

The Use of Autobiographical Materials for Care-Staff in Memory Care: Measured Effects
on Resident Relations and Job Satisfaction

by

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ABSTRACT

Background: Reminiscence therapy (RT) is a therapeutic technique which has been shown to elicit conversation and memories in those with dementia. Compared to structured activities, RT has been associated with a greater sense of well-being following the activity, and has been rated as more meaningful to participate in. Although there has been immense research done on the use of RT, little is known about the effect of these activities on care staff. **Methods:** The current study was a pilot and implemented autobiographical materials from LifeBio™ Inc. in a memory care facility. Care-staff attended an educational in-service which discussed the use of RT and quality of life for those with dementia. Following the presentation, care-staff were administered a pre-intervention survey assessing perceptions of relationships with residents and job satisfaction. After a month, care-staff were administered a post-intervention survey assessing perceived relationships, job satisfaction and the practicality of the LifeBio™ materials. **Results:** This pilot study had a small sample size (n= 14) therefore frequency analysis and qualitative analysis was used to assess the data. Frequency distributions found increases in rates of agreement in perceived relationships with residents and job satisfaction following the implementation of autobiographical materials. **Conclusions:** Results suggest that the use of autobiographical materials can have a positive influence on the perception of their relationships with residents as well as potential benefits on job satisfaction. The current study has important clinical implications as well as potential for future research.

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Chapter 1: Brief Overview

Approximately 487,000 individuals in the United States above the age of 65 will be diagnosed with Alzheimer's disease in 2019. Alzheimer's disease is a public health crisis and the risk of developing the disease increases with advancing age (Alzheimer's Association, 2019). Within the next decade, the United States can expect to see a rise in the prevalence of Alzheimer's disease and other related dementia due to the expected increase of those age 65 and older. It has been estimated that approximately 98 million adults will be above the age of 65 in 2060; of that 98 million, the United States can expect to have approximately 8.9 million adults above the age of 85 in 2030 (Center for Disease Control and Prevention, 2018; Ortman, Velkoff, & Hogan, 2014).

As the number of individuals living with a dementia diagnosis increase, so will the cost of care. In 2019, Alzheimer's disease can be estimated to cost approximately \$290 billion in the United States. Alzheimer's disease and other related dementias are neurodegenerative and progressive (Alzheimer's Association, 2019). With no known cure or cause, maintaining quality of life (QOL) and increasing quality of care are the main concerns of long-term care facilities. Current long-term care models focus on person-centered care, which incorporates the preservation and restoration of personhood. Personhood is the concept that every individual is recognized as independent with their own likes, dislikes and preferences (Smebye & Kirkevold, 2013).

As dementia progresses communicative abilities are lost. The diminishing of communication often leads to an increase in dementia-related behaviors. Dementia-related behaviors are often difficult and hard to for care-staff to control. Dementia-related behaviors can include hallucinations, delusions, apathy, irritability, aggression and

depression. One study found that within a sample of older adults with dementia, 80-90% of the sample experienced apathy, depression, anxiety, and agitation. Furthermore, the same study found that when measuring caregiver burden with dementia-related behaviors the most common disturbance that affected caregiver burden were irritability, hallucinations, euphoria and disinhibition (Torrise, De Cola, Marra, De Luca, Bramantia, & Calabró, 2017). Due to caregiver burden and the stress of dementia-related behaviors, there is a high turnover rate for care-staff in long-term care. However, often times better understanding the person behind the disease is helpful in understanding the root cause of the behavior (Richter, Roberto, & Bottenburg, 1995).

With long-term care facilities focusing on person-centered care and concepts of personhood, many are implementing different forms of activities that have been shown in the research to have therapeutic effects. Reminiscence therapy (RT) is a therapeutic technique that uses pictures, songs and other mediums to elicit conversation and memories in those with dementia (Brooker, & Duce, 2000). One specific form of RT which has become popular in dementia-care is the utilization of life story books and autobiographical materials. Autobiographical materials such as life story books can act as a visual reminder of an individual's self- concept as well as be used as a way to increase person-centered care (Subramaniam, Woods & Whitaker, 2014). The use of such materials has been associated with better appreciation of residents, increased accommodation of resident needs through care-staff, and increased quality of care. (Cooney et al., 2014).

Chapter 2: Review of the Literature

I. Prevalence of Alzheimer's Disease and Related Dementias

The aging population is steadily increasing. By 2060, the United States can expect to have approximately 98 million adults above the age of 65 (Center for Disease Control and Prevention, 2018). The number of individuals above the age of 85 is expected to increase from 5.9 million to 8.9 million in 2030; this number is expected to reach 18 million by 2050. These estimations will lead the United States to once again have the largest population of older adults for developed countries (Ortman, Velkoff, & Hogan, 2014).

As the aging population grows in size, incidence of age-related diseases will also grow. In 2014, 50.4% of all nursing home residents in the United States had a diagnosis of Alzheimer's disease (Center for Disease Control and Prevention, 2018). Alzheimer's disease specifically has shown an increase in prevalence over the past decade; the incidence of Alzheimer's disease has risen above 50% between 1999 and 2014.

Alzheimer's disease is a public health crisis, currently affecting an estimated 5.8 million Americans and is the sixth leading cause of death (Alzheimer's Association, 2019; Center for Disease Control and Prevention, 2018). Alzheimer's disease becomes more prevalent with advancing age. Recent research has estimated that of those between the ages of 65 and 74, 3% of individuals have Alzheimer's disease. This percent shows a steady increase following the increase in age; more specifically, 17% of those between 75 and 84 and roughly 32% of older adults above the age of 85 have Alzheimer's disease (Herbert, Weuve, Scherr, & Evans, 2013). Every state in the United States can expect to see a minimum of a 12% increase in the number of older adults living with Alzheimer's

disease between 2019 and 2025; specifically states with the Western and Southeastern portions of the country (Alzheimer's Association, 2019).

Due to the rapidly increasing prevalence of Alzheimer's disease, it is important to understand the progression and symptomology of the disease process. One term that is often coupled with discussion regarding Alzheimer's disease is dementia. Dementia itself is not a disease, but rather an umbrella term for a collection of symptoms; such as memory loss and decreased judgement skills. There are many neurodegenerative conditions which can be the cause of dementia; such as Alzheimer's disease. However, there is currently no known cause or cure for any form of dementia. Over the past decade, research has made progress in finding out more about these conditions (Alzheimer's Association, 2019).

Although the cause of dementia has not been identified, researchers have identified many different types of dementia. Alzheimer's disease is the most commonly diagnosed form of dementia; making up approximately 60-80% of diagnosed cases. Most often, identifiable characteristics of Alzheimer's disease are difficulty with memory, impaired communication, confusion, poor judgement and behavioral changes. A second form of dementia, which has been identified in the literature is cerebrovascular/vascular dementia. Vascular dementia is often characterized by damage to blood vessels within brain tissue, difficulty with motor function, poor balance, and a history of strokes. A third type of dementia which has been identified is Lewy-body dementia; this specific form of dementia has a high co-morbidity rate with Parkinson's disease and is often associated with hallucinations, sleep disturbances and visuospatial impairments. The last form of dementia which is often diagnosed is that of a mixed pathology. Mixed-dementia often

presents multiple characteristics of different dementia pathologies. Although each form of dementia presents slight differences in pathology, dementia-related behaviors can be present in any individual with disease regardless of the dementia type (Alzheimer's Association, 2019).

II. Dementia-Related Changes and Behaviors

A basic and necessary form of human interaction is communication; innate in nature, communication allows individuals to build and maintain relationships. As an individual with dementia progresses through the disease process, communicative abilities diminish, often leading to decreased QOL. Diminished communicative behavior leads to new emotional and physical barriers for both the individual with dementia and their caregiver. Early in the deterioration of communication, speech appears to remain normal although comprehension may be declining; often caregivers do not recognize the severity of the change and continue to expect higher cognitive comprehension than possible from the individual with dementia (Richter, Roberto, & Bottenburg, 1995).

Loss of communication is associated with increases in the prevalence of dementia-related behaviors. Behaviors such as wandering, agitation and fear are common symptomatic behaviors in various forms dementia types. The increase in these types of behaviors often present new challenges for care-staff; especially when communicative abilities of the resident are diminishing (Richter, Roberto, & Bottenburg, 1995).

Behaviors can be verbal or non-verbal, as well as aggressive or non-aggressive. Cohen-Mansfield (2009) found in a sample of older adults with dementia, verbal non-aggressive behaviors were most commonly exhibited (i.e. negativity, complaining, repetitive questions). The most disruptive behaviors were those that fell into the category of verbal

aggression (i.e. verbal sexual advances, screaming, cursing, abnormal noises). Cohen-Mansfield (2009) also measured that the number of instances each behavior happened during the day was highly associated with the number of times a resident exhibited the same behavior at night. The results from the study also found that physically non-aggressive behaviors such as pacing were perceived as more disruptive during the day shifts compared to night shifts; likewise, the most disruptive behaviors during the day were those which fell into the category of verbal aggression (Cohen-Mansfield, 2009).

