



Minnesota State University, Mankato
Cornerstone: A Collection of Scholarly
and Creative Works for Minnesota
State University, Mankato

All Graduate Theses, Dissertations, and Other
Capstone Projects

Graduate Theses, Dissertations, and Other
Capstone Projects

2015

Hood's Theory of Aging

Drew Michael Hood
Minnesota State University - Mankato

Follow this and additional works at: <https://cornerstone.lib.mnsu.edu/etds>



Part of the [Geriatrics Commons](#), [Gerontology Commons](#), and the [Medicine and Health Commons](#)

Recommended Citation

Hood, D. M. (2015). Hood's Theory of Aging [Master's thesis, Minnesota State University, Mankato].
Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.
<https://cornerstone.lib.mnsu.edu/etds/437/>

This Thesis is brought to you for free and open access by the Graduate Theses, Dissertations, and Other Capstone Projects at Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato. It has been accepted for inclusion in All Graduate Theses, Dissertations, and Other Capstone Projects by an authorized administrator of Cornerstone: A Collection of Scholarly and Creative Works for Minnesota State University, Mankato.

Hood's Theory of Aging

By

Drew Hood

A Thesis Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

In

Aging Studies

Minnesota State University, Mankato

Mankato, Minnesota

July 2015

Hood's Theory of Aging

Drew M. Hood

This thesis has been examined and approved by the following members of the student's committee.

Donald J. Ebel
Advisor

Jeffrey A. Buchanan
Committee Member

Kathryn S. Elliott
Committee Member

Abstract

This thesis proposes that the theory of gerotranscendence can be improved by emphasizing life course events that influence the gerotranscendence process. Further, this paper proposes that teaching gerotranscendence to long-term care staff and residents with Hood's theory of aging and with a departmental framework will yield better results in staff following gerotranscendence best practices and thus result in increased resident development towards gerotranscendence.

Hood's Theory of Aging: A Psycho-Social Meta-Theory of Aging that Integrates Gerotranscendence with Life Course Theory and Provides Applications for Long-Term Care

Aging theory is intriguing and important; yet often it lacks key components of what is applicable to the real world. The aging process is complex. Understanding how one component of aging affects an individual is difficult. Understanding how thousands of components are interconnected is daunting and borders impossible. But, this is what a meta-theory of aging should strive to do. This thesis was undertaken to better understand the aging experience as it relates to the oldest and frailest members of society. This author has gained many insights from the theories of aging that currently exist; however, none have done a sufficient job in relating to the residents in long-term care communities. This paper embarks on creating a meta-theory of aging that has practical applications for long-term care communities. This theory is called Hood's theory of aging and is based on the theory of gerotranscendence with emphasis on other life events that shape the process of gerotranscendence. This thesis will then provide insight on how to teach these theories to long-term care staff.

Why Theory is Important

Theory is important. Often in my line of work as a long-term care administrator I ask people what they think is normal aging. The answers vary but have one thing in common - the person answering has not spent much time thinking about the question. It has been this author's experience that people, even within the long-term care industry, do not spend the time necessary thinking about theories of aging. This is problematic. Bengtson, Gans, Putney, and Silverstein (2009) outline several reasons why theory is important: it provides a guideline for research and the accumulation of knowledge, individuals theorize if they realize it or not and should be aware

of their thinking, “philosophical foundations are also crucial in attempts to understanding aging ...” (p. 6), and theories can be used as aides in “understanding and explaining empirical observations” (p. 4).

Theory helps construct a framework of thinking and allows ideas to be tested against a set theory. If data of a study are able to be explained by a stated theory, then the theory is strengthened. If the findings go against the theory, something is still learned and the theory is changed, adapted, or otherwise disregarded. Either way, a theory is used as a starting point necessary for growth. It is also important not to throw-out theories because all the data does not align, as Achenbaum (2009) warns:

Ironically, by emphasizing a particular set of dimensions in the meaning and experiences of growing older that have been underplayed in prevailing theories, gerontologists too often fail to validate and incorporate strengths and insights in the constructs they wish to challenge. (p. 34)

The study of aging is a multi-disciplinary field (Bengtson et al., 2009, Achenbaum, 2009, Vasunilashorn & Crimmins, 2009) and any meta-theory should recognize such.

