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### Differences in the Perceptions of Gerotranscendence Between Certified Nursing Assistants and Older Adults

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Differences in the Perceptions of Gerotranscendence Between Certified Nursing Assistants and  
Older Adults

By

Amanda M. Perera

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

in

Clinical Psychology

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Differences in the Perceptions of Gerotranscendence Between Certified Nursing Assistants and  
Older Adults

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### Abstract

Many theories of aging have been proposed within the field of gerontology to explain both psychological and social changes that occur during the aging process. One of the theories is the theory of gerotranscendence, which explains that as individuals age they develop a new perspective on life that allows the aging individual to shift their conceptualization of the world, from a materialistic and rational view to a more transcendent and universal view. Previous research suggests that some behaviors associated with gerotranscendence have been misinterpreted as pathological. The purpose of this current study was to examine whether there are significant differences in the perceptions of gerotranscendence between younger adults working as certified nursing assistants (CNA) and older adults who live in long-term care facilities. A total of 81 participants (i.e., 40 CNAs and 41 older adults) were recruited and given a set of three vignettes and a short story questionnaire. Each of the vignettes included behaviors indicative of gerotranscendence and described the life of an elderly gentlemen living in an assisted living facility. After reading each story, participants were asked to rate each of these behaviors in terms of how unusual, similar, or concerning they were. Across the three dimensions of gerotranscendence that were measured, significant age differences were found on only one subscale (i.e., older adults found behaviors on the self-dimension less unusual compared to the CNA sample). Therefore, the results of this study were inconsistent with those from previous studies, and do not support the hypotheses that there are significant differences between how older adults and CNAs perceive the behaviors associated with gerotranscendence.

Table of Contents

Introduction.....3

Method.....19

Results.....25

Discussion.....28

References.....34

Appendices

A. Consent Form.....38

B. Older Adult Demographics Form.....41

C. Gerotranscendence Survey.....42

D. Certified Nursing Assistant Online Survey Consent Form.....61

E. Certified Nursing Assistant Demographics Form.....62

## **Introduction**

As the social paradigm of aging changes and more individuals live past their eighties, it is of paramount importance that the aging process, as well as the perceptions of aging are explored. According to the United States Census Bureau, as of 2015, across the world it was reported that there were 617.1 million individuals aged 65 years and older, approximating 8.5% of the world population (He, Goodkind, & Kowal, 2016). In the United States alone approximately 14% to 20.9% of the population is aged 65 years or older. Projections for the year 2050 show that the older adult population is expected to increase to 16.7% of the world population (He, Goodkind, & Kowal, 2016).

### **Increase in Older Adults Living in Assisted Living Facilities**

A growing percentage of the older adult population is receiving care provided by professional caregivers in settings outside the home. For example, in 2014, approximately nine million older adults in the United States were provided long-term care services by about 67,000 paid providers (Harris-Kojetin et al., 2016). Data collected in 2014 by the Centers for Disease Control and Prevention's National Center for Health Statistics reported that there were 1,369,700 residents in nursing homes, 835,200 residents living in residential care communities, and 282,200 residents enrolled in adult day service centers (Harris-Kojetin et al., 2016). In comparison, data from 2012 indicated that long-term care facilities served about eight million older adults in the United States (Harris-Kojetin, Sengupta, Park-Lee, & Valverde, 2013). Data collected from 2012 also indicated lower numbers of residents living in each long-term care setting with 1,383,700 residents living in nursing homes, 717,300 residents residing in residential care communities, and 273,200 individuals enrolled in adult day service centers (Harris-Kojetin et al., 2013). Overall, data between the years of 2012 and 2014 indicated that the number of older

adults receiving long-term care services increased by approximately one million and there was an increase of 8,800 paid, regulated long-term care facilities.

### **Interaction Between Certified Nursing Assistants and Older Adults**

With the rising numbers of older adults living in residential care settings such as assisted living facilities, direct care is increasingly being provided by professional caregivers. Direct-care staff members, such as certified nursing assistants (CNA) provide eight out of every ten hours of paid care that is received by older adults who reside in long-term care facilities (Dawson & Surpin, 2001). Research conducted by Squillace et al., 2009, aimed to introduce the first National Nursing Assistant Survey, which provided a rich resource in the data available about CNAs. Data included in the survey were CNAs working in nursing homes that participated in the National Nursing Home Survey (NNHS). These CNAs worked to assist residents with activities of daily living, were paid for their services, and were certified by the state to provide either Medicare or Medicaid services. From the 3,017 CNAs who were sampled from 582 facilities, data indicated that the median age for CNAs was 37.48 years old, with the vast majority being women, and on average worked at the same facility for approximately five years. Given these numbers, it is clear that significant age gaps between staff and residents of long-term care facilities frequently exist. One concern related to this age difference is how younger employees relate to and understand the behavior of the older individuals for whom they provide care.

### **Generational Impact**

The question as to whether current CNAs are able to relate to and understand the behaviors and motives of the older adults they assist stems from the fact that these two groups of individuals come from different generations. While current CNAs in their early to late 30's fall

into either the Generation Xers or Generation Nexters cohort, older adults, typically fall into the Baby Boomer Generation. While being part of a different generation may not seem significant in understanding whether or not the groups of individuals will be able to understand each other, the differences in how these generations perceive others and the world around them is key. Various generations have a collective field of emotions, attitudes, preferences, and embodied practices which they use to create their own persona, traditions and cultures (Schewe & Nobel, 2000; Strauss & Howe, 1997). Each generation is known for their unique and differing values and motivations, which can be created given the defining moments the cohort experienced throughout their lives. Conger (2001), explained that “generations are a product of historical events that leave potent emotional memories that shape feelings about authority, institution, and family.” Similar to this explanation, a comprehensive study conducted by Schuman & Scott (1989) showed that individuals from the same generation had the same collective memories, especially from their formative years of adolescence and young adulthood. When defining each generation, one must take into consideration not only the values of each cohort, but also the important events which have defined and shaped the groups. In their work, Strauss & Howe, 1997 described values, stereotypes, and important events that occurred within each of the generations, including the Baby Boomers, generation Xers, and generation Nexters. Baby Boomers who were born between the years of 1944 and 1960 are known for their optimism, personal gratification and growth. The generation Xers, who were born between 1961 and 1980, are said to value diversity, techno literacy, fun, and informality. Lastly, those born between 1981 and 2000 fall into a generational cohort which has been given many names including, generation Nexters, millennials, and the internet generation. These individuals are stereotyped as being optimistic, confident, and valuing civic duty. When looking back at a few of the defining



historical moments in each of these generations, such as the civil rights and women's movements, Rodney King, the 9/11 terrorist attacks, and boom of computers, it is evident that these moments have played a crucial part in molding the characteristics and values which are found within the generational cohorts.

Wyatt (1993) outlined six ways that a generation is constituted, including a traumatic or formative event, such as the assassination of a leader, a dramatic shift in the demography which may influence the distribution of resources within a society (e.g., the size of the baby boomer generation), a privileged interval which connects a generation into either a cycle of success or failure (e.g., the Great Depression), the creation of a sacred space that may sustain a collective memory (e.g., Woodstock), the work of individuals who know and actively support each other (e.g., Bill Gates and Steve Jobs), and mentors that give voice by their work (e.g., Martin Luther King). Seeing the difference in the ways Baby Boomers grew up, compared to the individuals who fall into the generation Nexters cohort, it would seem plausible that these two groups see the world differently, and may not understand the behaviors of the other group. This misunderstanding between the younger and older adults brings into question how effectively a younger adult, working as a CNA, can aid and care for an older adult who they may not completely relate to and understand.

### **Theories of Aging**

Currently, within the field of gerontology there has been a significant effort to understand how individuals change psychologically as they age. More specifically, how older adults change their perception of themselves over time, how frequently they socialize with others, and whether they are engaging in "optimal" amounts of activity have been discussed (Buchanan, Lai, & Ebel, 2015). Throughout time there have been numerous theories used to understand aging, or more

specifically understand “optimal aging” or “successful aging.” These theories have including the activity, pathological, disengagement, continuity, and selection, optimization, and compensation (SOC) perspectives.