III. Enhancing Communication and Interaction

Kitwood (1997), posited five main characteristics that can better communication between staff and those with dementia: recognition, negotiation, validation, facilitation and collaboration. The first characteristic is recognition. Recognition can be defined as the acknowledgement that the individual is a person with a name; recognition also incorporates the use of direct eye contact, listening and greeting of the individual. Emphasizing biographical information about the individual such as referring to their family or past life experiences can also been identified as recognition. Negotiation is the second characteristic and is the crediting of the individual's preferences, desires or needs. Negotiation is often seen in communicative behavior when care-staff offers choices to the individual, allowing them to feel a sense of control. Validation can be best described at the ability of the caregiver to empathize with the individual who has dementia and acknowledge how the individual is feeling or experiencing. Facilitation is the ability of the caregiver to recognize when an individual with dementia attempts to act out an emotion, action or thought. Facilitation focuses on what the individual with dementia is capable of doing and offering help when needed. Lastly, collaboration is the ability of

care-staff to allow individuals with dementia to partake in shared-tasks and activities (Kitwood, 1997; Savundranayagam, Ryan, Anas & Orange, 2007).

Research has been conducted in the past decade which has aimed to observe measured effects on the use of language and communication in dementia care. One study found that when care-staff was asked to read a script of a conversation between a formal caregiver and an individual with dementia, caregivers who used language that encompassed aspects of personhood were rated more favorably in comparison to staff who utilized directive or task-oriented conversation. Vignettes in which caregivers utilized language that encompassed personhood were also perceived by care-staff as more affirming, respectful, helpful, competent and satisfied. Participants in the study also rated residents in the vignettes more positively when concepts of personhood were utilized through communication efforts. When reading vignettes of caregivers using personhood-centered concepts, participants reported lower rates of imagined patronizing non-verbal behaviors such as hands on hips and sighing when giving care (Savundranayagam et al., 2007). A second study built on these findings and observed interaction types between care-staff and individuals with dementia. The study found that the majority of interactions between staff and residents were task-focused. However, during the interactions there was evidence of person-centered utterances suggesting that concepts of personhood characteristics could be implemented into the conversation during care (Savundranayagam, 2013).

IV. Effects of Behaviors on Care-Staff

Disruptive behaviors that are prevalent in those with various types of dementia can become problematic for care-staff. The loss of communication and rise of dementia-related behaviors can lead to new barriers for care-staff. These disruptive and difficult behaviors often have negative psychological impacts on care-staff, which can lead to lower job satisfaction. Miyamoto and colleagues (2010) found that formally caregiving for an individual who presented inappropriate behaviors such as arguing with other residents, screaming and being aggressive was directly associated with higher caregiver burden. Care-staff have also acknowledged in prior research that often when a resident is participating in disruptive/difficult behavior it may be due in part to an unmet emotional or physical need (Rapaport, Livingston, Hamilton, Turner, Stringer et al., 2018). Furthermore, many of the difficult behaviors were presented during personal care (i.e. showering, dressing, toileting). Staff also acknowledged the incapability of the residents to acknowledge if they were in pain or discomfort due to diminished communicative ability. Care-staff identified that the lack of communication made it difficult to identify the cause of the discomfort and often process of elimination had to be used to overcome the communication barrier (Rapaport et al., 2018). With the advancing prevalence of dementia diagnoses, many interventions have been proposed and researched to identify mechanisms to decrease the incidence of disruptive behaviors.

V. Theory of Personhood to Improve Quality of Life for Persons with Dementia

Current research has sought to identify characteristics that can increase QOL for those with a dementia diagnosis. One theoretical framework that has been discussed in

the literature is the theory of personhood. This theory posits that individuals want to remain independent and flexible throughout the disease process (Milte, Shulver, Killington, Bradley, et al., 2016). Current models focus on person-centered care, which can be defined as a care approach, that centers around preserving and restoring personhood. Personhood is present in every human and is strengthened through relationships (Smebye & Kirkevold, 2013). Moreover, those with a dementia diagnosis want to remain as a person who is respected and is acknowledged as having likes/dislikes, preferences and needs. It has been demonstrated through the literature that when an individual with dementia is labeled based on their diagnosis they no longer feel like a whole human being leading to feelings of disrespect; these feelings can negatively affect outcomes of residential care (Milte, et al., 2016). Due to the pathology of dementia, not all individuals can maintain their sense of self on their own; it is the responsibility of care staff to create meaningful relationships that reinforce an individual's sense of personhood (Smebye & Kirkevold, 2013).

As care models continue to shift to the utilization of psycho-social models of care, they are also focusing on therapeutically bettering QOL for those with dementia (Brooker, & Duce, 2000). As nursing facilities begin to shift their models of care to be more person-centered, facilities are also trying to identify activities that can be meaningful for residents. Milte and colleagues (2016) found that older adults with cognitive impairment identified meaningful activities as a vital part of quality care. More specifically, activities that emphasize and maintain their self-identity regardless of their diagnosis. The authors also found that individuals with cognitive impairment found it crucial that activities are not one-dimensional; activities should be multi-faceted and

consider social and emotional needs of residents rather than solely focusing on their physical needs. Additionally, choice, freedom and self-determination were also crucial characteristics of which activities older adults with cognitive impairment found meaningful. Many nursing facilities can too easily fall into a daily routine for their residents that begin to diminish their independence. When interviewed, those with cognitive impairment have emphasized the importance and value of flexibility and preservation of autonomy (Milte, 2016). As characteristics of meaningful activities are discovered, many researchers have begun to implement various types of intervention strategies to increase QOL.

VI. Reminiscence Therapy as a Therapeutic Strategy to Promote Personhood

One intervention strategy that has been frequently discussed in the literature is reminiscence therapy (RT). RT is a therapeutic technique that uses pictures, songs and other mediums to elicit conversation and memories in those with dementia. Activities that utilize RT have been shown to have a greater sense of well-being than the effects following other types of structured activities. RT can be highly interactive allowing those who may not be capable of participating in structured activities to participate. RT thrives on interaction between participants and the caregiver or staff member, which creates an inclusive environment for stimulation and socialization regardless of disease stage (Brooker, & Duce, 2000). RT has also been shown in the literature to have measurable effects on cognitive processes, depression and QOL. Following an RT intervention, Lök and colleagues (2018) found an increase in cognitive processes as well as an increase in cognitive function level. Depressive symptomology had also shown a decrease post-intervention and individuals in the RT group had higher scores on QOL measures than

the control group. Activities that encompass aspects of RT have also been rated as more meaningful than other types of activities (Harmer, & Orrell, 2008). The use of RT has also been shown to improve scores on anxiety, self-rated depression and all measures of autobiographical recall in individuals with dementia (Lopes, Alfonso, & Ribiero, 2016).

VII. Benefits of RT for Care-Staff

RT has been a highlight in the field of research in regard to dementia care. With the advances being made in terms of intervention strategies to increase QOL for those with dementia, there is little known as to how these therapeutic techniques can also benefit care-staff. The use of RT has helped care staff interpret, understand and accommodate for the problematic behavior presented by the residents and has been suggested that it can provide care staff with new strategies to manage behavioral and psychological symptoms of dementia (Cooney, Hunter, Murphy, Casey et al., 2014). More specifically, one study found that formal caregivers identified that knowing about their residents' history was often helpful in discovering the root of difficult behaviors (Richter, Roberto, & Bottenberg, 1995). A recent study found that when care staff engaged in RT, their perceptions of their residents changed. Results found that after the use of RT, care staff could find new ways to connect and relate to their residents. The study found that as care staff engaged in two-way conversations with residents, the amount of resident-staff interactions increased, the strength of relationships also showed improvement. The care staff also acknowledged that residents responded to them in new ways; such as being more talkative than in previous interactions (Cooney et al., 2014).