What is the Problem?

Hood’s theory of aging is being pursued because, to the author’s knowledge, there is not a current theory of aging that satisfactorily addresses the lives of individuals living in long-term care communities. This author identifies three core problems. First, staff, residents, and families of residents are unfamiliar with or have the wrong perception of “normal aging.” This lack of knowledge is due in part because nursing theories and programs do not provide “any guidance on how to care for older people and how to support them in the development process of aging” (Wadenstein, 2003, p. 32). Second, long-term care communities do not know enough about the

residents they serve to best promote their well-being. Third, the physical and cultural environments of long-term care communities can restrict the natural aging process. The theory of gerotranscendence with the ideas of Hood's theory of aging directly addresses these concerns.

Literature Review and Theory Formation

Aging is real. This seems given, but it must be said explicitly within the realm of developing a meta-theory of aging. Further, aging results in more than just a biological breakdown of the body. Aging influence all areas of well-being including social, emotional, cognitive, and psychological dimensions. Even if the effects of aging were to be greatly reduced and life-span increased, these changes would still occur. The theories of aging discussed herein should hold true if lifespan remains at 120 years, increases to 300 years, or grows to that of the bristlecone pine which can live over 5,000 years.

The study of gerontology is interdisciplinary, and each discipline offers its own lens to understanding the aging process. Biological theories offer input on real changes within the body. Social theories provide insight into how social lives change as we age. Psychological theories aim to understand how an individual's psychology changes with age. Further, a host of theories from multiple disciplines frames aging through their own lenses. The ideas presented in this thesis fit under the psycho-social lens.

Social and Psycho-social Theories of Aging

Social theories of aging do not attempt to describe the physical changes associated with aging, rather the psycho-social aspects of the aging process. These theories play an important role in how aging is viewed by society and experienced by the individual within society.

Gerotranscendence. As already stated, the theory of gerotranscendence is a key element to this thesis and the ideas presented as part of Hood's theory of aging. The theory of

gerotranscendence is a psycho-social theory of aging that fits within the ideology of pre-programmed theories of aging and developmental theories. It was developed by Lars Tornstam and was the result of interviews with elderly individuals and their thoughts about aging theories and the aging experience.

The theory of gerotranscendence distinguishes itself from the other theories for several reasons. First, it is based on interviews and experiences from the individuals experiencing aging. From a theory standpoint, it is unique because it emphasizes a fundamental change in how the elderly think and act. The theory states that aging is not a dead end where learning and change cease. Rather, individuals continue to grow, mature, and change during old age. Said simply, older individuals are not just middle aged individuals in older bodies (Tornstam, 2005).

Tornstam includes in his theory of gerotranscendence room for the fact that one's life course and experiences either advances or hinders the process of gerotranscendence. He states that although there is a natural progression for gerotranscendence, older individuals will vary in their progression based on life events. Tornstam clarified this point in his 2005 book:

We suggest that the condition of gerotranscendence is reached by a process where all the experiences in earlier life are included. Therefore, at the same time we suggest that the process towards gerotranscendence is generated by normal living. Let's also suggest that this process is intrinsic and culture free, but modified by specific cultural patterns ... The process toward gerotranscendence might be both obstructed and accelerated by a life crisis... We will as a consequence find many different degrees of gerotranscendence in old people. Not everyone will automatically reach a high degree of gerotranscendence. It is rather expected to be a process, which, at very best, culminates in a new gerotranscendent perspective (p. 39-40)

The theory of gerotranscendence aims to replace activity and disengagement theory, but the theory does not disregard these theories on the whole (Tornstam, 2005). Rather, many aspects of activity and disengagement theory fit within gerotranscendence. Gerotranscendence shares with disengagement theory the idea that older individuals naturally seek solitude and limit their social networks. However, contrary to disengagement theory, gerotranscendence states that this is done not necessarily as a withdrawal from society; rather as a fundamental change in focus on what is important which leads to introspection and the desire for contemplation. Solitude is not done because someone wants to look inward; rather it occurs because an individual has a meta-cognitive change in belief systems and values. Studies supporting the theory of gerotranscendence have shown that individuals who have high characteristics of gerotranscendence are more active, not less active.