One of the most prominent perspectives in understanding aging has been activity theory, which assumes that all types of activities, such as social and physical activities are beneficial for aging individuals. This theory also posits that older adults have the same psychological and social needs as they did when they were younger (Buchanan, Lai, & Ebel, 2015; Tornstam, 2005; Kelly, 1993; Hooyman & Asuman Kiyak, 1988). However, although their needs remain the same, as individuals age and begin to enter older adulthood society itself begins to withdraw from the aging individual, causing the individual to set aside roles they once had, such as an occupation they held. Giving up these roles may lead to older adults experiencing a loss of identity, isolation, and low self-esteem (Buchanan, Lai, & Ebel, 2015). According to the activity theory, due to the loss of roles in society the only way for the aging individual to experience optimal aging is to remain productive in their communities and to increase their amount of social interaction. Given this perspective of how to reach optimal and successful aging, older adults who avoid activities or fail to socialize with others around them are viewed as being maladjusted. The continuity perspective, like the activity theory focuses on preserving life as it was in younger and midlife (Havens, 1968; Atchley, 1999; Tornstam 2005). While the activity perspective expounds that the aging individual has the same psychological and social needs as when they were younger, the continuity perspective believes that the aging individual maintains the natural urge to continue their lifestyle and identity as they previously were in midlife. Due to this perception, any older individual who is shifting, and redefining their self and the world around them may ultimately be identified as a deviant (Tornstam, 2005).

Similar to the activity theory, the disengagement perspective focuses on the aging individual's loss of roles and functions in society (Cumming & Henry, 1961; Cumming, 1963). This theory also assumes that as individuals age there is an inherent drive for them to disengage both mentally and socially from the society they are living in (Tornstam, 2005). However, in contrast to the activity theory, which perceives that society withdraws itself from aging individuals, the disengagement perspective conceptualizes that society, along with the aging individual withdraw from each other mutually. As the aging individual gives up their roles and functions in society they gradually pass on their roles to younger generations. Although this process of losing roles within the society is inevitable, it is viewed as a positive progression. The overall assumption of disengagement theory is that in order to obtain successful aging, one must be able to effectively complete the disengagement process (Buchanan, Lai, & Ebel, 2015; Tornstam, 2005).

The SOC (i.e., selection, optimization, and compensation) perspective holds that the behaviors of an aging individual are due to the attempt to cope with the process of aging and old age itself (Baltes & Baltes, 1990; Tornstam, 2005). The "selection" aspect of this theory refers to an aging individual increasing restrictions in their life due to fewer domains of functioning. It is believed that the restriction itself occurs because the process of aging leads to a loss in the range of adaptive potential. It is implied within the selection aspect that the aging individual adjusts their own expectations so that they will have a subjective experience of satisfaction along with personal control. Next, the "optimization" element refers to the view that the aging individual can still engage in behaviors that may enrich their chosen life courses. Lastly, the "compensation" piece of the SOC perspective, similar to the selection aspect, results from a restriction in range of adaptation potential. Meaning that the onset of compensation occurs when

the behavioral capacity of the individual is either entirely lost or reduced from previous adequate functioning. Once behavioral capacities are reduced, compensation may occur from aspects of the mind, or through technology. An aging individual, to compensate for a reduction in behavioral capacity, may use aspects of their mind, such as creating mnemonic strategies when their internal memory mechanics become insufficient. Furthermore, technology, such as a hearing aid may also be used in instances where an aging individual begins to lose auditory functioning.

The SOC may help explain the presence of specific behaviors in older adults that may appear concerning to a younger care provider. For example, a caregiver may assume that an elderly individual is not partaking in social activities because they are unable to or perhaps are depressed and withdrawn. The older adult, in reality may be capable of participating, but choose not to socialize because they would rather be alone and spend time contemplating other things, such as their life and family. More specifically, while an older adult spending more time by themselves may be pathologized by other individuals, this behavior could be explained by the SOC perspective as understandable. Specifically, the older individual may be redirecting their goal hierarchy due to the loss in domains of functioning and they may begin to focus on more important goals, such as reflecting on their past (i.e., selection). In order to achieve their desired outcomes in the selected domains, the older individual may invest most of their time and energy into the acquisition of that goal (i.e., optimization). The older individual may also begin to activate internal or external resources to pursue their desired goals (i.e., compensation), such as spending time alone sitting quietly so that they can better reminisce.

Unlike the “selection” aspect of the SOC perspective, which holds that behaviors of the aging individual occur due to old age itself, the pathological perspective tends to equate aging

with disease and interprets behaviors that are manifested in old age as pathological or disordered (Tornstam, 2005). Therefore, an aging individual who refrains from socializing with others or limits their engagement in activities may be viewed as being depressed or exhibiting signs of other disorders. When considering all the theories of aging discussed above, it is evident that an individual who is operating from one of these perspectives may view behaviors of an older adult as pathological or abnormal. This further brings into question what perspective younger adults working as CNAs may be operating from, how these perspectives differ from those of the older adults they serve, and what the implications of these differences in perspectives are for the caregiver-older adult relationship.

### **Theory of Gerotranscendence**

Finally, the theory of gerotranscendence was proposed by Lars Tornstam as an alternative way to conceptualize the aging process. Tornstam believed that the process of living into old age is characterized by a general potential towards gerotranscendence (Tornstam, 1997). The theory of gerotranscendence, as defined by Tornstam is a “shift in meta-perspective, from a materialistic and pragmatic view of the world to a more cosmic and transcendent one” (Tornstam, 1997). To better understand the theory of gerotranscendence, it can be broken up into three dimensions; cosmic, self, and social/personal relationships.

**Cosmic dimension.** Older individuals who are progressing toward gerotranscendence may experience a redefinition in their perception of time, space, and objects. Their perception of objects may change in a way that eliminates the boundaries of “you,” “me,” “us,” and “them,” so that there is an impression of being “one” (Tornstam, 2005). Due to this perception of being “one,” individuals may in turn become less self-centered. Factors that are included in the cosmic dimension include, feeling a closer connection to other generations, a change in the concept of

life and death, addressing the mystery of life, and transcending happiness (Tornstam, 2005; Tornstam, 2011; Wadensten & Carlsson, 2001; Wadensten & Carlsson, 2007; Wadensten, 2007; Degges-White, 2005). When experiencing gerotranscendence, an individual may begin to feel as though they are part of a larger context, and that they themselves are no longer as significant. In the cosmic dimension, individuals may begin to refine their conceptualization of time, and may begin to feel a closer connection between the past, present, and future. This connection between the past and the present can be exemplified by interviews that were conducted with older adults. During the interviews, the interviewer stated, “Some people say that they have gradually come to a concept of time that is different from the one they had before. They say that, in early life and adulthood, they had a very clear idea of what is today and what belongs to yesterday, but that it has changed, and they feel like they are able to be in two time periods at once” (Tornstam, 2005). When asked if they recognized this experience, many respondents answered “yes” and then explained how their childhood has now come more alive in their older age. Many have also referred to this closer connection with earlier or future generations as a “coiling genetic chain,” or a link in a chain of generations, wherein the chain (i.e., life) is the important aspect, not each individual link (i.e., each person).

As individuals begin to experience gerotranscendence, fears of death may change such that one may still be afraid that death will be painful, but they no longer fear being dead (Tornstam, 2005). To some, this attitude of not fearing death came suddenly, however, others have experienced the onset of this perception as gradual over the course of life. The mystery of life is also addressed within the cosmic dimension. Those who begin to enter gerotranscendence have focused on accepting the mysteries of life, and no longer feel the need to define, explain, or

understand everything. Lastly, an individual may begin to find joy in commonplace, subtle events and experiences, such as listening to the birds outside, or watching a thunderstorm.