VIII. RT – Life Story Books

One specific form of RT that has become popular is the use of life story books. Life story books have the capability to act as a self-reminder tool for those with dementia to preserve and maintain their personhood (Subramaniam, Woods & Whitaker, 2014). A life story book is a collection of pictures or items that follow the narration of an individual's life. Utilizing RT, specifically in the form of life story books can have tremendous benefits on quality of care. For example, following participation in RT with residents, care-staff reported viewing the residents in a more humanistic way, which increased quality care. Following RT, care-staff were more likely to listen and accommodate to the residents' needs. Furthermore, by participating in RT with the residents, care-staff were shown to better appreciate and value the residents by understanding and having an increased knowledge of the lives their residents have lived (Cooney et al., 2014). Additionally, when interviewed individuals with cognitive impairment identified good quality care as care which respects their viewpoints, preferences and is tailored to their self-identity. The research has also suggested that care-staff whom are respectful, kind and take the time to know their residents are viewed as highly important characters in quality care (Milte et al., 2016). One study found that when staff were presented either a medical history of their residents or a life history, those who were presented a life history were more likely to change their behavior. Specifically, 60% of the nursing staff who received a life history changed the way they communicated and interacted with their residents. The same individuals also reported having a better understanding of the difficult behaviors some residents exhibited on a normal basis (Eritz, Hadjistavropoulos, Williams, Kroeker, Martin et al., 2014). In

agreeance with Eritz and colleagues (2014), Roth and colleagues (2001) found that the use of communication-memory books led to improvements in communication between care-staff and their residents. Specifically, following the use of communication-memory books, staff were more likely to use positive statements and one-step directions leading to less confusion in residents with cognitive impairment. Also, the use of communication-memory books led to an increase in the amount of time spent caring for each resident (Roth, Jackson, Gerstle, Dijkstra, Bankes et al., 2001).

It is evident in the literature that more needs to be understood in regard to the beneficial effects of RT for care-staff in dementia-care settings. The current study has two main aims; the first is to assess the use of autobiographical materials on the perceived relationships with residents and job satisfaction of care-staff at a memory-care facility. The second aim of the study is to assess the practicality/ease of use of the autobiographical materials in a memory-care setting from the perspective of care-staff.

Chapter 3: Methods

Participants

Care-staff in a memory care facility were recruited to participate in this study. The facility is a secured memory care unit for individuals who are diagnosed with memory impairment or dementia. The facility focuses on person-centered care and operates through their philosophy of purposefulness, fulfillment and validation of residents in both assisted living and memory care. The facility has 52 beds at maximum capacity and a total of 48 employees; 33 of the employees work in direct care. A convenience sampling technique was used to recruit employees attending a mandatory monthly in-service meeting for all facility employees. At this meeting, a 30-minute presentation was given about the benefits of reminiscence therapy (RT) for residents with dementia, how it can improve care, and the donated LifeBio™, Inc. materials described below. Following the presentation, employees were invited to participate in the study if they met the following eligibility criteria: (1) worked directly with residents on a daily basis (i.e. resident care assistants, nurses, activity assistants, medical technologists, staffing, housekeeping), and (2) employed with the facility for a minimum of 3 weeks or longer to ensure that the participant was familiar with the residents and operations of the site.

Care-staff who were interested and eligible for the study first provided informed consent. Participants were informed that their participation in the study is completely voluntary and can be ceased at any time. Likewise, the care-staff were ensured that their job would not be affected through their participation in the study. Care-staff was also told that completion of the pre-test questionnaire would give them a chance to win one of two

\$50 Visa Gift Cards and that completing the post-test questionnaire would give them a second chance to win. During the informed consent, participants were made aware of the expectations that they would complete pre and post-intervention questionnaires. All procedures and study materials were approved by the Youngstown State University institutional review board (IRB).

Intervention

The current study partnered with the LifeBio™, Inc., which produces autobiographical materials for older adults to highlight their personal life story. LifeBio™, Inc. conducts in-depth interviews with seniors in various settings, such as independent living, assisted living, long-term care and memory care, along with their family and caregivers to create detailed, autobiographical materials. Three types of autobiographical materials are created by LifeBio™, Inc.: life-story books, snapshots and action plans. The life-story books are the autobiography of the individual who was interviewed, and is comprised of stories, pictures and important memories. The snapshot is a one-page summary of the life story book, which bolds certain words or phrases to emphasize important details about the individual. The action plan is a one-page document that outlines information such as the individual's birthday, helpful facts, relevant conversation topics and preferred/suggested activities in the format of a flow chart. LifeBio™, Inc. donated nine autobiographical profiles of individuals, including a life story book, two snapshots, and one action plan, which were made available to all care-staff.

The action plans were strategically placed in residents' bathrooms as this is where most dressing, toileting and assisting with residents' needs often take place; also, this is a location where residents are less likely to take the paper off the wall. The resident snapshots were placed in a binder in what is called the "country kitchen." This area is often where staff meets prior to their shift, to go over what has happened throughout the day and to receive nurse's updates. This is also an area where residents are likely to participate in activities, congregate or relax. The second copy of the resident snapshot was kept in the activities office and the life story books were presented to each resident who participated.

Pre- and Post-Intervention Measures

Only consented participants completed questionnaires designed to gather feedback about the use of the LifeBio™ materials. The pre-intervention survey (Appendix C) included information on demographics, relationships with the residents and job satisfaction. After one month, a station, was set up in the facility for three days to allow participants to complete their post-intervention surveys (Appendix D). The post-intervention survey also assessed the usefulness of the LifeBio™ materials, specifically the one-page summary and action plans. The post-intervention survey aimed to assess whether the materials presented were useful in creating more meaningful relationships residents, increasing knowledge of residents and bettering job satisfaction. The post-intervention survey also had a short qualitative section which assessed the positives and negatives of the LifeBio™ materials.

Statistical Analyses

The current study used IBM Statistical Package for Social Sciences 25.0 (SPSS) to analyze the data. The current study used a pre-intervention/post-intervention survey technique to collect data. Due to the small sample size, frequencies were calculated to describe the changes in answer choice between the pre-and post-intervention surveys. Each survey item answer choices as condensed from “strongly agree, somewhat agree, agree, somewhat disagree and disagree” to “agree” and “disagree,” with “strongly agree, somewhat agree and agree” making the “agree” category and “somewhat disagree and strongly disagree” making up the disagree category.

Chapter 4: Results

Demographics

The current study obtained 16 participants at baseline, however following the month intervention two participants did not complete the post-intervention survey. Due to the small sample size, any information provided from the two participants who did not complete the post-intervention survey were removed from the study. Results from the pre-intervention survey identified that most participants were between the ages of 25 and 34 (n= 4, 28.6%) and White (n= 10, 71.4%). The next largest ethnicity in the sample were individuals whom identified as African American/Black (n= 2, 14.3%). The remaining 2 participants identified as Hispanic/ Latino (n= 1, 7.1%) and Mixed race (n= 1, 7.1%). The entire sample obtained for the current study identified as female and 50% (n=7) were employed as resident care assistants (RCAs), the rest of the sample were employed as activity assistants (n=1, 7.1%), medical technologists (n= 14.3%) licensed practical nurses (n=2, 14.3%), housekeeping (n=1, 7.1%) and staffing (n=1, 7.1%). The most reported education was some college with no degree (n= 4, 28.6%), followed by an equal distribution of some high school with no diploma (n= 3, 21.4%), high school diploma or the equivalent (GED) (n= 3, 21.4%), and an associate degree or higher (n= 3, 21.4%). The majority of the sample (n= 8, 57.1%) had been working for 13 months or longer, with the remaining sample working for 12 months or less (See Table 1).

The entire sample (n= 14, 100.0%) reported frequently working individually with residents. When examining the presence of dementia-related behaviors, 78.6% (n= 11) reported that the residents frequently exhibit aggressive behaviors such as hitting, biting or kicking. Behaviors such as crying or yelling which could indicate emotional distress

were reported by 92.9% (n= 13) of the sample to occur frequently. When asked about the frequency of dementia-related behaviors observed in residents in the facility, 100% (n= 14) agreed that they were familiar with these kind of behaviors (See Table 2).

Relationships with Residents

Perceived relationships with residents were measured using 4 survey items; the items measured perceived conversations, emotional closeness, perceived connection with residents, and commonalities between staff and residents (See Table 3). The first item measured the perception of the care-staffs' ability to participate in meaningful conversation with the residents. Prior to implementation of the LifeBio™ materials, 92.9% (n= 13) agreed that they feel comfortable in their ability to have meaningful conversations with the residents. More specifically, when broken down into categories 78.6% (n= 11) strongly agreed in their ability to have meaningful conversations with residents while only 14.3% (n= 2) agreed and 7.1% (n= 1) somewhat disagreed. Following the implementation of the LifeBio™ materials, 100% (n= 14) agreed that they felt comfortable in their ability to engage in meaningful conversations with the residents.

The second item that was used to assess care-staffs' perception of conversations with residents asked, "I have a hard time finding topics to have conversations about with the residents." Prior to implementation of the LifeBio™ materials 28.6% (n=4) of care-staff agreed with the statement; following the implementation, 100% (n=14) of care-staff reported that the use of the LifeBio™ materials helped them find topics to have conversations with residents.