Similar to activity theory, high levels of activity are associated with high levels of gerotranscendence. However, in comparison to activity theory, gerotranscendence places more importance on other areas besides activity and states that although individuals with high levels of gerotranscendence may be more active, there is less meaning in these activities. Activity is a result of gerotranscendence, not the cause of it (Wadensten, 2003).

In outlining the changes associated with gerotranscendence, Tornstam (2005) identifies three dimensions of change individuals experience: the cosmic dimension, the self dimension, and the social and personal relationships dimension. The cosmic dimension is in relation to how the individuals see themselves in time and space. Tornstam identifies a few key areas of change of individuals who have undergone gerotranscendence. Individuals become more connected to earlier generations as their understanding of time and their place in the world changes. Individuals have less fear of death. The mystery of life is accepted and the desire to have answers

to all of life questions diminishes. Individuals derive a great deal of happiness and joy out of the simple things in life. Within the cosmic dimensions individuals gain a feeling of connectedness with their ancestors and with the future generations yet to come (Wadensten, 2007). The ideas and concept of time loses meaning as the lines between past and present blur. With this new perspective a feeling of understanding emerges and individuals no longer feel the need to explain or understand all matters. Individuals' accept the mystery of life and find joy in the small things of life.

The second focus is the self dimension (Tornstam, 2005). Individuals review their life and identify both positive and negative aspects about themselves they previously did not recognize. Any fixation on the physical body is decreased. Individuals become less self-centered and no longer see themselves as important (Wadensten, 2007). Many thoughts return to childhood and childhood is revised and understood in a new way. This is followed by an understanding, on the part of the individual, of how different experiences throughout life have influenced and produced him/her as a person" (p. 2).

The third focus is the personal and relationship dimension. (Tornstam, 2005). Individuals become more selective in the relationships they maintain and spend a larger portion of their time with these people. The desire for superficial or casual relationships decrease. At the same time, individuals spend more time on "reflection, meditation, and less on material things and superficial social relations" (p. 3).

According to the theory, individuals who have higher levels of gerotranscendence will have higher levels of life satisfaction, well-being, and happiness. Unfortunately, in Tornstam and other's work the least receptive organization/staff to change were the staff within nursing homes (Tornstam 2005, p. 173). This is the population which Hood's theory of aging is

interested. Tornstam and others propose this is probably due in part to the fact that those living in nursing homes and residential living communities are indeed suffering from ailments, including dementia, that have effected cognition. Yet, similar studies conducted on specific wards that did not have residents with dementia and found similar results (Wadensten & Carlsson, 2007).

Needless to say, the effects of gerotranscendence interventions have been promising but inconclusive. Other reasons for limited findings are due in part to the limited scope of the studies, high turnover rates of caregivers, the frequently short length of stay in long-term care communities, and the work-load of caregivers. These factors can result in caregivers knowing less about the residents they care for because of time and duration constraints.

Disengagement theory. Disengagement theory was perhaps the first formulated theory of aging. It was formulated by Elaine Cumming and William Henry (1961) in their book *Growing Old: The Process of Disengagement*. This theory claims it is normal and good for older individuals to disengage from society. As individuals grow older they naturally start looking inward and become preoccupied with themselves. Because of this transition, older individuals will limit the number of individuals they associate with and limit the interactions with these individuals. Gradually, individuals desire to give up the roles and status they have within society. As a result of this role loss, individuals further disassociate with society and become more disengaged. It is important to note this separation from society is not seen as problematic, rather beneficial for the individual and society. Within this theory it is normal and healthy for individuals to withdraw from society become less active, and become more introspective (Wadensten 2003).

Activity theory. Activity theory came in response to disengagement theory (Wadensten, 2003). Activity theory states that ageism and discrimination causes older individuals to withdraw

from society, and disengagement is not a choice freely chosen. The basic idea of Activity theory is that individuals do not fundamentally change when they grow older; rather they are the same middle-aged person with just more physical limitations due to age. The ideology of activity theory is for individuals to be happy in old age they need to continue to meet developmental tasks. If seniors meet these developmental tasks they are more likely to be happy. It is thought that the best way for seniors to “age successfully” is to continue to maintain an active lifestyle and partake in social and physical activities similar to those of years younger. The more activity, the better one will do. In comparison to disengagement theory, there is no cognitive shift. For individuals to remain happy they should continue the same life they did in old age. When individuals do not continue to partake in the same level of physical and social activity one is seen to not have “age successfully.”