**Self-dimension.** Older adults moving towards gerotranscendence may also begin to experience a redefinition of their perception of life and death, which may decrease their overall fear of death. The self-dimension addresses the ability of an individual to confront themselves, decreases in self-centeredness, self-transcendence, and ego-integrity (Tornstam, 2005; Lin, Wang, & Wang, 2015; Tornstam, 2011; Tornstam, 2005; Wadensten, 2007; Wadensten & Carlsson, 2001; Wadensten & Carlsson, 2007; Degges-White, 2005). Unlike other theories, the theory of gerotranscendence assumes that individuals are constantly changing and developing. In an interview conducted with older adults as previously exemplified, interviewers also asked individuals whether they have recognized that over the years they have begun to discover sides of themselves that they had not known before (Tornstam, 2005). Many of the respondents stated that during their elderly years they have discovered both negative and positive aspects about themselves, such as discovering a characteristic of being cheerful, or being driven by anxiety. While rediscovering themselves, many older adults also experience a new awareness that they are not the center of the universe, whereas their younger selves may have been more egocentric. This shift from egoism to altruism has been known as “self-transcendence,” where an individual begins to focus on others well-being, rather than focusing on themselves and self-interest (Tornstam, 2005). Older adults, experiencing transcendence typically focus less on their outward appearance or body image. While they still care about their bodies, they develop a new awareness of how to take care of their bodies without obsessing over it.

**Interpersonal dimension.** Lastly, older individuals may experience a decrease in the interest of maintaining superfluous relationships and social interactions, and a decrease in the

interest of material possessions. The social and personal relationships dimension addresses the importance of social contacts, emancipated innocence, and attitudes toward material assets (Tornstam, 2005; Lin, Wang, & Wang, 2015; Tornstam, 2011; Tornstam, 2005; Wadensten, 2007; Wadensten & Carlsson, 2001; Wadensten & Carlsson, 2007; Degges-White, 2005). While other theories (e.g., activity theory) have proposed that as adults age they should maintain their lives as they once did during midlife, in such ways as staying connected with friends and socializing, the social and personal relationships dimension explains that solitude and selectiveness may lead to greater happiness in older adults. As an individual transcends, they may become more selective in their choice of companions, and with who they surround themselves. Rather than continuing to participate in superficial socialization as they once did during their younger days, older adults may instead choose to spend time with close relations and friends. They may also find the need for positive contemplation solitude, meaning that they have an increased desire to spend time alone, reflecting. Additionally, older adults develop an understanding that answers can rarely be given as concrete right or wrong statements, which consequently is accompanied by increased tolerance of ambiguity and broadmindedness. While younger, individuals may feel the need to stick with the status quo, older individuals may begin to be able to break away from social conventions, which allows them to express important feelings or questions without the feeling of embarrassment or self-consciousness. Lastly, older adults, as they age may develop an understanding between themselves and the roles they played in life. They find an importance in the need to be their genuine selves, and may even begin to understand how important the roles (e.g., parent, employee, friend) they played in life were. Overall, gerotranscendence, the shift in meta-perspective is described as being accompanied by an increase in life satisfaction for the aging individual.



## Relevant Literature

Existing research, although, limited, has suggested that the perceptions and experiences of gerotranscendence is correlated with age (Buchanan, Ebel, Garcia, Vandenest, & Omlie, 2016; Buchanan, Lai, & Ebel, 2015; Wadensten & Carlsson, 2001). Specifically, older individuals report having more experiences consistent with gerotranscendence compared to younger individuals. This may be due to the increase of potential life crises that occur as one grows older. Crises that occur, such as the death of a family member or friend can accelerate the speed at which an individual experiences gerotranscendence by challenging and questioning the foundation of one's reality (Tornstam, 2005). When a tragic death occurs, an individual is likely to question reality, and notions such as "it won't happen to me" are challenged. This may lead to individuals realizing that it is never too late to change, therefore replacing old assumptions with newfound perspectives (Tornstam, 2005). In a cross-sectional study conducted by Lars Tornstam, which aimed to answer questions on whether gerotranscendence might be related to age, gender, life circumstances and life crises, it was discovered that there was a positive correlation between scores on the cosmic dimension and ego-integrity under the self-dimension of gerotranscendence (i.e., known as coherence in the study) and age, meaning that cosmic transcendence and degree of coherence were higher in the higher age categories (Tornstam, 2005). More specifically, in the cosmic dimension, 31 percent of individual who were the oldest (i.e., 75-85) scored the highest on the cosmic dimension. Individuals who scored the lowest on cosmic transcendence were men, between the ages of 20 and 44 years of age, who had not experienced any life crises in the past two years. The results indicated that women, as well as those who during previous two years had experience one or more life crises scored higher on the cosmic dimension. In terms of gender differences, a difference was seen in men and women who

cohabitate. The gender difference between men and women was seen to decrease with age up the 65 to 75 years old age category, and then between the ages of 75 and 85 split, so that women continue to increase in cosmic transcendence, while men decrease. In terms of coherence, results indicated that women showed a slightly higher degree of coherence than men, and those who experienced rises or disease had lower coherence values.

One potential implication of these findings is that behavior consistent with gerotranscendence can be misinterpreted by younger individuals who provide care (e.g., family members, nursing assistants) to older adults. A small body of empirical literature has explored this question. For example, Buchanan, Lai, & Ebel (2015) approached both undergraduate college students and older adults from various senior community centers to examine whether these two groups had varying perceptions on behaviors of gerotranscendence. For this study, participants were given three vignettes to read about an older adult who resided in an assisted living facility. Dispersed in each vignette were behaviors that were indicative of gerotranscendence. After reading each of the vignettes, participants were asked to rate whether they considered each behavior unusual, similar to what they have experienced, or whether they thought someone should be concerned about the behavior. Results from this study indicated that there was a significant difference between older adults and college students on the items that regarded how “unusual” and “concerning” the behavior was perceived to be across numerous dimensions of gerotranscendence. Specifically, behavior one of story one (i.e., changed perception of time and space) indicated that there was a significant difference in the perception of the older adults and college students in how unusual and concerning the behavior was. The older adults were less likely than the college students to rate the behavior of “experiencing memories in great detail” as unusual, as well as less concerning. Similarly, for behavior four of

story two (i.e., having a new perspective on social contacts – Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat because he doesn't need to impress anyone anymore ), results indicated a significant in perceptions of how unusual and concerning the behavior was. The older adult sample were less likely to rate the behavior as unusual and were also less likely to rate the behavior as concerning. Lastly, behavior one of story three (i.e., withdrawal from social activity and the preference for solitude – Mr. Smith is not visiting with his friends and socializes little within the facility), behavior two of story three (i.e., withdrawal from social activity and the preference for solitude – staff let Mr. Smith know when activities are in the facility, but Mr. Smith prefers solitude), and behavior three of story three (i.e., having a new perspective on social contacts – Mr. Smith prefers to spend time with people he knows and likes, instead of making new friends) indicated that older adults were significantly less likely to rate the behaviors as unusual or concerning compared to the college students.

Similarly, a study conducted by Buchanan, Ebel, Garcia, Vandenest, & Omlie (2016), examined age differences in perceptions of the specifically the cosmic dimension of gerotranscendence. In this study, younger adults aged 18 to 31 were compared to older adults aged 65 years and older. Again, like the previous study discussed, vignettes describing the life of an older adult who was experiencing aspects of gerotranscendence were given to participants. After reading the vignettes, participants were asked to rate whether the behaviors were unusual, similar to what they have observed, or whether they thought someone should be concerned about the behavior. Results from this study showed that there was indeed a difference between the age groups. Older adults were more likely to rate the behaviors indicative of gerotranscendence as less concerning and unusual compared to the younger adults.

