circle process with others in the organization during a summative celebration.

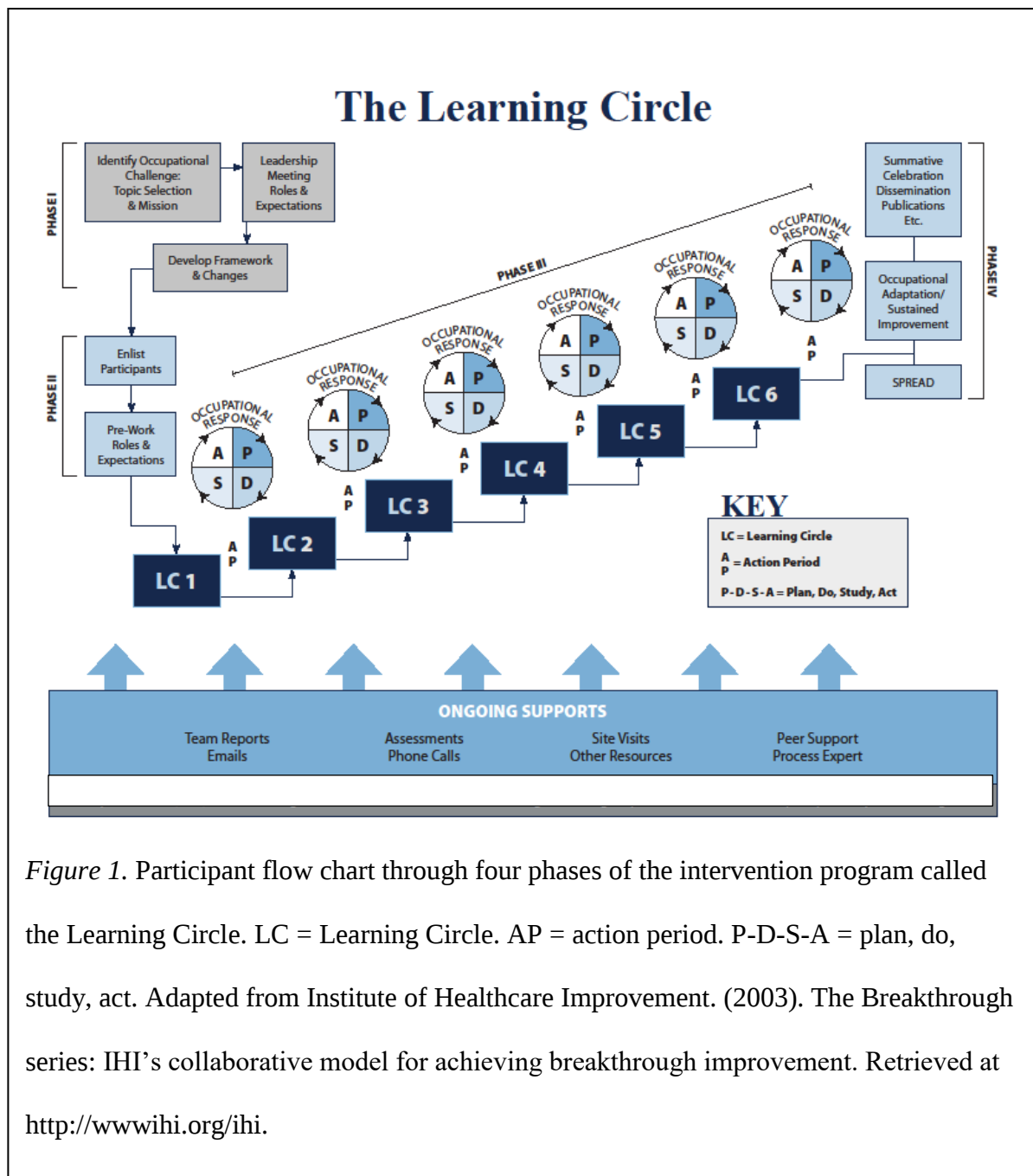


Figure 1. Participant flow chart through four phases of the intervention program called the Learning Circle. LC = Learning Circle. AP = action period. P-D-S-A = plan, do, study, act. Adapted from Institute of Healthcare Improvement. (2003). The Breakthrough series: IHI's collaborative model for achieving breakthrough improvement. Retrieved at <http://wwwihi.org/ihi>.

Evaluation of Intervention

Historically, the goal of dementia care education has been to disseminate research-informed knowledge. Traditional programs can be evaluated by surveying

attendance records, test scores, satisfaction surveys, and skills-based competency checks. However, these traditional program evaluation methods fail to reach the heart of the implementation problem. Reframing the following evaluation question leads this study to measure outcomes that are either OA-based or team-oriented:

What evidence indicates demonstrable change in occupational responses and the team's OA process?

- Results from Relative Mastery Measurement Scale
- Results from the Team Development Measure
- Themes from qualitative questionnaires
- Examination of the behaviors caregivers exhibit during the program (observations)

As indicated by the new methods of evaluation, the overall goal of OA-based interventions with dementia care teams is to provide increased measurement of caregivers' ability to identify and reason through challenging situations, share information, and analyze and apply knowledge to resolve dementia care problems.

Significance for Occupational Therapy

Adaptation—the process of gaining mastery over life's challenges—has been significant to occupational performance and occupational therapy since the profession's inception in the early 1900s. Occupational therapy practitioners apply knowledge of the transactional relationship of people and environments with the therapeutic power of occupation, to facilitate adaptation and promote occupational health and wellness for clients with disability and non-disability related needs (American Occupational Therapy

Association, 2014). While traditional practice has embraced adaptation for individual clients in direct interventions, occupational therapy in a consultative mode lags in its use within programmatic interventions. Specifically, occupational therapists in consultation with dementia care organizations employ traditional pedagogies emphasizing skill acquisition—with poor carryover outside a training environment (Gitlin et al., 2015). Consulting occupational therapists may revamp dementia care training programs for interdisciplinary teams by shifting focus from skill-building to a team's collaborative process of adapting. The theoretical framework of OA can guide program development and testing. Research is needed to test the hypothesis that a program focused on improving the team's occupational adaptation process will yield higher performance than one stressing skill acquisition.

Research Questions

Does an OA-based dementia care training program have a greater effect on the team's performance, as measured by relative mastery and team development, than a traditional skills-based program? How do the team participants perceive their experiences in their respective programs over the nine weeks?

Research Aims

This study aims to compare the effect of the two methods of staff education on the relative mastery and teamwork of dementia care teams in a CCRC to determine if there are differences between the OA-based and traditional skills-based intervention groups in the two outcomes from baseline to the end of the nine-week intervention. Furthermore, due to the complex nature of applying knowledge in dementia care practice for teams, the

study will include an embedded qualitative component to describe participants' experiences within their respective nine-week programs. Embedding a qualitative component will provide a deeper understanding of participant views within the context of the larger quasi-experimental design. Three specific aims exist for this project. The first is to compare impact of the OA-based program with the traditional skills-based program on the team's relative mastery over challenges in the dementia care environment, as measured by the Relative Mastery Measurement Scale (RMMS). Similarly, the second aim is to compare the program's impact on team development, as measured by Team Development Measure (TDM). The third aim is to explore participants' perspectives on differences between the OA-based intervention and standard skills-based program, using qualitative methods. That is to say, the study combines quantitative data (*Does the OA-based intervention work?*) with in-depth, qualitative data (*How and why were the results such?*). The results of this study will help to determine whether an OA-based programmatic intervention, when used by occupational therapists in consultation with CCRCs, is useful in training dementia care teams.

CHAPTER III

METHODOLOGY

Study Design

Embedded Mixed-Methods Model Within a Quasi-Experiment

The study employed a quasi-experimental design using an embedded model of mixed methods to better understand the intervention program's impact through quantitative and qualitative data (Creswell, & Plano Clark, 2017). As Creswell (2014) explained, whenever considering mixed-methods procedures, the investigator begins with the assumption that closed-ended (quantitative) and open-ended (qualitative) data provide different information. Additionally, the investigator assumes that each type of data has both limitations and strengths, and that a combination of data will develop a more complete understanding of research issues and results than either method could accomplish alone, while minimizing limitations. Therefore, by definition, a mixed-methods model involves the collection and analysis of both quantitative (closed-ended) and qualitative (open-ended) data in response to hypotheses and research questions (Creswell, 2014).

There is rationale and value in using mixed methods for this dissertation research. At a *general level*, use of both methods strengthens the study by drawing on the advantages of each, while simultaneously minimizing their limitations (Creswell, 2014). At a *practical level*, mixed methods are an ideal approach, because this study had access to both quantitative and qualitative data regarding aspects of dementia care teams'

relative mastery and teamwork. At a *procedural level*, the distinct model of embedded mixed methods lends a more complete understanding of the quasi-experimental results by incorporating the perspectives of individuals and explaining an overall view of the integrated data sets.

Quasi-experimental Research and Randomization

At the heart of this mixed-methods study was a quasi-experiment to determine if a blended team of employees in a CCRC who completed an OA-based training program scored significantly higher on the RMMS and TDM compared to a group of employees who completed a skills-based program. In the quantitative component of the study, a two-group, pretest-midtest-posttest procedure (Edmonds & Kennedy, 2016) was used to investigate the research hypotheses with two groups:

- *Intervention group*: employees attending the OA-based educational program
- *Control group*: employees attending the traditional, lecture-style educational program

This study is considered quasi-experimental because randomization, a necessary aspect of a true experiment (Creswell, 2014), was not possible for two reasons. First, the two groups were formed based on participants' availability, with careful attention to the blend of participants in each group. For example, both groups included a variety of positions from the same organization (an interdisciplinary blend of frontline caregivers and support staff, and employees from different levels of care). However, to isolate the intervention group from the control group, additional consideration was given to whether participants of different groups regularly encountered one another in their daily work.

Therefore, creating two equally blended, isolated teams involved a process of careful assignment that cannot control for all possible pre-existing conditions within these two groups. The second reason for a quasi-experimental design in this study was a common consideration for health care scientists: a true control group was not possible, because it would be unethical to withhold any type of education from one group (Creswell, 2014). This study avoided the ethical problem in a customary way by comparing a new type of program to a traditional program. To ensure a fair comparison of the two groups, the intervention and control arms of the study were randomized; such studies are known as parallel-arm, group-randomized trials (GRT; also called cluster-randomized trials) (Pals,

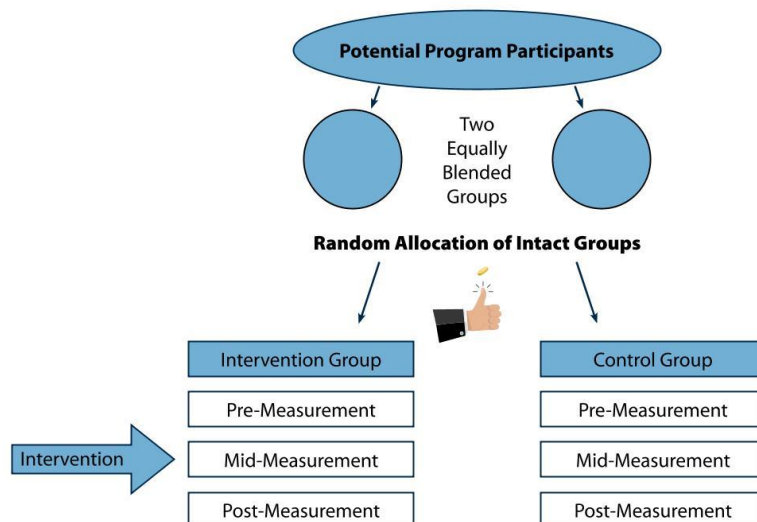


Figure 2. Logic of random allocation with intact groups. First, two equally blended groups are created from the pool of potential participants. Once two groups are established, then a coin is flipped to assign the groups to intervention and control arms of the study.

et al., 2008; Turner, Li, Gallis, Prague, & Murray, 2017). Figure 2 illustrates the approach to randomly assign two intact groups.

Embedding a Qualitative Component

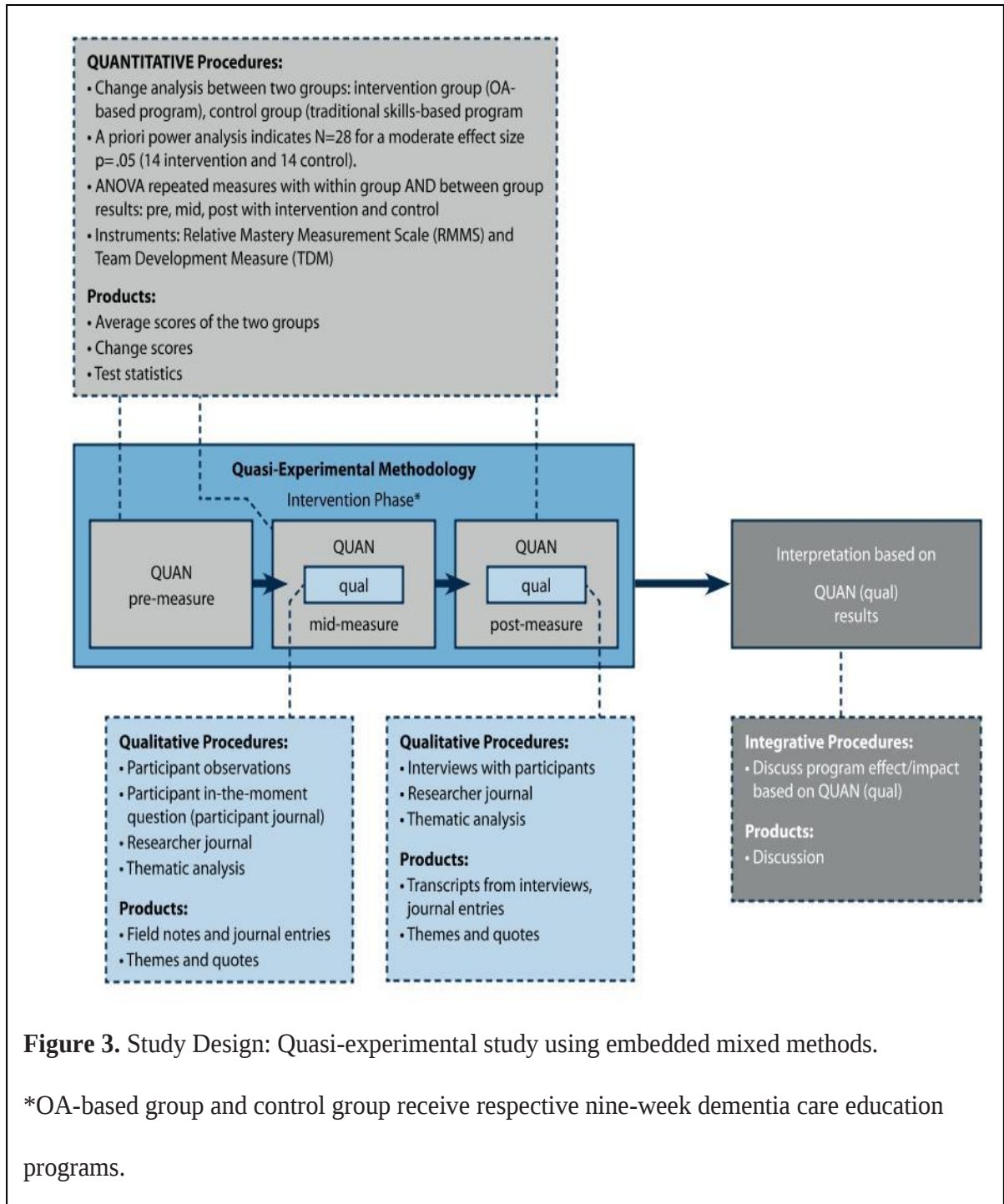
Characteristic of an embedded mixed-methods design is a qualitative component, which is nested within and generally plays a supportive role in the trial (Plano-Clark et al., 2013). A growing number of published studies in health and social sciences have employed “embedded” or “nested” qualitative methods within a quasi-experiment (Chaoul, Leal, Engebretson, & Cohen, 2014; Hasan, 2016; Leal et al., 2018; Ross et al., 2013). Popularity of embedded mixed methods research is due to the limitations of quantitative methods and the benefits of a rich, in-depth exploration of participants’ experiences while engaging in an intervention (Plano-Clark et al., 2013). In this study, a qualitative component was included to examine the experiences of participants engaged in the two programs, thereby enhancing understanding of the quasi-experiment’s results. Previous critiques of embedded mixed methods exist. Song, Sandelowski, and Happ (2010) referred to embedded qualitative components as “too often not planned and tacked on without too much demonstrable thought” (p. 729). In an effort to address these critiques, this study followed Plano-Clark et al.’s (2013) recommendations to gather an extensive qualitative database and embed the qualitative component throughout all aspects of the study (research questions, data collection, and in-depth interpretive analysis). Specifics regarding qualitative data collection, instruments, and analysis are addressed in more detail in subsequent sections.

Factors Influencing the Choice of Design

According to Creswell (2014), the embedded mixed model is a popular design in health sciences when a study aims to test an intervention program in an applied setting, as in the CCRC. Following Creswell's (2014) process for choosing among mixed method designs, several factors influenced the selection of embedded mixed methods over other mixed-methods designs (e.g., convergent parallel, explanatory sequential, exploratory sequential, transformative, or multi-phase). Primarily, the expected outcome of this research was a deeper understanding of the intervention process, participants' experience of it, and why it was effective or not within the context of a quasi-experiment—pointing to the value of an embedded model over other mixed-methods strategies.

In addition to the intent of the procedures, three practical considerations outlined by Creswell (2014) influenced the design choice. First, the term *embedded* indicates how the data sets are used together. That is to say, quantitative and qualitative data sets can be merged, connected, or embedded. In embedding, one data set—qualitative data in this case—is embedded within the larger experimental design. In this study, the qualitative data was collected independently of the experiment and used to support the experiment. This stands in contrast to studies that either merge the two databases into a joint display or connect the two databases sequentially with one building on the other (Creswell, 2014). The next factor influencing the choice of embedded mixed methods in this study was the timing of the data collection. Specifically, within the quasi-experiment illustrated in Figure 3, quantitative data was collected at three times (pre-measurement, mid-measurement, and post-measurement). Qualitative data collection occurred *concurrently*

during and immediately after the experiment to explore participants' experience of relative mastery and teamwork and the effects of the intervention program (Curry et al.,



2013). Figure 3 illustrates the quasi-experimental study design with embedded mixed methods, highlighting the specific tests/procedures for each data set and the timing for collecting each type of data.

Finally, embedded mixed methods was chosen due to the primary emphasis of the quantitative data more than the qualitative data (Creswell, 2014, Plano-Clark et al., 2013). In this study, the qualitative data is secondary and is used to deepen the understanding of the quantitative results. These data are mixed at the level of (1) data collection—concurrent; (2) data analysis—comparing the quantitative and qualitative data sets; and (3) data interpretation—comparing the results of the quantitative analysis to the qualitative findings (Plano-Clark et al., 2013; Leal et al., 2018).

Setting

The intervention was conducted at Twin Lakes Retirement Community, a CCRC situated in a rural county of North Carolina. The organization served residents across all levels of care, many of whom have or will have some form of dementia. At the time of the study, the CCRC employed 390 people in a wide array of departments including nursing, therapy, dining services, facility maintenance, staff development, administration, and volunteer services, among others. In this setting, all employees were either directly or indirectly involved in the care for residents with dementia. The study setting was the same site where the OA-based program was developed. The study was conducted over nine weeks during the fall and winter months, during which time participating employees attended weekly educational sessions, and the program advisory committee met twice.

Participants

There were two groups of participants in this study: 1) CCRC employees or “direct participants” and 2) members of the Learning Circle Advisory Committee (a.k.a. “advisory committee members” or “advisory committee”). The role of each group was considered separately in an effort to distinguish the group’s makeup, what each group did, and how each group contributed to the data in this study.

Direct Participants

Direct participants are employees of the CCRC who comprised the intervention and control arms of the quasi-experiment. Direct participants ranged in work roles including but not limited to direct care staff, environmental services, and administrators. While the study population was all employees of the CCRC, the study sample was limited to employees willing to attend nine weekly training sessions who had no pre-planned vacations/time off. The sample was further limited by the selection process to create two intact, equally blended groups of employees in order to evaluate the group intervention. Employees in both the OA-based and skills-based groups received regular wages while participating. Participants’ other work duties were covered during the study time. Participation in either group fulfilled credits for on-the-job training required by the organization.

Sample size calculation. A priori power analysis was done to determine the number of direct participants needed to detect a significant interaction between the time variable and group variable. An adequate sample would be $N = 28$ for a medium (.06) effect size, $p = .05$ for this two-group, quasi-experimental design to achieve 0.80 power

to detect a difference in the two groups' means. Based on the statistical analysis, expected attrition, as well as what was deemed feasible within the available timeframe and resources, I initially recruited 30 direct participants. Ultimately, one employee from each group was unable to begin the program, both due to a job change after the recruitment process, so the study proceeded with the necessary 28 direct participants ($N = 28$), with 14 assigned to each group.

Eligibility criteria. The inclusion criteria for direct participants were: employee of Twin Lakes Community whose work impacted, directly or indirectly, residents living with dementia; willingness to attend a 90-minute educational session every week for nine weeks; ability to understand and speak basic English; and ability to understand and complete self-report questionnaires with minimal assistance. Exclusion criteria for direct participants were: inability to attend regular weekly sessions due to other work commitments or planned vacation and membership on the advisory committee. Since this was a study of blended teams, and I intended to include as many types of employees as possible, no exclusion was made based on an employee's title, position in the organization, time of hire, or years of experience in dementia care.

Creating equally blended groups. Direct participant characteristics used for group assignment included job title, work department, age, and gender. When selecting direct participants for the two groups, I used the descriptive information from the list of volunteers to first verify the eligibility against the inclusion criteria and arranged two equally blended groups of employees, before subsequently confirming the availability and registering participants in the study. Registration entailed notifying employees'

managers of participation without group assignment, so that the managers could arrange coverage for the employee's absence during the scheduled program times.

Allocation of groups to study arms. Once two equally blended groups of employees were confirmed and registered, I flipped a coin (randomization) to determine which group would receive the traditional program and which would receive the intervention program. Finally, direct participants received a calendar of events with dates, times, and locations of their educational sessions according to their respective programs.

Subset of direct participants for interviews. A subset of 10 direct participants (five intervention and five control) was interviewed following the last educational session (post-intervention). I recruited interviewees during Week Eight of the program by distributing a request to all direct participants describing the purpose, process, and timeframe of the follow-up interviews. Interested volunteers indicated their willingness to participate in the interview by emailing or speaking directly to me by week nine. The main selection criteria were the participants' availability and interest to share further insights about their experiences in their respective programs. Since more than five participants from the same group volunteered for the interview, I also considered the employees' job roles in an effort to represent a balance of perspectives in the interviews. The goal was to obtain a range of interviews deemed rich in information to saturate the data (Lambert & Lambert, 2012). Participants not interviewed were given frequent opportunities to share their experiences in regular sessions throughout the program.

Advisory Committee

Committee members as key informants. Throughout the development of the OA-based program, seven advisory committee members (a group of five organizational leaders and two community partners, excluding myself) guided the administration of the program. Therefore, during this study, the same seven committee members contributed important information about the development of the program from preliminary to current program design, differences between the OA-based program and traditional skills-based approach, and contextually relevant aspects of the environment at the CCRC. No committee members attended the educational programs themselves, and the committee submitted no quantitative data in this study. Instead, as key informants, advisory committee members met twice during the data collection period. Conversations in the two committee meetings informed only the qualitative component of this study. I recorded and transcribed discussion and made observation notes following both committee meetings during which committee members supplied important insights regarding the logistics and feasibility of the intervention program, general impressions of the program's impact on dementia care team performance, and possible broad implications for the organization. The committee's comments were both part of the data and reflections of the data. In that way, the committee's perceptions of the two programs help to answer Research Question #2. Participation on the advisory committee remained voluntary, and committee members received no compensation for their involvement.

Eligibility criteria. In addition to the 28 direct participants, I recruited seven advisory committee members willing and available to participate as key informants.