Continuity theory. The continuity theory is a psycho-social theory of aging that attempts to serve itself as a general theory of individual development and adaption to aging (Atchley, 1999). Its roots were started in 1968 by B.J. Havens and George Maddox. These ideas were adapted and more formally presented by Robert Atchley in 1971 and further outlined in his book *Continuity and Adaption in Aging* (1999). Continuity theory is similar to activity theory in presuming individuals want to remain active and continue the things they did in their middle ages. The continuity theory extends this and states when individuals age, they develop habits and personalities which remain the same throughout aging. As individuals age, coping mechanisms are learned and used to maintain the same type of lifestyle of younger years. In continuity theory, an individual's personality and occupation carry into old age and remain a key part of identity. Although more nuanced, an individual's ability to age successfully is based on how well the individual is able to develop coping mechanisms and use resources to maintain the previous

lifestyle, habits, personality, etc. (Wadensten, 2003). Activity or disengagement is not important; rather what is important is the individual's ability to have continuity (Tornstam, 2005).

Life course theory and aging and life course theory. These theories takes a broader approach proposing there are a great number of life factors that influence the aging process. Much work has been done under the umbrella of the life course theory (Bronfenbrenner, 1979; Dannefer, 2001; Dannefer & Kelley-Moore, 2009; Elder 1998; Ferraro, Shippee, & Schafer, 2009). Ultimately the life course theory takes the position that the aging experience is largely influenced by society, environment, and experiences. There are countless variables affecting the aging process, and for this reason each experience will be unique.

Development theories. Development theories, in general, are theories that identify critical times within an individual's life where development is either reached or not. This is also viewed as stages that an individual must achieve before further growth will occur. An individual's aging experience, and how they generally view the world, is dependent on these stages of development. Theories of this nature are well-known and taught in most introductory psychology classes. They includes development theories from people such as Sigmund Freud, Erik Erikson, John Watson, Jean-Jacques Rousseau, B.F. Skinner, Jean Piaget, and Victor Frankl to name a few. All of these theories have input on the aging experience, however, collectively little has been written about the final stage of development.

Hood's Theory of Aging

The theory of gerotranscendence already has theoretical and empirical backing (Tornstam, 2005); however, there is still much work than needs to be done to confirm, refine, and create guidelines for application for use in across society and in long-term care communities.

The remainder of this paper, coined Hood's theory of aging, proposes an addition to the theory of gerotranscendence. What is Hood's theory of aging?

Hood's theory of aging is a new way to view the gerotranscendence process that emphasizes the importance of personal histories and current living environments. Hood's theory of aging stays true to the ideas of gerotranscendence and natural progression towards gerotranscendence but contends that individual personal histories can either accelerate or hinder the gerotranscendence process.

This proposition is in line with aging research which recognizes the whole person needs to be addressed in the aging process (Ryff & Singer, 2009). As Tornstam (1989) wrote, "...we believe that the process towards gerotranscendence is a lifelong and continuous one. In practice, however, it can be obstructed or accelerated" (p. 59). Further attention is given to this idea by Wadensten (2010) who writes, "The process of gerotranscendence is in principle universal. However, elements in the culture can facilitate or impede the process, just as elements in the caring climate can obstruct or accelerate the process towards gerotranscendence" (p. 114). Despite this acknowledgement, little attention is given to what might obstruct or accelerate the gerotranscendence process. From social science research, it is known that early life events are important in later life, and childhood conditions are important in achievement and well-being (Chetty & Henderson, 2015; Ferraro et al., 2009). To what extent and how are not as clear. This thesis attempts to fill in these blanks as it relates to gerotranscendence.