The third item which was used to assess perceptions of relationships with residents focused on the care-staffs' perceived emotional closeness to their residents. When asked, 85.7% (n= 12) of the care-staff agreed that knowing more about the residents' life histories and backgrounds would make them feel more emotionally closer to their residents. During the post-test survey, 100% (n= 14) of the participants agreed that the resident action plans and resident snapshots from LifeBio™ made them feel emotionally closer to the residents.

To measure commonality, care-staff was asked to rate how much they agreed or disagreed with the following statement, " I have a difficult time finding things in common between the residents and myself." Prior to the implementation of the LifeBio™ materials, 14.3% (n=2) agreed, indicating that they have a hard time finding commonalities between themselves and residents. However, following the intervention, 100% (n=14) of the sample agreed that the LifeBio™ materials had helped them find commonalities between themselves and the residents.

The last item used to assess the care-staff's perceived relationships with residents measured perceived connectedness. At the pre-intervention survey, 78.6% (n= 11) strongly agreed that knowing more about a resident's life experiences would allow them to feel more connected with the resident. Following the application of the LifeBio™ materials, 100% (n= 14) agreed that the resident action plans and resident snapshots from LifeBio™ allowed the participant to feel more connected to the residents.

Job Satisfaction

In order to measure care-staffs' perceived job satisfaction, 7 survey items were created. The 7 survey items aimed to measure efficiency of work-related tasks, job

meaningfulness, enjoyment of work, quality of care, individual interaction and comfort of handling dementia-related behaviors (See Table 4). To assess the efficiency of work-related tasks, participants were asked to rate how much they agreed or disagreed with the following statement, “Knowing more about the residents’ life histories and hobbies would help me complete work-related tasks more efficiently.” During the pre-intervention survey 71.4% (n= 10) of participants strongly agreed that knowing more about the residents’ life histories and hobbies could help them complete work-related tasks more efficiently. During the post-intervention surveys, 100% (n= 14) agreed that the use of the LifeBio™ materials helped them complete work-related tasks more efficiently.

To measure the perceived meaningfulness of the job, care-staff were asked if knowing more about the residents’ life histories would make their job more meaningful and 85.7% (n= 12) strongly agree with the statement. Following the use of the LifeBio™ materials, 100% (n=14) of care-staff agreed that the use of the resident snapshots and resident action plans made their job more meaningful; more specifically, 35.7% (n= 5) strongly agreed with the statement.

The next item that was used to assess job satisfaction focused on the enjoyment of their work. Prior to the introduction of the LifeBio™ materials, 71.4% (n= 10) of the participants strongly agreed that they would enjoy their job more if they knew more about their residents’ backgrounds and life histories. One month following the implementation of the LifeBio™ materials, 100% (n= 14) of the participants agreed that the resident snapshots and resident action plans had made their job more enjoyable; more specifically,

42.9% of care-staff indicated that they strongly agreed that the materials made their job more enjoyable.

To better understand quality of care, during the pre-intervention survey, care-staff was asked to rate the extent to which they agreed or disagree with the following statement, “Knowing more about a resident’s life experiences can increase the quality of care.” Prior to the application of the LifeBio™ materials, 100% (n= 14) agreed, however, this percentage decreased following the post-intervention survey (n= 13, 92.9%) when asking if the LifeBio™ materials aided in increasing quality of care. When measuring individual interactions, 92.9% (n= 13) of the sample agreed that they feel comfortable interacting with residents individually; this percentage remained the same following the implementation of the LifeBio™ materials.

The last two items that were used to assess job satisfaction aimed to measure the comfort in handling dementia-related behaviors. The participants were asked to rate how much they agreed or disagreed with the following statement, “When a resident becomes emotionally distressed, I feel comfortable in how to handle the situation.” During the pre-intervention survey, 92.9% (n= 13) agreed with the statement, however, following the application of the LifeBio™ materials, only 85.7% (n= 12) agreed that the LifeBio™ materials allowed them to feel comfortable in handling a situation where a resident is emotionally distressed. The second survey item asked how much the participants agree or disagreed with, “Knowing more about a resident’s life experiences can help comfort the resident when the resident when they’re upset.” During the pre-intervention survey, 100% (n= 14), agreed with statement, however, following the application of the

LifeBio™ materials, 92.9% (n= 13) agreed that the LifeBio™ materials assisted in the comforting of upset residents.

Practicality and Ease of Use

To assess the practicality and ease of use of the LifeBio™ materials, both qualitative (See Table 5) and quantitative analysis were conducted. Following the one-month intervention, the post-intervention survey was administered. During that month, 50% (n= 7) reported occasionally using the LifeBio™ materials and 28.5% (n= 4) reported either very frequently or frequently used the materials. Participants were also asked how often they have used the resident snapshots from LifeBio™, 35.7% (n=5) reported occasionally using the snapshots, 21.4% (n= 3) reported frequently using them and 14.3% (n= 2) reported very frequently using them. Approximately 42.9% of care-staff reported reading all of the resident snapshots provided by LifeBio™ and 21.4% reported reading more than half. When asked how often the care-staff utilized the resident action plans, 35.7 (n= 5) said occasionally, 21.4% (n= 3) reported frequent use and 14.3% (n= 2) reported very frequent use. Additionally, 28.6% (n= 4) of the current sample agreed that the residents are difficult to work with. Following the LifeBio™ intervention, 78.6% (n=11) agreed that the resident snapshots made the residents less difficult to work with and all 14 (100%) agreed that the action plans made the residents easier to work with.

Practicality and ease of use were also measured through the use of survey items that assessed knowledge of the residents and conversation. Prior to the intervention, 64.3% (n= 9) of care-staff agreed that they knew the life histories and backgrounds of their residents; however, following the intervention, 100% (n=14) agreed that they knew

the histories and backgrounds of residents. Knowledge of the residents was also assessed by asking how much care-staff agreed with the statement, “If asked I could acknowledge past interests of a resident.” Prior to the LifeBio™ intervention, 71.4% (10) care-staff agreed with this statement, following the intervention, 85.7% (n=12) agreed with this statement. Similarly, care-staff was also asked how much they agreed with the statement, “If asked I could acknowledge past career of a resident,” and prior to the access to the LifeBio™ materials, 64.3% (n= 9) agreed while 35.7% (n= 5) disagreed with the statement. Following the LifeBio™ intervention, this percentage increased to 85.7% (n= 12) agreeing with the statement.

In addition to the quantitative, qualitative approach was also used in order to get a better understanding of what the care-staffs’ reactions were to the LifeBio™ materials. When asking about the positive aspects of the resident snapshots many care-staff acknowledged the amount of information given on a single sheet of paper as well as how the snapshot made it easier to connect and converse with residents:

“Helps you better to connect with the residents by giving you topics to talk about”

“Visual reminder of who they are”

“Helps with care of residents, specifically those distressed”

When asked about the resident action plans, care-staff also had many positives responses, including how easy the material was to use and how the position of the material in the corresponding resident’s bathroom was a good location:

“Positioned in a great place”

“Quick and easy to the point”

“Helpful guiding action plan during stressful situations”

“ It is a way to have meaningful goal-oriented moments ”

Based on the responses, another recurrent theme was the need for more LifeBio™ materials. When asked to identify negatives regarding the materials, the largest theme was that care-staff indicated that not every resident had their own materials.

Influence of Employment Range on Study Findings

Following primary data analysis, participants were categorized by their employment length (See Table 6). Two main groups were created, those who had reported being employed for less than 12 months (n= 6) and those who had been employed for 13 months or more (n= 8). Using the two groups, survey items measuring relationships with residents, job satisfaction and practicality/ease of use were re-assessed stratified by the employment range to examine possible differences between the two groups.

When examining the possible differences in perceived relationships with residents based on employment length, only one survey item indicated a difference between the two groups. Although both groups had the same percentage of those who somewhat agreed that the LifeBio™ materials helped find conversation topics with residents during the post-intervention survey, there were observed differences on the pre-intervention survey. Specifically, 50% (n=3) of individuals who had been employed at the facility for 12 months or less somewhat agreed that they had a hard time finding topics to have conversations about with the residents; in comparison, only 12.5% (n= 1) of those who had employed for 13 months or more reported this.

When examining the impact of employment length on possible dissimilarities in response choice for job satisfaction, 4 of the 7 survey items found differences. Individuals who had been employed for 12 months or less reported a lower percentage who somewhat agreed (n= 5, 83.3%) in their comfort and ability to work with residents individually, in comparison to those who had been employed for 13 months or more (n=8, 100%). When participants were asked about comfort in handling a situation where a resident is emotionally distressed, 100% (n=8) of those who had been employed for 13 months or longer indicated that they somewhat agreed that they were comfortable in handling the situation. However, when asked this question only 83.3% (n= 5) of those who had been employed for 12 months or less somewhat agreed with this statement and 16.7% (n= 1) disagreed. Additionally, when observing how much care-staff agree with the statement, “Knowing more about the residents’ life histories and hobbies would help me complete work-related tasks more efficiently,” the majority of those who were employed for 12 months or less somewhat agreed with the statement. In comparison, those who were employed for 13 months or longer were in full agreement that knowledge of residents’ life histories and hobbies can help complete work-related tasks more efficiently. The last survey item for job satisfaction which differed based on employment length was in regards to job meaningfulness. Specifically, 83.3% (n=5) of the 12 month or less group reported somewhat agreeing with the item that indicates that knowing more about a resident’s background can make their job more meaningful, whereas 100% (n= 8) of those who were employed for 13 months or more were in agreement.