Inclusion criteria for these participants were: membership on the committee; willingness to attend at least one of two scheduled 90-minute meetings of the advisory committee; and ability to understand and speak basic English. Committee members were excluded if they were unable to attend at least one of the advisory committee meetings.

Recruitment

Written informed consent was obtained for this study prior to beginning data collection in accordance with the Institutional Review Board (IRB) at Texas Woman's University. Once the IRB approval letter was on file, all direct participants and advisory committee members received a letter outlining information about the study and explaining that participation is voluntary and would in no way affect employees' performance evaluation or employment status or members' position on the committee (see Participant Recruitment Letter Appendix C). Employees and committee members who were interested in participating returned the recruitment letter directly to me in a sealed envelope. On the form, volunteers included their contact information (email and phone number) along with other descriptive information such as job title, department, age, gender, work hours, and whether or not they served on the advisory committee.

Delivery of the Intervention/Program Administration

During the nine-week data collection period, participants receiving the intervention program attended weekly 90-minute sessions of The Learning Circle facilitated by me. Concurrently, participants in the control group watched weekly 60-minute segments of dementia care training films followed by 30-minute question and answer periods, facilitated as usual by a social worker in the organization. The film

selection included the 3-part series *Dementia Care for America's Heroes*, which I produced in partnership with veterans' organizations and a film titled *Dealing with Difficult Behaviors* produced by Teepa Snow, OTR/L, FAOTA. The total number of hours in instructive time was the same for both programs. I facilitated pre-, mid-, and post-assessments for both groups. Refer to Figure 4 for an overview of the project timeline from proposal to final reports.

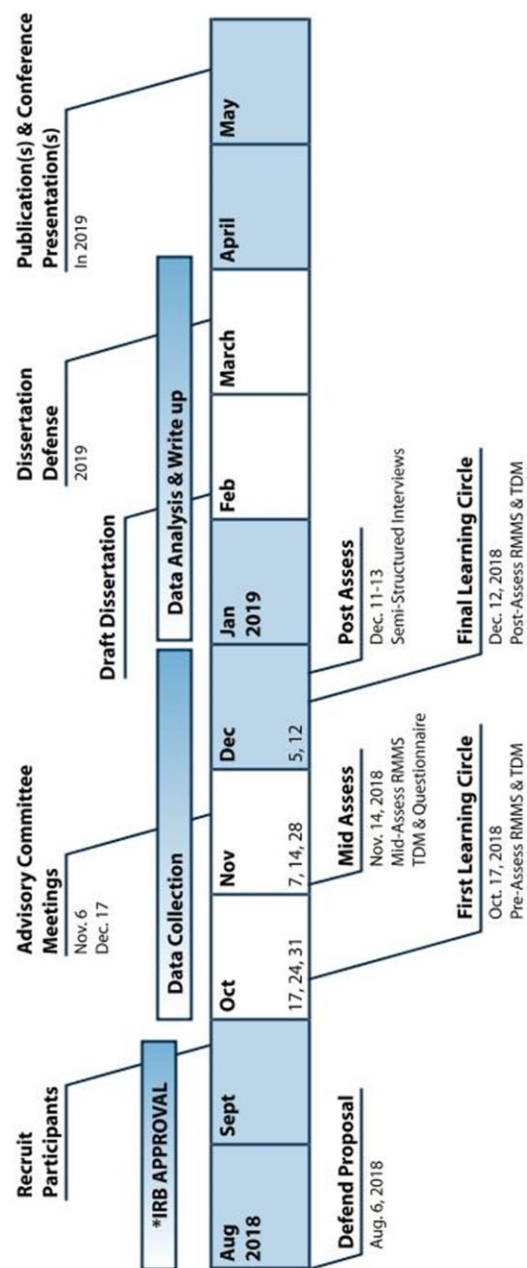


Figure 4. Project timeline.

Quantitative Data Collection and Instruments

The mixed-methods study followed a quasi-experimental design in primacy, so quantitative data indicated the effectiveness of the intervention program on outcomes of relative mastery and team development compared to the traditional skills-based program. Quantitative data was collected with both the OA-based and skills-based groups at three time periods: baseline/pre-intervention (Week One), mid-intervention (Week Five), and post-intervention (Week Nine). Two instruments were used to assess different domains of dementia care performance: relative mastery and teamwork.

Relative Mastery Measurement Scale

Relative mastery was assessed with the RMMS, a clinically practical and psychometrically sound measure of a central construct of OA theory (George et al., 2004). The RMMS assesses individuals' perceptions of their effectiveness, efficiency, and satisfaction regarding their responses to an occupational challenge. The original version of the tool was evaluated for content validity using the ratings of five experts on the theoretical framework of OA. Lu's Coefficient of Agreement among the experts for 12 items on the RMMS was an acceptable .95 (George et al., 2004). George et al. used Rasch analysis to evaluate the construct validity of the RMMS. Based on ordering of item difficulty, goodness-of-fit statistics, factor analysis, and point-bilateral correlations, 11 out of 12 items on the original instrument formed a one-dimensional scale representing the construct of relative mastery (George et al., 2004). Subsequently, the authors further developed the tool to address the fit of items and refine the scoring procedures. The latest version of the tool to date (see Appendix A) includes six items, self-rated with a five-

point Likert scale ranging from -2 (poor) to +2 (excellent) (George-Paschal & Krusen, 2017). The 2017 revised version used in this study also includes three open-ended questions to gather more information about the respondents' performance and insights regarding their self-ratings and possible strategies for improvement. Finally, the tool provides space to visually plot effectiveness, efficiency, and satisfaction scores—as well as total relative mastery scores over three evaluation periods (George-Paschal & Krusen, 2017).

Team Development Measure

Teamwork was evaluated at the same three intervals using the TDM (see Appendix B), a self-assessment of four subdomains of team collaboration: cohesion, communication, roles and goals, and team primacy (Stock et al., 2013). The TDM uses a 31-item, self-rated, four-point agreement scale ranging from *strongly disagree* (1) to *strongly agree* (4). Stock et al. (2013) used factor analysis to demonstrate that the items on the test were a good fit (Standardized Root Mean Square Residual = .05) for a four-factor model. Using Cronbach's alpha, the test's internal consistency reliability was 0.97, indicating the test was a good measure of team development. Per authors' instructions, an overall score of team development can be calculated by converting the raw scores to a 0–100 range using a Rasch model conversion.

Quantitative Data Analyses

All data were entered into IBM SPSS Statistics for Windows, version 25 (IBM Corp, 2017). I analyzed and interpreted the quantitative data gathered on RRMS and TDM in the following manner.

1. First, the number of participants who did and did not complete the instruments at the three measurement times were recorded as numbers and percentages of respondents and non-respondents (Creswell, 2014). Given there were no missing responses, there was no need to check for response bias.
2. Descriptive statistics for relative mastery (RMMS) and team development (TDM) data included mean, standard deviations, and range of scores for these variables. On both instruments, an overall group score was defined as the mean of the individual scores.
3. Comparison of the two groups in terms of baseline measures (relative mastery and team development) used *t*-tests (Creswell, 2014). Change scores from baseline (pre) to final (post) assessment were calculated to reveal any recurrent patterns within the data sets (Anglim, 2014).
4. A 3(time)x2(group) ANOVA, or mixed ANOVA, was used to determine whether any change in relative mastery and/or team development (the dependent variables) was the result of an interaction between the "time" (the within-subjects factor, consisting of three time points) and the "group" (the "between-subjects" factor, consisting of two programs). Using SPSS, I checked all assumptions (e.g., Levene's test for homogeneity of variance, Mauchly's test of sphericity) required

for a mixed ANOVA to give a valid result (Lund Research Ltd, 2018). Post hoc tests of main effects of group or time were unnecessary due to the significant interaction between the variables (Creswell, 2014; Lund Research Ltd, 2018).

Qualitative Data Collection and Instruments

The qualitative component of this study followed a “qualitative descriptive” approach (Lambert & Lambert, 2012) throughout data collection and analysis. A variety of qualitative data was used for an in-depth examination of participants’ experiences during their respective programs and the two advisory committee meetings (Lambert & Lambert, 2012). Qualitative data included direct participants’ behaviors, thoughts, and feelings concerning their roles as dementia care team members, the challenges related to applying knowledge in the dementia care environment with teamwork, and novel and subtle intervention effects. From advisory committee members, qualitative data (observations during two committee meetings) focused on capturing members’ experiences of planning and administering the OA-based program with attention to considerations of feasibility and any organization-level change brought on by the intervention program. Generally speaking, the open-ended design of qualitative data collection allows participants to relate what they find significant about their experience from *their points of view* (Patton, 2015). Specifically, qualitative data was gathered in this study through five means: researcher journal, mid-intervention direct participant journals, participant observations, open-ended responses on RMMS, and post-intervention semi-structured interviews.

Researcher's Journal

Sometimes referred to as “field notes,” “field journal,” or “scratch notes,” my journal served as a reflective tool and provided a means of recording needed contextual information throughout the study (Phillippi & Lauderdale, 2018). I had prolonged and varied field experiences in this study, and my journal served as a record of how the study unfolded over time, contributing to the credibility and thus trustworthiness of the research findings. Following Phillippi and Lauderdale’s (2018) guide to field notes, I included notes detailing the overall setting to provide rich context of the study itself. Some aspects of the context were recorded immediately, while other aspects required purposeful investigation. Overall, a rich description of the study environment deepens the understanding of participants’ lives, contextualizing their responses regarding particular phenomena (Phillippi & Lauderdale, 2018). In addition to notes about the context, my journal included notes on the participants, meetings with research partners and consultants, and critical reflections.

Participants' Journals

During the fifth week of the program (mid-intervention), direct participants provided their reflections to three open-ended questions on their experiences in their respective programs thus far (see Appendix H). The open-ended questions (see Table 3) served as each participant’s journal in this study. Responses indicated how participants in the intervention group were aligning with concepts of OA and if elements of either program were affecting employees’ work.

Table 3

List of Participant Questions Mid-Intervention

Q1: Describe some things you are learning so far in the program.
Q2: Based on your experience so far, what about the program is helpful in your work?
Q3: Based on your experience so far, what are some things you are still struggling to apply?

Participant Observation

Participant observation connects the researcher to others' experiences and reveals, through emersion and participation, the *hows* and *whys* of human behavior in a particular situation (Guest, Namey, & Mitchel, 2013). Participant observations of both direct participants and advisory committee members included detailed information (*who, what, when, where, and how*) during each program session and committee meeting. During every program session, I observed direct participants with close attention to their words and behaviors that would indicate elements of team development (e.g., behavioral examples of cohesion, communication, roles and goals, and/or team primacy).

In the first week of data collection, it became apparent that group discussion in the intervention group was much more dynamic than that in the control group. The back-and-forth conversations were important elements of the qualitative data, and I needed to capture participants' exact words. In Week Two, I switched my note-taking style from occasional jottings to a constant stream of receiving dictation during both groups' sessions. I believed that how participants responded to each other was important, so sometimes I asked participants to repeat a question or comment or pause in their response to another team member so that I may capture the exact words in the dictation. I also

noted what the facilitator said during the meetings as exactly as possible. My own system of shorthand made it easier to capture this level of detail (e.g., a smiley face indicated participants were laughing). While not as reliable as verbatim transcripts, the subjective quotes recorded in participant observation notes provide important examples of participants' communication in their own words. Additionally, attention was on direct participants' behaviors as they aligned with OA constructs (e.g., behavioral examples of sharing information about a challenging case, collaborating to analyze past responses and generate new ideas, and/or cooperating to implement adaptive occupational responses). After each session, I recorded reflections of their behaviors and potential contributing factors. Participant observations were also recorded at the conclusion of two advisory committee meetings (one mid-intervention and one post-intervention) and added to the verbatim transcripts of those two meetings.

Open-ended Responses on RMMS

Beyond the quantitative scores on the RMMS (Appendix A), three open-ended items provided additional qualitative data at each measurement period (pre, mid, and post). First, participants were asked to describe a recent example of a time they applied dementia care knowledge to a real-world challenge. Secondly, after completing the assessment, they were to think about their results, reflect on their ratings for each aspect of Relative Mastery, and consider what they learned. The third question directed the participants' attention to any area they rated lower, to consider what they might do differently the next time they approach the occupational challenge (George-Paschal & Krusen, 2017).

Follow-up Interviews

Finally, a subset of 10 direct participants (five from intervention group and five from control group) was interviewed once during the final week of the program (post-intervention). Participants from intervention and control groups were asked the same broad, open-ended questions, and I enlisted an outside interviewer so as not to introduce bias into the collection of qualitative data (Plano-Clark et al., 2013). The outside interviewer was selected for her extensive knowledge and experience in conducting semi-structured qualitative interviews across a wide range of subjects and her familiarity with the Occupational Adaptation theoretical framework. The semi-structured interviews allowed for deeper insights into the perceived nature of the two programs, the lived experience of dementia caregiving on a team, and the challenges of implementing knowledge in practice, beyond the information gathered on other quantitative instruments. For the interview guide (see Appendix I), narrative questions aligned with the aims of the qualitative component of this study and were broad and explanatory, focusing on capturing participants' insights about *the process* of applying knowledge in practice and the *design features* of each program more than any new piece of knowledge or single challenge. The list of semi-structured interview questions on the post-intervention interview guide (see Table 6) was also meant to highlight changes in the participants' experiences over the course of their respective programs. During the interviews, the interviewer probed the participants' responses for depth and detail to deepen understanding and meaning. Interviews were recorded for transcription. To ensure a quality recording, we used two tested digital recorders.

Table 4

List of Semi-Structured Interview Questions Post-Intervention

-
- Q1: Tell me about the training program you completed.
Q2: What was a typical day in the program like for you?
Q3: Of the things you learned, what did you find easy to apply in your work?
- Can you tell me a story or example of an intervention you applied outside of the classroom?
 - How did others work with you to make that story a success?
- Q4: Pretend you're explaining the role of a dementia care team to a friend, how would you explain the difference between *knowing* about dementia care and *doing dementia care* as a team?
- What were some of the challenges you experienced?
 - What was challenging about applying what you learned outside the classroom?
 - How did that change (or not) over the course of the program?
- Q5: What were some of the *strategies* you used to apply your knowledge in your work?
Q6: Describe your interactions with others during training session in your program.
- Now describe interactions between the facilitator and members of your program.
- Q7: Overall, how did the program influence your work?
Q8: Is there anything else you would like to tell me?
-

Qualitative Data Analyses

Less interpretive than phenomenology, grounded theory, or ethnography, analysis in qualitative descriptive research aimed to produce a comprehensive summary, in everyday terms, of specific events experienced by individuals or groups (Lambert & Lambert, 2012). The study yielded a substantial qualitative database, and the product of the qualitative analysis was a straightforward accounting of the facts of the experience organized into themes (Lambert & Lambert, 2012; Sandelowski, 2000). The accounting of the experience, in this case, focused on describing the distinct nature of both programs and their impact on participants' actions, behaviors, and feelings—from the participants' perspectives. Structuring the process of managing and analyzing qualitative data lent

trustworthiness to the results and confidence that the data analysis accurately captured the story (Dickie, 2003). Toward that end, a series of analytical steps was employed. At the same time, I intended for data analysis to be an iterative and generative process, not overly linear or prescriptive (Patton, 2015), so I frequently re-read the data set and conferred with peers to capture additional codes or alternate meanings. The following steps generally guided qualitative data analysis.

Data Preparation

To manage the data, I first transcribed the recorded committee meetings and interviews verbatim. Observation notes including receiving dictation taken during each program session and reflections afterwards were organized by program and session number to create a complete collection of events in each program. Once all qualitative data were compiled in written form, I “cleaned” the data by polishing the format, assigning pseudonyms, removing any identifiable data, and making minor punctuation edits for readability (Creswell, 2014; Dickie, 2003). I uploaded transcripts into NVIVO software (QSR International, 2012) for organization and analysis.

Familiarization

Familiarization involves immersing oneself in the data (Creswell, 2014; Dickie, 2003; Smith & Firth, 2011). Initially, I read the data set without labeling. This allowed me to “see” the qualitative data wholly and tune into what the participants were saying and doing. Then, in subsequent reads, I asked questions of the data and made detailed memos in NVIVO. I read and re-read the whole qualitative data set to get a “big picture” sense of what happened in the story. During the familiarization stage, memos served to

highlight key ideas, notate recurring incidences, and produce an overview of the data set. Seeing the big picture from the start allowed me to build a conceptual structure aligned with the research questions and overall temporal flow of the study. This early stage facilitated the formulating of ideas about the qualitative data and forecast where more complex relationships might be. Convenient and organized data storage in NVIVO software made it easier to retrieve files and quickly log memos.

Coding

Coding represents the operations by which data are taken apart, conceptualized, and put back together in new ways (Patton, 2015; Smith & Firth, 2011). Patton (2015) explained, open coding fractures the data and allows the researcher to identify categories, subcategories, their properties, and dimensional aspects. Following Lambert and Lambert's (2012) qualitative descriptive approach, the codes in this study were generated from the data, not a pre-existing set of codes. I made a list of concepts generated in the previous stages. Then, a second coder and I transformed the data first by placing conceptual labels on discrete happenings, events, and other instances of phenomena, known as open coding (Patton, 2015). During this stage, my coding partner and I worked separately on open coding the data set. Next, we collaborated to identify connections between categories and subcategories of codes beyond just properties and dimensions, known as axial coding (Patton, 2015). For example, when my coding partner and I compared one category against another, we asked how one category might be related to another. When considering relationships among the categories, we returned to the data to look for evidence, incidents, and events that supported or refuted the relationship (Patton,

2015). We considered evidence in support of a relationship equally important as evidence to the contrary. Contradictions in the data added variation and depth of understanding by qualifying our original thoughts about relationships or patterns in the data (Patton, 2015).

Interpretation

The final step in qualitative analysis is to generate meaning from the overall data set (Patton, 2015; Smith & Firth, 2011). In this stage, the data were rearranged into charts organized thematically according to themes and subthemes that emerged from the data, answering the two research questions in Specific Aim #3. Themes both within and across individual respondents and the group as a whole were compared. Finally, an overarching theme or pattern was determined for each program by exploring relationships between themes laid out in the charts. Lambert and Lambert's (2012) reminder about the intention of qualitative descriptive research is helpful when thinking about this study's embedded qualitative component: the interpretive phase of analysis produces a straightforward description of a phenomenon, not a phenomenological or grounded theory analysis. Keeping in mind the two research questions and intention of qualitative descriptive research ultimately allowed my coding partner and me to sift through the large qualitative data set to determine a) what took place during the two programs and b) how stakeholders felt about the experience.

Mixed-Methods Analyses

In mixed methods research, the purpose of the mixed analysis is to compare and contrast the findings, and by doing so, to realize the study's quantitative and qualitative aims better than either type of research could do alone (Creswell & Plano-Clark, 2017).

The two analytical techniques chosen for merging results in this study were informed by Leal et al.'s (2018) mixed analysis in which two analytical techniques (between-groups and between-methods) were performed to assess whether findings from the two databases converged or diverged, and in cases where divergence was found, to further explore exceptional cases (Creswell & Plano-Clark, 2017). Unlike Leal et al.'s (2018) study, this study does not transform the qualitative themes into numbers (quantify qualitative data), but this study does use two different mixed analyses for a fully integrated view of the findings.

Comparative Analysis Between Groups

The first mixed analysis involved interpretation or inference (Creswell & Plano-Clark, 2017)—that is, comparing results of the independent analyses (quantitative analysis compared with qualitative analysis) to assess if findings from the two analyses converge or diverge (Creswell & Plano-Clark, 2017). Two comparisons explored outcome differences between groups (how groups compared on relative mastery and team development). The qualitative findings of the OA-based and control groups were compared by reviewing participants' journals, open-ended responses to survey questions, observation notes, and follow-up interviews according to group—looking for recurrent themes within each group first and then comparing these findings between groups (Creswell, 2014). The qualitative findings were then compared to the quantitative outcomes between groups to further explain the results of the experiment—the *how* and *why* behind the two groups' scores. The purpose of the between-group mixed analysis is

to understand the effect of the OA-based program compared to the traditional skills-based program with both types of data taken into consideration.

Comparative Analysis Between Quantitative and Qualitative Data Sets

The second comparison is between the data sets themselves. The second mixed analysis involved each participant's quantitative profile, comparing data points from the three measurement times and examining changes in scores across time on the selected quantitative measures of relative mastery (RMMS) and team development (TDM). The two quantitative instruments were purposely selected, because they reveal participants' perceptions as also reflected in their qualitative narratives. Thus, participants' profiles were compared directly with their narrative writings, using a joint display table. The purpose of the between-data set mixed analysis was to reveal and explain congruent and divergent patterns between data sets (Plano-Clark et al., 2013). The complementary nature of the data collection tools facilitated comparison and combination of these data analyses across the two methods and across time to clarify findings. Did the participants' comments trend like their survey scores or did they seem to say something different than their self-ratings? The comparison of two types of data was performed with all 28 direct participants (10 of whom had additional qualitative data from interviews). Results of this analysis yielded group patterns and individual cases selected as contradictions or exemplars of the group patterns (Plano-Clark et al., 2013).

Trustworthiness

The above-mentioned data analysis method was selected, because it facilitates a comprehensive review of collected narratives, is driven by participants' original accounts

and reflections, and provides a rigorous systematic analysis of the two programs. A clear and transparent audit trail was maintained, enhancing the rigor and trustworthiness of the mixed methods study (Smith & Firth, 2011). Partnerships during the data analysis phase served to enhance the validity and credibility including a classmate who served as a coding partner and my mentor who provided peer debriefing. Additional steps taken to check for the accuracy of the findings are listed in Table 5.

Table 5

Strategies used for Trustworthiness.

1. Use of an audit trail	Data collection and analysis progressed through systematic, visible, and interlinked stages— providing transparency in data collection and analysis. This is a strategy to address transparency and dependability (Marshall & Rossman, 2006).
2. Use of data triangulation	Using multiple data sources to build a coherent justification for themes is a strategy to increase the validity of the study. In this process, themes were established by converging multiple sources of participants’ perspectives gathered at multiple time points using a variety of qualitative instruments (Creswell, 2014).
3. Use of methodological triangulation	Quantitative and qualitative methods were employed, because the results from the different methods could serve to validate or elucidate each other. Benefits of mixing both types of data include combining the strengths of each method to develop a stronger understanding of the research and overcoming the biases resulting from reporting either singular perspective (Creswell, 2014).
4. Use of researcher triangulation	After the researcher’s familiarization, identification of codes, and indexing of the data, a coding partner (classmate) independently reviewed codes and themes for

	fittingness, arriving at congruence between coders. My coding partner and I discussed themes to assure consistency and accuracy between integration of data and interpretations (Creswell, 2014).
5. Use of peer debriefing	The researcher's mentor reviewed and asked questions of the qualitative component "to keep the researcher honest" and so that the account would resonate with a broad audience. Collaboration in these ways is a strategy to add validity and credibility to the findings (Creswell, 2014; Lincoln & Guba, 1986).
6. Use of member checking	Major findings were presented and discussed with key informants (advisory committee members provided expert review of themes and patterns) to double-check assertions were supported by the data and the accounting encompassed a majority of the data. This is a strategy to address accuracy, fairness, and credibility of the analysis (Curtin & Fossey, 2007).
7. Use of rich, thick description	Participants' quotes served to transport readers to the situation and give the analysis an element of shared experiences (Creswell, 2014). Multiple perspectives about a theme were presented, making the results more realistic and richer. Additionally, a detailed description of the study's design and methods clarified what was done. This procedure was employed to add to the validity and transferability of the findings (Lincoln & Guba, 1986).
8. Use of research literature	Results of analyses were compared with existing literature to confirm and expand study findings.
9. Use of catalytic authentication	A final criterion, catalytic authentication (Lincoln & Guba, 1996), emerged throughout the text as it was based on participants' occupational responses in unfolding situations during the study. Lincoln and Guba (1986) explained that inquiry—which involves all stakeholders from the start, honors their input,

grants them decision-making power in program development and evaluation, attempts to empower the less powerful, and results in a collaborative effort—has catalytic authentication and is more likely to bridge the theory-to-practice divide.