This paper will at times refer to gerotranscendence as one component. This is in fact a simplification of gerotranscendence. As outlined above, gerotranscendence is

comprised of three dimensions: cosmic, self, and social. It is reasonable to assume that an event or life circumstance may accelerate one dimension of gerotranscendence and have no affect or even hinder another dimension of gerotranscendence. It is also reasonable to assume the dimensions of gerotranscendence are often linked and the acceleration or hindrance of one dimension of gerotranscendence can spill over into another dimension.

The additions Hood's theory of aging adds to the theory of gerotranscendence are not trivial. The variables which influence the gerotranscendence process are critical in understanding gerotranscendence as a whole and create meaningful reforms within long-term care communities. This emphasis on external factors is what distinguishes Hood's theory of aging from being a significant contribution to gerotranscendence versus a small footnote in gerotranscendence theory. Hood's theory of aging contends that gerotranscendence must be viewed in light of personal histories. Personal histories are not a trivial side note; they are critically important in gerotranscendence and in creating any practical application within long-term care communities. If the theory of gerotranscendence is to have any practical application in long-term care communities it must include the emphasis on personal histories as outlined in this paper.

The ideas presented herein emphasize the importance of person centered care and personal histories; however, they are notably different from the general ideas of person centered care as it is currently viewed within the medical and long-term care field. Person centered care, as currently understood, can be delivered to anyone without any past knowledge of the person or disease. It can be a one-time exchange of services, and it is almost akin to providing good customer service. The type of person centered care emphasized through Hood's theory of aging requires knowledge of the whole person with ongoing and continuous care. Within this model,

person centered care necessarily emphasizes the accumulated knowledge of the person and includes not just treatment of specific ailments but also interventions that address the components of health and life far beyond medical conditions. Person centered care in Hood's theory of aging emphasizes the non-medical aspects of care related to the gerotranscendence process. Further, in the traditional model of person centered care, it is a one-directional relationship with the care provider servicing the patient. No true relationship is expected between care provider and patient. The ideas of person centered care within Hood's theory of aging emphasize a relationship between the care provider and patient. This relationship is not one-directional, rather it is a meaningful connection between parties where both share in a growth relationship.

Hood's theory of aging identifies primary variables of an individual's personal history and explains how they can influence gerotranscendence. It is important to note the verbiage used in the previous sentence, "can influence." Individuals respond to the similar circumstances differently. One set of variables does not guarantee an outcome in relation to the aging or gerotranscendence process. Hood's theory of aging provides useful insight in how variables are likely to influence the gerotranscendence process, but each individual needs to be reviewed uniquely.

First Level Effects

First level effects within Hood's theory of aging are the primary drivers that influence the aging and gerotranscendence experience. These first level variables are the building blocks of personal history. As it relates to Hood's theory of aging and application, these are the key components of a resident's life which will influence the gerotranscendence process, and thus hold key pieces of information staff should know about a resident to provide the best type of care

and support gerotranscendence. This author identifies the basic primary drivers as physical environment, social life, emotion/cognition, and resources. Other similar variables have been attributed by other studies (Kahn, 2004; Ryff & Singer, 2009).

Physical environment. Hood's theory of aging states physical environment plays a critical role in the shaping of an individual and influences the gerotranscendence process. The physical environment in this context includes the physical environment that an individual is exposed to (e.g. country, city, neighborhood, household, school, food, pollution) as well as how one interacts with the world due to physical limitations (e.g. medical conditions). The physical environment is important as evidence suggests that rates of morbidity, disability, and mortality differ between social strata, age, gender, socioeconomic status, educational attainment, income, occupation status, and cultural background (Ryff & Singer, 2009). In the same manner, disabilities and other health problems are influenced by age of onset and by the physical environment. Neighborhoods in particular can serve as "buffers or accelerators for physical health, mental health, and identity" (Dannefer & Kelley-Moore, 2009, p. 401).

As it related to Hood's theory of aging, individuals who are raised in poverty will experience a different aging experience than those born in high-end gated communities. Individuals who grow old in poverty stricken neighborhoods will experience aging differently than individuals who retire in senior communities in Florida. Differences in aging occur in part because of the environment itself and in part because of the secondary effects. These secondary effects will be discussed later in this paper.