After stratifying by employment length, 3 of 4 survey items for practicality/ ease of use showed differences between the two groups. The first item indicated that a higher

percentage (n= 7, 87.5%) of individuals in the 13 months or more group somewhat agreed that they know the life histories and backgrounds of residents on the pre-intervention survey; the majority of the 12 month or less group agreed (n= 4, 66.7%) in comparison to those in the group or somewhat agreed (n= 2, 33.3%). Additionally, when asked to rate their agreement in knowing the past interests of their residents, the 13 month or longer group somewhat agreed (n= 7, 87.5%) in comparison to the 50% (n=3) participants in the 12 month or less group who somewhat agreed. Lastly, when asked to rate their level of agreement on their ability to acknowledge their residents' past career, 87.5% (n=7) of those who had been employed for 13 months or more somewhat agreed and in comparison, only 33.3% (n=2) somewhat agreed in the 12 month or less group.

Chapter 5: Discussion

Although there is has been an immense amount of research done on the therapeutic effects of RT for those with a dementia diagnosis, there has been little research done on the effect of RT for care-staff. Due to the pathology of dementia, communicative abilities are often diminished as the disease progresses, leading to an increase in the prevalence of dementia-related behaviors (i.e. aggression, emotional distress, wandering, agitation). These behaviors have been shown to create new challenges for care-staff who work with those with a dementia diagnosis (Richter, Roberto, & Bottenburg, 1995). The current study found that the majority of care-staff reported that residents frequently exhibit aggressive behavior as well as emotional distress. Although dementia-related behaviors were reported by care-staff as being a frequent occurrence, the majority of the care-staff disagreed that the residents were difficult to work with. Additionally, the entire sample of care-staff agreed that they were familiar with dementia-related behaviors; these findings may be due to the mandatory dementia-training that each employee completes at the beginning of their employment. The majority of staff also reported being employed for 13 months or longer, this could indicate that staff may be accustomed to the dementia-related behaviors of each resident, making them less difficult to work with.

The current study found positive changes in the perception of relationships with residents from the care-staff following the implementation of the LifeBio™ materials. In agreement with previous research, the current study found that care-staff reported higher rates of agreement when discussing their perceived capability to engage in meaningful conversation with residents following the application of autobiographical materials. This

finding supports previous research indicating that following the use of communication-memory books, staff were more likely to use positive statements when talking with residents as well as increasing the quality of communication (Roth et al., 2001). The current study also saw an increase in reported agreement that the LifeBio™ materials made the care-staff feel emotionally closer to the residents as well as more connected. All of these themes are indicative of a possible strengthening of relationships through the use of autobiographical materials. As prior research has found, following the use of autobiographical materials such as life story books, care-staff have been shown to engage in more conversation with residents (Cooney et al., 2014). Prior research has proposed that the use of RT allows for care-staff to have a better appreciation for their residents, this study compliments the proposed theory as following the implementation of the LifeBio™ materials, care-staff reported an increase in their ability to find commonalties between themselves and the residents. This increase may also be due to the idea that following the implementation of the materials, care-staff were able to see beyond the dementia diagnosis and have a better understanding of the resident, allowing them to compare the resident to themselves (Cooney et al., 2014).

The current study also aimed to assess job satisfaction in care-staff following the implementation of the LifeBio™ materials. Results indicated that staff found the materials useful and had a positive effect on job satisfaction. Specifically, care-staff reported that the use of the autobiographical materials had helped them complete work-related tasks more efficiently. This finding may be caused by a more complete understanding of the resident. Often dementia-related behaviors are the result of an unmet need, which cannot be communicated due to a diminished communicative ability leading

to barriers that staff often have difficulties overcoming (Richter, Roberto, & Bottenberg, 1995; Rapaport et al., 2018). Difficult behaviors often occur during personal care tasks such as bathing, dressing or toileting; it may be possible that a better and more thorough understanding of the residents' backgrounds from the autobiographical materials allowed care-staff to better understand the root of what may be causing the behavior (Rapaport et al., 2018; Eritz et al., 2014). Additionally, care-staff reported that the use of the LifeBio™ materials could increase quality of care. This finding supports Roth and colleagues (2001), who found that following the use of communication-memory boards, care-staff were more likely to use one-step directions when working with residents to decrease the chance of confusion as well as spend more time with the residents during care tasks.

Chapter 6: Conclusions, Clinical Implications and Future Directions

The current study had several clinical implications; first, this study is one of the first to assess the effects of autobiographical materials on care-staffs' perception of relationships with their residents and perceived job satisfaction. As the prevalence of dementia continues to increase, the United States can expect to see an increase in the number of those with dementia needing formal care. As mentioned earlier, dementia often leads to diminished communicative ability which can often lead to the presence of difficult dementia-related behaviors (Richter, Roberto, & Bottenberg, 1995). The current study has clinical implications for care-staff in new methods to accommodate for this loss in communication. The current study assessed the ease of use of autobiographically based snapshots and action plans for residents within a memory-care facility. Care-staff in the current study had a positive reaction to the materials, indicating that the materials were quick and easy to use while highlighting important facts about each resident. Roth and colleagues (2001) observed that when care-staff were provided with communication-memory books, the amount of time spent caring for each resident increased. It is possible that when providing materials emphasizing an individual's life story, such as the autobiographical materials used in the current study, the quality of care could be better through the increase of time spent with each resident.

Additionally, the current study found that following the application of autobiographical materials into a memory-care facility, care-staff showed an increase in self-reports of confidence in knowledge of their residents. Often times, individuals with dementia exhibit difficult behaviors which are the result of an unmet physical or emotional need (Rapaport et al., 2018). Knowing more about a resident's life history may

be a helpful to decrease the number of difficult behaviors, while giving the care-staff a better understanding of the individual. Prior studies have found that when care-staff were giving life story books about their residents they were more likely to take the time to listen and accommodate resident needs (Cooney et al., 2014). The use of autobiographical materials can also become a meaningful activity for the care-staff to participate in with their residents. Autobiographical materials such as the ones used in the current study are easy ways to engage residents in conversation or as a way to incorporate aspects of a resident's identity into other structured activities. When interviewed, individuals with dementia have acknowledged the extreme importance of maintaining their sense of self following their diagnosis. In fact, when discussing the definition of good quality care with those who have a memory impairment, the largest theme was the preservation of self. Those with dementia want to remain the person they perceived themselves as prior to their diagnosis throughout the disease process (Milte et al., 2016). Autobiographical materials and tools such as the ones provided by LifeBio™ can allow for care-staff to maintain and preserve residents' personhood when the disease process no longer allows them to do it themselves.

The current study also found that care-staff had slightly different answer choices on survey items based on employment range. Individuals who had reported being employed at the facility for 12 months or less had a higher agreement on pre-intervention surveys that they experienced difficulty finding topics to have conversations about with residents in comparison to employees who had been working at the facility for 13 months or longer. Additionally, when observing the frequencies of response choices stratified by employment range, individuals who had worked at the facility for 13 months or longer

had higher agreement with perceived comfort in working individually with residents and handling situations where residents are emotionally distressed. The differences in these response choices have clinical implications for job orientations in assisted-living and other institutional settings. The use of autobiographical materials could make new employees entering the dementia-care realm more knowledgeable and comfortable with the individuals they would be caring for. Care-staff who had been employed for 13 months or longer also had higher rates of agreement in regard to perception of job meaningfulness. Future research should assess how the use of autobiographical materials in both the care setting and the orientation for new employees affects staff turnover and staff retention.