Researcher Credibility

In addition to the above list of measures taken to ensure the findings are authentic and accurately reflect the participants' experiences in the study, Creswell (2014) also recommended that researchers clarify the bias that they bring to qualitative research. Patton (2002) explained that the researcher's personal, moral, and professional commitments and relationships, called the hermeneutic context, are essential conditions of the research event that must be considered when interpreting the event. Scrutinizing one's own experiences and their impact on one's own perspective is called reflexivity and leads to a deeper understanding of oneself and the research topic than would result from a detached analysis (Curtin & Fossey, 2007). In this way, research is a shared process with the researcher and study participants co-constructing a new understanding (Primeau, 2003).

The research topic and questions flowed from my long-standing role as consulting occupational therapist and dementia care specialist, and the study setting included some of those prior related experiences. For example, advisory committee members collaborated with me for three years on program development and preliminary rounds of the Learning Circle, which I facilitated. Some participants in both groups previously attended lectures I gave outside of the study setting, although that was unknown to me at

the time of recruitment. My teaching and consulting roles in a wide variety of organizations necessitate meeting blended groups of people, all of whom encountered challenges of dementia care, and provided guidance and support through their most difficult caregiving experiences. This experience of routinely speaking to blended groups who shared common challenges—coupled with my immersion in research literature, particularly literature pertaining to the transactional nature of occupation, learning as social, and the OA theory—left me with a biased view that emphasized caregivers learning from each other and interacting therapeutically to help elicit and support their collaboration. At several points, I found myself cornered with direct questions from control group participants, including: “What should I do in this challenging situation?” I recognized I was tempted to probe the control group for more insights and contextual analysis of the challenge, which I believed were held in the group’s collective knowledge and experience. This process would have exposed the control group to hallmark elements of an OA-based approach. Before subsequent interactions with control group participants, members of the advisory committee and I agreed on the need to continue providing helpful information to those inquisitive participants without contaminating the skills-based program. The advisory committee and I agreed that this was the “standard” approach to giving more information to staff when they had questions.

A second reflexive insight occurred with respect to the control group’s experience. Given my background—20 years of teaching dementia caregivers nationwide—and my preoccupation with getting “theory into action” and “research into practice” to address dementia care problems at a national level, I had developed a view of

learning and adapting that emphasized immediate action. As a result, the initial tendency was to judge the adaptation process on action in a relatively short timeframe—participants should take what they *know* and figure out what to *do* next. My realization that I was naively limiting my view of the temporal context of adaptation, and possibly underappreciating a longer change process happening in the control group, occurred in the first half of the study when control group participants reported surprisingly positive experiences in their skills-based program. Participants said the educational videos, especially the recorded stories told by other caregivers, were of high value. At one point, I found myself questioning one control participant's perceived value of new knowledge and broadened perspective. I initially determined the participant had not fully integrated the new skills from the video into the occupational environment across novel situations, effectively judging the participant's adaptive process as stuck. Instead, the participant explained a new perspective on dementia care communication and her newly realized ability to make a difference in the lives of people living with dementia, which ultimately strengthened her resolve to continue growing in the profession.

Before follow-up interviews, the interviewer and I agreed on the need to be open to the possibility of a positive, time-worthy experience in the skills-based program. This reflexive insight shifted the tone of the follow-up interviews with both groups, allowing the interviewer and me to elicit and remain open to what is good about gaining new knowledge, broadening one's perspective, and engaging in a life-long process of adaptation, in addition to other faster adaptation cycles happening simultaneously. Through the exercise of reflexivity, I was able to better appreciate both the personal and

social processes of adaptation involved in dementia caregiving and recognize the elements of program design that facilitate each.

Overall, in full reflexive disclosure, I participated actively throughout the research project including planning, program development and implementation, and data collection and analysis. Therefore, I think of myself as another research tool and acknowledge I had a significant influence on the development of the study, the programs themselves, and the engagement of the participants (Curtin & Fossey, 2007). With these elements of my own bias in mind, I journaled personal reflections throughout the project as a way of examining those interactions and thoughts, turning those subjective experiences into opportunities to enrich the mixed methods study.

CHAPTER IV

FINDINGS

Participant Demographics

Each group consisted of 14 participants. Of the participants in the intervention group, three missed at least one session due to illness or unexpected travel. All of these participants met with the facilitator for review of the group's discussion and action plan prior to the next session of the Learning Circle. Of the participants in the control group, four missed at least one session due to illness or unexpected travel. All of these participants watched videos in make-up sessions. No participants in either group missed more than two sessions during the program. The demography of the intervention and control groups is presented in Table 6.

Table 6

Demographics of Direct Participants in Intervention and Control Groups

Demographic Variables	Intervention (N = 14)	Control (N = 14)
	n	n
Age (in years)		
20-35	1	3
36-50	5	5
51-70	8	6
Gender		
Female	8	11
Male	6	3
Ethnicity		
African American	2	2
Caucasian	11	12
Hispanic	1	0
Title		
Activity Professional	2	1
Billing Specialist	0	1
CNA	2	2
Dining Services	1	0
Environmental Services	0	1
Homecare Manager	1	0
Housekeeper	2	2
Life Enrichment Coordinator	0	1
Maintenance Worker	2	1
Nurse	1	1

Porter	0	1
Security Guard	0	1
Transporter	1	1
Volunteer Coordinator	0	1
Wellness Director	1	0
Wellness Professional	1	0
Work Area		
Administration	1	1
Adult Daycare	1	1
Assisted Living Facility	2	1
Dementia Care Unit	3	1
Facility Maintenance	2	2
Finance	0	1
Homecare	2	2
Independent Living	0	1
Security	0	1
Skilled Nursing Facility	1	2
Transportation	1	1
Wellness Department	1	0

Quantitative Results

Hypotheses were tested statistically to determine if participants who received the educational program based on Occupational Adaptation achieved greater relative mastery and greater team development than did the participants in the skills-based program. An alpha level of .05 was used to evaluate the level of significance of statistical findings. A

3(time)x2(group) ANOVA was used for analysis of the dependent variables of relative mastery and team development. The assumptions of sphericity and equality of error variances required for ANOVA were met. In addition to the ANOVA, *t*-tests were performed to compare the groups at baseline on the dependent variables of relative mastery and team development. No statistically significant differences were found on these variables at pre-intervention time, which indicates the groups were equal on these variables prior to the intervention (see Table 7).

Table 7

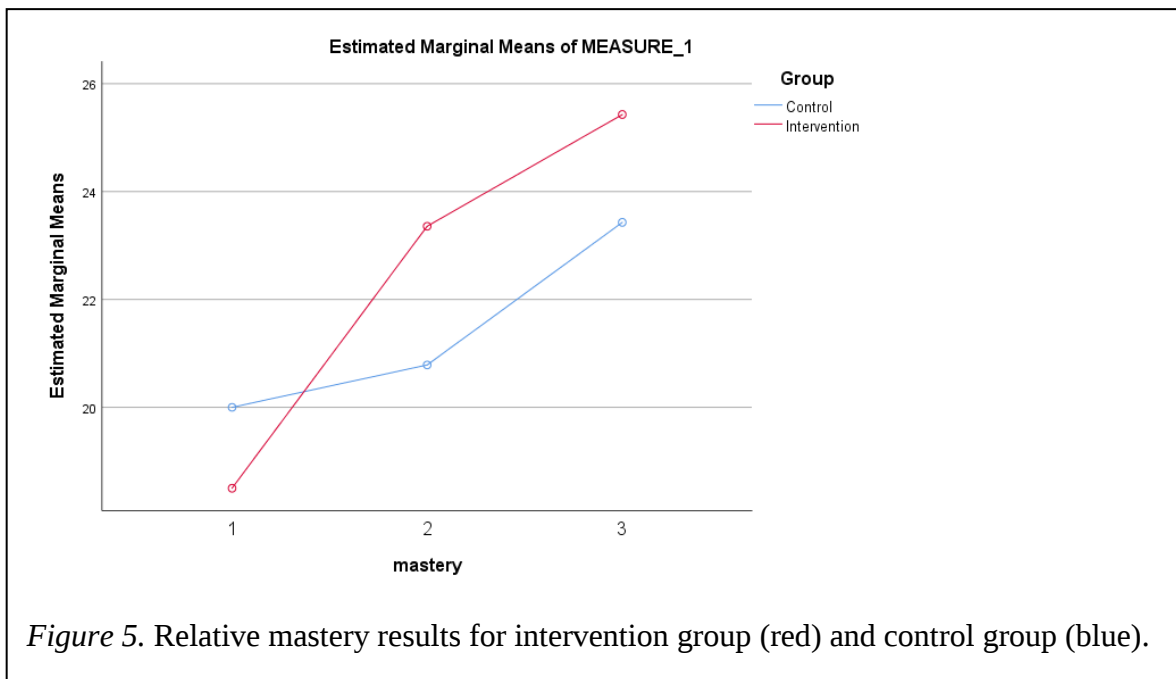
Comparison of Groups at Baseline.

Variable	Group	Mean	<i>SD</i>	<i>t</i>	<i>p</i>
Relative Mastery	Control group	20.0	5.277	.784	.440
	Intervention group	18.5	4.832		
Team Development	Control group	54.86	8.952	-0.353	.727
	Intervention group	55.78	4.061		

Relative Mastery

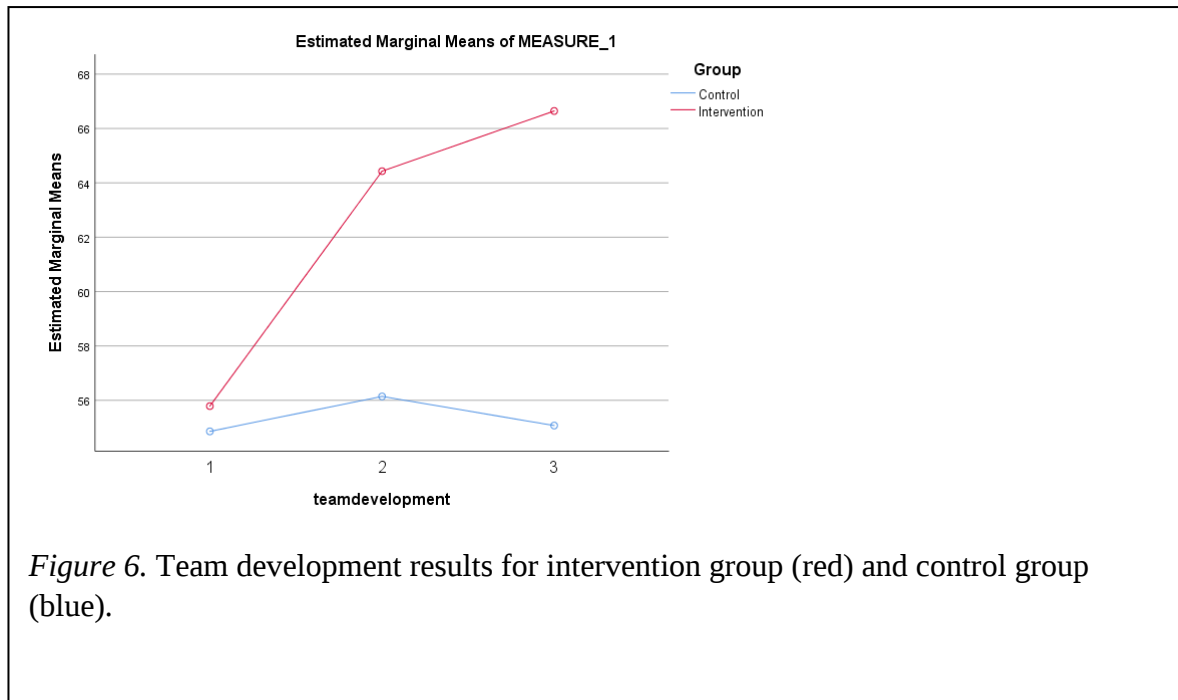
Looking at the graphical representation of the interaction of group by time on the dependent variable relative mastery (see Figure 5), it is apparent that both groups improved in terms of relative mastery. Upon closer look at the tests of with-in subjects effects, regardless of group, the improvement in relative mastery from pre to post was highly significant ($F = 17.54$, $df = 2$, $p < .0001$) with a large effect size (Eta squared = .40). Examination of the data revealed that the group by time interaction (the difference in how the two groups changed across time) also reached statistical significance ($F =$

3.17, $df = 2$, $p = .05$) with a moderate effect size (Eta squared = .11). As expected, this indicates that the OA-based group experienced a significantly greater improvement in relative mastery than that of the control group.



Team Development

At first glance, the graphical representation of the difference in change for team development between the intervention and control groups is less subtle (see Figure 6).



Upon closer inspection of the dependent variable team development, the results of the analysis of the interaction of group by time was highly significant ($F = 8.38$, $df = 2$, $p = .001$) with a large effect size (Eta squared .24). For both of the dependent variables, there was no need to look at only group or time independently, because there were significant differences in how the groups changed over time. Table 8 presents the data output for the interaction of group by time on relative mastery and team development.

Table 8

Interaction of Group by Time.

Variable	Type III Sum of Squares	<i>df</i>	Mean Square	<i>F</i>	Sig.	Partial Eta ²
Relative Mastery	68.024	2	34.012	3.168	.050	.109
Team Development	415.786	2	207.893	8.381	.001	.244

Qualitative Findings

Participants' Actions and Behaviors

Participants in both groups demonstrated observable actions and behaviors during every educational session and described actions taken between sessions. Participants told stories to convey how they were using knowledge gained in the programs and what actions and results, if any, the new knowledge had spurred. Participants' stories included a wide variety of dementia care challenges in both their personal and professional lives as well as individual and group experiences. The timeframe of their challenges ranged from situations that happened from hours to years ago, and they described a wide range of responses to those real-world challenges. Patterns emerged in their actions and behaviors, both during the program session and what they described themselves doing between sessions. It should be noted that behavioral patterns were observed in the context of their stories, so some amount of storytelling is necessary here to show how participants in both programs behaved. Given such a vast array of observations and stories, themes related to participants' actions and behaviors were separated and compared by group to answer the first research question in Specific Aim #3 (What differences, if any, in participants' actions and behaviors exist between the OA-based program and skills-based program?).

Participants' actions and behaviors proceeded in different patterns according to group, so a separate conceptual framework emerged for each. Figure 7 (page 88) summarizes the conceptual framework engaging in a team-centered OA process in dementia care, and Figure 8 (page 114) summarizes the conceptual framework learning

about dementia care. A closer look at themes from the respective frameworks with supporting quotes from direct participants helps to differentiate what participants *did* in the two programs. Figure 7 and Figure 8, when viewed as a pair, illustrate the difference between applying knowledge in practice to *do* dementia care as a team and merely *knowing about* dementia care.

Conceptual Framework: Team-Centered OA Process

The conceptual framework of team-centered OA process evolved from the qualitative analysis as the overarching theme encapsulating participants' collaborative and cooperative actions and behaviors during the three challenging cases. The team-centered OA process is organized into five themes—*unite around a shared challenge, get to the heart of the matter, collaborate on case-specific plans, cooperate to implement with teamwork, and return to the team for ongoing problem solving*—further specified into subthemes and categories (see Figure 7). Theorists who first described an individual's internal OA process clarified two important points, which hold true when the process is viewed as social: a) the process is iterative (the group cycled through multiple times, sometimes doubling back to re-engage an earlier step in the process in order to continue forward with new information), and b) there are multiple cycles happening simultaneously in real life (so while the framework presents one round of the process, the group was observed acting at different steps of the process, at different rates in response to multiple challenges). Throughout the program, the intervention group, as a whole, tapped their collective knowledge and experience (collective adaptive repertoire); planned interventions, which were a culmination of the group's creative ideas; and

implemented the plans in the care environment with teamwork. Their reported experiences of applying knowledge from the program to challenging cases in the CCRC were socially dynamic (new people entered the situation at different times), fluid across time (unpredictable events occurred in the situation, prodding new action), and impactful of the group as a whole (the group changed as a unit—not just a collection of changed individuals; becoming more efficient at the process and handling subsequent cases more easily indicated the group’s adaptive capacity was impacted). The conceptual framework chronicles the group’s actions and behaviors as they respond to dementia care challenges in a team-centered OA process characterized by communication, collaboration, and cooperation.

The common thread running through each theme as the team adapted to the shared challenge was the need to communicate at every step of the process. Rather than blanket every theme with a subtheme, simply put, “communication”—a more detailed description of *how* participants communicated in every subtheme—is presented to deepen the understanding of the team-centered OA process. Therefore, the conceptual framework flows (left to right) from broadly *what* participants did to more detailed description of *how* they did it.

All 14 participants in the intervention group exhibited actions and behaviors representing their engagement in all aspects of the team-centered OA process. Their different challenging cases, however, feature certain participants more than others and highlight different aspects of the team-centered OA process. Therefore, the conceptual framework is explained in its entirety using Case #1 to show the group’s flow through all

steps of the process, but Case #2 and Case #3 are introduced briefly when participants' actions and behaviors better emphasize specific subthemes in those cases. Across all three cases, the team's actions and behaviors aligned with the collaborative process of gathering information and perspectives from around the table, contributing ideas to shape case-specific plans, and cooperating to carry out those plans to handle the case from start to finish with teamwork. The consistency of their actions and behaviors, repeating the process three times, revealed Themes and Subthemes summarized in Figure 7. OA-specific terminology is italicized in Figure 7 to emphasize points where the data align with the theoretical framework.

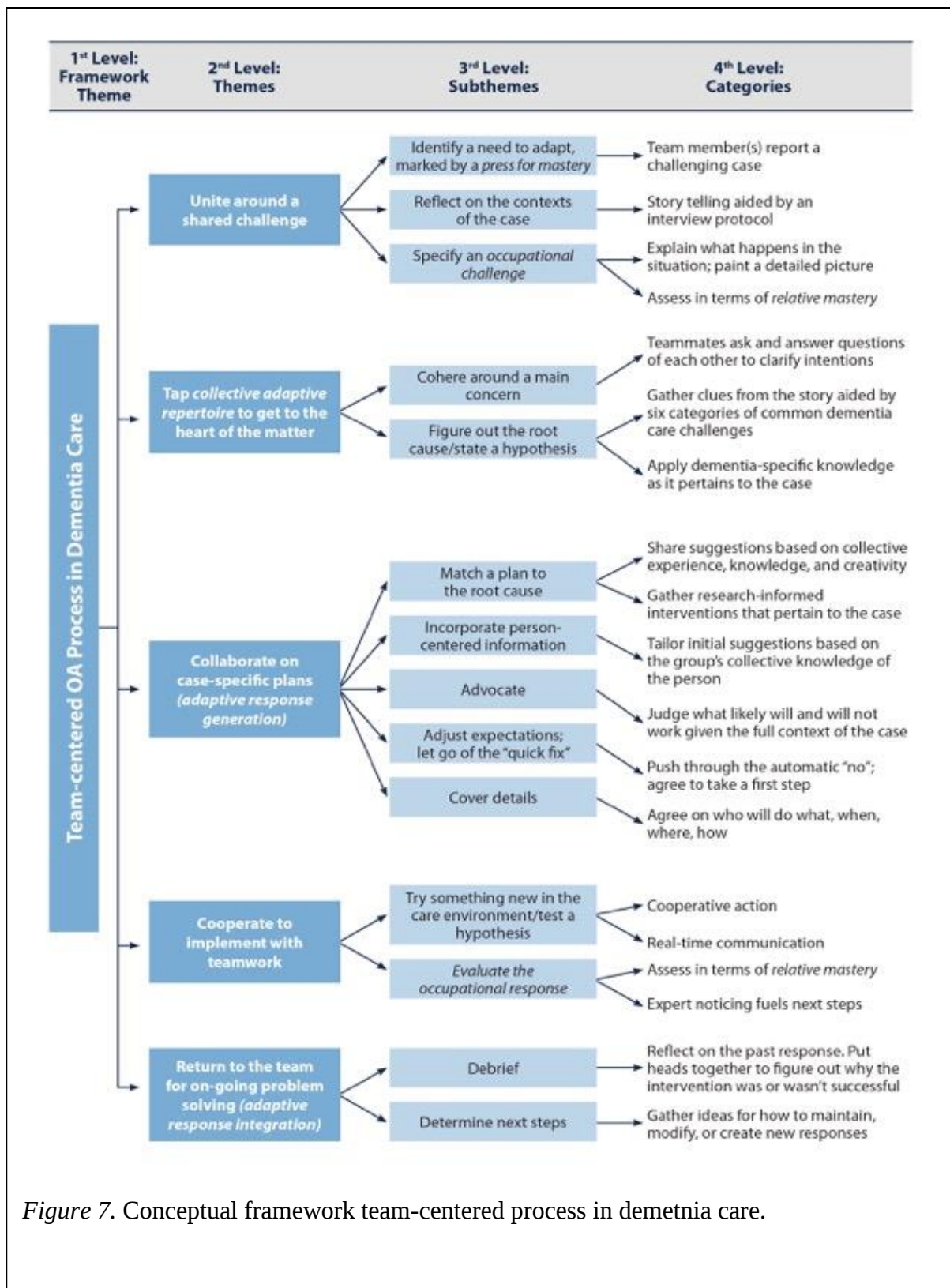


Figure 7. Conceptual framework team-centered process in demetnia care.

Theme: Unite around a shared challenge. The process begins with one member relaying a problem in his/her work environment. It is noteworthy that not all group members are familiar with the case at first, so an important first step is hearing the situation described by a team member who's living it. The team member who first identifies a need to adapt might report a subtle feeling that something's not working. Sometimes multiple team members band together on the need to adapt; they might come forward with feelings of frustration that past attempts to resolve the problem were unsuccessful. Regardless of the feeling or specific work area, problems are viewed as a natural part of dementia caregiving in the OA-based program, so the storytelling is meant to enlist more partners in the problem-solving process. In the following example, the team begins by uniting around a shared challenge before honing in on a specific occupational challenge in the case.

Betsy is a certified nursing assistant working with Mrs. Queen who has dementia. Mrs. Queen and her husband live in a villa in the independent living section of the community. Betsy explained that, historically, her experiences in the couple's home during the morning routine have been positive, but the seasoned CNA suspects the resident needs help beyond the morning routine.

Betsy (CNA): I'm her homecare aide, and I come to her house early every morning. When I get there, she's sitting in her chair, and I go sit next to her...We laugh and have a few minutes to visit there before I do anything. I get the bathroom space set up for her bath, and I lay out her clothes. I get everything organized before I ask her to get started. I always ask her; I never tell her to do

anything. Then, Mrs. Queen is willing to go with me to the bathroom. Mr. Queen always goes to start breakfast at that time. He's in the kitchen while his wife and I are in the bathroom. Mrs. Queen doesn't like to be rushed, so we go slow. Mrs. Queen always says, 'Everyone else rushes me.' I know Mr. Queen can sometimes get confused, lose his patience, and she feels like he rushes her. She likes things exactly right. So, we take our time and do it the same way every morning... With step-by-step set up, she can do parts of the bathing herself... I do anything to make her laugh; she likes to laugh... When I leave every day, Mrs. Queen says "Don't leave. You'll come back, won't you?"

Because the team-centered OA process allows time for deeper investigation into the contexts of the case, a shared understanding of the situation can develop. In this step, Betsy told the group more about the independent living section of the community—and about the woman's life and other people involved. Talking in general about the contexts of the case before pinpointing the specific occupational challenge allowed others in the group to pitch in their knowledge of the context for a more comprehensive 360-degree view of the couple's situation, especially regarding transportation, in this case.

Betsy (CNA): "In addition to dementia, Mrs. Queen has Parkinson's disease, which makes it hard for her to move. She has fallen in the past. Mrs. Queen also has pain in her feet."

Christopher (transporter) added: “The few times I’ve taken her places, I’ve noticed she’s having more trouble getting in and out of the car. I don’t let her walk in the building alone, because I’m afraid she’ll fall.”