As stated previously, younger adults may view behaviors consistent with the theory of gerotranscendence as abnormal or pathological. Older adults, especially, those who reside in long-term care facilities, mainly interact with others in the facility as well as the nursing staff that work within the facility itself. Research has been conducted to assess the perceptions of nursing staff, regarding behaviors of gerotranscendence. Tornstam and Törnqvist (2000), interviewed nine nursing staff and five care aids who worked in a Swedish independent living facility. During the interview, each of the 14 individuals were asked whether they have noticed behaviors indicative of gerotranscendence in the residents, and if they did how they interpreted these behaviors. Of the 12 behaviors that were inquired about in the interview, five of the behaviors were viewed as negative or pathological, including “Transcendence of time,” “Increasing need for solitude,” “Rejoicing in small events,” “Modern ascetism,” “and “Self-transcendence.” Four behaviors, such as “Rediscovery of the child within,” “Connection to earlier generations,” “Ego-integrity,” and “Disappearing fear of death,” were viewed as positive, and apart of another aging perspective, like the activity perspective or continuity perspective. Two of the behaviors, “Self-confrontation,” and “Body transcendence” were interpreted as part of the neutral continuity theory perspective. Lastly, one behavior, “Everyday wisdom” was noticed by two staff members, who thought that older adults were more condemning than broad-minded, however, their perception of the behavior could not be placed into a theoretical perspective.

Much like the study discussed above, Wadensten and Carlsson (2001) investigated whether nursing staff who worked with older individuals could recognize signs of gerotranscendence and how they interpreted these signs. Nursing staff were given qualitative interviews, in which they were asked whether they had recognized certain signs of

gerotranscendence and to provide their interpretation of the meaning of each of the signs. Staff were also asked how they cared for the older individuals who were exhibiting these signs. The results from the interviews indicated that all the staff members included in the study had noticed signs of behaviors that were indicative of gerotranscendence. Many of the staff had deemed some signs, such as having a greater capacity to find pleasure in the small things and withdrawing from social activities as pathological. However, other behaviors of gerotranscendence, such as thinking about their childhood and not caring as much about their bodies, were interpreted by the staff as normal. When asked how they cared for individuals who were exhibiting these signs, the most common manner was to listen passively, or to try and activate older adults who did not want to engage in social activities. Overall, the studies previously discussed provide evidence that behaviors indicative of gerotranscendence may be interpreted as pathological or undesired by younger to middle-aged adults.

### **Purpose of the Study**

The purpose of this study was to extend the work discussed previously that examined the perceptions of gerotranscendence between a population of younger adults (i.e., college students) and community-dwelling older adults. The current study is novel in the sense that it used a quantitative analysis to compare the perceptions of behaviors indicative of gerotranscendence between younger adults who worked as certified nursing assistants (CNA) and older adults living in long-term care facilities. Older adults living in these facilities may be more familiar with behaviors of gerotranscendence, either through observing the behaviors in others around them or experiencing the behaviors in themselves. In contrast, younger adults working in these facilities may deem behaviors of gerotranscendence as peculiar or symptomatic of a disorder such as depression. Therefore, significant differences in the perceptions of gerotranscendence between

these groups is expected to occur. Based on previous research, it is hypothesized that the older adults in the study would be less likely to perceive the gerotranscendent behaviors described in the survey vignettes as concerning or unusual compared to Certified Nursing Assistants.

Additionally, it is hypothesized that the older adults will be more likely to perceive the behaviors of gerotranscendence as familiar.

## **Method**

### **Settings**

Participants in the study were recruited from long-term care facilities in a small Midwestern city and the surrounding area. Five assisted living facilities were visited for data collection. Although all recruitment was conducted at senior care facilities within the same region, each of the five assisted living facilities slightly differed in terms of size of community, and recruitment method. Across the five senior living facilities the total number of apartments available ranged from approximately 57 to 117, indicating that at some facilities there were more residents compared to others. Most of these communities not only included services for assisted living but also for memory care, and independent living. All facilities were also for-profit organizations.

### **Participants**

Two samples of individuals were recruited to participate in this study: Older adults living in long-term care facilities and individuals working as nursing assistants. In order to be eligible to participate in the study, individuals needed to be 65 years of age or older and not experiencing cognitive impairment. The absence of cognitive impairment was ensured by asking facility staff to recruit only individuals who did not have a diagnosis of a condition that caused dementia in

their medical chart. In cases where participants were directly recruited at resident meetings, staff were asked if individuals who signed up for the study had a condition that caused dementia. Participants were not excluded from the study if they were unable to read or write. In the case that participants were unable to read due to limited vision, or were unable to write, the researcher read the consent form, demographics questions, instructions, introduction, and three stories to the participant. The researcher also read the survey questions to the participant and filled in answers based on responses given by the participant themselves. In total, there were 41 older adults between the ages of 71 and 101 who completed the survey. The sample included 17.1% male, and 82.9% female. Regarding ethnicity, 100% of the older adults identified themselves as Caucasian/White. Many of the participants, 73.2% identified that they were Protestant, 24.4% followed the Catholic religion, and 2.4% identified that they had an alternative religious preference (i.e., Christian). When answering how long they have resided in their current facility, 63.4% had living in the facility for more than one year, 19.5% had resided in the facility between six month and one year, and 17.1% had lived in the facility for less than six months.

In addition to the older adult population that were surveyed, a total of 40 Certified Nursing Assistants(CNA) between the ages of 18 and 67 with a mean age of 40.55 also participated. The sample was 12.5% male and 87.5% female. Regarding ethnicity, 95.0% of the sample were Caucasian/non-Hispanic White, 2.5% were Asian, and 2.5% were Hispanic or Latino. The majority of CNAs (42.5%) identified themselves as being Protestant, 27.5% identified themselves as being Catholic, 10.0% stated that they did not have a religious preference, and 20.0% identified that they followed another religious preference. Lastly, when asked to indicate the number of years of work experience they had working with older adults, on

average the CNAs indicated that they had 12.71 years of work experience with older adults, with a range of work experience spanning from one year to 42 years.

## **Procedures**

**Recruitment.** Recruitment of older adults was conducted in regional long-term care facilities, such as assisted living facilities. Recruitment methods varied slightly depending on the community that was being visited. While at some of the communities that were visited the researcher was able to attend resident meetings to recruit for the survey study, at other facilities activity directors took it upon themselves to search for residents who would be interested in completing a survey and being part of a study.

The sample of certified nursing assistants were also recruited from long-term care facilities. The researchers attended staff meetings and individuals were asked to add their name and email address to a sign-up sheet if they were interested in participating. Those individuals who expressed interest in the study were sent a link to access an online version of the consent form, demographics form, and the gerotranscendence survey.

**Informed Consent.** Data collection was completed at a location convenient for participants, typically a commons area in the facility in which the participant resided. Prior to beginning the study, all participants were given an informed consent form to read through. If participants were unable to read for any reason, the researcher was available to read the consent form fully. This form included information about the purpose of the study, the procedures which would take place, risks and benefits of the study, confidentiality, the voluntary nature of the study, how to address any questions that may come up after the study is completed, and a statement informing the participant that signing the form indicated that they were deciding to



participate in the research study, that they had read the form, understood it, and understood that they would receive a copy of the consent form for their own records.

Nursing assistants read an online version of the consent form. Continuation to the survey portion of the study indicated the individual consented to participate in the study.

**Demographics form.** Upon obtaining informed consent, each older adult participant completed a demographics form which included information about the participants gender, age, ethnicity, length of time residing in the facility, and religious affiliation. Nursing assistants also completed a demographics form that asked about gender, age ethnicity, job title, years of experience working with older adults, and religious affiliation.

**Gerotranscendence survey.** After completing the demographics form, a gerotranscendence survey was given to the participants. This instrument has been utilized in previous research investigating age differences in perceptions of gerotranscendence (e.g., Buchanan, Ebel, Garcia, VandeNest, & Omlie, 2016; Buchanan, Lai, & Ebel, 2015). Participants were first asked to read a set of instructions which described how the survey was to be completed. This brief statement explained that the participant would be reading a set of three short stories about an older adult who lives in a senior care facility, and then answering questions about their opinions of behaviors that were indicated within each of the stories. Next, participants were asked to familiarize themselves with the main character portrayed in each of the three short stories that were to follow. The participants were introduced to a man named Mr. Smith, an elderly resident residing in an assisted living facility. The two-paragraph introduction described Mr. Smith's social, occupational, and health history. A copy of the survey is included in Appendix C.