The current study has several limitations; the first being that this was a pilot study with a small sample size, not allowing for conclusions to be generalizable. This study also dropped two pre-intervention surveys because two participants dropped out of the study and were not able to complete the post-intervention survey; the loss of these participants may have subtle effects on frequencies. However, to obtain a better description of the data, the two pre-intervention surveys were dropped. Additionally, the current study had a short timeline to collect and analyze data; future studies should allow for a longer time between the pre-post surveys to ensure a long enough time was allocated for staff to utilize the materials. The current study also strategically placed the autobiographical materials in specific sections of the facility to ensure that they were easily accessible to the staff and made sense. However, the current study placed the resident snapshots in a binder in a central location of each residential wing. It may be possible that care-staff did not fully use the resident snapshots because it was

inconvenient to get out a binder, look for the corresponding resident's snapshot, read the material and put it back. Care-staff are very busy and often work in a changing environment, future research should consider where to place life story summaries such as the resident snapshots. Areas which are more open or accessible to care-staff may be better suited for this kind of autobiographical material. Lastly, during the current study of the 9 resident profiles provided, one resident moved out and another passed away. Depending on which wing each resident resided on, the loss of two resident profiles may have led to care-staff not having full access to the materials. The facility used in the current study often has designated care-staff to each wing, although care-staff work with all residents, they often work with one wing of the facility more than the other. Therefore, staff who worked on the wing with the two lost profiles may not have had as much accessibility to the LifeBio™ materials than did other participants; future studies should aim to collect a larger amount of resident profiles to control for dropout factors.

Overall the current pilot study has many clinical implications and ideas for future research. The current study suggests that the use of autobiographical materials may have positive effects on care-staffs' perceptions of relationships with their residents and job satisfaction. The current study also suggests that following an autobiographical intervention, care-staff reported higher rates of agreement in knowledge of their residents.

Chapter 7. Acknowledgements

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Chapter 8: References

References

- Brooker, D., & Duce, L. (2000). Wellbeing and activity in dementia: A comparison of group reminiscence therapy, structured goal-directed group activity and unstructured time. *Aging & Mental Health, 4* (4): 354-358.
- Centers for Disease Control and Prevention. (2018). Alzheimer's disease: Promoting health and independence for an aging population at a glance. *Retrieved from* <https://www.cdc.gov/chronicdisease/resources/publications/aag/alzheimers.htm>
- Cohen-Mansfield, J. (2009). Agitated behavior in persons with dementia: The relationship between type of behavior, its frequency, and its disruptiveness. *Journal of Psychiatric Research, 43*: 64-69.
- Cooney, A., Hunter, A., Murphy, K., Casey, D., Devane, D., Smyth, S., ... O'Shea, E. (2014). 'Seeing me through my memories': A grounded theory study on using reminiscence with people with dementia living in long-term care. *Journal of Clinical Nursing, 23*: 3564-3574.
- Eritz, H., Hadjistavropoulos, T., Williams, J., Kroejer, K., Martin, R., Lix, L., & Hunter, P. (2014). A life history intervention for individuals with dementia: A randomized controlled trial examining nursing staff empathy, perceived patient personhood and aggressive behaviours. *Ageing & Society, 36*: 2061-2089.
- Harmer, B., & Orrell, M. (2008). What is meaningful activity for people with dementia living in care homes? A comparison of the views of older people with dementia, staff and family carers. *Aging and Mental Health, 12* (5): 548-558.
<http://dx.doi.org/10.1080/13607860802343019>

IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.

Kitwood, T. (1997). *Dementia Reconsidered: The Person Comes First*, Bristol, PA: Open University Press.

Lök, N., Bademli, K., & Selçuk-Tosun, A. (2018). The effect of reminiscence therapy on cognitive functions, depression, and the quality of life in Alzheimer patients: Randomized controlled trial. *International Journal of Geriatric Psychiatry*, 34: 47-53.

Lopes, T., Alfonso, R., & Ribeiro, O. (2016). A quasi-experimental study of a reminiscence program focused on autobiographical memory in institutionalized older adults with cognitive impairment. *Archives of Gerontology and Geriatrics*, 66:183-192.

<http://10.1016/j.archger.2016.05.007>

Milte, R., Shulver, W., Killington, M., Bradley, C., Ratcliffe, J., & Crotty, M. (2016). Quality in residential care from the perspective of people living with dementia: The importance of personhood. *Archives of Gerontology and Geriatrics*, 63: 9-17.

<http://dx.doi.org/10.1016/j.archger.2015.11.007>

Miyamoto, Y., Tachimori, H., & Ito, H. (2010). Formal caregiver burden in dementia: Impact of behavioral and psychological symptoms of dementia and activities of daily living. *Geriatric Nursing*, 31 (4): 246-253.

Ortman, J., Velkoff, V., & Hogan, H. (2014). An aging nation: The older population in the United States. *United States Census Bureau*.

Rapaport, P., Livingston, G., Hamilton, O., Turner, R., Stringer, A., Robertson, S., & Cooper, C. (2018). How do care home staff understand, manage and respond to agitation in people with dementia? A qualitative study. *BMJ*, 8.

- Richter, J., Roberto, K., & Bottenberg, D. (1995). Communicating with persons with Alzheimer's disease: Experiences of family and formal caregivers. *Archives of Psychiatric Nursing, 9* (5): 279-285.
- Roth, D., Jackson, E., Gerstle, J., Dijkstra, K., Bankester, L., Burgio, L., ... Allen-Burge, R. (2001). Come talk with me: Improving communication between nursing assistants and nursing home residents during care routines. *The Gerontologist, 41* (4): 449-460.
- Savundranayagam, M., Ryan, E., Anas, A., & Orange, J. (2007). Communication and dementia: Staff perceptions of conversational strategies. *Clinical Gerontologist, 31* (2): 47- 63.
- Savundranayagam, M. (2013). Missed opportunities for person-centered communication: Implications for staff-resident interactions in long-term care. *International Psychogeriatrics, 26* (4): 645-655.
- Smebye, K., & Kirkevold, M. (2013). The influence of relationships on personhood in dementia care: A qualitative, hermeneutic study. *BMC Nursing, 12* (29).
- Smit, D., de Lange, J., Wilemse, B., Twisk, J., & Pot, M. (2015). Activity involvement and quality of life of people at different stages of dementia in long term care facilities. *Aging and Mental Health, 20* (1): 100-109. <http://dx.doi.org/10.1080/13607863.2015.1049116>
- Subramaniam, P., Woods, B., & Whitaker, C. (2014). Life review and life story books for people with mild to moderate dementia: A randomized controlled trial. *Aging and Mental Health, 18* (3): 363-375. <http://dx.doi.org/10.1080/13607863.2013.837144>
- Torrisi, M., De Cola, M., Marra, A., De Luca, R., Bramanti, P., & Calabrò. (2017). Neuropsychiatric symptoms in dementia may predict caregiver burden: A Sicilian exploratory study. *Psychogeriatrics, 17*: 103-107.

Appendices

APPENDIX A



One University Plaza, Youngstown, Ohio 44555
Office of Research
330.941.2377

November 16, 2018

Dr. Tiffany Hughes, Principal Investigator
Ms. Shannon Coyne, Co-investigator
Department of Sociology, Anthropology & Gerontology
UNIVERSITY

RE: IRB Protocol Number: 078-2019
Title: The Usage of Autobiographical Materials for Care-Staff in Memory Care:
Measured Effects on Resident Relations and Work-Related Tasks

Dear Dr. Hughes and Ms. Coyne:

The Institutional Review Board of Youngstown State University has reviewed the above mentioned Protocol via expedited review and determined that it fully meets YSU Human Subjects Research Guidelines, Expedited Category 7. Therefore, I am pleased to inform you that your project has been fully approved for one year. You must submit a Continuing Review Form and have your project approved by November 15, 2019, if your project continues beyond one year.

Any changes in your research activity should be promptly reported to the Institutional Review Board and may not be initiated without IRB approval except where necessary to eliminate hazard to human subjects. Any unanticipated problems involving risks to subjects should also be promptly reported to the IRB. Best wishes in the conduct of your study.

Sincerely,

Dr. 
Interim Associate Vice President for Research
Authorized Institutional Official

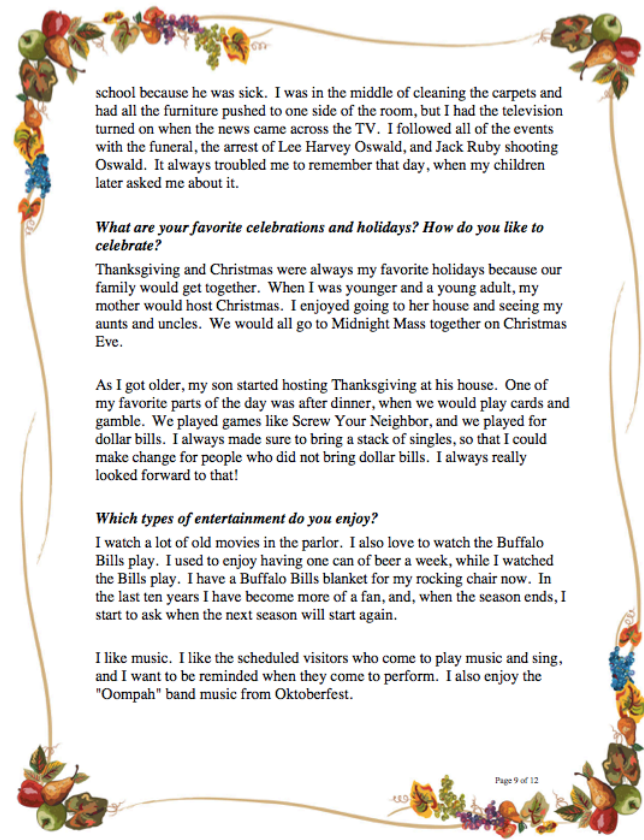
GD:cc

c: Dr. Matt O'Mansky, Chair
Department of Sociology, Anthropology & Gerontology

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APPENDIX B



Example of page from life story book

My name is Dorothy and my birthday is Nov. 22nd 

Hometown: Buffalo, New York

HELPFUL THINGS TO KNOW ABOUT ME

- My late husband was Cyril
- My children are Robert & Diane
- I was a happy homemaker
- I am Catholic