Betsy (CNA): “That’s getting harder for Mr. Queen to help her with that because he has back problems. He doesn’t get around as good as he used to. Mr. Queen manages their daily routine on his own, but he gets confused and upset sometimes. He has a diagnosis of mild cognitive impairment. Recently, I saw him in the yard; he was trying to do something with his flower pots. He was getting frustrated, moving them back and forth, and getting more upset. When he came in the house, I asked if I could help, and he said ‘No, I’m fine.’ Mr. Queen is still driving. He does all of his personal care for himself, but he makes mistakes sometimes. Once he put a plastic container in the oven and melted it. I notice their daughter Kathrine makes lots of reminder notes and lists for the couple. Kathrine tries to help keep them on track, and I try to make things easier for Mr. Queen by helping his wife.”

Betsy’s story contains many details which at first may seem unrelated to the older woman’s needs. However, the level of detail in Betsy’s story allows others on the team to drop into the situation, visualize what Betsy does, and better understand what is and is not working in the situation. Detailed storytelling, aided by an interview protocol (see Appendix I), is considered a “soft skill” facilitated by the OA-based program. Members reflected on Betsy’s storytelling, which she recalled during a follow-up interview. Betsy said, “Well, people say they love the way I explain things. It’s like they can about see

everything I'm doing, because I explain it step-by-step." Next, with a more complete picture of the story, the specific occupational challenge is identified to focus the team's attention on one aspect of the situation they will target for intervention. In light of Betsy's success during the morning routine, the seasoned nursing assistant suspected the couple may need assistance with community outings, and that's where the team's occupational challenge arose:

Betsy (CNA): "Whenever we offer more help, like another aide or transport, the couple refuses. I get along well with both Mrs. Queen and Mr. Queen, but they say they don't want help from anyone else. We've tried to send other homecare aides to the couple's home, but Mr. Queen calls and says, 'Don't send that person back here.' And other times the aide has requested not to return because Mr. Queen was rude to her. We've tried to get the couple to accept rides to and from their appointments, but Mr. Queen refuses to use our transportation. He wants to drive."

Christopher (transporter): "So they don't call us for pick-up—especially their evening trips. It's getting to be a problem, because he's not supposed to drive at night."

Theme: Get to the heart of the matter. Once the team has a full 360-degree view of the challenging situation, together they can clarify their main concern about the case and state a hypothesis about what they believe to be at the root of the problem. For Betsy and others around the circle, clarifying their main concern was an important first

step in getting to the heart of the matter—the intention was neither that Mrs. Queen stop going on outings with her husband, nor that the couple hire full-time, in-home helpers. After all, she and her husband could do many things together at home. The team’s main concern was that Mrs. Queen needed more help getting in and out of the car than her husband could provide. Given his health changes and recent driving restrictions, Mr. Queen was no longer the best transporter for his wife, and the couple would benefit from using the community’s transportation system. Moving forward, the team’s shared challenge was to connect this couple with a driver. Digging down to the root of the problem, the group gathered clues from the story and together made the following list of ideas:

- Mrs. Queen wants to go slowly.
- She likes things “exactly right.”
- She likes to feel in control and do things for herself.
- She likes to laugh.
- Given her level of dementia, step-by-step set up is an effective helping strategy during activities.
- She doesn’t like to feel rushed—including rushed by Mr. Queen.
- The couple likes to be together.
- Mr. Queen prefers to manage things on his own.
- In familiar routines, Mr. Queen is independent. Activities which are not routinized are more challenging for him.
- Mr. Queen wants the couple to stay together in their home.

Further reflecting on the contexts of the case during the team’s discussion, two maintenance men offered insight into how the man could be feeling.

Don (maintenance worker): “Mr. Queen is a successful person, used to taking charge. He wants to take care of his wife, and he doesn’t like to be told what to do.” Betsy (CNA) said, “He’s afraid if people think he needs more help, then he may be forced to move, or his wife may move.” Jake (maintenance worker) reflected on how difficult transitions are for residents in independent living, “Even just giving up your personal belongings to move into that small townhouse is difficult for people. Downsizing is very emotional. Then the thought of losing your independence even more—they resist those changes because it doesn’t feel good to them.”

The group discussion of Case #1 unified their collective belief that any change in the daily routine was difficult for the couple. When it came to transportation, the couple may have been trying to do what was familiar, and any change was stressful.

Based on their collection of clues, the team stated a hypothesis that Mr. Queen’s feelings were at the heart of the matter in Case #1, and any plan to serve Mrs. Queen with community transportation must also address Mr. Queen’s feelings and abilities. Amelia (activity professional) pointed out a final aspect of the context in Case #1. Amelia said, “Mr. Queen has kept the calendar, so we don’t know when their appointments are.” Amelia’s observation directed the team’s attention to the timing of their intervention—helping Mr. Queen schedule rides would mean offering support at the right time. To test

their hypothesis, the team determined the intervention would involve communication with Mr. Queen and careful attention to the couple's calendar of appointments—two things the team believed had previously prevented them from helping the couple transition to a new transportation routine. It was this breakthrough, which occurred through the team's uniting around a shared challenge and getting to the heart of the matter, that sparked creative ideas about a plan addressing the root cause of the problem.

Theme: Collaborate on case-specific plans. Once members of the blended team are apprised of the challenging case, they mobilize their collective experiences, knowledge, and creativity in a collaborative, idea-sharing step. Together, they generate plans based on their collective knowledge of the case, what has been tried thus far, and additional caregiving skills.

In Case #1, the team thought about how to intervene at the root cause—new ideas for how to communicate with the couple about transportation came from Betsy's successful communication during the morning routine. Amelia (activity professional) pointed to a breakdown in the team's prior communication when she said, "Effective communication strategies might not be reaching all key players." The team agreed to draw on Betsy's repertoire of strategies and shift from an existing mode (offering help) to a new mode (casual visit). Armed with Betsy's detailed description of positive social visits, Christopher (transporter) suggested he could stop by the couple's home on a social visit and show Mr. Queen the transportation department's new van. Betsy (CNA) would ask Mr. Queen to share his appointment schedule and report the information back to the group. Betsy said about the plan, "Well, it wasn't much of a challenge to me after

listening to all the ideas. I thought to myself, ‘Well, this is going to work.’ ...I just put it in my mind—I said [to my teammates], ‘OK, I’ll try—I’m not going to promise y’all.’

Team members left the session understanding who would do what, when, where, and how during the action period. They anticipated something new would take place in the care environment during the action period, and they would reconvene to share what happened with the team.

The team’s collaboration on case-specific plans happened similarly for the intervention group during challenging Case #2, which indicated the group was generalizing the process. In the second case, Rose (housekeeper) told the story of Frank, a gentleman living on the dementia care unit. Frank has been living in the CCRC for several years, and since his life has changed with dementia, he has encountered multiple members of the Learning Circle at different times in their respective work areas. The team coalesced around Rose’s story about what’s currently happening with Frank on the dementia care unit. They pooled their collective adaptive repertoire again to pinpoint the main concern, state a hypothesis about a possible root cause of the problem, and generate a plan to intervene with teamwork. It was noteworthy that different team members emerged as leaders in Case #2, but the team’s collaborative process for uniting around a shared challenge, getting to the heart of the matter, and making case-specific plans in Case #1 and Case #2 was the same. The following conversation about Case #2 was recorded in participant observations notes:

Rose (housekeeper): It’s Frank Mehaffey.

Amelia (activity professional): Lots of us know him.

Jake (maintenance worker): Oh yeah.

Nancy (homecare manager): We did homecare with him.

Joe (activity professional): He came to the Harbor [adult daycare program]

Rose (housekeeper): He was an Army officer, so he's veteran. He was an educator, a teacher and a principal. His career was always in public education.

Rose (housekeeping): He gets around pretty good.

Nancy and Amelia (laughing): He gets around *really* good, and that was always our problem.

Rose (housekeeping): Yeah, he's pretty fast.

Nancy (homecare manager): He's not someone who can cover with pleasantries...you can't tell what he's saying. You can tell he's trying to tell you something, but his words come out like word salad. You can't figure out what in the world he's talking about. He's smiling all the time, like what he's saying makes perfect sense to him.

Rose (housekeeper): He's very pleasant. He still thinks about himself as very formal.

Amelia (activity professional): Yeah, he thinks he's still a teacher.

Rose (housekeeper): He even looks like a teacher still, very put together. He always wears his sweater vest buttoned up to the top.

Nancy (homecare manager): He's very humble, very nice.

Luna (dining services): He likes to take care of other residents too.

Amelia (activity professional): But he can be determined when he wants to do something.

Greg (nurse): Yes, helping Frank is getting more difficult, or it takes more time these days...Once he's up and dressed and bathed, he's a lot easier to manage.

Facilitator: So, tell me about the current challenge the team is having with Frank. What's your main concern?

Greg (nurse): Turn your back on him, and there's no telling whose room he's in or what he's doing. He tends to mistake corners and chairs and plants for a toilet.

Facilitator: Is urinating in the corner the main concern?

Rose (housekeeper): yes.

Nancy (homecare manager): For whatever reason, he thinks these places are appropriate places to relieve himself. His wife told us he used to walk outside in the middle of the night to relieve himself.

Greg (nurse): We've learned that if he gets up in a hurry, walking anywhere in a hurry, we can say "Bathroom's over here." That works well. I think we're pretty good at knowing when he has to go and catching him in time.

Rose (housekeeper): If everyone else is busy doing something else, and I see him get up, then I'll call a helper over for him.

Greg: Yes, once he's up in the morning, we all watch him pretty close, and we don't have any accidents at all during the day.

Luna (dining services): That's right. It might be anyone who recognizes he needs help and we can get to him faster that way, when everyone's watching.

Greg (nurse): It's pretty good. If you're not counting what happened through the night that wasn't caught when he was thought to be asleep...He is most likely to have an accident if he makes it out of bed before we realize he's up.

Facilitator: These times that he wakes and gets out of bed without you noticing—those are the times that you're most concerned about?

Rose: Yes

At this point in the story, I interjected to put the team's challenge in context of dementia care generally. A brief explanation of brain changes that happen in middle stages of the disease helped the group to understand that Frank could be having trouble completing the steps of the toileting task in the correct order. Further generalizing, I explained people living in middle stages of the disease can still do many things for themselves, and they're

often quite mobile if they don't have any other physical problems. With a helper, a person in middle stages of dementia can get the task done that he couldn't do alone. Furthermore, in the middle stage of dementia, one may have less warning that his bladder is full. Language changes in this stage also make it difficult for the person to ask for help.

Greg (nurse): Well, especially when he's tired in the middle of the night too.

He's more likely to have the accident when he's right out of bed... As far as nurse and aide staff in the evening, there's still a nurse and two aides on the floor. The difference is we don't have folks like Joe, the administrators, or all the other folks who help to keep an eye on Frank during the day. Housekeeping and maintenance are not there at nighttime.

Amelia (activity professional): Fewer eyes overall.

Greg (nurse): I know it's a little harder to spot those cues when he's not with you. I know on third shift, there's only one, sometimes two people on the floor, so it's impossible to keep an eye on every person. When you assume, he's asleep, you're not thinking of it. We don't have anything that says he's up. But he may get up, and he may urinate in the corner and go right back to bed.

Together the group identified what they believed to be at the heart of the challenge—why toileting is harder for Frank during the nighttime than during the day? Their hypothesis was that their effective daytime strategies didn't automatically generalize to nighttime, because it's a whole different situation on the night shift. The facilitator summarized the team's insights following the group discussion

Facilitator: There are different people, different levels of coverage, different routines for Frank, it's just all different. Therefore, there might be some strategies that the nighttime folks could try—things that teammates on day shift don't need to do. They might need their own strategies for nighttime monitoring, different than what works for you. Again, it's one area where you've identified room for improvement, and this team might lend ideas to help the night shift improve their batting average when it comes to helping Frank use the bathroom during the night. If you passed along an idea, it would be important to hear ideas from the night shift folks too.

With a fuller appreciation of the situation, the team shifted to considering possible interventions matched to the root cause. The communication at this stage was a balance between generating ideas, advocating, (the nurse rules out some ideas he thinks won't work based on his experiences with Frank), and pushing through the automatic “no” (the team agrees on the first step of an action plan).

Amelia (activity professional): I remember we used a chime to help us know when he was up. We had the issue, he would go in someone else's room, so we used that chime to know when he was on the move.

Greg (nurse): We do have that chime to tell us when he comes out of the room. We turn that on during the night. But he usually doesn't leave the room.

Facilitator: Does he have any chime on the bed that would let the night person know that he was getting up?

Greg (nurse): Frank is a very very busy body...for instance we had to hind the controls for the lift chairs because he will mess with the cords and buttons. He's always pulling plugs out of the wall.

Facilitator: So, he doesn't have a bed alarm?

Greg (nurse): No, as much as he fiddles with everything, I just don't know if that would work. We'd find that bed alarm flushed down the toilet.

Faye (CNA): Have you looked at all the options? Because there are some that have the wires integrated, so there are no wires for them to mess with.

Greg (nurse): Yeah, I'm not sure about that.

Nancy (homecare manager): There's concern about the bed alarm idea because of any wires he might mess with, but what about a baby monitor in there? That way the staff person could hear him if he got up. And could have a urinal already in there in case he's already up when they try to rush in to help him?

Greg (nurse): Right [nodding and making a note for himself] I will talk to third shift, especially the nurse. The baby monitor thing. I think that is a good idea, but of course I have to follow up and make sure that it abides by all of our policies as well.

Theme: Cooperate to implement with teamwork. Time between sessions, known as the action period, serves as hypothesis testing time for the intervention group. The group's progress during every action period was a collective effort in each

challenging case. Implementation in Case #1 involved multiple participants taking cooperative actions that moved the team's plan forward to transition Mr. and Mrs. Queen to safer transportation. The first opportunity for communication with Mr. Queen came unexpectedly for Cayden (wellness director) when he made a positive connection with Mr. Queen in the gym. Cayden's supportive communication with Mr. Queen about life transitions was aligned with the team's goal to help with transportation, and the conversation was informed by the team's prior discussion.

Cayden (wellness director): I was just in the gym with Mr. Queen. We actually had a really good intellectual conversation about how he was doing, about life, about himself, about moving to assisted living, about his workout. I don't know if it was because he was exercising, pumping oxygen to his brain, but he was sharp. He was rattling things off. I decided to seize the moment.

Jake (maintenance worker): That's a good time to catch him. You got him going; you don't want to stop. (Laughing with the group)

Cayden (wellness director): Yes, that's what I thought—maybe this is a good time to have a tough conversation.

Nancy (homecare manager): Plus, maybe he's doing something—Mr. Queen—that proves him capable. He was in an environment where he was being successful demonstrating he's an independent person.

Cayden (wellness director): And we were alone. We were the only ones in the gym, so I felt like he was opening up to me.

Facilitator: Before we heard the story from Betsy, did you know that getting additional helpers for driving and everyday life at home was such a big issue for Mr. Queen?

Cayden (wellness director): Not to the extent that I do now.

The team's communication around Cayden's story illustrates another "soft skill" facilitated by the OA-based program, *expert noticing*. Primed by the team's prior discussion, Cayden noticed many aspects of the situation with Mr. Queen in the gym as he paid attention to Mr. Queen's behavior, his own feelings, and aspects of the environment that were all transacting together as the two men exercised. When Cayden relayed the experience to the group, two more "expert noticers", Nancy and Jake, pointed out clues (as they often did during the program) they believed to be key to Cayden's successful communication.

During the same action period, Christopher's first attempt to communicate with Mr. Queen about driving served as an example of real-time communication with his teammate to coordinate the timing of his interventions with other co-workers.

Christopher (transporter): During the action period, my goal was to stop by and speak to Mr. Queen about the transportation service and show him my new van. Well, instead of doing one drive-by, I did two. [The group laughs, and many say *good job*]. I called Nancy (homecare manager) on Friday to find out if Betsy (CNA) was over there at the Queens' house. Nancy told me another caregiver was over there. So, I asked Nancy to give a call to let the caregiver know I was

coming over. You know, I didn't want her to be alarmed if I drove up. So, I get there, Mr. Queen comes to the door and says to me, "Well, what have I done now?" [Laughter] I said, "You've just been on my mind. I just wanted to come by and say hello, see how you've been doing. The main thing I wanted to show you was my new van." He invited me in. We sat down and started chit-chatting about different things. The first thing he told me, "Have you heard about the DMV? They're on my case." I replied, "No, is that right?" [Laughter] Mr. Queen explained to me his new driving restrictions. I just listened and said, "Well, that'll be OK. It's probably for the good in the long run." I said, "Look, how about some time you call me? I'll come get you and take you for a ride." Well, it was raining on Friday, so I didn't offer to take him around campus that day. I called again yesterday, and Betsy was there. Betsy said he was at the exercise class, and I told her to call me when he gets back, and she did. I went back over, and he knew I was coming. This time I took him a brochure about our transportation service.

Nancy (homecare manager): That's a good idea.

Christopher: I wanted him to see it. I went over it with him. We talked a bit. He said, "It's getting to the time when I'm going to have to have other people to help us." I told him I'd love to take him and Mrs. Queen to their appointments. I explained, "I could drive you right up to the front door, let you out, you don't have to worry about parking. When it rains, you won't get wet." He said, "I'll think about that." I asked, "Are you sure?" He agreed. When I got ready to leave,

he held his hand out to me. I shook his hand and looked him in the eyes and asked, “Is this a promise shake?” He said yes. Mrs. Queen also said she’d like to ride in the new van, and I told her Mr. Queen had promised we could do that soon. Before I left, he shook my hand again. We’ll just see, but it went really well.”

Jake (maintenance worker): You laid the groundwork anyway.

Christopher’s series of actions and Jake’s assessment that important groundwork was laid in Christopher’s first visit demonstrated that they had let go of a “quick fix” expectation. At this step in the process, following Betsy’s lead, Christopher gave a detailed description of what happened and *how* it happened, which allowed other team members to visualize the scenario. Christopher explained what he noticed in the situation, and others in the group noticed more clues in Christopher’s story. Based on all they noticed, the group evaluated the outcome of Christopher’s social visits, attributing the success to Christopher’s communication and timing—effectively supporting their hypothesis.

In a follow up interview, Betsy (CNA) said the following about the action period:

What happened was the bus driver called *me* while I was at the [Queens’] house.... I said, “Come on by!” ...They went outside, and after that they came back in and sat together in the den. I heard the driver say, “If you ever have any appointments anywhere, you just let me know. I’ll be happy to take you and your wife. I can even help her up into that van, and it’ll be really easy for her.” Mr. Queen said, “Well, sounds good. Let me look in the calendar now.” Well, I about

fell out! Mr. Queen went into his study, looked at his calendar, and gave the driver his schedule! It worked just like that [snapping her fingers].

Faye, another CNA in the group, reflected during the follow-up interview on what was good about the teamwork during the action period. Faye said,

Because one of the aides would go in, and she would gather information in the home and feed it back to the guys in transportation. That would give the driver a chance to kind of sneak in there and say, ‘Hey, what you got going on this week?’ The two men [driver and resident] got to talking during their visit socially, and then the driver could give more feedback to the team based on what the resident said and what they decided together. He could give the information back to the team, so it was good.

The team’s cooperative implementation happened similarly during challenging Case #3. In the third case, Faye (CNA) told the story of Al, a gentleman living with dementia in the assisted living area. In a collaborative discussion about Case #3, the team’s main concern was that Al could no longer order his meal in the dining room line, and mealtime was quickly becoming the most frustrating time of the day for this resident. Communication strategies that used to work to help Al chose his food and find a seat were no longer effective. Over the past few weeks, caregivers were spending significantly more time trying to get Al to make a choice, interactions that often escalated Al’s frustration and got them no closer to Al’s meal selection. However, Faye, a CNA working in assisted living had noticed aspects of her own communication that seemed to

work better than the old way of asking Al what he wanted to eat. Faye told the detailed story of how she helped, while team members contributed to a long list of what they noticed in Faye's story. The team hypothesized that Al's communication skills had changed due to his progressive disease, and others on the team had not yet traded old communication habits for new strategies that worked in the new normal. At the heart of the matter was team communication (sharing Faye's effective strategies with more co-workers in the dining room), so Faye and others on the team set out during the action period to support more co-workers in the dining room with information and demonstration. Faye and Daisy reported what happened when they implemented the plan with teamwork.

Faye (CNA): Well, I did go and speak with the folks in the dining room to explain how I helped Al choose his meal. They said they would give it a try. I went back yesterday to check in with them and asked how that was going. They said it was working better. Actually, one co-worker had great success. Daisy has some more information about different things she tried with Al in the dining room.

Daisy (housekeeper): Well, I've noticed that every morning he needs help at the breakfast table. He says, "I need butter. I need jelly." I point to those things on the table. I don't know if he just can't see those things, or he might not know what they are. But I point to it.

Facilitator: Daisy noticed he needs a little visual cue to find something that's right in front of him.

Daisy (housekeeper): Yeah, and when I point to it, he laughs and says, “Oh, I didn’t see it there.” When he finishes eating, he says, “I give you a 10.” [Daisy laughs and others laugh with her]

After the action period, multiple caregivers in the dining room are integrating a combination of dementia-specific communication strategies for this resident. Faye and Daisy have shown others how to use step-by-step visual cues, short verbal cues, and social conversation to help the resident enjoy his meal. When the resident responded by laughing at himself, Daisy smiled and kept the feeling positive.

Theme: Return to the team for ongoing problem solving. We return to Case #1 to illustrate how members returned to the team for ongoing problem solving. Having cycled through the collaborative planning phase once before in the prior session, Christopher and the team engaged in an efficient back-and-forth discussion to plan next steps regarding the goal to transition Mr. and Mrs. Queen from driving to riding in the van. Cycling back through the planning phase generated suggestions based on past experience and person-centered information. Again, the team covered details of who would do what next. The facilitator is more of a guide than a teacher in this process, adding information just in time as it relates to the team’s discussion and posing questions to spur further collaboration, not telling the team what to do.

Betsy (CNA) (taking out a piece of paper with appointment times): Well, Mrs. Queen has a physical coming up on the 28th of this month at 9:30 at Stoney Creek.

Christopher (transporter): That's past 10 miles, so they'll have to get a ride.

Jake (maintenance worker): That might be a good time to say "Hey, would you like for me to carry you?"

Nancy (homecare manager) (making a note for herself): When was it again?

Betsy (CNA): 28th at 9:30am. Then, the next day, the 29th, they have a doctor's appointment. That's in Greensboro at 2:15pm, so they'll need a ride to that one too.

[Nancy, the manager, makes notes of these appointments.]

Christopher (transporter): I told him to be sure to call me. I told him to request me to drive, in case I don't answer the phone. I want to get him used to it.

Nancy (homecare manager): That puts Betsy in a good position to say, "Hey, I know you've been talking with Christopher."

Christopher (transporter): "Maybe you should give him a call."

Facilitator: I think it's a great idea to make the call to Christopher while you're together. Think about it, if you left it up to him to call himself—

Nancy (homecare manager): He'd forget it in a minute.

Jake (maintenance worker): He agrees, but then it's gone.

Facilitator: Based on what you've told me about him, I think you're right. If you walk away, he might not be able to place the call himself. He thought the idea was good, but it might be hard for him to follow through with all the steps of the task.

Nancy (homecare manager): Yes.

Facilitator: I think you have laid the foundation with this positive feeling. Let's help Betsy think about the words. What would give Mr. Queen the motivation to place the call sooner rather than later? Imagine if he said, "I'll do that later."

Nancy (homecare manager): "To be sure you get on the calendar AND so Christopher can take you."

Jake (maintenance worker): Yes. "You don't want to miss your favorite driver."

Christopher (transporter): That would be helpful, because it helps us to have a little notice. What I'll do is I'll check when I get back, and if it's already a busy day that day, I have enough advanced notice to bring another driver in that day. So, we can accommodate all the rides that day. We can book both of these appointments at the same time.

Nancy (homecare manager): Yes.

Jake (maintenance worker): That's true, and say you want the new bus.

[Betsy (CNA) has taken notes of all the teammates' suggestions]

Facilitator: You're setting it up for him to say yes. Christopher's going to check this ahead of time, since we're having this conversation today, because he wants

to be sure he can accommodate this plan with the schedule in the transportation department. This is the kind of behind-the-scenes communication that helps us present the plan to Mr. Queen without any misunderstanding between departments.