Physical environment differences occur at a macro and micro level. Individuals born in the United States will have a much different aging experiencing than those born in Iraq or Afghanistan. Individuals within a state, county, or city may have varying quality of drinking

water, access to fresh fruits and vegetables, schools, or a host of other variables. These influences have recently been highlighted in a study by the Harvard Equality of Opportunity Project (Chetty & Henderson, 2015). The study found that environmental factors at both the macro and micro level can influence a host of variables including life-time income, income mobility, college attendance, and teen pregnancy. This study concluded the duration of years a child was raised in a poor environment resulted in an accumulated effect.

Over time the small effects of the physical environment add up for the better or worse and create significant differences between groups of people and individuals. There is a large body of research that has identified variables that affect the aging experience. This research fits within what is often generally referred to as life course theory. Similar research has emerged from the biological sciences called ecological development biology which studies the environment and health of pregnant women and the effect it has on the child (Dannefer, 2008). This reinforces the idea that the environment one is exposed to starts adding up before birth.

Differences between those with positive and negative environmental histories may be seen early in extreme cases; however, differences in the context of aging often do not appear until later. According to Kahn (2004), little physical or cognitive decline is shown in individuals with the same genetics but differing educational and social economic backgrounds at the age of 30. By the age of 40, differences start to emerge, and by 60 the differences are significant in those with less education having far worse physical functional limitations. If individuals survive into their 90's the gap disappears.

Understanding past environments plays a key role in understanding a resident in a long-term care community and providing the best person centered care. Staff should know personal histories to create an environment in which the residents are best able to achieve personal

growth. Further, it is important to understand the environment in which the resident wants to live in the here and now. This can be done simply by asking and respecting resident requests.

Following are examples to help illustrate why understanding an individual past environment is important to the gerotranscendence process.

Example 1. A 78 year-old female is living in an assisted living community. She has refused to shower for the last three weeks. Other residents have started making complaints. Staff is becoming frustrated and the resident has been labeled “difficult.” When an investigation is done, it is discovered that the individual assigned to give the bath is a male. The female resident has a history of being sexually abused by males. She is uncomfortable around males but afraid to say so. When a female is assigned to assist with a shower the difficulties disappear. Finding this solution also affects the gerotranscendence process because if residents do not feel safe and comfortable in their environment, they will have more obstacles in doing the reflective work necessary for gerotranscendence.

Example 2. An 85 year-old female resident is sneaking food into her purse after meals. This behavior continues after she is reminded that she is not allowed to remove food from the dining room. This resident is seen as possibly having dementia when she does not comply. When an investigation is done it is determined the resident grew up in the depths of the great depression and had constant worries about having enough food. When she was given permission to come to the kitchen for a snack whenever she wants, the behavior disappeared. Understanding past experiences does at least two things in this example. First, it reduced the resident’s fear and anxiety making gerotranscendence easier. Second, it helps the staff understand the cosmic time and space viewpoint of the resident.

Example 3. An 85 year old male resident with poorly controlled diabetes continues to make a large snack for himself after eating the community meal. This has caused medical complications as well as staff animosity as the resident is not cleaning up after cooking. When the matter is investigated it is discovered the resident was a chef who made dinner for his wife every night and she, in return, would clean up the dishes. The resident was cooking as a way to connect with the past and have meaningful activity. In response, the activity department set up a special cooking activity for the resident and allowed him to make food for other residents. This relates to the cosmic aspects of gerotranscendence. Enabling the resident to partake in this activity will assist the gerotranscendence process.

Social life and social networks. According to Hood's theory of aging, social life plays a fundamental role in the aging experience and ultimately influences the likelihood of gerotranscendence. Research indicates that one's social life, including social networks, play a key role in development and well-being, "Human organisms are fundamentally incapable of becoming human beings without participation in human society," (Dannefer & Kelley-Moore, 2009, p. 391). It makes little sense to discuss humans or their development outside of the context of societal influences. The term well-being is especially important in this context. Although well-being occurs as a result of individuals who have reached gerotranscendence, it is also a factor in determining the likelihood an individual will progress through gerotranscendence.