LET'S TALK ABOUT

- My family & time as a homemaker
- Roller skating at Skateland and Crystal Beach
- Fishing trips & sunbathing
- Cooking (potato salad, knaidel, & desserts)

THINGS TO DO & CALENDAR ACTIVITIES PERFECT FOR ME

- Take me to Mass
- Let me help others
- Invite me to play cards
- Turn on Buffalo Bills games & give me a beer
- Help me garden
- Sit with me on the patio in the sunshine
- Take me to listen to musicians and singers (and polka bands)
- Turn on programs about roller skating
- Turn on old movies for me in the parlor
- Treat me to cheesecake or eclairs
- Play hymns for me
- Take me boating or fishing

IDEAS FROM ME:



Example of a resident action plan

Dorothy

Dorothy was born on November 22nd in Buffalo, New York. She was an only child. She was always close to her parents, particularly her mother. Dorothy's late husband was **Cyril**. She has two children: **Diane** and **Robert**. She is also a proud grandmother.

After high school, Dorothy worked at Silk Mill until she was married. She spent the rest of her life as a **homemaker**. Caring for her family was her pride and joy. She always admired her husband for his honesty and never arguing with anyone.

Thanksgiving and Christmas were always special holidays for Dorothy. She used to love to cook, and everyone raved about her **German potato salad**. She also made excellent desserts like cream puffs, eclairs, and cheesecake. Dorothy and her husband loved to go **fishing** in their small **boat** on Lake Erie for perch and walleye. In the winters they also enjoyed ice fishing. They would fish every chance they got!

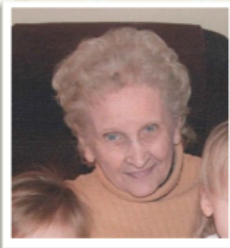
A fan of **roller skating**, Dorothy met her husband at a skating rink. She continued skating into her 50s. Her family used to skate at Crystal Beach.

Dorothy loves her brown sweater. She likes to watch old movies in the parlor. She also enjoys when **singers** and musicians come to perform.

Dorothy loves to be outside in the **sunshine**, sitting on the patio. She used to enjoy having a parakeet for a pet, though she is not much of an animal person otherwise.

Catholic Mass is important to Dorothy, and she likes to be served Communion. She also likes to listen to hymns.

If she is having a rough day, someone doing something nice for her helps her feel special. She tries to be independent, so she does not always ask people for help.



Let's Talk About...

- Her family
- Her Catholic faith
- Fishing trips & sunbathing
- Cooking



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Example of a resident snapshot

APPENDIX C

PRE-TEST QUESTIONNAIRE

- 1.) What is your age?
 - 0= 18-24 years old
 - 1= 25-34 years old
 - 2= 35-44 years old
 - 3= 45-54 years old
 - 4= 55-64 years or older
- 2.) What is your gender?
 - 0= Male
 - 1= Female
 - 2= Prefer not to answer
- 3.) Please specify your ethnicity.
 - 0= White
 - 1= Hispanic or Latino
 - 2= Black or African American
 - 3= Native American or American Indian
 - 4= Asian/ Pacific Islander
 - 5= Other _____
- 4.) What is the highest level of education you have received?
 - 0= Less than high school
 - 1= Some high school, no diploma
 - 2= High school graduate, diploma or the equivalent (i.e. GED)
 - 3= Some college , no degree
 - 4= Trade/technical/vocational training
 - 5= Associate degree or higher
- 5.) How long have you been employed at Peregrine Senior Living? _____
- 6.) What is your job title at Peregrine Senior Living? _____

For questions 7-27 please circle the answer to which to most agree or disagree.

- 7.) How often do you work individually with the residents?
 - 0= Very Frequently
 - 1= Frequently
 - 2= Occasionally
 - 3= Rarely
 - 4= Very Rarely
 - 5= Never
- 8.) How often do the residents exhibit aggressive behaviors (i.e. Hitting, biting, kicking)?
 - 0= Very Frequently
 - 1= Frequently
 - 2= Occasionally
 - 3= Rarely
 - 4= Very Rarely

5= Never

- 9.) How often do the residents exhibit emotional distress (i.e. Crying, yelling)?
0= Very Frequently
1= Frequently
2= Occasionally
3= Rarely
4= Very Rarely
5= Never
- 10.) I am familiar with dementia- related behaviors.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
- 11.) I find the residents difficult to work with.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
- 12.) When a resident becomes aggressive I feel comfortable in how to handle the situation.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
- 13.) When a resident becomes emotionally distressed I feel comfortable in how to handle the situation.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
- 14.) I am comfortable in my ability to interact with a resident individually.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
- 15.) I have a difficult time finding things in common between the residents and myself.
0= Strongly Agree
1= Somewhat Agree
2= Agree

3= Somewhat Disagree
4= Strongly Disagree

16.) I have a hard time finding topics to have conversations about with the residents.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

17.) I am comfortable in my ability to have meaningful conversations with the residents.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

18.) I know the life histories and backgrounds of my residents.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

19.) If asked, I could acknowledge past interests of a resident.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

20.) If asked, I could tell you the past career of a resident.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

21.) Knowing more about the residents' life histories and hobbies would help me complete work-related tasks more efficiently.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

22.) Knowing more about the residents' life histories and backgrounds would make me feel emotionally closer to the them.

0= Strongly Agree
1= Somewhat Agree
2= Agree

3= Somewhat Disagree
4= Strongly Disagree

23.) Knowing the residents' life histories would make my job would be more meaningful.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

24.) Knowing more about a resident's life experiences can increase the quality of care.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

25.) Knowing more about a resident's life experiences can help comfort the resident when they're upset.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

26.) Knowing more about a resident's life experiences would make me feel more connected to the resident.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

27.) I would enjoy my job more if I knew more about the residents' backgrounds and life histories.

0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

APPENDIX D
POST-TEST QUESTIONNAIRE

1. In the past month, how much have you used the materials provided by the LifeBio company?
0= Very Frequently
1= Frequently
2= Occasionally
3= Rarely
4= Very Rarely
5= Never

2. In the past month, how often have you used the resident snapshots from LifeBio?
0= Very Frequently
1= Frequently
2= Occasionally
3= Rarely
4= Very Rarely
5= Never

3. Approximately how many of the resident snapshots have you read?
0= All of Them
1= More Than Half
2= Half
3= Less Than Half
4= None of Them

4. In the past month, how often have you used the resident action plans from LifeBio?
0= Very Frequently
1= Frequently
2= Occasionally
3= Rarely
4= Very Rarely
5= Never

5. Using the resident snapshots makes the residents less difficult to work with.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

6. Using the action plans makes the residents easier to work with.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

7. The information provided in the LifeBio materials allows me to feel comfortable handling a situation where a resident is emotionally distressed.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
8. The materials presented by LifeBio has bettered my ability to interact with a resident individually.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
9. The resident snapshots and the resident action plans have made it easier to find things in common with the residents.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
10. The resident snapshots and the resident action plans have helped me find conversation topics with residents.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
11. I am comfortable in my ability to have meaningful conversations with the residents.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
12. The resident snapshots and the resident action plans have informed me of the life histories and backgrounds of my residents.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
13. If asked, I could acknowledge past interests of a resident.
0= Strongly Agree

- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

14. If asked, I could tell you the past career of a resident.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

15. The resident snapshots and the resident action plans help me complete work-related tasks more efficiently.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

16. The resident snapshots and the resident action plans have made me feel emotionally closer to the residents.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

17. The resident snapshots and the resident action plans have made my job more meaningful.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

18. The resident snapshots and the resident action plans increase the quality of care.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree

19. The resident snapshots and the resident action plans have helped me comfort the resident when they're upset.

- 0= Strongly Agree
- 1= Somewhat Agree
- 2= Agree
- 3= Somewhat Disagree
- 4= Strongly Disagree 4= Strongly Disagree

20. The resident snapshots and the resident action plans have made me feel more connected to the resident.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree
21. The resident snapshots and the resident action plans have made my job more enjoyable.
0= Strongly Agree
1= Somewhat Agree
2= Agree
3= Somewhat Disagree
4= Strongly Disagree

For questions 22-26 please write your answer in the space provided.