The design of the OA-based program presents multiple opportunities to cycle through the process of collaborative planning, cooperative implementation, and returning for ongoing problem solving. Groundwork laid in the first action period was good preparation for the team's follow-up action. Christopher reported progress in the next session:

Christopher (transporter): I confirmed Mr. Queen's appointment last week. Mrs. Queen had an eye appointment, so I called and told Mr. Queen when I'd be there. I was right there on time. I made sure that he didn't have to do anything. I took her to the van. I helped her get in the van. I didn't rush her. I said, 'You just let me know what you want me to do.' We got her in the van and got her situated. Then, I helped him in the van. I was telling him all about the new vehicle. He was really amazed by the new features. They didn't have to walk far, because I stopped right at the front of the building. Mr. Queen was really impressed with the service. I never left. His daughter called, and I was sitting in the lobby waiting on them. I told her, "We'd love to take them more often." So, his daughter has the paperwork, and she said that she would call me when it was time for their next appointment out of town. I ran into Mr. Queen this morning, and I said, "Don't

forget that you promised me you'd call me." He said, "I haven't forgot you." So, that's how it ended.

By collaborating with more team members, including the couple's daughter, the team was thinking ahead and more likely to provide the right support at the right time ahead of the couple's next appointment. Early in the problem-solving process, the team wondered how they would know about the couple's appointments in advance. Through the process laced with communication, cooperative action, and discovery, the team reported improved relative mastery in their challenge and confidence in their plan for future trips.

Ultimately, the team accomplished their goal in all three challenging cases. In Case #1, the team transitioned the couple to using the transportation service. In Case #2, the team eliminated toileting mishaps during the nightshift with increased team communication and a new monitoring technology. In Case #3, Al's frustration at mealtime was resolved as more helpers in the dining room communicated with a combination of visual and short verbal cues. Additionally, the activity calendar was modified with more visual cues to help Al select activities, and the assisted living staff implemented a new activity tailored especially for Al and other men on the unit. With the team's OA process established, planning follow-up/next steps flowed smoothly after each action period—so smoothly that Nancy (homecare manager) remarked on the team's process. Nancy said, "There's information coming from this group, because we come from all departments. It's information that others in the group wouldn't otherwise have, and we need to know...It just seems like all of this is important." It was Nancy's astute

observation about the team's successful *process* that shifted the team's attention during the second half of the program to consider not just *what* they accomplished in each case, but *how* they accomplished it.

Conceptual Framework: Learning About Dementia Care

The control group's actions and behaviors stand in contrast to those of the intervention group, as participants in the skills-based program were exposed to educational films focused on understanding the disease itself and specific caregiving strategies. Participants were observed watching and listening quietly in every session. When control group participants discussed the information from the videos, a different pattern emerged in their actions and behaviors. Through a process that was mostly private and internal, control group participants described new information gleaned from the films, made personal connections with the information, and occasionally took individual actions outside the classroom. Applying their new knowledge independently, some participants' actions and behaviors flowed through all steps of this process, while others gained new perspectives on dementia caregiving but stopped short of trying something new in the care environment. As the weeks progressed in the control group, more participants were able to identify a challenging situation as a problem related to dementia. Furthermore, some participants who did not previously consider themselves "caregivers" realized their work involved people living with dementia, and they thought differently about those challenging cases in light of knowledge gained in the program. While participants in the control group were not proficient at identifying dementia-related challenges as quickly or cohesively as the intervention group, consistency of their actions

and behaviors at different times revealed the conceptual framework: *learning about dementia care* summarized in Figure 8. The control group's process of learning about dementia care is organized into five themes—*watch and listen, process, think about dementia care challenges in a new way, gain readiness to apply knowledge in practice, and try something new*—further specified into subthemes and categories (see Figure 8). Communication flowed through the control group's learning process differently than through the intervention group's, and fourth level categories on the right side of Figure 8 explain what was communicated and how. Specific questions posed by control group participants indicate they viewed the facilitator as a coach or demonstrator, often asking “how do I do it?” or “can you show me what to do?” Not all 14 participants in the control group exhibited actions and behaviors in the fifth theme—try something new—but this qualitative analysis did not ask the question, “to what extent?” throughout the process. Therefore, the concept of “learning about dementia care” represents an overarching description of what the control group did and how they did it.

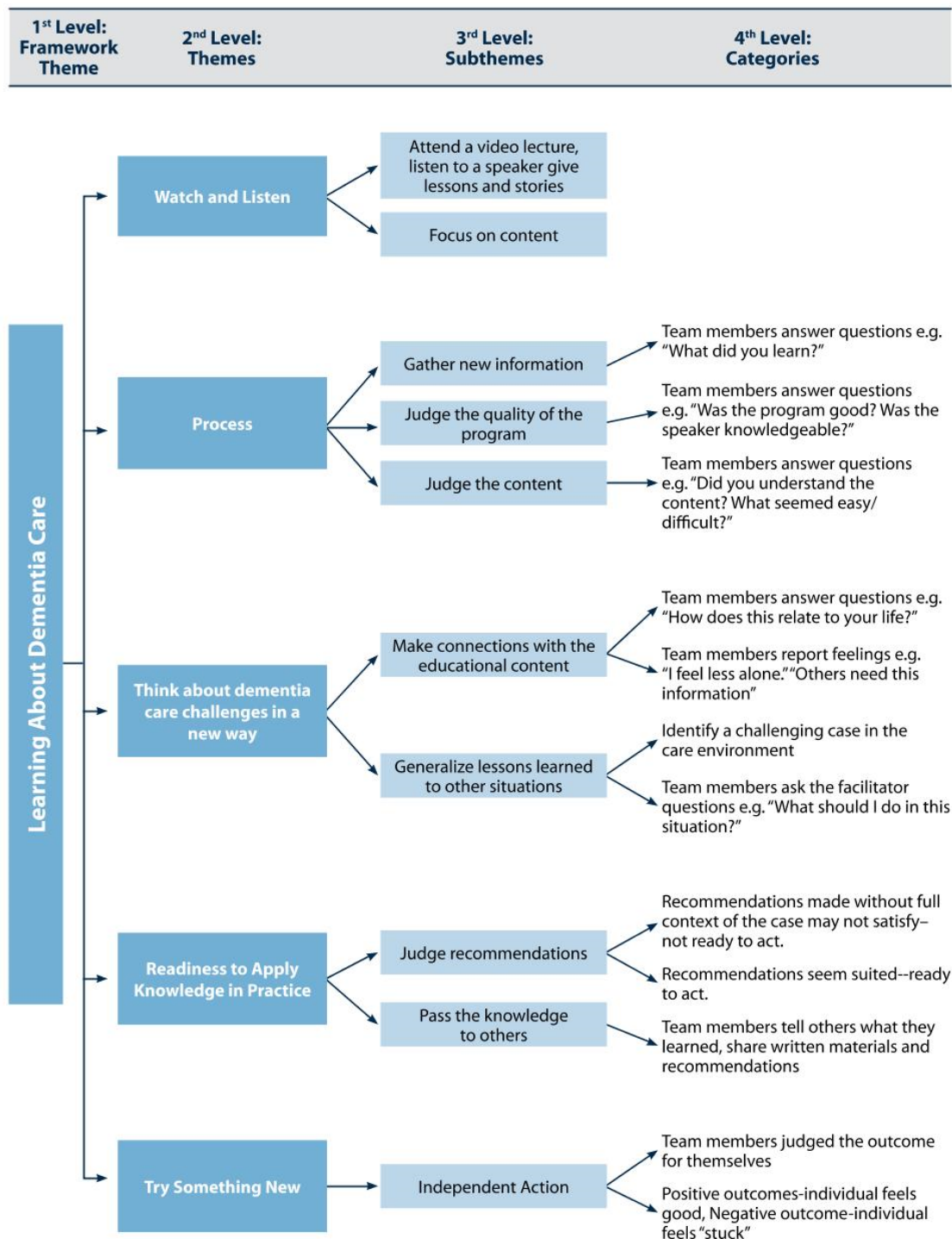


Figure 8. Conceptual framework learning about demetnia care.

Theme: Watch and listen. The nature of the activity, watching and listening to an educational film, presents an expectation that participants will be quiet. Therefore, it was not surprising that observations notes taken during the control group included 15 separate comments about participants sitting quietly. Participants' actions and behaviors also included some predictable multi-tasking, (e.g., occasionally checking their phone while they watched and listened to hour after hour of instructional films). These observations were assumed to be part of the watching and listening theme. Participant observation notes supporting this theme included:

- During the film, some people are taking notes, while others watch and listen. Overall, the group appears to be paying attention to the film without visible distractions.
- In the film, the instructor asks rhetorical questions, and Bella (environmental service tech) nods her head yes or shakes no. She also gestures agreement when the instructor in the film demonstrates behavioral responses to challenging behaviors.
- During the film, multiple participants are observed laughing at humorous comments. Most participants are snacking on food provided. All participants are observed awake throughout the film.

In follow-up interviews, control participants described what the film-watching experience was like.

Isabelle (activity professional): We had a series of videos that we watched. We watched a video each time. Some of those videos were almost like documentaries, families with their loved ones in the Veterans' Homes. Some of the videos were a workshop that Heather had done somewhere else. We watched all the videos, and the next session we would have a few minutes with our group to debrief and talk about anything that hit home with us.

Doris (volunteer coordinator): We watched some videos on dementia care. We had a different topic each time, it seemed like. It was very informative, and there were caregivers that were speaking in the videos—and Heather, of course, was in it—as well as some videos had Teepa Snow. If it was a video day, we really didn't talk much. We would literally just go in and watch the video, chat about a few things at the end, and go on out. If it was the pre, mid, and post assessment, we talked quite a bit.

Doris' recollection of many sessions ending with no comments from participants was correct, despite the facilitator's open ended-questions to spur reflections, as Isabelle said. Observation notes in the first four control group sessions were remarkable for the group's lack of discussion.

- After the film, no participants volunteered to share their impressions of the information or how it may be relevant to their challenging situations.

- “Was there anything in the film you found interesting or new to you?” No participants offered a comment. No participants offered to share a challenging situation.

Theme: Process. While the control group’s communication was noticeably sparse compared to the intervention group, in Session #2, five participants began showing signs of a new behavior pattern. Processing means that the participant retains the information and files it in her internal library of knowledge. In this step, participants answer the question “What did you learn?” Evidence of processing in week two included, Dleeah, Bella, Eden, Camden, and Isabelle named specific but differing communication skills they learned from the films. Others joined the processing theme in week five at the mid-measurement period. Among the following list of comments from participant journals, the first four indicate the participant learned something general, and the fifth comment specifies the steps of a positive physical approach™, a specific skill taught in the films:

- “I’ve learned a lot about the disease itself and very helpful way to cope and give proper care.” –Eden (maintenance worker)
- “I’ve learned how to approach people with dementia. –Ruth (housekeeper)
- Three participants said, “I’ve learned about the hand-under-hand assistive position.” –Kennie (CNA), Doris (volunteer coordinator), Camden (transporter)
- “Communication is so important, both verbal and non-verbal. It’s important not to be in a rush. Ways to communicate on different levels. Ways to interact on different levels. Understand different types of dementia.” –Isabelle (activity professional)

- “Think before you act. Go slow. Always stand to the side of them. Never come up behind them. Use visual cues. Ask them to do something instead of telling them to do something.” –Bella (environmental service tech)

Another indication that the participants were processing information in Week Five, many identified aspects of the training that were still challenging for them to apply. Again, their responses in participant journals focused on physical approaches and communication skills taught in the program:

- “It’s difficult to know what the communication skills look like in real life.” – Isabelle (activity professional)
- “Communication is still difficult.” –Ava (housekeeper)
- “I still need different approaches to get my resident in the shower.” –Kennie (CNA)

During session five, several participants requested the facilitator demonstrate two skills taught in the films: a positive physical approach™ and hand-under-hand™ assistive technique. Two participants stated the techniques were difficult for them to understand before the demonstration, but they “understood now”—another sign of these participants processing the new information. The following comments were recorded in participant observation notes.

Isabelle (activity professional): “I think some of the most valuable information in these classes is the demonstration. It is helpful to see skills demonstrated in the film with real people living with dementia.” Camden said, “It was great, [the instructor/Heather]

actually showed us how to use the hand-under-hand technique that we learned about in the film. It's one thing to hear and see it taught, but when she actually shows you how it works and what to do in certain situations, it makes more sense." After the mid-measurement discussion, the group returned to their previous watching and listening behavior. Observations notes in Week Six included, "The control group continues to interact with the facilitator as if to indicate 'I understand. I have no concerns regarding the content of the film.'" In other words, the group put forward no questions or discussion.

Theme: Think about dementia care challenges in a new way. Also beginning in Session 5 and continuing through the second half of the program, control group participants demonstrated they were making connections to their own experiences. Comments during the mid-measurement discussion signaled they generalized the new information and found ways it related to their own lives. Notably, many of the connections made were unrelated to the participants' work. Specifically, team members who did not identify as "caregivers" at work shared dementia care stories from their personal lives, because that is how they related to the information on the films. Another notable characteristic of comments from "caregivers" and "non-caregivers" alike was the reflective nature of their connections to events that happened long ago.

Dleeah (housekeeper, participant observation notes): I just wanted to say I wish I had seen all this during the time I was taking care of my dad and my mom...My dad had bad dementia, and I didn't know how to handle him. Seems like every time he went to the hospital; my family would call me. In the night they would

call me...Dad thought he saw people outside, people trying to break in the house. I thought *how am I going to handle this*...If I knew what I learned on these films, then I could have handled it better.

Camden (transporter, participant observation notes) said, “I’ve known a person with dementia for years. I’m watching [the videos], listening, and remembering how the person started to decline in talking and remembering things—i.e. my name, etc.”

Trey (security guard, participant observation notes): I came into this blind. I had two previous family members with dementia. I wish I had a lot of this information beforehand. I was totally blind dealing with them. This would have been really helpful if I’d had this a few years ago.

Molene, a nurse, remembered a time when she was able to share knowledge of dementia with an inexperienced family caregiver long ago, effectively validating what other team members had said that families’ caregivers could benefit from the information learned in the films.

Molene (RN, participant observation notes): I wasn’t really taking care of the patient as much as I was taking care of the daughter, because she did not know what to do. We went through a long journey. It lasted about eight months for her to get to know how to deal with her mother. This was a new situation for the daughter. We had to help her get over the guilt. But we also had to teach her what to give up, like what she wanted her mother to do or have done. We had to

explain to her, ‘What if your mother is not wanting to do this? Then we can do something else instead that is equivalent to that.’ For example, if the resident didn’t want to get in the tub, instead we would say, ‘Let’s just wash up right here in the seat in the bathroom.’ Is she going to die or get sick if she doesn’t get in the tub? No. And these are just the kinds of things we had to explain to her daughter. So what happened was the staff gained the trust of the resident. They never forced her to do anything she didn’t want to do. And the family really trusted us, because they could see that what we were doing was in their mom’s best interest, and we were helping the daughter too.

Comments from Dleeah (housekeeper) and Kennie (CNA) exemplify participants’ reflections on past experiences that ended successfully, which they understood better with more knowledge of the disease and related skills. They could see *why* their intuitive communication strategies worked well with the person living with dementia, and they felt justified that they had *naturally* used proven, person-centered dementia care skills. (Communication skills taught in the films included matching the emotional tone of one’s communication with the person’s feelings, empathizing, and using a combination of visual cues with short verbal cues to help a person with dementia engage in activity.) Their comments signaled a revelation—they may have had more of a role in dementia caregiving than they believed before the training.

Dleeah (housekeeper, participant observation notes): The majority of things I see are things I don’t work with. I work as a housekeeper, and I only deal with their rooms. I do sit and talk with them for a while though. As far as taking care of

them, that's not the job I do...I can relate to what [caregivers] are saying even though I'm not a caregiver. I've had some co-workers and family members call me into the room, because they say, 'She'll listen to you better than she'll listen to us.' I have known that resident to really trust me and come out of the room. The caregivers are trying to get her out of the room. It made me feel good, because I feel like this lady really takes to my kindness.

Facilitator: Based on what you've learned, what do you think made that lady trust you?

Dleeah (housekeeper): I guess the way I talk to her. I hug her a lot. I let her know that everything's going to be alright. Nobody's here to hurt you. She just trusts me.

Kennie, a seasoned CNA, shared a caregiving story from the long-ago past, and others in the group agreed with the sentiment: *I didn't understand what was happening then, but now I can understand why the person was behaving the way she was.*

Kennie (CNA, participant observation notes): I have a past situation that I'm thinking of. I had a client a while ago, she's passed away now, but now I realize the techniques from this class that I was using to get through those difficult times. She had dementia. A shower was very hard for her. Sometimes she would cuss you out. However, I realized she really enjoyed a back rub. So, if she was having a bad day, I would rub her back and say, "You know, we could go wash your back and I could wash your hair." The woman would say, "Yes, that might be good."

So, we'd get through it if we started with something she liked...I can understand it better now.

Armed with new knowledge of behavioral symptoms explained in the films, Bella (administrative assistant) also realized some of the residents' behaviors they noticed at work could be related to brain changes, not something within the resident's control. Bella (environmental service tech, participant observation notes) said, "Residents with dementia repeat themselves—all the time. I understand now it's not their fault. It's the dementia. They don't remember asking!"

Participants also related what they learned from the films to situations that were *not* going so well—that is to say after watching the films, they believed the dementia care challenge to be bigger than they once thought.

Isabelle (activity professional, participant observation notes): I have a different approach to it. My job is in the adult day care program, so I'm not a caregiver. Instead of having just one person I'm working with at the time, I have 12. I'm leading the activities, and you have to hone in on all the different personalities. Knowing which way to approach the different people, while still leading the program at the same time, is a big challenge for me. I'm very new at this. I came in thinking, 'I can't lead myself through things on some days. How am I going to lead 12 people with dementia?' So, a challenge that I'm facing is what works for one person might not work for 11. And what works for 11, there's always going to be one that is resisting.

Kennie (CNA) agreed that communication strategies don't automatically transfer from the film to real life, and dementia care communication is not a one-size-fits-all skill.

Kennie (CNA, participant observation notes): Yes, that's the truth. The man I'm struggling with now is very accustomed to one particular CNA...That CNA helps him on Thursdays, so he tells me, "I appreciate you honey, but no thank you." I try to suggest, "Maybe we could go in there and shave you; do you want to shave?" He says, "No. Thank you for offering."

Communication, which worked for the CNA in other cases, falls flat with this gentleman. Members of the group agreed with these participants that in light of their new knowledge of the disease, they appreciate more now that challenging cases are different in many ways.

Ruth thought of effective communication strategies she has been using with her own mother-in-law who has dementia. In light of Ruth's experiences and what she learned in the films; Ruth realized that more of her mother-in-law's caregivers needed the strategies that worked well for Ruth. She realized she has a bigger problem of team communication.

Ruth (housekeeper, participant observation notes): I was talking to my mother-in-law. She gives us a hard time about bathing. She gets very upset. She said, "I don't know why you want me to get in the tub." I told her the reason I help her is I might need her help one day. I talked it out with her, "I want to help you because I know you would do the same for me." [Ruth's tone of voice softens when she

demonstrates the communication]. I say, “You’ve always been there for me, so I want to be there for you.” When you talk to her like that, she comes around. I finally got her in the tub and got her all cleaned up. She’ll do it for me, because I talk to her like that. I found out with her, it’s important to let her feel like she’s in control of all this, and that I’m going to need her one day. She’s come around a lot with me, but not with her children—not with them at all.

Facilitator: You might say, “Wow, the success I’m having—it’s working.” You’ve found communication strategies that work for your mother-in-law, and she’s a challenging case.”

Ruth (housekeeper): You got that right.

Facilitator: I’m hearing you say that there are others on your team who don’t communicate with her the same way, and they don’t get the same results as you.

Ruth (housekeeper): Right. And she’s about to move to a new facility. She’s going to meet all new caregivers. It’s going to feel like starting over, because I’m going to have to teach all these new people what works for my mother-in-law.

Facilitator: You’re recognizing something in common with Camden’s good outcome: there’s more than one person who needs the strategies.

Ruth (housekeeper): A lot more than one person.

Making these connections and thinking of dementia-related challenges in a new way spurred more questions than answers for some participants. While participants directed

no questions to other members of the group, they did ask the facilitator questions about how to deal with specific challenges before, during, and after class.

Theme: Readiness to apply knowledge in practice. A brief back-and-forth exchange regarding Doris's question illustrates how suggestions to fix the participant's problem rarely satisfied when a full analysis of the person, the environment, and the challenge was not employed. In this exchange, Doris does not feel ready to try something new despite a quick suggestion from her co-worker, Trey.

Doris (volunteer coordinator, participant observation notes): What if there's somebody in the early stages? They might be living in the independent living part of the community. I have a volunteer who continuously forgets her volunteer schedule. She's in independent living, so I don't know about her condition or any diagnoses because of my position here. How do you navigate those types of situations when there might be a problem in the early stage? I've tried calling a couple of days before, and still sometimes it doesn't help.

Facilitator: So, you've noticed the problem. You've already had some good ideas, like calling in the day ahead. You're giving her reminders.

Doris (volunteer coordinator): I know she's got a calendar, because she says, "Let me check my calendar" when I call about anything, but it doesn't always work. One day she'll show up when she's not supposed to be there, then she'll skip her correct day.

Facilitator: Yes, she's coming on the wrong day.

Trey (security guard, participant observation notes): [He gestures, like a role play, giving the woman something] Here's what you can do, "I've got something for you to do." [He's offering a suggestion to the volunteer coordinator that she might engage the woman in a volunteer task despite the mix-up.]

Facilitator: Yes, you might greet her, "It's good to see you."

Doris (volunteer coordinator): But I have other volunteers saying, "She's not supposed to be here."

In other cases, the participant seemed satisfied with the information received in the program, and they reported feeling ready to act in a challenging dementia care situation should the need arise. One of the first ways participants said they would act was to share the information with others. For Ruth, Trey, and several others in the control group, this was the final step of the process; the opportunity never arose during the course of the program to try something new in the care environment. As we see in the final theme, Isabelle acted on her intention and translated knowledge in practice.

Ruth (housekeeper, participant observation notes): I'm planning to share the handouts from the program with my family.

Trey (security guard, follow-up interview): I did learn a lot about how to approach [residents living with dementia] and possibly how to keep them calm, because we will have to deal with them from time to time when we assist EMS if the person has to go on an ambulance...Naturally, that's going ramp up their fear and anxiety. They're going get real defensive, because they don't have an awareness of

what's going on. So, instructions and classes like this really help us to help the patient kind of calm down a bit, and it helps the EMS crew... That doesn't happen too often... However, from time to time we do, and I feel more prepared when it happens.

Isabelle (activity professional, follow-up interview): I want to pass along things that I've learned, not only to people that I work with who haven't gotten this training, but some of the participants that I've gotten to know a bit better.

Theme: Try something new in the care environment. Throughout the second half of the program, some participants in the control group applied knowledge learned from the films to current dementia-related challenges in their work. Isabelle's description of trying something new came during a situation in the final week of the program. Isabelle's new communication skills implemented during an interaction with a member of the adult day care program ended in a positive feeling for Isabelle and the woman living with dementia.

Isabelle (activity professional, open-ended response to RRMS at post-measure period): Last week, I had a participant in the daycare program. Normally, this participant uses public transportation to get here, but the bus wasn't running that day, so her son had to bring her. Her morning routine was all thrown off. Then he was late to come get her at the end of the day. Well, she was very anxious and upset, because she didn't know what was going on. So, helping calm her down, I used what I know about her from the stories she's told me in the past. I would

start one of those familiar stories, based on her words, and I would let her fill in the blanks where I didn't know the answers. Based on what she was telling me, I could go off of her mood and match her tone. That way we could talk about family that she was comforted by.

Facilitator: You used what you know about the woman to engage her in some storytelling, reminiscing. You know that her old, familiar memories are better than her situational memory. You helped with the language by giving her some of her words, and she was successful in that social visit with your help. How did you feel about that situation?

Isabelle (activity professional): I think that it went really well, because I was able to take her from a state of being anxious and being angry. When I said, "Remember that time he was late?" she said, "I do remember that time he was late." Then, she got a little chuckle out of it, which helped me change the subject. We were visiting, and by the time he got there, she was fine...The strategies immediately de-escalated where she was at. So, I feel really good about that.