Participants were then asked to read a set of three short vignettes pertaining to various aspects of Mr. Smith's current life. Each story contained descriptions of behaviors that were indicative of gerotranscendence. Story one contained five behaviors relating to the cosmic dimension of gerotranscendence. For example, in story one, Mr. Smith describes experiencing memories in great detail and that, "it is almost as if I am there again" and that, "it is like I can go back in time and relive parts of my childhood." This behavior of feeling a closer connection to past generations and perceiving history as being closer than it once previously was is indicative of the cosmic dimension of gerotranscendence.

Story two consisted of ten behaviors indicative of self-dimension of gerotranscendence. For example, story two explains that Mr. Smith is now regularly giving money to his grandchildren, buying gifts for them, and is even calling and writing to them. Mr. Smith's daughter mentioned that, "he's showing more interest in my family than he ever has before." Mr. Smith also described as going to lunch in sweatpants, a t-shirt, and a baseball hat instead of his usual suit. He explained to his daughter that "I don't need to impress anyone anymore." These behaviors of altruism and being less focused on his outward appearance are indicated of the self-dimension of gerotranscendence.

Lastly story three contained three behaviors which were indicative of the social and personal relationships dimension of gerotranscendence. In the third story, Mr. Smith is described as socializing little in the facility and although he has many old acquaintances and colleagues in town, he does not visit them, nor does he invite them to visit him. He has also stated that he prefers to talk with people "he already knows and likes" and isn't interested in making new friends. Rather, Mr. Smith prefers his "alone time" to sit alone, think, and reflect about his past. These behavior of becoming more selective in his choice of companions, and not wanting to

participate in superficial socialization is descriptive of the social and personal relationships dimension of gerotranscendence.

After the completion of each story, participants were asked to provide three ratings about their perception of each behavior that was described within the story. On a Likert scale of 1 to 4, where 1 indicated *strongly disagree*, 2 indicated *disagree*, 3 indicated *agree*, and 4 indicated *strongly agree*, participants rated each behavior using the following scales: “There is nothing unusual about this behavior,” “I have observed behavior similar to this,” and “Someone should be concerned about this behavior.” Lastly, after rating all 18 behaviors, participants were asked to rate their perception of Mr. Smith’s overall current situation (i.e., 1 = *Very Dissatisfied*, 2 = *Somewhat Dissatisfied*, 3 = *Somewhat Satisfied*, 4 = *Very Satisfied*), how typical Mr. Smith was compared to others his age (i.e., 1 = *Not Normal/Typical at All*, 2 = *Somewhat Abnormal/Atypical*, 3 = *Somewhat Normal/Typical*, 4 = *Very Normal/Typical*), and his overall mood (1 = *Very Depressed*, 2 = *Somewhat Depressed*, 3 = *Somewhat Happy*, 4 = *Very Happy*) based on all three of the stories that were provided. The survey took approximately 15-20 minutes to complete.

### **Data Analysis**

**Inclusion/exclusion criteria.** Throughout this study, “older adult” was defined as individuals at or over the age of 65, therefore any participant living in an assisted living facility that was at or above this age was included. Additionally, only older adults without a diagnosis of dementia were recruited for the study. Facility staff that assisted with participant recruitment confirmed the absence of a diagnosis of dementia. All certified nursing assistants (CNA) at each facility were eligible for participation, meaning that no exclusion criteria were in place for this population. Twelve CNAs were deemed to be part of the baby boomer generation, because they

were between the ages of 51 and 67, with three of the CNAs falling directly into the “older adult” classification (i.e., 65 or older).

**Statistical analyses.** A one-way, between-subjects analysis of variance (ANOVA) was used to test for group differences between the older adult and certified nursing assistant groups. The total score for each of the items (i.e., “unusual,” “similar,” “concerning”) in the stories were computed, prior to conducting the ANOVA. This resulted in a total of nine comparisons, consisting of three ratings (i.e., “unusual,” “similar,” “concerning”) being conducted for each of the three dimensions (i.e., cosmic, self, interpersonal). Based on previous studies conducted (Buchanan, Lai, & Ebel, 2015; Buchanan, Ebel, Garcia, Vandenest, & Omlie, 2016), these nine subscales have been shown to have acceptable to excellent reliability with Cronbach’s alpha values ranging from .71 to .90. Additionally, due to a total of nine statistical tests being conducted, a Bonferroni correction was used to minimize the likelihood of a Type 1 error occurring. In other words, this correction was used to reduce the likelihood that a significant result would be found by chance. The Bonferroni correction resulted in a critical alpha level of .006.

## Results

As mentioned above, some of the CNAs actually fell into the category of “older adult.” Given the purpose of this study was to examine whether there were differences in perceptions in behaviors indicative of gerotranscendence between younger adults working as certified nursing assistants (CNA) and older adults who live in long-term care facilities, exploratory analyses were conducted once data indicated that twelve CNAs fell into the baby boomer generation, and three would have been directly considered older adults given their age of 65 or older. For the exploratory analyses, participant age groups were separated into three groups; younger CNA

(i.e., ages 18-50), older CNA (i.e., ages 51-67), and older adult (i.e., ages 71-101). A one-way between-groups ANOVA, which was Bonferroni corrected with a critical alpha at 0.05 was then conducted to explore the impact of age groups on the nine different comparisons. One statistically significant difference was indicated in the results for the total “unusual” ratings in story two between the older adults and younger CNAs,  $F(2, 72) = 4.77, p = .01$ . Although there was a statistically significant difference seen between the younger CNAs and the older adults on this one comparison, no statistically significant results were indicated between the younger and older CNAs, meaning that they did not differ significantly in their perceptions of the behaviors in the stories.

When comparing older adults to the total CNA sample in their perceptions to story one (i.e., cosmic dimension), there were no statistically significant differences found in how “unusual” ( $F(1, 75) = .21, p = .65$ ), “similar” ( $F(1, 75) = .92, p = .34$ ), or “concerning” ( $F(1, 74) = .06, p = .81$ ). the participants perceived the behaviors in the story.

Story two (i.e., self-dimension), indicated similar results. There were no statistically significant differences with regard to how “similar” ( $F(1, 74) = .24, p = .63$ ), or “concerning” ( $F(1, 75) = 4.10, p = .05$ ) the behaviors in the story were. However, there was a significant difference in how “unusual” ( $F(1, 73) = 8.40, p = .005$ ) participants perceived the behaviors to be such that older adults considered the behaviors in story two to be less “unusual” compared to the CNAs. Regarding how “concerning” participants perceived the behaviors to be, although there was not a significant difference, it appears as if older adults considered the behaviors to be somewhat less “concerning” compared to the younger adults.

Lastly, for story three (i.e., interpersonal dimension), no significant differences were found between the perceptions of the younger and older participants in how “unusual” ( $F(1, 74)$

= 2.17,  $p = .15$ ), “similar” ( $F(1, 76) = 1.26, p = .27$ ), or “concerning” ( $F(1, 75) = 4.94, p = .03$ ) the behaviors were. Although no significant differences were found, results suggest a trend in which older adults perceived these behaviors as less “concerning” compared to the CNA sample.

Table 1.  
*Results for total scores of perceptions rating*

Perspective	<i>M (SD)</i>		<i>F</i>	<i>p</i>
	Older Adult	CNA		
Story One/ Cosmic Dimension				
“Unusual”	16.85 (2.25)	16.58 (2.91)	.21	.65
“Similar”	16.56 (2.59)	17.08 (2.12)	.92	.34
“Concerning”	9.29 (2.61)	9.14 (2.81)	.06	.81
Story Two/ Self Dimension				
“Unusual”	34.07 (4.04)	31.03 (5.05)	8.40	.005*
“Similar”	33.39 (4.13)	32.94 (3.80)	.24	.63
“Concerning”	17.34 (5.41)	19.81 (5.24)	4.10	.05
Story Three/ Interpersonal Dimension				
“Unusual”	9.05 (1.73)	8.49 (1.58)	2.17	.15
“Similar”	9.63 (1.36)	9.97 (1.30)	1.26	.27
“Concerning”	6.37 (1.50)	7.17 (1.66)	4.94	.03

*Note:* Mean difference is significant at .006. An asterisk denotes a significant difference.