22. In the past month, which material have you used more? (Please circle one answer):
0= Resident Snapshot
1= Resident Action Plan
23. Based on your answer to question 22, why did you use that material more than the other?
24. Please identify one positive characteristic and one negative characteristic of the resident snapshots:
Positive:
- Negative:**
25. Please identify one positive characteristic and one negative characteristic of the resident action plan:
Positive:
- Negative:**
26. Please identify where you think the resident snapshots and resident action plans should be placed within the facility to make them the easier to locate/use.

Table 1.
Demographics

Variable	Response	N (Frequency %)
Age	18-24	3 (21.4%)
	25-34	4 (28.6%)
	35-44	3 (21.4%)
	45-54	3 (21.4%)
	55-64	1 (7.1%)
	Total: 14 (100.0%)	
Gender	Female	14 (100.0%)
	Male	0 (0.0%)
	Total: 14 (100.0%)	
Race	White	10 (71.4%)
	Black or African American	2 (14.3%)
	Hispanic or Latino	1 (7.1%)
	Mixed	1 (7.1%)
	Total: 14 (100.0%)	
Education	Some High School, No Diploma	3 (21.4%)
	High School Graduate, Diploma, GED	3 (21.4%)
	Some College, No Degree	4 (28.6%)
	Trade/Technical/Vocational School	1 (7.1%)
	Associate Degree or Higher	3 (21.4%)
	Total: 14 (100.0%)	
Employment Length	12 Months or Less	6 (42.9%)
	13 Months or More	8 (57.1%)
	Total: 14 (100.0%)	

Table 2.
Interaction and Dementia-Related Behaviors

Variable	Response	N (Frequency %)
How often do you work individually with the residents?	Very Frequently	(0, 0.0%)
	Frequently	(14, 100.0%)
	Occasionally	(0, 0.0%)
	Rarely	(0, 0.0%)
	Very Rarely	(0, 0.0%)
	Never	(0, 0.0%)
		Total: 14, 100.0%
How often do the residents exhibit aggressive behaviors (i.e. Hitting, biting, kicking)?	Very Frequently	(0, 0.0%)
	Frequently	(11, 78.6%)
	Occasionally	(3, 21.4%)
	Rarely	(0, 0.0%)
	Very Rarely	(0, 0.0%)
	Never	(0, 0.0%)
		Total: 14, 100.0%
How often do the residents exhibit emotional distress (i.e. Crying, yelling)?	Very Frequently	(0, 0.0%)
	Frequently	(13, 92.9%)
	Occasionally	(1, 7.1%)
	Rarely	(0, 0.0%)
	Very Rarely	(0, 0.0%)
	Never	(0, 0.0%)
		Total: 14, 100.0%
I am familiar with dementia-related behaviors.	Strongly Agree	(0, 0.0%)
	Somewhat Agree	(0, 0.0%)
	Agree	(14, 100.0%)
	Somewhat Disagree	(0, 0.0%)
	Disagree	(0, 0.0%)
		Total: 14, 100.0%

Table 3. Perceived Relationships with Residents

PRE-INTERVENTION ITEM	N, FREQUENCY %	POST-INTERVENTION ITEM	N, FREQUENCY %
<i>I am comfortable in my ability to have meaningful conversations with the residents.</i>	Strongly Agree (11, 78.6%) Somewhat Agree (0, 0.0%) Agree (2, 14.3%) Somewhat Disagree (1, 7.1%) Strongly Disagree(0, 0.0%)	<i>I am comfortable in my ability to have meaningful conversations with the residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree(0, 0.0%) Strongly Disagree (0, 0.0%)
<i>I have a hard time finding topics to have conversations about with the residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (4, 28.6%) Agree (10, 71.4%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have helped me find conversation topics.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree(0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about the residents' life histories and backgrounds would make me feel emotionally closer to them.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made me feel emotionally closer to the residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree(0, 0.0%) Strongly Disagree (0, 0.0%)
<i>I have a difficult time finding things in common between the residents and myself.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (12, 85.7%) Agree (2, 14.3%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made it easier to find things in common with the residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about a resident's life experiences would make me feel more connected to the resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made me feel more connected to the resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)

Table 4. Perceived Job Satisfaction

PRE-INTERVENTION ITEM	N, FREQUENCY %	POST-INTERVENTION ITEM	N, FREQUENCY %
<i>When a resident becomes emotionally distressed I feel comfortable in how to handle the situation.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The information provide in the LifeBio™ materials allows me to feel comfortable handling a situation where a resident is emotionally distressed.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (12, 85.7%) Agree (2, 14.3%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>I am comfortable in my ability to interact with a resident individually.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The materials presented by LifeBio™ has bettered my ability to interact with a resident individually.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about the residents' life histories and hobbies would help me complete work-related tasks more efficiently.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans help me complete work-related tasks more efficiently.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing the residents' life histories would make my job more meaningful.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made my job more meaningful.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about a resident's life experiences can increase the quality of care.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and resident action plans increase the quality of care.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about a resident's life experiences can help comfort the resident when they're upset.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have helped me comfort the resident when they're upset.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (13, 92.9%) Agree (1, 7.1%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>I would enjoy my job more if I knew more about the residents' backgrounds and life histories.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made my job more enjoyable.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)

Table 5. Practicality/ Ease of Use

PRE-INTERVENTION ITEM	N, FREQUENCY %	POST-INTERVENTION ITEM	N, FREQUENCY %
<i>I find the resident difficult to work with.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (4, 28.6%) Agree (10, 71.4%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>Using the resident snapshots makes the residents less difficult to work with.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (11, 78.6%) Agree (3, 21.4%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
		<i>Using the action plans makes the residents easier to work with.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>I know the life histories and backgrounds of my residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (9, 64.3%) Agree (5, 35.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have informed me of the life histories and backgrounds of my residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (14, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>If asked, I could acknowledge past interests of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (10, 71.4%) Agree (4, 28.6%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>If asked, I could acknowledge past interests of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (12, 85.7%) Agree (2, 14.3%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>If asked, I could tell you the past career of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (9, 64.3%) Agree (5, 35.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>If asked, I could tell you the past career of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (12, 85.7%) Agree (2, 14.3%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)

Table 6. Differences Amongst Employment Length

PRE-INTERVENTION ITEM	12 MONTHS OR LESS (N= 6)	13 MONTHS OR LONGER (N= 8)	POST-INTERVENTION ITEM	12 MONTHS OR LESS (N=6)	13 MONTHS OR LONGER (N= 8)
Perceived Relationships with Residents					
<i>I have a hard time finding topics to have conversations about with the residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (3, 50.0%) Agree (3, 50.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (1, 12.5%) Agree (7, 87.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and resident action plans have helped me find conversation topics with residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (6, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
Job Satisfaction					
<i>I am comfortable in my ability to interact with a resident individually.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The materials presented by LifeBio™ has bettered my ability to interact with a resident individually.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>When a resident becomes emotionally distressed I feel comfortable in how to handle the situation.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The information provide in the LifeBio™ materials allows me to feel comfortable handling a situation where a resident is emotionally distressed.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (4, 66.7%) Agree (2, 33.3%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>Knowing more about the residents' life histories and hobbies would help me complete work-related tasks</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans help me complete work-related tasks more efficiently.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (6, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)

<i>more efficiently.</i>					0.0%)
<i>Knowing the residents' life histories would make my job more meaningful.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have made my job more meaningful.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (6, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
Practicality/ Ease of use					
<i>I know the life histories and backgrounds of my residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (2, 33.3%) Agree (4, 66.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (7, 87.5%) Agree (1, 12.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>The resident snapshots and the resident action plans have informed me of the life histories and backgrounds of my residents.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (6, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (8, 100.0%) Agree (0, 0.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>If asked, I could acknowledge past interests of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (3, 50.0%) Agree (3, 50.0%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (7, 87.5%) Agree (1, 12.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>If asked, I could acknowledge past interests of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (7, 87.5%) Agree (1, 12.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)
<i>If asked, I could tell you the past career of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (2, 33.3%) Agree (4, 66.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (7, 87.5%) Agree (1, 12.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	<i>If asked, I could tell you the past career of a resident.</i>	Strongly Agree (0, 0.0%) Somewhat Agree (5, 83.3%) Agree (1, 16.7%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)	Strongly Agree (0, 0.0%) Somewhat Agree (7, 87.5%) Agree (1, 12.5%) Somewhat Disagree (0, 0.0%) Strongly Disagree (0, 0.0%)