Camden (transporter) explained another successful knowledge-to-practice event when she transported a resident with dementia to a doctor's appointment. At first, the resident became upset and did not want to get on the van. Camden explained she was concerned the resident could fall or miss the appointment without help to get on the van. Additionally, Camden was concerned for her own safety in the potentially dangerous situation. Camden's successful one-on-one interaction is notable for the skills she applied

from the program as well as the questions Camden still had about this particular challenging case.

Camden (transporter): This resident is difficult to help, because she doesn't understand what she's supposed to do. I changed my body position to give her more personal space. This time, I gave her visual cues; I made eye-contact with her. The visual cues were helpful, because she can see better than she can understand words.

Facilitator: When you made those changes in the environment and your communication, did it work better for her? Did she get on the van safely?

Camden (transporter): I could see that she was still agitated, but I had other things going in my mind. For instance, it could've been her medication. Anyway, I tried to get on her level. She was cussing a little. I said, "We're going to the eye doctor." She can't hear well, so I just repeated "We're going to the eye doctor." I tried pointing to my eyes. Then, she said, "OK," and she was fine... Well, going through this class now, I have a little more understanding... you have to go with their mood. Which I knew that, but I guess dealing with the more aggressive person, you really need to understand that more so they're not so agitated when you're driving. I mean, the family member couldn't even calm her down.

Participants' Perceptions of the Experience

Participants in both groups communicated their perceptions of applying knowledge in challenging dementia care situations and the impact the respective

programs had on their work. Furthermore, advisory committee members also contributed important perceptions of the two programs, as they were involved in program development and had knowledge of both traditional, skills-based approaches to staff training and the intervention program. Seven themes surfaced from the quantitative data to answer the second research question in Specific Aim #3: how do participants' perceptions of experiences in their respective programs differ between the OA-based program and skills-based program? These themes emerged during follow-up interviews with direct participants of both groups as well as during advisory committee meetings in which key informants shared their perceptions regarding the generalizability and feasibility of implementing an OA-based program. Summarized in Table 9, participants' perspectives (direct participants and key informants) revealed themes and subthemes pertaining to the nature of the two styles of programming (what worked and what didn't, impact on my work), the lived experience of dementia caregiving on a team (What are we trying to do here? What do we hope to accomplish), and the challenges of implementing knowledge in practice (What makes knowing necessary but inadequate? What's helpful about a process?) more than any particular piece of new knowledge or single challenge.

Table 9

Themes Emerging from Follow-up Interviews and Advisory Committee Meetings with Supporting Quotes. Note: IG=intervention group, CG=control group.

Themes that emerged	Extracted quotes
Blended groups provide knowledge, perspectives, and comradery with co-workers	Knowledge “That's why I say I learned a lot, because I didn't know a lot about the sickness. I picked up a lot about that [dementia] especially since the group was so blended, It was really awesome.”—Jake (maintenance worker, IG) Perspectives “Non-clinical staff are helpful for problem-solving because we healthcare workers approach problems from a clinical mindset”—Audrey (RN, Unit manager, key informant) “I believe all of us, in one way or another, we see these residents on a day-to-day basis, and we pick up on different things. I think when we all came together to troubleshoot things, it all worked out to the best. It was just amazing—the outcomes on the challenges and the strategies that we came up with to try—to prevent them from hurting themselves or from hurting others.”—Christopher (transporter, IG) Comradery “I feel like I could interact more with some of the different disciplines, someone that maybe I wouldn't have before.”—Isabelle (activity professional CG) “I liked hearing all the different stories from different parts of life. Like I said, there were people from different departments—housekeeping, maintenance—and everybody had an interaction. Whether it was different from mine or not, but they had a situation, and you can see where the information applied. That was very helpful. Yeah, making that bond, it was very nice.”—Kennie (CNA, CG)

Dementia-related knowledge is useful in personal and work life	“There were several times throughout the program when lots of us would say, ‘This would have been nice to know when I was dealing with this in my family.’ So being able to apply it to your personal life too made this class better than most work training.”—Doris (volunteer coordinator, CG)
Presentations from a “sage” are valuable learning experiences	Knowledge can inspire “The facilitator found ways to give information, not just an educational way, but a way that pulls on our hearts.”—Isabelle (activity professional, CG) Experts’ stories help one process new knowledge “Our teacher was great and forthcoming with her own information and personal experiences. Her own personal stories and experiences made it more personal, and she made it a lot easier for everybody to learn.”—Trey (security guard, CG) Personal and professional development involves collecting new knowledge “I’d be interested in continuing my education with this teacher if she has other classes.”—Trey (security guard, CG) “I’m a person that loves continuing education. I have a thirst for knowledge.”—Cayden (wellness director, IG)
Knowledge is necessary but inadequate for dementia caregiving	“We need to be clear about what’s valuable here and what’s nice to know. For instance, if employees get more techniques, that’s fine. There’s nothing wrong with that, but that’s not going to work in a wide range of situations over the long haul. New skills alone will not provide teams with a sense of relative mastery over a range of challenging cases. It’s not going to build a team. It’s not going to do all the other things. In traditional classes, they’re going to learn a few tricks. The tricks are fine, you’ve got to have them, but they’re not enough.” —Craig (board member, key informant) “Just sitting and watching the videos—that’s helpful and everything, but then to apply to real-life scenarios, that’s different.”—Doris (volunteer coordinator CG)
OA-based approach facilitates learning	Gained appreciation for other team member’s strengths, skills, and work-related challenges.

from each other <i>and</i> the facilitator	“I love how we had folks from different departments as part of our interdisciplinary team to be able to provide different insights on different cases. I thought that was very insightful to be able to learn from others that way.”–Cayden (wellness director, IG) “I never even thought about transportation dealing with these kinds of issues. It was a wakeup call really.”–Faye (CNA, IG) “Everybody in our class was open-minded, and we all worked together to come up with the with a new idea of how to make our intervention work better with different residents. We all worked together as a team, and everybody was very active in that scenario or that case.” –Christopher (transporter, IG) Leadership opportunities exist for “process experts” or peer mentors. “On our unit last week, my staff had a challenge and said, ‘We don’t know what else to do.’ We decided to convene a pop-up learning circle. We invited Annette (CNA), because we wanted someone who knew about the process. Annette was our ‘process expert.’ We brought her in because there were others in this follow-up circle who had not been in the OA-based program before.”–Audrey (unit manager, key informant)
Team-centered adaptive process is generalizable	“I just feel sorry for those [cases] that we might have missed. I mean we could do this with every resident here. [laughing] So, we picked and chose some folks as cases who might benefit the most, but the process we can take and apply to everyone, and I think that was a big takeaway for everyone.”–Cayden (wellness director, IG) “We’re trying to disseminate this through and use it in other ways, outside of dementia care. We’ve started employee Learning Circles all around in every area of campus. Laura, Mark, Kimberly, and I all lead those. We’re using the same model in other areas of campus to have employees come around and think about challenges with their work and collaborative solutions. So we are trying to use this OA-based model in other areas of campus.”–Cherry (social worker, key informant)

	“After our pop-up Learning Circle last week, many of the staff said, ‘Hey, we could use this a lot of times.’ They want to get together as a group more often and pull people from different areas, people we don't work with every day. I think the biggest takeaway for them was, ‘Hey, we really could utilize our teammates from other departments, and maybe that's a piece that we miss sometimes.’ It's a problem-solving process for anything.”—Audrey (RN, unit manager, key informant) “The model of the Learning Circle is just inherently interdisciplinary. So, it's not that you need the Learning Circle for the maintenance or for dietary services. If the problem is a problem of dementia, then all the services are welcome to participate in a Learning Circle. If the problems are not dementia-related problems, then you're thinking about a Learning Circle using just a different set of knowledge and different set of interventions.” —Craig (board member, key informant)
Feedback regarding content and structure	Helpful tools/materials “Heather was very good at using layman terms. Sometimes terminology isn't clear for everybody, so to be able to use analogies to help everyone understand, I think that is a <i>really</i> good aspect of what she did. That's one of her strengths. Like I said, she wrote everything up on the board, so that made it really clear to everyone that we were talking about the same thing. I think that keeping everybody focused like that was a strength as well.”—Cayden (wellness director, IG) “That's the hard part for us is figuring out how to get them started. Now we'll go right into that interview, and we'll write it all out where everybody can see it. We will continue to bring in a variety of people. Having the written materials that Heather provided for us—the outline, having those questions in advance, the big pieces of paper with the flow of the meeting. Those are things, as a leader, that we can use to help facilitate the next pop-up Learning Circle.”—Audrey (RN, unit manager, key informant) “We would have three cases going at one time, and she would have charts, and she could just focus us in on different areas between those cases and keep us going. It was so good, it's

almost like you could resolve one and go to next one and then bring in another one. It wasn't just one particular case.”—Jake (maintenance worker, IG)

Team-based interventions

“It's like detective work. When I go to a house three or four times, and I've got my radar on, and I'm not sure about something, the class helped me focus on what to try next, who else should I make aware.”—Jake (maintenance worker, IG)

“When we discussed what our issues were, different techniques...we came up with different scenarios for things that we could try, and that just kind of rolled right into the day. Different ideas that the people would come up with, that's what was easy to apply.”—Faye (CNA, IG)

Action periods

“It gave us time to go over plans prior to our action, and then we could go over what happened after the fact.”—Jake (maintenance worker, IG)

Dual focus on content and process

“In the Learning Circle, I learned the importance of asking more questions and getting more information about the story.”—Don (maintenance worker IG)

“It would take me and a couple other people to figure out what [stage] of dementia [the resident] is in, and that's what made the class helpful. We were allowed to bring up a case and say, ‘Let's figure out what we're doing. Hey, are we here? Have we tried this? Do we do this?’ We evaluated that situation, what we did overall, and that helped me get through several cases. It helped me figure out. Now I look more than I used to. It's made me more aware of what I hear and see, where I used to just run in and run out. It's made me more aware of the situation.”—Jake (maintenance worker, IG)

“I think one of the things I've learned from this is not to take on those challenges myself. I can go to other people on that interdisciplinary team and ask for advice or say *Hey, what do you think about this?* Now I know how to reach out for help—

even in areas where you think you might not be able to find answers.”—Cayden (wellness director, IG)

Recommendations

“I think it was a phenomenal program, and I hope they keep it up. Maybe they should try to get more people together as a blended group instead of together in separate groups. A blend is awesome.”—Jake (maintenance worker, IG)

“I’m wondering where we go from here. This isn’t an end game. Whatever we learn, we have to put into practice. That goes for all of us. So, could there be a follow-up thing later? What have we retained? Because there was a lot—just to make sure that everything stuck.”—Cayden (wellness director, IG)

Mixed Methods Comparisons

Mixed Comparisons Between Groups

Statistical differences were found between the groups in terms of measures of relative mastery and team development. Likewise, comparative analysis of the qualitative data of both groups also revealed salient differences between the two groups. Overall, the comparison of quantitative results with the descriptive qualitative findings between the two groups suggests that the themes support the statistical differences between the two groups. Specifically, the underlying experience of resolving challenges through teamwork was notably more prominent in the actions and narratives of participants in the OA-based group as opposed to the control group.

“They were so good. I was so amazed about that. Really, all of us were amazed. [Teammates] would give me ideas. I would take and I would try, and it worked with that first couple [the Queens]. It wasn't just my case. There were other cases too. We all gave ideas and things to try. At first, we didn't think it would work, and somebody would say, ‘Well, maybe we should try it another way.’ Then, my coworker and I would go back and try again. We would come back the next week, and [my teammates] would say, ‘Did you try it?’ We would say, ‘Yeah, and it worked!’ It was good.”—Betsy (CNA, IG)

“We had maintenance, groundskeeping, transportation, memory care, nursing, wellness staff, so we had a real variety of people throughout our campus from different departments to come together, and it really worked fine. We had three

cases. It was amazing how many people in the class came together and figured out the trigger points, as to what we were trying to resolve, in a better way to treat these residents with dementia.”—Christopher (transporter, IG)

“I really did enjoy this program, because you got to interact with different people in different situations, come up with a case. You would come up with an idea, or different people would come up with different ideas, and we can talk it over, the pros and cons, such as that. They came from all over the campus, so it covered all areas and it gave me ideas. The interaction was really comfortable. If they have a problem with one of the residents, and I can speak up and give my opinion, and there was no problem whatsoever, it was accepted. Likewise, I could have an issue, and they would discuss with me and give me suggestions/ideas. I came up with the need to keep Al busy. We need to keep him active. So then, the activity coordinator, the exercise leaders, jumped in and said, ‘I’ll meet with him and take him for a walk.’ And I thought, *great*. It was just the constant working back and forth, ideas. People said, ‘I’ll do this,’ and someone else said ‘I’ll try that,’ so it just kind of came together.”—Faye (CNA, IG)

The majority of participants in the OA-based group and leaders in the advisory committee expressed desire to use the OA-based process to organize blended teams around future challenges in the dementia care environment. Contrasting to that was the control group, who frequently mentioned their problems persisted; while they recognized that solutions would require cooperation from others, they had no *process* for engaging

others in problem solving. The thematic data captured this variance between groups, even though the control group did improve in relative mastery over the course of the program.

Comments from the intervention group deepen our understanding of team-centered occupational adaptation (a highly significant difference between the two groups on TDM) as a fully integrated social process through which groups are more capable of meeting their shared challenges. All these experiences of solving dementia care challenges by working together are embedded in themes and subthemes that converge with (support) the quantitative analysis, deepening the understanding of a team's collaborative process of occupational adaptation facilitated by the intervention program.

Mixed Comparison Between Data Sets

Comparison of quantitative and qualitative data sets revealed a great deal of variance. Support and contradictions were found between participants' quantitative scores and qualitative accounts. Categorizing participants' quantitative profiles on the selected measures of RMMS and TDM revealed three general patterns including: 1) minimum variation (consistency); 2) maximum variation (transformation); and 3) incongruent variation (change on one and not the other). Example cases from each of the observed patterns are presented in the joint display Table 10. For each example, participants' comments were compared side by side with the quantitative profile to determine congruence (comments trending like the scores), divergence (comments trending unlike the scores), or contradictions (comments sometimes trending like and sometimes unlike the scores)—illustrating how mixing data can help us understand both. The overall

account of the OA-based program is that it resulted in significant improvements in both relative mastery and team development for the intervention group, but the mixed comparison between data sets revealed one exception in the case of Don, a maintenance worker in the intervention group.

Table 10

Joint Display for Congruence, Divergence, and Contradictory Findings Between Quantitative and Qualitative Data Sets.

Quantitative profiles of exemplar and negative exception cases.			Qualitative data—Participants’ quotes and related thematic concepts.
Minimum variation (consistency) on both instruments (how many participants)			
MOLENE most stable score in the control group			Congruent —Narratives trending like the survey scores. “I was able to have a good conversation with a resident who has been staying in bed, sleeping all the time, and not talking or even looking at anyone. I presented myself as someone she hadn’t seen in a long time, and that I was so glad to see her—and I just went from there. Anyone who has worked in healthcare (referring to the SNF area at the CCRC) as long as I have, then you may be the person I’m talking about.”
	RMMS	TDM	
Pre	25	32	
Mid	24	39	
Post	24	33	
Maximum variation (transformation) on both instruments			
FAYE most positive change, EXEMPLAR from intervention group			Congruent —Narratives trending like the survey scores. Well, the training program was different than any other I’d been in before. I really did enjoy this program because you got to interact with different people in different situations, come up with a case. You would come up with an idea, or different people would come up with different ideas, and we can talk it over, the pros and cons. Each and every person in the group would try to problem-solve different things that they might be able to do to help the situation—or just try. If that didn’t work, then the next time we come back, we would try to come up with something different. We would go over what we had discussed, what we had tried, what success we had—or not. But it was a lot of success.
	RMMS	TDM	
Pre	15	54	
Mid	23	63	
Post	27	74	

DORIS most positive change EXCEPTION from the control group

	RMMS	TDM
Pre	13	60
Mid	15	72
Post	16	74

Contradictory—Conflicted narratives, sometimes trending like the scores sometimes unlike the scores.

It was really interesting. It was a lot of good reminders. It was nice to kinda see what everybody could be facing and find challenging with their jobs.

I was able to take some things like the hand-under-hand technique, I was able to take some of that stuff that I learned and apply it to my trainings. Through the dementia care training, I would say the fact that it was videos, that was really kind of difficult, because I'm a more interactive learner.

Incongruent variation (change on one instrument but not the other), i.e. increasing trend in RMMS and no change in TDM

ISABELLE biggest discrepancy EXEMPLAR from control group

	RMMS	TDM
Pre	15	50
Mid	21	48
Post	24	49

Congruent—Narratives trending like the survey scores.

I already had the basics that [Heather] talked about. I already knew the hand-under-hand technique and the importance of your demeanor and your presence, which people with Alzheimer's and dementia can pick up on. But seeing it again on the video and seeing how the family members talked about that, it really put it in a different perspective for me. I was able to have a much better one-on-one connection with the person living with dementia.

BELLA biggest discrepancy EXCEPTION from control group, divergent because comments about teamwork are missing

	RMMS	TDM
Pre	20	53
Mid	24	58
Post	24	59

Divergent—Narratives trending unlike the survey scores.

Residents with dementia repeat themselves—all the time—I understand now it’s not their fault. It’s the dementia. They don’t remember asking!! I’ve learned to think first—this resident has dementia—they might be living in the past. Think before you act. Go slow. Always stand to the side of them. Never come up behind them. Use visual cues. Ask them to do something instead of tell them to do something.

DON biggest discrepancy EXCEPTION from intervention group

	RMMS	TDM
Pre	25	52
Mid	26	64
Post	24	74

Contradictory— Conflicted narratives, sometimes trending like the scores sometimes unlike the scores.

I recently had a resident with dementia ask questions about her HVAC system. Since the program, I was able to approach the resident better to help her with the HVAC system.

I’ve learned the importance of asking more questions and getting more information about the story.

There was one case exhibiting the pattern of minimum variance, an extremely consistent quantitative profile. Molene, in the control group, had almost no variation on either of the two measures over time. This case stands out among the control group, which tended to improve in relative mastery despite stable team development. Molene’s quantitative profile is stable, because Molene ended the program within one point of where she began on both RMMS and TDM. Molene’s narrative comments trend like the

consistent survey scores. Molene, a highly experienced nurse working in the skilled nursing area of the CCRC, has been using many of the dementia care skills taught in the control group for years. Her formal nursing education likely included skills training similar to the control program, and her years of work experience in the skilled nursing facility has shaped her identity as a seasoned dementia caregiver. Molene's TDM scores stand out as the lowest of all participants. She represents a team member who has the most to gain from positive team development. Molene's comments indicate she remains open-minded toward teamwork, but her prior attempts to communicate and collaborate with co-workers have left her unsatisfied. Given her success in applying knowledge, experience, and creativity in effective one-on-one interventions, Molene could benefit from a program that targets the team's process of adapting together. An OA-based program would capitalize on Molene's adaptive repertoire, provide opportunities for her to lead and teach, open avenues for new partnerships, and lend a sense that others share the same mission with her, ultimately boosting Molene's work satisfaction.

Two cases of maximum variation exhibited the greatest change within both of the selected measures over time, with improvement on both scales. Faye represented the exemplar in the intervention group, as her RMMS and TDM change scores were in the top five for both measures. Faye's transformation in both measures tracks with the change scores of her group, but Doris stood out as an exceptional case for her transformational scores, unlike many others in the control group. Faye's comments were congruent with her quantitative scores. Doris's comments are categorized as contradictory, sometimes trending like her scores and sometimes not. Particular attention

was paid to Doris's increase in team development, because her comments reflected a dissatisfaction with the lack of team problem-solving in her program. However, she is sharing what she learned with other co-workers and volunteers—a valuable take-away, in her opinion—from the skills-based program.

Incongruent variation was expected among the control group whose group improved in relative mastery but not team development. Therefore, it is not surprising to see a control group member, Isabelle, emerge as the exemplar case for the incongruent variation category. When combining the quantitative and qualitative data, Isabelle's comments trend like her scores, a congruent between-data sets comparison. A second control group case, Bella, stood out among the incongruent category (the category for most control group participants). Bella's quantitative profile was atypical for the control group. Her change score for team development (TDM) was higher than most control group participants, and she did not experience the significant improvement in relative mastery that others in the control group did. Bella's quantitative profile had the incongruent pattern of change on one measure and not the other, but her change was on the opposite measure compared to most in her group. Bella's qualitative data represents a divergent relationship with her survey scores, because sometimes the narrative comments do not include any mention of teamwork. Given her post-intervention example using some of the dementia care strategies taught in the educational videos, we might have expected her to see improved relative mastery scores, but the TDM scores were not qualified with any comments regarding teammates.

The final example is possibly the most interesting reveal in the between-methods comparison. Don's quantitative profile stands out in the intervention group as an incongruent profile—a highly unusual profile because he did not experience the significant relative mastery improvement as did his teammates in the intervention group. In fact, Don was the only member of the intervention group to score lower on RMMS over time. The decline is even more surprising when Don's high team development scores are considered—the relatively stable trend in RMMS coupled with increasing TDM, representing internal contradictions between the two instruments. A closer examination of Don's individual RMMS scores over time and comments throughout the program help to elucidate an understanding of both his quantitative and qualitative data.

CHAPTER V

DISCUSSION

Viewing this study's comprehensive findings through an occupational lens (a combination of OA-theory and Deweyan constructs applied to occupation-based teaching and learning) is helpful to understand how and why an OA-based approach was more effective than a skills-based approach at facilitating a team's relative mastery and team development.

Interpretations of Findings

Analysis of three challenging cases made up the bulk of the activities in the intervention group and shaped certain actions and behaviors from participants. As the group became familiar with each case and engaged case-specific problems, participants were observed moving through the steps of the OA process in a cohesive, social way—exhibiting the concept of *team-centered OA process*. Project management literature uses the word “team-centered” to describe a whole-team approach to the process, in which everyone on the team is held equally responsible for the quality and success of the project's outcome (Rouse, 2011). The whole-team approach is valued, because it recognizes that for the team to be successful as a whole, team members must cooperate (Rouse, 2011). Furthermore, team members may frequently step outside their customary roles when the need arises, to move the team forward toward its project-specific goal, not being stuck in the viewpoint of “that's not my job” (Rouse, 2011). As participants demonstrated in the intervention group, team-centered occupational adaptation in dementia care is a shared experience in which team members combine their knowledge of

the whole situation (including but not limited to knowledge of the person, the environment, dementia, and other health conditions) with each other's past experiences and creativity in order to resolve the challenge together.

Additional literature elucidates themes in the intervention group's team-centered OA process. For instance, *getting to the heart of the matter* is an important preliminary step in problem solving referred to as "problem setting" (Cox, Wenngren, Holmqvist, & Ericson, 2014). West (1990) emphasized the importance of problem setting in her opening address at the Directions for Future Facilitators' Seminar, "One of our most limiting professional traits is our propensity to seek solutions before gaining a fundamental understanding of the problem." Once the team had identified a potential root cause of their problem, they discussed possible solutions in terms of what might match or target the root cause, drawing from the knowledge and experience of the whole team. Spencer et al. (1996) referred to occupational adaptation as a cumulative process emanating from one's life history, producing a person's adaptive repertoire. In this social process, the team mobilizes a *collective* adaptive repertoire that is greater than that of any single team member. The team's ideas generated during *collaboration on case-specific plans* were better suited for the case than ideas put forward before the in-depth case analysis.

The theme *cooperating to implement with teamwork*, another aspect of the team-centered OA process, is also strengthened by a construct in the literature. It was unexpected that Cayden (Wellness Director) would be involved in the intervention with Mr. Queen, but the OA-based program prepared and empowered him to get in on the

team's action. During his encounter with Mr. Queen in the gym, Cayden was particularly attuned to the man's mood and abilities during the exercise—he noticed Mr. Queen was at his best. Additionally, Cayden noticed himself feeling equipped to tackle a difficult conversation. Cayden's knowledge of the team's challenge, Mr. Queen's struggle with recent changes, and his teammate's effective communication strategies merged with what he was seeing and feeling in the moment. Cayden's awareness of it all spurred his decision to act because Cayden *felt* the presence of an opportunity and was able to foster a positive conversation with Mr. Queen about his changing circumstance during their exercise. Occupational scientists refer to the vibe Cayden felt between himself and Mr. Queen as intercorporeality of the body and the opportunity present during the pair's exercise as the embodied nature of occupation (Lala & Kinsella, 2011).