Social networks are influenced by many things including age, race, sex, education level, socio-economic conditions, and culture. These factors influence the types of social networks an individual will have and the types of social networks that support the individual. Social networks affect individuals differently (Antonucci, Birditt, & Akiyama, 2009). The same authors outlined a host of other associations between social networks, self-efficacy, and well-being. There are

some universal findings. "Having a mother, spouse or best friend was related to lower levels of depressed affect" (p. 253). Further, a good relationship with a spouse was associated with higher levels of well-being. Supportive wives have been shown to help their husbands recover from myocardial infarctions more successfully. Having family members in social networks was positive, but could be replaced by close friends. However, family could not replace the importance of close friendships. Although it is beneficial to have family members in social networks, individuals reliant on caregivers who are aggressors have negative outcomes. Although women have higher levels of depression than men, this gap narrows in older age and is largely mitigated if women have a close friend with whom they can share. Although large and diverse networks are beneficial at younger ages, evidence has shown that elderly women are less happy with increasing numbers of close relationships. This is thought to be due to the stress of maintaining these relationships.

Within societies there are written and unwritten groups of individuals who benefit or are harmed by the current construct of social networks. Social structures that are not accommodating to old age may leave members vulnerable. For example, young gay men tend to have strong social networks in their youth but have much smaller networks in old age as they lose value within their subculture (Calasanti, 2009). This is important in terms of gerotranscendence because individuals who have stronger and more positive social networks in old age will face a much different aging experience than those with little or negative social networks. Although these challenges are unique in and of themselves, they are not unique in regards to other types of disadvantage (Allen & Walker, 2009).

As individuals age significant changes are made to social network size and composition. Older adults become more selective in their social networks and spend more time with fewer

people. Those with families tend to increase association with family (Labouvie-Vief, 2011). This adaption occurs because individuals desire to reduce trivial socialization and focus on meaningful and satisfying socialization (Buchanan, Lai, & Ebel, 2015). This has significance for individuals with no family and few friends, especially individuals who have been displaced.

In old age individuals are presented with many life stressors. Research has indicated that social relationships can act as buffers to these stressors (Antonucci et al., 2009). Individuals who are better able to deal with stressors will have fewer obstacles to gerotranscendence. This research supports Hood's theory of aging as social networks influence gerotranscendence.

Social networks change throughout life as individuals reach transition points including high school graduation, career changes, retirement, and movements in older age. Changes can either benefit or hinder the aging experience. Caregivers should be aware of both past and present social networks so the appropriate support can be provided. For example, an individual living in a long-term care community in the rural town where he or she was once mayor may have a strong social network, lots of visitors, and family nearby that visit often. This individual may need little assistance from staff in terms of social support. An individual who is living in a community unfamiliar to them with no nearby family or friends will need more assistance from staff in finding and utilizing resources.

Emotion, cognition, and values. How individuals feel and think as well as what they value are important aspects in the aging process and influences gerotranscendence.

In line with conventional wisdom, optimistic or pessimistic attitudes influence the aging process. "Scores of studies show that dispositional optimism is correlated with health behaviors ..." (Ferraro et al., 2009, p. 426). Further, these attitudes are self-fulfilling as optimistic individuals become more optimistic and pessimistic individuals become more pessimistic. As it

relates to seniors and Hood's theory of aging, personality type is important as pessimistic seniors face higher mortality risks than their optimistic counterparts. Further, evidence has shown that individuals with positive personalities can be resilient to negative environmental factors (Ryff & Singer, 2009). This becomes especially important in old age as individuals face medical and social challenges. In relation to gerotranscendence and Hood's theory of aging, this is clear evidence that indicates that pessimism will hinder gerotranscendence and it is important for individuals to find a meaning in life.

Unrelated to personality, individuals who have found meaning in life have better physical health, have less symptoms of depression, and have higher levels of life satisfaction than those who do not have meaning (Krause, 2009). As it applies to Hood's theory of aging, residents will be better suited for gerotranscendence if they have meaning in their life. This fact appears to be cross-cultural as a study of older adults living in Taiwan found social support, life satisfaction, and meaning in life all positively influenced gerotranscendence (Wang, 2011). Similar results were found in Turkish and Iranian studies (Lewin & Thomas, 2008). Lewin and Thomas also found that gerotranscendence is not necessary for happiness or life satisfaction, but all those who had higher levels of gerotranscendence had high levels of life-satisfaction. Moreover, religion was found to both an obstacle and accelerator of the gerotranscendence process dependent on the beliefs of the religion. This indicates that although gerotranscendence may be universal, cultural does affect the process. Also worth noting, religion was not necessary for gerotranscendence and gerotranscendence was not necessary for life satisfaction.