## Discussion

### Summary of Results

The purpose of this study was to assess whether younger adults working as Certified Nursing Assistants (CNA) perceived the behaviors indicative of gerotranscendence differently than did older adults living in assisted living facilities. Given the results of this study, the hypothesis that younger and older adults would differ in their perceptions of how “unusual,” “similar,” or “concerning” these behaviors were, was not supported. Out of the nine comparisons conducted, one comparison in story two indicated that older adults were less likely than the CNAs to rate the ten behaviors related to the self-dimension as “unusual.” This indicates that younger CNAs perceive behaviors such as being more open-minded, not lecturing grandchildren, dressing casually when going to lunch without the need to impress anyone, and giving away prized possessions to children and grandchildren as more unusual than older adults. These behaviors may have seemed more unusual to the younger adult sample because younger adults may be more likely to experience egocentrism, spend more time thinking about their own needs and goals, and be concerned about their appearances. The other eight comparisons, indicated that there were no significant differences in how the CNA and older adult samples perceived how “similar” or “concerning” the behaviors from the self-dimension were, or how “unusual,” “similar,” or “concerning” the behaviors from the cosmic dimension or interpersonal dimension were.

### **Findings in Comparison to the Existing Literature**

The current study extends the previous literature on gerotranscendence in that it compares how younger and older adults perceive behaviors indicative of gerotranscendence differently. The vignettes and survey used for this study were identical to those used in previous studies (Buchanan, Ebel, Garcia, VandeNest, & Omlie, 2016; Buchanan, Lai, & Ebel, 2015). However, results from the current study are inconsistent with the findings of previous studies. For example, Buchanan, Ebel, Garcia, VandeNest, & Omlie (2016) examined the differences in perceptions of behaviors indicative of the cosmic dimension of gerotranscendence between younger adults enrolled in college to community-dwelling older adults and found many cosmic dimension behaviors to be less unusual and/or less concerning than the younger adults. In addition, Buchanan, Lai, and Ebel (2015) found that younger adults perceived five behaviors (i.e., feeling closer to the past, not feeling the need to impress others, withdrawing from social activity, preferring solitude, and being more selective in the social interactions that are being engaged in) as more unusual and concerning compared to community dwelling older adults. Wadensten and Carlsson (2001) found that staff, aged 20 to 59 who worked with the older adults noticed the signs of gerotranscendence and interpreted behaviors, such as changed perception of time and space, rejoicing, new perspectives on social contacts, and withdrawal from social activity, with a higher preference for solitude as pathological. Overall, while these previous studies have typically shown some age differences in the perception of various behaviors indicative of gerotranscendence, the current study only found a significant difference in how “unusual” participants viewed behaviors in the self-dimension.

Potential explanations for the differences found in the current study and those found in previous studies is that the sample size in the current study was much smaller than the sample



sizes in the previous studies. Therefore, it is possible that the current study lacked the statistical power necessary to detect between-group differences. Additionally, it is possible that differences in how perceptions of gerotranscendence were measured across studies account for the different findings. For example, Wadensten and Carlsson (2001) and Tornstam and Törnqvist (2000) examined the perceptions utilizing qualitative methods (i.e., interviewing) while in the current study utilized a quantitative survey instrument that included vignettes with very specific examples of gerotranscendence behaviors. Interview data collection methods provide participants with descriptions of gerotranscendence and then ask participants to recall specific examples of these behaviors. It is possible that reading a vignette with specific examples of behaviors (e.g., “He often tells stories to other residents about his life on the family farm and talks fondly about his deceased parents, siblings, and grandparents”) would enable a participant to more easily remember instance of these behaviors and to better understand the behavior itself. Some aspects of gerotranscendence are somewhat esoteric (e.g., the cosmic dimension), so thinking of examples of these behaviors may be challenging for participants unfamiliar with the theory. If one is only given a general description of a concept such as the cosmic dimension of gerotranscendence, it may be more difficult for participants to understand its meaning, which could potentially make certain behaviors (e.g., experiencing memories in such great detail that it feels as though the individual is there again and that they can go back in time to relive parts of their childhood) sound more abnormal than if it was read in the context of a story about a specific individual who is experiencing gerotranscendence.

### **Limitations and Future Directions**

Some limitations of the study concern the instrument used to measure perceptions of gerotranscendence. Prior to reading the vignettes, participants were asked to read an

introduction/demographics page which described Mr. Smith and informed the participant that the stories were written from the perspective of an individual who works in the facility in which Mr. Smith resides. The instructions go on to explain that the participant should read the vignettes as though they are the individual working in the facility. Many participants, while reading this instruction were confused and questioned whether they were supposed to answer their own opinion about the behaviors, or whether they ought to answer the way they assumed the nursing staff in their facility would. This confusion in the instructions may have led some older adult participants to answer the questions in a manner that they think the nursing staff may answer. Fortunately, data collection procedures in this study involved having a research assistant present when older adults were completing the survey. It is recommended that future research in this area follow these guidelines of this particular instrument is used.

Additionally, the character in the vignettes was an 85-year-old man living in an assisted living facility, named Mr. Smith. Some participants were able to relate to Mr. Smith because he reminded them of a husband, a friend, or themselves and therefore seemed to answer questions as if they were answering about that particular person and not Mr. Smith directly. Future studies could examine how responses to the survey differ when the gender of the main character is manipulated.

Certain participants also answered questions based on their religion and explained how they perceived certain behaviors because of their particular religious preference. For example, when reading that Mr. Smith was unsure of what will occur after he dies, one participant believed this behavior to be very unusual, not similar at all, and that someone should be somewhat concerned. It is presumed that these responses were made because the behavior

conflicted with the religious beliefs of the participant. It is unclear how often responses to the survey were influenced by religious spiritual beliefs of participants.

Other limitations of this study are associated with the samples of participants. For example, there is a potential that many of the older adults who agreed to participate in this study were more social and enjoyed being around others. If this was the case, then many of the older adult participants may have been more likely to pathologize certain behaviors (e.g., Mr. Smith being less social and preferring to be by himself), because it differed from their own preferences. Lastly, findings in this study are difficult to generalize because 100% of the older adult sample and 95% of the CNA sample were Caucasian, the entire sample was recruited from a small metropolitan area in the mid-west, and the study contained a small total sample size of 81 participants. Future studies will need to gather larger, more diverse samples of both CNAs and older adults.

Lastly, this study was conducted in a small Midwestern town, with many participants having resided in the Midwest for many years, which may have impacted the results of the study. Future research should focus on conducting similar studies with samples from other regions of the country that potentially vary in terms of values, tolerance, and acceptance of different behaviors.

### **Implications**

Although only one significant difference was indicated between certified nursing assistants (CNA) and older adults residing in assisted living facilities, there were trends in the data that indicated younger adults were slightly more likely to consider behaviors indicative of gerotranscendence as concerning. Even slight differences may have applied significance and

implications for older adults who are residing in assisted living facilities. Behaviors indicative of gerotranscendence are presumed to be part of a normal developmental process and may be incorrectly pathologized by younger adults who work at the facilities. Incorrectly pathologizing these behaviors, could lead CNAs to take actions that are unnecessary or distressing to residents. For example, staff may push residents to engage in social activities that they do not wish to partake in. Lastly, subtle indicators that caregivers find certain behaviors pathological or unusual may impede and obstruct the older adult's ability to progress towards gerotranscendence by making them feel guilty or embarrassed by their developmental change. One hypothesis suggests that impeding this process hinders the individuals own personal development, may lead them to regress to previous developmental stages and potentially cause them to undergo a syndrome of social breakdown (Tornstam, 2005). In order to avoid impeding on this process, previous studies have recommended nursing staff encourage residents to reminisce about past events, accept behaviors of gerotranscendence as normal signs of aging, listen when residents speak about death and prompt them with questions to further their thoughts, and allow residents to remain in solitude if it is their decision (Wadensten and Carlsson, 2003).