Two noticeable differences in participants' actions and behaviors with regard to communication in the control group were a) communication was overall less than in the intervention group and b) communication was directed more to the facilitator than between other members of the group. In education literature, communication flowing mostly between teacher and student is an indication of a hierarchy in the classroom in which the teacher is believed to possess the knowledge and impart it to the student. Of Grasha's classic five teaching styles, the expert is similar to a coach, who shares her knowledge with students, demonstrates expertise, advises students, and provides feedback to improve understanding and promote learning (Gill, 2013).

With respect to the mixed comparison between data sets, Isabelle's comments are interesting for her explanation of what was good about the control program. Isabelle

listened, processed, and thought deeply about the stories she heard in the films. The family caregivers' narratives caused Isabelle to reflect on her past experiences, examine her own practice, try new communication strategies in a challenging situation on her own, and feel a stronger sense of purpose in her work. All of those factors caused Isabelle to describe the experience as very positive—even without the element of teamwork. Isabelle's case was a pleasant surprise in the research, so I returned to the literature to examine my own bias about the intervention program. Nichols (2016) wrote a cautionary op-ed regarding the misjudgment often made about didactic versus action-oriented, experiential teaching methods (sometimes referred to as “sage on the stage versus guide on the side”). The mistake, according to Nichols, is that the sage's didactic teaching style is always seen as bad, and the dynamic all-teach-all-learn shared experience with the guide is always good. Isabelle's positive experience of the skills-based class echoed what education specialists explain is valuable about lectures delivered by experts in their field. It can be a positive learning experience to sit and listen to the narratives and words of wisdom from more experienced people. In fact, quietly listening, processing, and thinking of a construct in new ways could be considered “soft skills” development facilitated by quality lectures (Nichols, 2016; Worthen, 2015).

In any study involving people, we can expect scenarios that run contrary to the observed pattern for the simple reason that people are different, and their perspectives do not always merge. Creswell (2014) highlighted the importance of exploring negative or discrepant findings to boost the credibility of an analysis. The most important discovery in this mixed comparison was a negative exception case in which the intervention did not

work for Don (maintenance worker) the OA-based group in the same way it did for the rest of the group. Contributing factors to Don's relatively stable RMMS was an up and down in efficiency (ending slightly lower in post-efficiency than pre-efficiency) coupled with no change in effectiveness and satisfaction scores across all three time periods. With regard to Don's up and down in efficiency, presumably, some of his interventions saved time, while others required more time. Specifically, in the post-measurement period, what he considered "approaching the resident better" took more time. Regarding the second two components of overall relative mastery, effectiveness, and satisfaction, Don's comments at the pre-intervention period indicated he already had good strategies for gathering information about a resident's problem and the social context surrounding the situation. He identified a work-related dementia care challenge in the pre-intervention survey and reported an effective environmental modification in that he ranked as effective (6/8), efficient (7/8), and satisfying to himself and others (6/8). At mid-intervention measurement period, Don reported he was learning the importance of asking more questions and getting more information about the story surrounding a challenging case.

While Don was one of the quieter participants, his thoughtful comments about Mr. Queen's valued role of caregiver for Mrs. Queen were critical in shifting the group's understanding of the main concern in Case #1, which led to a creative intervention addressing the needs of both spouses in that case. During Learning Circle 8, Don's thoughtful question pertained to the context of the group's challenge. In another situation, Don asked Cayden about the person's feelings, opening up the group's conversation to

gather more person-centered information about the case. Again, Don demonstrated his ability to help the group consider the people and who they are in order to identify the main concern in a challenging situation. While Don's case did not match the intervention group's trend in dramatic improvement on the RMMS, his behaviors and comments were sometimes consistent with his scores and sometimes inconsistent. Therefore, the between-data set comparison was contradictory.

While previous interpretations of findings were more specific to the data analyses (quantitative, qualitative, or mixed), the following interpretations are more broadly related to the questions of *why* the intervention program was more effective in translating the team's knowledge into practice and answering *so what*. Three main contributing factors to the team's ability to solve real-world challenges with teamwork are identified in the OA-based program and supported by existing literature. Finally, immediate and broader implications are considered as the study's findings are relevant to dementia care educators, consulting occupational therapists working with organizations, and the theory of Occupational Adaptation in general.

OA-based Program Connects Teams with Contexts

The first contributing factor to the OA-based program's success is a simple but important curriculum design feature. The OA-based program situates the team's challenge by using the team's selected case as the primary learning activity. Findings in this study are supported by research linking patient-related outcomes in the dementia care environment with participants' opportunity to discuss examples from their own practice and engage in collaborative problem solving guided by an experienced trainer (Surr et al.,

2017). The particular curriculum design choice in this study (using the team's current challenge versus a hypothetical challenge) fits with John Dewey's philosophy on education (1963), which proposed the "indeterminate situation," also known as a "problematic situation," as the energizing force in human thought and action (Cutchin & Dickie, 2013). Unlike a hypothetical case presented by a facilitator, the team's chosen case allows for a greater examination of all aspects of the situation known more by the team than by the facilitator. Furthermore, allowing the team to select a current challenge for analysis presents opportunities for the team to carry ideas and action plans between the classroom and care environment for testing, which inevitably yields new experiences and propels the team with the situation forward. The story of Case #2 provides an example of how the intervention team's challenging case connected them with the context and enabled their occupation (dementia caregiving as a team) through a team-centered OA process. In Case #2, the team was clearly connected with the context when participants deliberated possible interventions to help one resident on the dementia care unit make safe nighttime trips to the bathroom. Their intimate knowledge of the case's context steered the team to ideas about underlying root causes of the problem and realistic solutions—and drove the team to think about what would actually work, instead of applying generic care plans.

The team brought all knowledge of the situation in Case #2 to bare on their hypothesis that nighttime monitoring was at the root of the resident's toileting problem. Based on what they knew about the resident, the environment, and the nightshift's work routines, any new monitoring system would need to be wireless, pose no startle or fall

risk to the resident, and alert the caregivers at their location anywhere on the unit. While the team initially related with their context by imagining potential interventions to shape their situation, the team's full connectedness with the context was appreciated when they "shopped their ideas" with others in the situation and felt the constant, simultaneous shaping influence the situation was having on the team. The mutual relationship that connects people with environment and enables occupation—a fully integrated relationship in which people are constantly and simultaneously shaping and shaped by their situation—is a core concept in transactional perspectives on occupation (Cutchin & Dickie, 2013). Dickie and Cutchin explained that the person-environment-whole relationship is fundamental of a transactional perspective on occupation and is derived from Dewey's opposition to dualisms, such as subject-objective distinctions (Cutchin & Dickie, 2013).

We see the way the team's challenging case illuminates the mutual relationship of the team with the environment when members of the intervention group carried ideas to and from other coworkers involved in the case but not present in the Learning Circle. Specifically, Greg's discussion with the unit manager during one of the action periods produced a new potential solution not yet considered by the team: more frequent carpet shampooing. Though the daily cleaning sounded at first like a quick fix, the suggestion was met by thoughtful push-back from the housekeeper in the Learning Circle, who explained the significant impact daily carpet cleaning would have for her work routine. Ultimately, the team prioritized a new technology for nighttime monitoring over regular

cleanings, because they realized that *cleaning more* would ignore the resident's underlying need and undermine the housekeeper's role on the team.

The case served as the team's vehicle for translating knowledge to and from the care environment and became the center for cooperative action. In this way, the case facilitates the occupation of dementia caregiving with a team and serves as an important "functional coordination" (Garrison, 2001) of the team and its work environment.

Without a current challenging case serving as the center for ongoing action in the skills-based program, but instead with mere knowledge gained from the skills-based program, the control group did not experience and reconstruct their situation as comprehensively.

OA-based Program Provides Structure for Action

This study's findings, in light of existing literature, point to the overall structure and flow of the OA-based program as a second contributing factor to the program's success; the temporal flow of the OA-based program impacted both the team's mastery over individual cases and the team's OA process itself. Considering the impact of program flow on relative mastery in individual cases first, ongoing case analysis coupled with scheduled action periods, in particular, provided a structured process for the intervention group to generate adaptive responses, test ideas through occupational responses in the care environment, evaluate the occupational events, and incorporate new information into next steps as the case unfolded over time in unpredictable ways. The temporal flow of the program allowed the team to follow up with additional analytical cycles until the team deemed the challenge resolved.

For each challenging case, the OA-group was able to gather ideas from teammates and modify their cooperative responses in the care environment multiple times to realize their goals. The intervention group saw plans through to completion, because the program was structured to follow the case over multiple sessions of the Learning Circle. The original theorists explained that the OA-process is an ongoing, iterative process (Schkade & Schultz, 1992). Interventions based on OA naturally occur over time and include follow-up recurring cycles of assessing past responses, planning, and implementing new or modified responses in the same challenge. In the OA-based program, each challenging case was analyzed over multiple sessions with action periods planned between sessions to drive ongoing problem solving.

Participants and advisory committee members reported multiple aspects of the program structure as helpful: a) the structured interview protocol guided the steps of case analysis, b) the structured plan for action periods covered important details and made the plans more achievable, and c) the alternating rhythm of Learning Circle sessions and action periods gave the team more opportunities to fine tune adaptive responses. Even if a program included the first design feature (contextually relevant challenging cases) but did not follow ordered steps such as case analysis, action period, and ongoing problem solving, the impact on team development would be unlikely. In that instance, a case presentation would be considered an episodic event verses the ongoing occupational challenge employed to facilitate the team's active process of gaining relative mastery over the challenge. The existing literature regarding OA in clinical practice has described OA-based interventions as facilitating action beyond the therapy session in direct

interventions (Buddenberg & Schkade, 1998; Jackson & Schkade, 2001; Johnson & Schkade, 2001) and programmatic interventions (Schkade & Schultz, 2003), in part due to the ongoing flow of trial and analysis between the intervention sessions and practice opportunities in the occupational environment.

In addition to the temporal flow from start to finish in a single case, the OA-based program's design included repetition of the analytical process in three different cases, which allowed for attention on the team's OA process itself. By the third round of case analysis, the team improved their ability to reflect on contexts of the case, identify their concerns, specify occupational challenges, hypothesize root causes of each challenge, collaborate to plan multiple interventions during the action period, and recognize and avoid potential process pitfalls—a sign that the team's OA process itself improved across the course of three cases. The story of Case #3 is the best to illustrate how the structured, action-oriented process helped the team gain relative mastery over the challenges *and* hone the process itself on the third round. The team picked up steam in the third case, as evidenced by their handling more than one concern in the case, collaborating with more outside stakeholders to implement multiple plans during the action period, and considering more “process tips” learned in previous cases.

The process improvement was interesting because it suggested that continued improvement of the outcomes could happen as OA becomes more routine for this group. Specifically, the team determined that one CNA's successful communication strategies with a resident in assisted living could be used by more coworkers in the dining room to help the resident select and enjoy his meal. The CNA had already discovered an adaptive

response to the challenge when she modified her communication with the resident to include more visual cues for instructions (physically pointing to foods that were on the menu) and shorter verbal cues when presenting options (asking the resident, “Do you like a or b?”). Additionally, a housekeeper working in the dining room included humor and social chit-chat, with a friendly respectful tone of voice to maintain a positive emotional feeling for the resident during the mealtime routine. The team collaborated to plan ways to share these effective communication strategies with more coworkers in the dining room. When the additional dining room helpers used the strategies successfully and agreed that the new style of communicating with this resident would be the new normal, the team judged the response as highly adaptive and integrated into the team’s systems.

At the same time the intervention was taking place in the dining room, two more interventions were implemented in Case #3 in a collaboration between the wellness department and activity professionals. First, the wellness professional (Olivia in the intervention group) met with the activity director in the assisted living area (an employee not in the study) and devised a plan to provide the resident in Case #3 more information about daily activities by making activity calendars more visible around the unit. Posting more calendars around the unit might seem like a minor environmental support, but the result for the resident who needed more visual cues in order to select and attend activities was positive. Finally, during the same action period, Olivia (wellness professional) implemented a third intervention with the resident, as developed by the team to address the team’s final concern: a desire for more leisure activities to fill his day. When Olivia invited the resident to go for a walk around campus, Olivia gathered more person-

centered information from the gentleman himself and brought back new ideas to the team regarding this resident's skills and desires. Armed with new information from the resident himself and multiple instances of relative mastery in this case, the team devised a plan to establish a new walking group just for men to socialize and exercise together weekly. In Case #3, team members agreed that identifying a place to start and taking cooperative action were helpful to avoid the "quick fix" pitfall, in which teams get frozen and unable to make the first move, because they unrealistically expect to solve the challenge in the first step.

As illustrated by Faye (CNA) and Olivia (wellness professional), the intervention group also identified two more process tips: action periods are more productive when details of the plan include who will do what, when, where, and how; and communicating with other key stakeholders not present in the Learning Circle is an important part of implementing interventions with teamwork. Beyond the progress made with one resident in Case #3, the most beneficial effects of the OA-based program for the intervention group are likely due to the team's improved process. For that reason, it is not surprising that Faye (the CNA who led Case #3) emerged as the exemplar for transformative relative mastery and team development in the mixed comparison analysis. Faye had the most to gain by mastering challenges in Case #3, as she was most familiar with the resident on her unit. Faye also experienced the full force of the established team-centered OA process, because her challenge was third in line.

Adaptation as a Social Process

Finally, the third contributing factor to the OA-based program's success in facilitating relative mastery and team development was its team-centeredness, leading to a new understanding of the social nature of the OA process. The results of this study suggest that the original view of adaptation is limited by the assumption that the person is the focus of Occupational Adaptation, and the person is the focus of OA-based intervention (Schkade & Schultz, 2003). In their seminal article describing occupation as a transactional experience, Dickie, Cutchin, and Humphry (2006) argued that an individualistic view of occupation (a view of occupation as residing in the individual while relegating context to an external factor in the experience) is plagued by a dualistic view of person and context. By their argument, traditional models that theorized occupation as an individualized act (such as the person-centered OA framework among others) do not fully encompass our client's situations (Dickie, Cutchin, & Humphry, 2006). As a result of Dickie et al.'s proposition to use Deweyan concept of transaction as an alternate perspective for understanding occupation, transactional perspectives informed new research worldwide focused on redefining person-environment relationships among other pluralisms (Cutchin & Dickie, 2013).

This study extends the view of adaptation to include a social version of the process without negating or replacing the undoubtedly personal experience also felt by every individual in the group. However, the team as a whole was the focus of intervention in this study, and findings point to a social process by which the team's adaptive capacity is affected, and the team's cooperative action is more responsible for

the change than any single participant's efforts. Specifically, participants in the intervention program are not merely adapting *in* or *to* the social context, but *the team as a whole is adapting together through a completely social process*—communicating and collaborating at every step—starting with uniting around a shared challenge, drawing from a collective adaptive repertoire, developing plans together, and cooperating during implementation. This social view stands in contrast to Nayar and Stanley's understanding of a social process in which an individual shapes her self-identity in light of the social context and adapts to the context via a series of tradeoffs (Nayar & Stanley, 2014). The social view of adaptation presented here is aligned with Coppola's (2003) application of John Dewey's educational philosophy in occupation-centered curricula. Coppola explained that the progressive education movement of the twentieth century, led by John Dewey, "viewed education as cooperative social processes of problem solving, reasoning and reflection on real-life experiences" (Coppola, 2003, p. 200).

One sign that the OA-based program is social by nature is its reliance on team communication throughout the process. The OA-based program mobilized a larger collective repertoire by facilitating a conversation among a wide range of team members. In the OA-based approach, all team members' experiences are viewed as valuable capital contributing to the collective knowledge of the case, no matter the employee's individual role. Recurring themes in participants' actions and feelings regarding communication in the OA-based approach included the following: learning from each other is preferred over learning from the facilitator, putting heads together in team communication facilitates more realistic action plans, and real-time communication with stakeholders during action

periods increases the likelihood of the plan coming to fruition. These are all key themes describing effective teams and team-based learning (Salas, Zajac, & Marlow, 2018).

Another sign that the OA-based program was social by nature involves a fundamental difference in the way the team members applied knowledge from their respective programs. Findings in this study revealed the intervention group cooperated with coworkers to implement interventions with team work (which led to the description of a team-centered occupational adaptation process), while control group participants implemented interventions on their own (a more private experience which led to the description of an individual caregiver learning about dementia care). The intervention group's ability to pool knowledge, experience, and creativity during planning—and work together as facilitated by the OA-based program—is believed to account for the intervention group's greater success in both outcome measures. On the other hand, the skills-based program facilitated an internal process of learning *about* dementia care, a process that broadened individuals' perspectives in the control group and led to significant gains in relative mastery—while showing no significant change in team development or evidence of change in the team's adaptive capacity. The skills-based program was not designed to guide participants through a cooperative process of applying knowledge in practice with teamwork, so it was no surprise that the control group experienced no significant change in these areas. However, the intervention group surpassed the control group in both relative mastery and team development gains *and* resolved their challenging situations by engaging in a collaborative, team-centered process of occupational adaptation.

Implications

Pedagogical implications for dementia workforce. The first group to ask so *what* of this research is the stakeholders who wish to bridge the knowledge-to-practice divide in dementia care. Specifically, the study has implications for those developing workforce education and blended teams of caregivers poised to engage in on-the-job, dementia care educational programs. The study makes a case for developing comprehensive dementia care training programs that include an OA-based pedagogy. Education experts caution against an either/or approach to comprehensive dementia care education due to a number of benefits gained through quality lectures, story presentations, and films (Nichols, 2016; Worthen, 2015). To their point, control group participants in this study exhibited “soft skills” such as listening, processing, and thinking as they watched educational films; they also expressed an appreciation for the films that provided personal revelations and left them feeling moved and inspired. It is notable that such skills-based educational opportunities for dementia caregivers abound.

This study suggests dementia care workforce education would be enhanced by an additional program which facilitates teams applying their knowledge in practice and offers an effective OA-based pedagogy to add to the array of educational opportunities. Program developers, administrators, and teams who choose to adopt the OA-based approach may do so in light of this study’s discovery that dementia-specific knowledge and skills, once considered prerequisite to applied practice, can instead be developed *through* an OA-based approach. The pedagogical implications for the dementia care workforce in this study are supported by other educators who have Redesigned

educational programs according to an occupation-centered approach and reached the same conclusion: participants integrate knowledge into the analysis of the occupations used to structure the program's content as opposed to considering the knowledge preliminary to the understanding of the occupational performance (Bagatell & Womack, 2016).

Stakeholders who make the important shift in thinking between the skills-based and OA-based pedagogy in dementia care should also anticipate challenges reported in the literature and experienced in this study. Specifically, facilitators and participants alike can anticipate that those with strongly held habits of teaching or learning that align with traditional education may struggle with the OA-based approach to dementia care education. For instance, the reciprocal relationship between facilitator and participants in the OA-based approach is one of shared power and expertise, which could take getting used to. As Dewey explained the *all teach; all learn* mantra, “in such shared activity, the teacher is a learner and the learner is, without knowing it, a teacher” (Dewey, 2004, p. 106). Students who strongly prefer predictability in learning activities may struggle with the ambiguity of the OA-based program, which uses an indeterminate situation as its driving force (Coppola, 2013). Finally, it is a challenge for facilitators like me using an occupation-based approach in education to “let go” of some content (Bagatell & Womack, 2016)—often the details of the neurological disease itself—so as not to obscure focus on the team-centered OA process in dementia care.

Despite the few predictable challenges in the OA-based approach, the study provides yet another piece of evidentiary support for imbuing the dementia workforce's

training with occupational and Deweyan constructs to facilitate teams working in connection with their environment, through a team-centered OA process, and toward the good in their shared challenges. Overall, the OA-based program in this study answers important how-to questions for stakeholders wishing to translate the pedagogy into new programs in their own facility. Adding some meat on the bones, a more detailed how-to can help people understand the calls for action to get evidence-based, research-informed, non-pharmacological interventions into practice.

Practice implications for consulting occupational therapists. Dementia care teams are not the only groups who could benefit from OA-based programmatic interventions led by consulting occupational therapists. Transferring the OA-based approach to organizational learning is a matter of swapping contextually relevant challenges in different organizations and gathering new team members while maintaining the continuity of the team-centered OA process. In fact, the roots of current organizational learning concepts, sometime referred to as “learning organizations,” (Akella & Akella, 2012; Flores, Zheng, Rau, & Thomas, 2012; Galagan, 1991; Senge, 2006) can be traced to Dewey’s educational philosophy. Opportunities exist for consulting occupational therapists to develop OA-based programs in a variety of organizations and study organizational-level changes when the OA-based approach to staff education is implemented across a wide variety of workplace challenges. Coppola (2013) explained how Wenger’s (1999) concept of “communities of practice” modernized Dewey’s concept of “learning communities”. In their view, an organization can be viewed as a “community” or group of people who share a concern or passion for

something they do and can improve by engaging in a process of collective learning (Coppola, 2013; Wenger-Trayner & Wenger-Trayner, 2015). Other work which develops the transactional perspective of occupations with communities, including the concept of unifying occupations (LaValley, 2017), could combine with OA-based programmatic interventions and inform consulting occupational therapists working with organizations to resolve their shared challenges.

Theoretical implications for occupational adaptation. This study's broadest implications are for the theory of Occupational Adaptation itself and the occupational therapists who use the theory to guide their practice. Therefore, my answer to the theorists' *so what* is the most general. First, this study expands the evidence base for practice guided by the OA framework by applying the theory to a new population: dementia care teams. Growing the evidence base for OA is significant, because historically OA has been under-represented in the research compared to other contemporary, occupation-focused models (Lee, 2010). Given the importance of the therapist's choice of models in determining what client issues the therapist will address, how clients are assessed, how intervention is approached, and the types of services offered, evidence in support or against specific occupation-based models is critical for occupational therapist to make evidence-based decisions (Lee, 2010).

Though potentially more consequential than adding to OA's evidentiary numbers, the study enriches the OA theory with a social view of occupational adaptation and thereby opens new opportunities for therapists and researchers to expand the understanding of what it means to adapt together to shared occupational challenges.

Infusing the OA-based program with Deweyan education concepts allows the researcher to pay more attention to groups adapting together and their situations than to isolated individuals as Dickie et al. (2006) recommended. The result is a broader view of occupational adaptation as an inherently social and situated experience. In the social view, groups respond in concert. United around a common mission, groups gather their collective knowledge, experience, and creativity (a collective adaptive capacity which is greater than that of any member) to respond cooperatively to a shared challenge. Thus, the result of the social process is evaluated by the group as a whole. For instance, the original evaluation of relative mastery has both individual and social considerations: “How satisfied am I with my performance? How satisfied would others be with my performance?” The broader social view can evaluate satisfaction this way: “How satisfied are *we*? How satisfied would others be with *our* performance? How are we and how is our situation different as a result of our efforts?” The subtle twist on the lens through which we view people engaging together in shared occupations begs new questions for OA theorists about the experience of occupational adaptation for groups such as families, classrooms, schools, political groups, or online communities.

CHAPTER VI

CONCLUSION

This is the first mixed methods study aimed at challenging the skills-based approach to dementia care education and thereby improving implementation of knowledge in practice—through an Occupational Adaptation-based approach with dementia care teams. Findings from this study indicate that an OA-based program was more effective than a skills-based program at helping blended teams resolve their challenging cases with teamwork, as evaluated by significantly greater gains in relative mastery and team development over a nine-week period. Therefore, the study provides support for hypotheses in Specific Aims 1 and 2. An embedded qualitative component was the means to describe and compare participants' experiences in both programs, resulting in two summaries—team-centered occupational adaptation versus learning about dementia care, effectively answering both research questions in Specific Aim 3. Finally, mixing the quantitative and qualitative data elucidated the results of the quasi-experiment and captured more subtle intervention effects of the two programs than would either method alone. It is the comprehensive interpretation of the study's findings that fits with the existing body of knowledge and supports the industry's claim that an educational program's design, including theoretical constructs and knowledge transfer framework, is consequential in bridging the knowledge-to-practice divide in dementia care (Gitlin et al., 2015).

The results of this study deepen our understanding of the power of occupational adaptation as a means for dementia care teams to apply knowledge in practice and resolve challenges in the care environment with teamwork. If, as Gitlin et al., (2015) proposed, translating knowledge into practice in dementia care requires attention to knowledge transfer frameworks, then developing educational programs for dementia care teams demands consideration of the team's collaborative and cooperative processes involved in caregiving. This example of an OA-based program that approached dementia caregiving through a team-centered process of occupational adaptation is a promising sign that integration of this model into education has exciting implications for understanding both the nature of dementia care challenges and the process by which a team becomes more adaptive through those challenges, without ignoring the need for knowledge and skills. Shifting dementia care education from a solely skills-based approach to one that mobilizes a team-centered OA process, I contend, offers promising opportunities to dementia care organizations, their employees, and the clients they serve. Occupational therapy as a profession will continue to benefit from the OA lens, now with the expanded view of team-centered occupational adaptation, through which we understand the relationships of occupation, adaptation, and humans with their environment.

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Appendix A

Relative Mastery Measurement Scale

Relative Mastery Measurement Scale (Task ____ Time ____)

Thinking about your most recent performance or interaction related to your chosen task (goal).

Rate your performance for the 6 items below. Provide a description of your performance.

Your honest answers will help you think about ways to improve on your task or process.

Complete the following 7 questions based on your most recent performance

1. Rate your performance.

Poor	Fair	Neutral	Good	Excellent
-2	-1	0	+1	+2

2. Rate your use of resources (e.g. materials, help) to achieve the goal.

Poor	Fair	Neutral	Good	Excellent
-2	-1	0	+1	+2

3. Rate your satisfaction with your performance.

Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
-2	-1	0	+1	+2

4. Rate the effort (time and energy) you spent to achieve the goal.

Too much or too little	Wasted or not quite enough spent	Neutral	About right	A lot but just right
-2	-1	0	+1	+2

5. Rate the extent to which you achieved the result you wanted.

Poor	Fair	Neither	Good	Excellent
-2	-1	0	+1	+2

6. Rate the extent to which others (e.g family, friends) would be satisfied with your performance.

Very dissatisfied	Dissatisfied	Neither	Satisfied	Very satisfied
-2	-1	0	+1	+2

7. In a few words, describe your performance.

	Time 1	Time 2	Time 3
Add totals for Items 1 & 5 (effectiveness).	____/4	____/4	____/4
Add totals for Items 2 & 4 (efficiency).	____/4	____/4	____/4
Add totals for Items 3 & 6 (satisfaction).	____/4	____/4	____/4
Sum of scores.	____/12	____/12	____/12

Relative Mastery Measurement Scale (Task ____ Time ____)

Plot your scores below for your task (goal)_____

Effectiveness

4 _____

0 _____

-4 _____

Time 1 Time 2 Time 3

Efficiency

4 _____

0 _____

-4 _____

Time 1 Time 2 Time 3

Satisfaction

4 _____

0 _____

-4 _____

Time 1 Time 2 Time 3

Total

RMMS 1 _____

RMMS 2 _____

RMMS 3 _____

Total Relative Mastery Score

12 _____

10 _____

8 _____

6 _____

4 _____

2 _____

0 _____

-2 _____

-4 _____

-6 _____

-8 _____

-10 _____

-12 _____

Time 1 Time 2 Time 3

After each RMMS evaluation, think about your results. Reflect on your ratings for each aspect of Relative Mastery. What did you learn?

If you rated yourself lower in an area, what could do differently the next time you approach this occupational challenge? _____ (your chosen task).

After the 3rd cycle of evaluation, rate your progress/change over time. Place an x on the line below.

No growth or improvement Neutral (no/minimal change) Positive growth or change over time

Appendix B

Team Development Measure

This questionnaire is a measure of team characteristics. Please indicate how much you strongly disagree – disagree – agree – strongly agree to each statement as it applies to your team at the present time. There are no right or wrong answers, just your perceptions. This survey is totally anonymous.

Before beginning please write the name of your team on this line_____

	Disagree Strongly	Disagree	Agree	Agree Strongly
1. Team members say what they really mean	DS	D	A	AS
2. Team members say what they really think	DS	D	A	AS
3. Team members talk about other team members behind their backs	DS	D	A	AS
4. All team members participate in making decisions about the work of the team	DS	D	A	AS
5. All team members feel free to share their ideas with the team	DS	D	A	AS
6. All team members feel free to express their feelings with the team	DS	D	A	AS
7. The team practices tolerance, flexibility, and appreciation of the unique differences between team members	DS	D	A	AS
8. The team handles conflicts in a calm, caring, and healing manner	DS	D	A	AS
9. Regardless of the topic, communication between the people on this team is direct, truthful, respectful, and positive	DS	D	A	AS
10. The team openly discusses decisions that affect the work of the team before they are made	DS	D	A	AS
11. In this team, members support, nurture, and care for each other	DS	D	A	AS
12. The team has agreed upon clear criteria for evaluating the outcomes of the team's efforts	DS	D	A	AS
13. As a team, we come up with creative solutions to problems	DS	D	A	AS
14. In the team, there is more of a WE feeling than a ME feeling	DS	D	A	AS

15. There is confusion about what the work is that the team should be doing	DS	D	A	AS
16. There is confusion about how to accomplish the work of the team	DS	D	A	AS
17. Roles and responsibilities of each team member are clearly understood by all members of the team	DS	D	A	AS
18. All team members place the accomplishments of the team ahead of their own individual accomplishments	DS	D	A	AS
19. The goals of the team are clearly understood by all members of the team	DS	D	A	AS
20. All team members define the goals of the team as more important than their own personal goals	DS	D	A	AS
21. I am happy with the outcome of the team's work so far	DS	D	A	AS
22. I enjoy being in the company of other members of the team	DS	D	A	AS
23. This team creates a personally meaningful experience for me	DS	D	A	AS
24. I have a clear understanding of what other team members expect of me as a team member	DS	D	A	AS
25. The work I do on the team is valued by the other team members	DS	D	A	AS
26. I am allowed to use my unique personal skills and abilities for the benefit of the team	DS	D	A	AS
27. Some members of this team resist being led	DS	D	A	AS
28. Information that is important to this team is openly shared by and with all team members	DS	D	A	AS
29. All individuals on this team feel free to suggest ways to improve how the team functions	DS	D	A	AS
30. When team problems arise, the team openly explores options to solve them	DS	D	A	AS
31. On this team, the person who takes the lead differs depending on who is best suited for the task	DS	D	A	AS

The Team Development Measure (TDM) is copyright protected but may be freely used with the authors' permission.

Stock, R. D., Mahoney, E., Carney, P. A. (2013). Measuring Team Development in Clinical Care Settings. *Family Medicine*, 45(10):691-700.

Appendix C
Participant Recruitment Letter

Dear Twin Lakes Staff Member,

As part of the implementation of its Strategic Plan, Twin Lakes Community would like to provide the highest quality on-the-job education in the area of dementia care. Additionally, Twin Lakes Community values your input and is interested in learning more about your experiences during continuing education. For those reasons, we are inviting you to participate in a research project to compare two types of dementia care training with a volunteer researcher, Heather McKay, an occupational therapist, dementia care specialist, and Ph.D. candidate at Texas Woman's University.

Explanation and Purpose of the Research

The name of the study is *Comparing Traditional and Occupational Adaptation-based Educational Programs for Dementia Care Teams: An Embedded Mixed Methods Study*.

If you agree to participate, you could be selected to join a group with 14 of your coworkers. Two groups will be formed with employees from different departments at Twin Lakes. Depending on the number of volunteers, it is possible that not all volunteers will be selected to participate. Once the two groups are formed, the groups will be randomly assigned to one of two dementia care training programs.

Description of Procedures

Both programs will include practical tips and strategies for dementia care. If you participate, you will attend a 1.5-hour educational session each week for nine weeks. You will have a chance to rate your knowledge/progress before, during, and after the program. Midway in the program, you will provide written feedback about your experiences so far. Throughout the program, Ms. McKay will make notes about observations in both groups. At the end of the program, you may choose to allow an interviewer to ask you questions about the session you attended. The observations and interviews are intended to help us learn more about the program you completed—what worked for you and what didn't—and how you feel about the program. Ms. McKay will audio record the final interviews for analysis. She will share the results with you and other members of the Twin Lakes community and publish the results in her dissertation research.

Participation and Benefits

Your participation in this research is entirely voluntary. To protect your privacy and anonymity, your name and identity will not be used in any of the reports, documents, or observations. You may choose to participate or not, and you may change your mind at any time. Your participation (or decision to decline) will have no effect on your employment at Twin Lakes. Everything you say will be held in strict confidence. If at any time you wish to withdraw from the project, you may do so without penalty or consequences. You may also ask me or Ms. McKay questions about the research. The study has been reviewed for protection of the rights of human subjects by the Institutional Review Board of Texas Woman's University. If you choose to participate, please read further details on the attached consent form, sign, keep one copy, and return a signed copy to me in a sealed envelope (envelope provided).

Thank you for your consideration and the work you do at Twin Lakes.

Sincerely,

Connie Poovey, RN, Quality Assistance Officer, Chair, Learning Community Advisory Committee

Appendix D
Consent Form (Employee)

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: COMPARING OCCUPATIONAL ADAPTATION-BASED AND TRADITIONAL EDUCATIONAL PROGRAMS FOR DEMENTIA CARE TEAMS: AN EMBEDDED MIXED METHODS STUDY

Investigator: M. Heather McKay mmckay1@twu.edu 919/260-0139

Advisor: Noralyn, Pickens PhD npickens@twu.edu 214/689-7754

Explanation and Purpose of the Research

You are invited to participate in a research project for Ms. Heather McKay at Texas Woman's University. The purpose of this research is to compare two types of educational programs with dementia care teams. The researcher is interested in which program has a greater impact on the team's relative mastery (the team's ability to apply knowledge to resolve real-world challenges) and team development. Additionally, the study aims to understand the distinct nature of the program from employees' and administrators' perspectives. You are invited to participate because you are an employee of Twin Lakes. Twin Lakes has agreed to support this research by being a study site.

Description of Procedures

As a participant in this study, you will be asked to attend dementia care education sessions with a group of co-workers, once a week for nine weeks, on the Twin Lakes campus. Educational sessions will last approximately 1.5 hours each. Dates and times for the weekly educational sessions will be announced in advance. You will have a chance to rate your knowledge/progress before, during, and after the program. Midway in the program, you will provide written feedback about your experiences so far. Throughout the program, Ms. McKay will make notes about observations in both groups. At the end of the program, you may choose to allow an interviewer to ask you questions about the session you attended. With your permission, interviews will be audio-recorded and later transcribed. The observations and interviews are intended to help us learn more about the program you completed—what worked for you and what didn't—and how you feel about the program. The researcher and her advisors will be the only one with access to these recordings and notes. Excerpts from notes and transcripts will be included in reports and publications for illustrative purposes. The researcher will carefully remove any information that could identify you from materials shared with others. To be a participant in this study, you must be at least 18 years of age and be an employee of Twin Lakes.

Initials

Page 1 of 2

Potential Risks

A risk in this study is loss of confidentiality. Confidentiality will be protected to the extent that is allowed by law. Educational sessions will be held in a private area on Twin Lakes campus. A code name, not your real name, will be used in the researcher's notes and transcriptions. All notes, interview recordings, and transcriptions will be stored in a locked cabinet in the researcher's office. Only the researcher and her advisors will hear or read the recorded and written material. The notes and transcripts will be shredded within 5 years after the study is finished. The results of the study will be reported in scientific magazines or journals but your name or any other identifying information will not be included. There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings and internet transactions.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. Your participation (or decision not to) will have no bearing on your performance evaluation or employment status at Twin Lakes. Only the researcher will know of your decision regarding participation. Results of this study will be mailed to you.*

We do not know which of these programs is superior. However, if we find that one program works better than the other, you will be given an opportunity in the future to participate in the alternative program.

Questions Regarding the Study

You will be given a copy of this signed and dated consent form to keep. If you have any questions about the research study, you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

Signature of Participant

Date

*If you would like to know the results of this study tell us where you want them to be sent:

Email: _____

or

Address: _____

Page 2 of 2

Appendix E

Consent Form (Advisory Committee Member)

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE IN RESEARCH

Title: COMPARING OCCUPATIONAL ADAPTATION-BASED AND TRADITIONAL EDUCATIONAL PROGRAMS FOR DEMENTIA CARE TEAMS: AN EMBEDDED MIXED METHODS STUDY

Investigator: M. Heather McKay mckay1@twu.edu 919/260-0139

Advisor: Noralyn Pickens, PhD npickens@twu.edu 214/689-7754

Explanation and Purpose of the Research

You are invited to participate in a research project for Ms. Heather McKay at Texas Woman's University. The purpose of this research is to compare two types of educational programs with dementia care teams. The intervention program is known as The Learning Circle and will be compared to a standard, skills-based program on two outcomes: relative mastery (the team's ability to apply knowledge to resolve real-world challenges) and team development.

Additionally, the study aims to understand the distinct nature of the program from employees' and administrators' perspectives. You are invited to participate because you are a member of the Advisory Committee, which administers The Learning Circle at Twin Lakes. Twin Lakes has agreed to support this research by being a study site.

Description of Procedures

As a participant in this study, you will be asked to attend two Advisory Committee meetings lasting approximately 1.5 hours each on the Twin Lakes campus. The committee and the researcher will decide together on dates and times for the two meetings. The researcher will **observe** your natural behavior during committee meetings. The researcher will ask you questions about your experiences on the advisory committee. The researcher will make notes of observations and your comments each day so that she can be accurate when studying the committee members' experiences. Excerpts from advisory committee meeting notes will be shared with the researcher's advisors and included in reports and publications for illustrative purposes. The researcher will carefully remove any information that could identify you from materials shared with others. In order to be a participant in this study, you must be at least 18 years of age and be a member of the Learning Community Advisory Committee.

Initials

Page 1 of 2

Potential Risks

A risk in this study is loss of confidentiality. Confidentiality will be protected to the extent that is allowed by law. The committee meetings will be held in a private area on Twin Lakes campus. A code name, not your real name, will be used in the researcher's observation notes. The observation notes will be stored in a locked cabinet in the researcher's office. Only the researcher and her advisors will read the observation notes. The observation notes will be shredded within 5 years after the study is finished. The results of the study will be reported in scientific magazines or journals but your name or any other identifying information will not be included. There is a potential risk of loss of confidentiality in all email, downloading, electronic meetings and internet transactions.

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. Your participation (or decision not to) will have no bearing on your role in the advisory committee. Only the researcher will know of your decision regarding participation. If you choose to participate in the study, you will contribute to observation data. Results of this study will be mailed to you.*

Questions Regarding the Study

You will be given a copy of this signed and dated consent form to keep. If you have any questions about the research study, you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at IRB@twu.edu.

Signature of Participant

Date

*If you would like to know the results of this study tell us where you want them to be sent:

Email: _____

or

Address: _____

Appendix F

Letter of Agreement

August 8, 2018

Dear Ms. McKay,

On behalf of Twin Lakes Community and the Learning Community Planning Committee, it is our pleasure to offer our full support to the research proposal, *Comparing Traditional and Occupational Adaptation-Based Educational Programs for Dementia Care Teams: An Embedded Mixed Methods Study*. We understand that this study involves a comparison of a new occupation-based educational program and a traditional skills-based educational program. Study participants will make up two interdisciplinary groups of 15 people, a total of 30 direct participants. We understand that the study agenda involves a 1.5-hour weekly educational session for nine weeks as well as follow-up interviews with a subset of 10 direct participants. We understand that members of the Learning Circle Advisory Committee also participate in the study as key informants, and observation data will be collected during all training sessions and two Advisory Committee meetings.

Twin Lakes will disseminate recruitment letters and provide you (the researcher) with the names of willing participants as well as non-identifiable demographic data for use in subject descriptions. Twin Lakes will also provide you with a private location for all educational sessions, interviews, and Advisory Committee meetings. Twin Lakes will assist you in communicating with research subjects throughout the recruitment, informed consent, and data gathering process.

For purposes of protecting the rights of human services in this research, Twin Lakes accepts and endorses the findings of the Texas Woman's University Institutional Review Board (IRB).

Twin Lakes also grants you permission for dissemination of the findings of this research, provided that all of the IRB-approved assurances as well as privacy and confidentiality protections are rigorously adhered to.

We look forward to learning from this study, and to contributing to the improvement of both care for seniors living with dementia and the education of dementia caregivers, which this work ultimately aims to achieve.

Respectfully,

Pam Fox, CEO

Appendix G

Mid-Intervention Participant Journal

List of Participant Questions Mid-Intervention

Q1: Describe some things you are learning so far in the program.

Q2: Based on your experience so far, what about the program is helpful in your work?

Q3: Based on your experience so far, what are some things you are still struggling to apply?

Appendix H

Post-Intervention Interview Guide

List of Semi-Structured Interview Questions, Post-Intervention

Q1: Tell me about the training program you completed.

Q2: What was a typical day in the program like for you?

Q3: Of the things you learned, what did you find easy to apply in your work?

- Can you tell me a story or example of an intervention you applied outside of the classroom?
- How did others work with you (or not) in that situation?

Q4: Pretend you're explaining the role of a dementia care team to a friend, how would you explain the difference between *knowing* about dementia care and *doing dementia care* as a team?

- What were some of the challenges you experienced during the program?
- What was challenging about applying what you learned outside the classroom?
- How did that change (or not) over the course of the program?

Q5: What were some of the *strategies* you used to apply your knowledge in your work?

Q6: Describe your interactions with others during training session in your program.

- Now describe interactions between the facilitator and members of your program.

Q7: Overall, how did the program influence your work?

Q8: Is there anything else you would like to tell me?

Appendix I

Case Study Interview Protocol

Case Study Interview Guide: A story told by the caregiver

The Interview

Express appreciation to the employee

CONTEXTUAL FACTORS

Employee's background. What is your job here? What brings you to this work?

Purpose for the employee's current assignment/level of care. What is the essential purpose of i.e skilled nursing care? Why do SNFs exist?

What qualifies a resident for SNF, how do they get in?

What are residents coming *in* to this level of care expected to need? Medically, how would you describe the residents in your unit...how's that different than the residents in ALF or independent living? (e.g. many health problems start to compound, less able to control their own activities and routines)

Do people want to be here-families or residents?

What kinds of information do you have on these residents when they get to your unit?

What are we preparing people for? How are we helping them make a successful transition? What do we want for these residents...their families?

How do you know a resident is changing? How do we help others recognize those changes? How do they know or find out...keep everybody on the same page?

A typical day. Take us through a typical day (ignore small variations for now). Where and how do you first meet & greet the residents on your unit? What is the first thing they are expected to do? The next thing, the next thing, and so on. Does there seem to be a balance of work/rest/leisure/personal care for the residents?

How do you *get to know* the people you're helping? How do you know their preferences?

Rules & Behavioral Norms. What are the rules for conduct here e.g. respecting each other, residents, families? Who made the rules? When were they made? Have they evolved between your first day of work and now?

How do you get rewarded at your job? How do you get refreshed, re-energized yourself? What makes a good day for you?

What are the consequences for doing a good job? What are the consequences for not doing a good job? Are there certain tasks that get measured regularly? How does that get measured? e.g. people are dressed, beds are made, food is served, notes are finished, time clock is punched, etc.

What makes a good team mate?

What makes a good coach?

The unit. Descriptive statistics: #, gender, age range, socio-economic, ethnicity, # of residents with dementia, level of skills and abilities among residents on the unit as a whole. How active are the residents on the unit in general? Is it an “active” group of people? How long are people typically here on your unit?

Pause and ask the audience to come up with questions they’d like to ask to better understand the **contexts**, the job of caring for people in SNF, the challenges in the job, experience of residents in SNF?

THE PERSON TO BE STUDIED

The resident. Who are we going to talk about today? What do they prefer to be called?

The resident’s family descriptors. Using descriptors that are as objective as possible please describe for us the following:

Who’s in the family...what are those relationships?

Current structure...spouse/partner/kids/guardianship

Socio-cultural identity

Primary language spoken at home

What’s the person’s family history? Parents/grandparents

Spirituality

What extent is the family involved?

goals & aspirations for their loved one

relationship & interactions with their loved one

ways of supporting the person’s social-emotional & behavioral development...do the family member(s) have any special strategies or tricks to help their loved one?

What would you see if you looked at the resident and family together?

Is the family member involved in any other support services?

The resident’s physical descriptors. Using descriptors that are as objective as possible, please describe for us the following:

What does he look like?

Weight & height

Energy level & overall health

What kind of health problems does he have?

The resident's typical levels of proficiency & motivation in personal care and activities

Where do you first see the resident on your shift? How did he get there?

In a personal care routine like the bathing/dressing routine, what is _____ typically able to do during the first part of the activity...the middle...the end? What do you think he knows about the activity?

What is _____'s level of motivation in this activity?

Go through several activities during the day e.g. mealtime, toileting, leisure activity, purposeful activity/helping/working, rest/bedtime routine describing what _____ is able to do, **not** what deficits are observed, and what is the resident's level of motivation for that activity.

Resident's preferences

What is _____'s favorite time of day or activity? Think about specific preferences... What turns _____ on, in other words, if given a choice of any person, thing or activity, what would _____ be most likely to choose? How did he historically prefer to spend his time?

How do you use the "spark?"

Describe your relationship with _____. What do you like about each other? What do you not like about each other?

Describe _____'s social preferences. With whom does he prefer to work? Spend leisure time? Who prefers to work with _____? Spend leisure time with _____? Who is _____'s best friend?

What are the signs of a good day/bad day for this resident?

When _____ is happy, how is it manifest?

When _____ is not happy, how is it manifest?

What level of dementia do you think this resident is experiencing? How far along is he in the progression of that disease?

Resident's primary social-emotional & behavioral problem

THE CHALLENGE

What is the most challenging aspect for you in working with ____? What is the biggest problem?

Pause and re-state the primary concern

Why did you select that as your primary concern?

Why is that so important?

Under what circumstances does it typically occur?

How frequently? How many times per week does it happen?

Do you notice any trends in the frequency?

What do you typically do in response?

What is the effect on ____ when you respond in this way?

What else have you tried to do in response?

With what effect?

What would “improvement” look like? Less frequent, less intense? Turn the negative into a positive, what would the better situation look like?

Are there other challenging behaviors? Maybe other problems are related to this main problem.

Hypotheses

You obviously have a good handle on this situation, and you know this person very well

THE HYPOTHESIS

What do you believe would explain ____’s behavior? In other words what seems to be the reason this behavior occurs with the frequency & intensity that you observe? What evidence or observations can you point to that would support your hypothesis?

How could we test that hypothesis? What would we be looking for to say it worked?

Pause and ask the audience to come up with their own hypotheses, might be the same, maybe different. What do you think is happening here?

THE PLAN

What can we try in this situation? Develop a plan to test your idea.

Conclusion

What else do you want to tell us? Is there any additional information that we don't yet know but would be helpful for us to know?

Now reflect on what we just did. How did that feel? What was that like for you?

Encouragement

Pause and ask the audience to reflect on the whole interview. Write down some comments or observations that you think would help the process. Just think about the process, don't jump to solutions yet. We're thinking about the process of getting to know a person, the situation, the challenges, the things we've tried, what's working and what's not. Any surprises? Thank you again.

An Exercise if the group would like practice *stating a hypothesis*

Turn to your partner. Starting with a problem that you recognize in our case, ask *why* 5 times to try to follow the problem all the way to its root. Is the root of the problem related to one or more of these?

1. The person and their history
2. Environment
3. The stage of their dementia
4. The way the caregiver is helping
5. Other health conditions/health & well being
6. Time/rhythm of the day

There may be more than one possible answer to the *why*, so don't assume there's only 1 correct root cause.

Following the 5 *whys* to the root of the problem can help us select which area to select for a change.