## **Conclusion**

This study aimed to determine whether younger adults working as certified nursing assistants and older adults living in assisted living facility perceived and interpreted behaviors indicative of gerotranscendence differently. Overall, the current study found that the only perspective with a significant difference between these groups was how "unusual" the participants considered behaviors in the self-dimension to be.

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## Appendix A

### Consent Forms

## **CONSENT FORM**

You are requested to participate in research being conducted by Principal Investigator, Dr. Jeffrey Buchanan, on younger adults and older adults opinions about different behaviors that older adults sometimes engage in.

### **Purpose**

The current project is intended to compare how younger adults working in long-term care facilities perceive the behavior of older adults differently than do older adults.

### **Procedures**

You will first be asked to complete a demographics questionnaire, which gathers information such as age, gender, and ethnicity. The demographics questionnaire will be followed by a set of instructions for completing the second questionnaire. After you have read the instructions, the questionnaire will be presented. You will be asked to read a series of three short stories about an older adult living in an assisted living facility. You will then be asked a series of questions about the older adult's behavior. These questions will ask you to provide your reactions and opinions regarding the older adult's behavior. It is anticipated that participation will take approximately 15-20 minutes.

### **Risks and Benefits**

Risks in terms of emotional stress/discomfort and undesirable social, economic, and financial status are considered to be 'less than minimal.' There are no direct benefits associated with participation in this study; however it is hoped that this research will help determine how younger adults perceive the behavior of older adults differently than do older adults. Research on this topic may eventually

produce findings that will help improve the care provided to older adults living in long-term care facilities.

### **Confidentiality**

The records of this study will be kept private. An alphanumeric code will be placed on all data collection forms collected during this study to further protect participant confidentiality. All information will be locked in a cabinet in University Square 113. All data collected during this study will be destroyed after three years.

### **Voluntary nature of study**

Your decision whether or not to participate in this research will not affect your current or future relations with Minnesota State University, Mankato. Even if you sign the consent form, you are free to withdrawal from the study at any time by contacting Dr. Jeffrey Buchanan at 507-389-5824.

### **Questions**

I have been informed that if I have any questions, I am free to ask them. I understand that if I have any additional questions later, I may contact the office of the principal investigator, Jeffrey Buchanan, Ph.D. at (507) 389-5824 or if you have questions or concerns about the treatment of human subjects, please contact IRB Administrator and Associate Vice President of Research and Dean of Graduate Studies, Dr. Barry Ries at (507) 389-2321.

### **Closing Statement**

My signature below indicates that I have decided to participate in a research study and that I have read this form, understand it, and have received a copy of this consent form.

---

Signature of participant

---

Date

---

Signature of Investigator

---

Date

## Appendix B

## Demographics Form

**Demographic Information:**

1. Gender:    M    F
2. Age: _____
3. Ethnicity: _____
4. How long have you lived in this facility? _____
5. From the choices below, please circle which best describes your religious preference: Catholic Jewish Protestant Muslim None (atheist or agnostic) Other (please specify: _____)

## Appendix C

### Gerotranscendence Survey

**Instructions:**

You are going to be asked to read a series of short stories about an older adult who lives in a senior care facility. In these stories, the behavior of this older individual will be described in some detail. After reading each story, you will be asked to complete a rating scale concerning your opinions about the person's behavior.

**Introduction/Demographics:**

John Smith is an 85-year-old Caucasian male living in an assisted living facility. This facility is for older individuals who need some assistance with everyday tasks such as cooking, laundry, or making meals. Mr. Smith has struggled with health problems such as heart disease, prostate cancer, high blood pressure, and arthritis over the past several years. However, his health is currently stable and he is able to walk on his own with the use of a cane, manage his own medications, carry on conversations with others, and he has no problems with his memory. Mr. Smith has a Ph.D. in Chemistry was as a professor at the local university for 35 years before retiring. He was married for 52 years, but lost his wife to cancer about three years ago. About a year after his wife's death, he decided to move into the assisted living facility at the urging of his two adult children (a son who is 51 and a daughter who is 48) who both live in a different state. He has five grandchildren ranging in ages from 7 to 22.

You work in the facility Mr. Smith lives in and have known him since he moved into the facility two years ago. You see Mr. Smith frequently throughout the day, so know him fairly well. The following stories about Mr. Smith are written from your perspective – in other words, these stories are based on observations of him, conversations with his children when they visit, as well as direct interactions you have had with him during your work in the facility. Please read the following story carefully.

**Story #1:**

Over the past 6 months, Mr. Smith has been talking much more about his childhood. For example, he often tells stories to other residents about his life on the family farm and talks fondly about his deceased parents, siblings, and grandparents. He describes these memories in great detail and he has told his daughter that these memories are sometimes so vivid that, “it is almost as if I am there again” and that, “it is like I can go back in time and relive parts of my childhood.” You have also observed him at the facility’s computer nearly every day on Ancestry.com in an attempt to learn more information about his family of origin and how they arrived in the United States.

Mr. Smith has been dealing with various illnesses for the past several years and he has had to face his own mortality many times. For example, he had a heart attack eight years ago and was diagnosed with prostate cancer last year, which was successfully treated. Nonetheless, Mr. Smith mentions death nearly every day and yesterday commented, “Now I am not so sure what happens after we die. I guess I will find out soon enough – when it comes, it comes and I will be ready.” Having been trained as a scientist, Mr. Smith has always believed that most things about the world can be understood through science and reason. However, a few weeks ago he was talking with a former colleague and he commented that “perhaps some things will never be explained.”

Mr. Smith had many hobbies and interests when he was younger and he took great joy in conducting research at the university, publishing papers, going to professional conferences, and attending events at the university. Mr. Smith won many teaching awards and was well-regarded as an expert in his field. However, now he explains that his joy comes from things such as listening to a thunderstorm, watching it snow, hearing the birds chirping in the morning outside his window, and reading the newspaper. He also very much looks forward to getting his mail and his occasional visits from his children and grandchildren.

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: Mr. Smith described experiencing memories in great detail and that, “it is almost as if I am there again” and that, “it is like I can go back in time and relive parts of my childhood.”

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #2: He often tells stories to other residents about his life on the family farm and talks fondly about his deceased parents, siblings, and grandparents. You have also observed him at the facility's computer nearly every day on Ancestry.com in an attempt to learn more information about his family of origin and how they arrived in the United States.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #3: Mr. Smith mentions death nearly every day and yesterday commented, “Now I am not so sure what happens after we die. I guess I will find out soon enough – when it comes, it comes and I will be ready.”

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior



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

Behavior #4: Although he was trained as a scientist, a few weeks ago he was talking with a former colleague and he commented that “perhaps some things will never be explained.”

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #5: His joy now comes from things such as listening to a thunderstorm, watching it snow, hearing the birds chirping in the morning outside his window, and reading the newspaper. He also very much looks forward to getting his mail and his occasional visits from his children and grandchildren.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

### Story #2:

A few weeks ago you had a conversation with Mr. Smith's daughter and she told you many things about what Mr. Smith was like when he was younger. She explained that Mr. Smith was someone who had always been quite concerned with what others thought of him. Also, he was worried about his appearance and self-conscious about how others might perceive him. For example, he would always dress in a suit and tie and was concerned with saying things "just right" so as to "not look foolish." His daughter explained that he always was, "in 'Professor Smith' mode and rarely relaxed." She also explained that when he was younger, he spent a lot of time traveling to conferences and when he was home, he often was working. She stated that although he was a good father, "he was always in his own world, doing his own thing."

However, his daughter described observing many changes in her father over the past several months and even said, "Dad seems so different, he was never like this when I was younger." She

gave an example of how her father was usually sure he knew what was right and wrong, always knew exactly what to do, was very opinionated, and was “always giving me advice I didn’t ask for.” She says that he now seems less sure of himself and admits that he is not always right. She explained that he seems much more open-minded because her son got an earring and, “dad didn’t even seem to care. He even said he thought the earring was ‘fun’ – he really listens to the kids and doesn’t lecture them or tell them what to do.”

You have even observed some these changes as well. For example, Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat instead of his usual suit. He commented to his daughter that, “I don’t need to impress anyone anymore.” His daughter also mentioned that he now rarely talks about himself, instead choosing to ask her about her day and her family. He also regularly gives money to her children, buys gifts for them, and even calls them and writes to them. His daughter mentioned that, “he’s showing more interest in my family than he ever has before.” Also, Mr. Smith has recently started giving away some of his most prized possessions to his children grandchildren. For example, he gave his 14-year-old grandson a chess set given to him by his own father and he gave his 22-year-old granddaughter many of his old textbooks. He also gave his son and daughter some of his teaching awards and a photo album filled with pictures from their youth. He was overheard telling his daughter that, “I have no interest in keeping that stuff anymore. You all probably have more of a use for those things.”

In a conversation with you last week, Mr. Smith said that, “I finally realized the other day that I’ve been a stubborn, self-centered, boring old fart my whole life. That was fine when I was a professor, but not now. I think I’ve finally realized how great my kids and grandkids are and even found out that I can be pretty fun when I want to be. I like being a granddad.” In fact, he has been observed playing Barbies with one of his granddaughters, the Wii with his grandsons, and has taken up building model cars which was a hobby of his when he was a boy. He told his daughter that he doesn’t care if others think his behavior is silly or undignified and that, “at my age I’m going to act how I want to act.”

One late afternoon you saw Mr. Smith after not seeing him for a few days, which was very unusual. When you asked him where he had been “hiding”, he explained that his son had visited earlier in the week and talked a lot about his kids and what they had been doing lately. Mr. Smith described that he got to thinking a lot about his deceased wife, the life they had lived together with their two kids, and his work at the university. He said, “I came to the conclusion that I wasn’t the best husband, father, or teacher, but I think I did the best I could. I lived a full and good life - I don’t think I would change a whole lot.”

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: He now seems less sure of himself and admits that he is not always right.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #2: He seems much more open-minded.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #3: He doesn't lecture his grandchildren or tell them what to do.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #4: Mr. Smith now goes to lunch in sweatpants, a t-shirt, and baseball hat instead of his usual suit. He commented to his daughter that, "I don't need to impress anyone anymore."

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #5: His daughter also mentioned that he now rarely talks about himself, instead choosing to ask her about her day and her family.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #6: He regularly gives money to his grandchildren, buys gifts for them, and even calls them and writes to them. His daughter mentioned that, "he's showing more interest in my family than he ever has before."

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #7: Mr. Smith has recently started giving away some of his most prized possessions to his children grandchildren. He was overheard telling his daughter that, "I have no interest in keeping that stuff anymore. You all probably have more of a use for those things."

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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



Someone should be concerned about this behavior

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

Behavior #8: Mr. Smith said that, "I finally realized the other day that I've been a stubborn, self-centered, boring old fart my whole life. That was fine when I was a professor, but not now. I think I've finally realized how great my kids and grandkids are and even found out that I can be pretty fun when I want to be. I like being a granddad."

Indicate how much you agree or disagree with the following statements about behavior #

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #9: He has been observed playing Barbies with one of his granddaughters, the Wii with his grandsons, and has taken up building model cars which was a hobby of his when he was a boy. He told his daughter that he doesn't care if others think his behavior is silly or undignified and that, "at my age I'm going to act how I want to act."

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #10: Mr. Smith said, "I came to the conclusion that I wasn't the best husband, father, or teacher, but I think I did the best I could. I lived a full and good life - I don't think I would change a whole lot."

Indicate how much you agree or disagree with the following statements about behavior #

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

### Story #3:

Because of his role as a professor and parent, Mr. Smith knew many people in town who were either former students, colleagues at the university, or parents of his children's friends. He and his wife also had many friends. Therefore, Mr. Smith was a relatively social person most of his life and knew many people. Now Mr. Smith socializes much less. Although he has many old acquaintances and colleagues in town, he does not visit them nor does he invite them to visit him. He also socializes little in the facility, except for nearly daily conversations with you and coffee in the morning with two other gentlemen who were also former professors. He also sees family 1-2 times a month. Otherwise, a good deal of his day is spent in his room or in the facility

library. Staff always let him know when activities are, but he rarely agrees to participate. He has mentioned how he prefers his “alone time” so he can sit, think and reflect on his past. The activity director in the facility asked Mr. Smith why he rarely comes to activities and said that he wants to talk to people he already knows and likes (such as his family or close friends) and isn’t interested in making new friends. He remarked, “I don’t have the time or energy to make new friends, I’ll stick with the people I already know I like.”

You will now be asked a series of questions about some of the behaviors Mr. Smith displayed in the story above.

Behavior #1: Although he has many old acquaintances and colleagues in town, he does not visit them nor does he invite them to visit him. He also socializes little in the facility.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #2: Staff always let him know when activities are, but he rarely agrees to participate. He has mentioned how he prefers his “alone time” so he can sit, think and reflect on his past.

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Behavior #3: He wants to talk to people he already knows and likes and isn't interested in making new friends. He remarked, “I don't have the time or energy to make new friends, I'll stick with the people I already know I like.”

Indicate how much you agree or disagree with the following statements about behavior

There is nothing unusual about this behavior

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

I have observed behavior similar to this

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

Someone should be concerned about this behavior

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

Please answer the following questions about Mr. Smith based on *all three* stories:

1. How satisfied is Mr. Smith with his current situation?

1	2	3	4
Very	Somewhat	Somewhat	Very
Dissatisfied	Dissatisfied	Satisfied	Satisfied

2. How typical/normal is Mr. Smith compared to others his age (he is 85-years-old)?

1	2	3	4
Not Normal/ Typical At all Normal/Typical	Somewhat Abnormal/Atypical	Somewhat Normal/Typical	Very

3. Please rate Mr. Smith's overall mood on the following scale:

1	2	3	4
Very Depressed	Somewhat Depressed	Somewhat Happy	Very Happy

## Appendix D

## Certified Nursing Assistant Online Survey Consent Form

**ONLINE/ANONYMOUS SURVEY CONSENT**

You are requested to participate in research supervised by Dr. Jeffrey Buchanan on perceptions of behaviors that occur in older adulthood. This survey should take about 15-20 minutes to complete. The goal of this survey is to understand how younger and older adults evaluate different behaviors that elderly individuals may display, and you will be asked to answer questions about that topic. If you have any questions about the research, please contact Dr. Buchanan at [Jeffrey.buchanan@mnsu.edu](mailto:Jeffrey.buchanan@mnsu.edu).

Participation is voluntary. You have the option not to respond to any of the questions. You may stop taking the survey at any time by closing your web browser. Participation or nonparticipation will not impact your relationship with Minnesota State University, Mankato. If you have questions about the treatment of human participants and Minnesota State University, Mankato, contact the IRB Administrator, Dr. Barry Ries, at 507-389-2321 or [barry.ries@mnsu.edu](mailto:barry.ries@mnsu.edu).

Responses will be anonymous. However, whenever one works with online technology there is always the risk of compromising privacy, confidentiality, and/or anonymity. If you would like more information about the specific privacy and anonymity risks posed by online surveys, please contact the Minnesota State University, Mankato Information and Technology Services Help Desk (507-389-6654) and ask to speak to the Information Security Manager.

The risks of participating are no more than are experienced in daily life.

There are no direct benefits for participating. Society might benefit from this research in that results may provide information about how developmentally normal behaviors displayed by older adults are perceived different by older versus younger people. This information may lead to more appropriate and sensitive care for older adults.

Submitting the completed survey will indicate your informed consent to participate and indicate your assurance that you are at least 18 years of age.

Please print a copy of this page for your future reference.

**MSU IRBNet ID# 517613**



## Appendix E

## Certified Nursing Assistant Demographics Form

**Demographic Information:**

1. Gender:    M    F
2. Age: _____
3. Ethnicity: (Circle one) Caucasian/non-Hispanic White Black African American Asian/Pacific Islander Hispanic or Latino/a Native American Other: _____
4. Job title: _____
5. Years of work experience caring for older adults & elderly: _____
6. From the choices below, please circle which best describes your religious preference: Catholic Jewish Protestant Muslim None (atheist or agnostic) Other (please specify: _____)