Despite the challenges of aging, "it has been recognized that cognitive change in adulthood can be multidirectional, including gain and maintenance as well as decline" (Willis, Schaie, & Martin, 2009, p. 296). This gain or decline is not a one directional path from brain to

behavior; rather one's behaviors influence cognition. "[...] there is now sufficient empirical evidence to establish that intraindividual variability is a substantial source of systematic performance variability between people, especially in adults" (p. 316). In relation to Hood's theory of aging, this emphasizes that each individual must be viewed as exactly that, an individual. Further, over the life course, emotions and perceptions actually influence physical health and reported well-being of individuals (Ferraro et al., 2009). This supports the idea that emotion and cognition play an important role in gerotranscendence.

Although there is a variability, on the whole, older individuals are the most happy of all age groups (Crabtree, 2011). Why is it that those reporting the highest levels of happiness and well-being are at the same time facing the most loss? The answer appears to be in part due to emotional control and cognition. Despite the fact older adults have more frequent health and life crises, emotional well-being does not decline with age. In fact it often improves and is thought to be a natural part of human development (Kryla-Lighthall & Mather, 2009). This idea is supported in a wide range of areas from the importance of having a meaning in life (Bengtson et al., 2009) to avoiding anger (Blanchard-Fields & Kalinauskas, 2009) to more complex emotions including dealing with stressful situations and cognitive loss (Kryla-Lighthall & Mather, 2009). Kryla-Lighthall and Mather also report that on average, "older adults report fewer negative emotional experiences than younger adults" (p. 325). This evidence supports two key points. First, there does appear to be a natural progression towards gerotranscendence. Second, one's ability to emotionally adapt is important for gerotranscendence.

Cognitive change occurs in the aging brain and appears to be universal (Blanchard-Fields & Kalinauskas, 2009). These changes can be positive in that they shift the brain's resource allocation and result in the improvement of emotional well-being and avoidance of negative

stimuli. However, individuals differ in the ability to cognitively create positive adaptive strategies. Individuals with a higher cognitive ability prior to old age are more likely to fare better than those with lower abilities, although as stated above there is intraindividual variability. Individuals with a higher baseline of cognitive ability are more likely to be successful in creating adaptive strategies (Labouvie-Vief, 2009; Willis et al., 2009). One positive adaptive strategy is cognitive prioritization, which results in emotional regulation and avoidance of conflicts that may lead to poor outcomes (Kryla-Lighthall & Mather, 2009). Other evidence has supported the idea that cognitive training exercise can help maintain cognition (Willis et al., 2009).

As it relates to gerotranscendence and Hood's theory of aging, individuals who are able to better implement emotional regulation and other coping strategies will be more likely to have higher levels of well-being and gerotranscendence. Directly relating to the cosmic dimension of gerotranscendence, Kryla-Lighthall and Mather (2009) suggest the following:

Older adults' path to emotional well-being in aging begins with a change in time perspectives. As perceived time remaining shrinks, older adults seek to satisfy their emotional goals by regulating their affect, and the positivity effect in cognitive processing is a result of their emotion regulation efforts. (p. 329)

This implies that adaption is a cognitive change chosen by the aging person.

Individual religious beliefs, viewed in the context of culture, have also been hypothesized to affect the gerotranscendence process. Findings suggest individuals with mystic-like religious beliefs may progress through gerotranscendence faster. Individuals with a religion based more on structure and organization may progress more slowly (Ahmadi, 2001). This supports the ideas of Hood's theory of aging as culture can either hinder or advance gerotranscendence.

Resources. Access to resources matter during life and once one reaches old age. Of the identified variables, it is the most difficult to look at resources in isolation. Wealth, power, influence, social networks, education, and social supports are greatly influence by one's resources and often turn into resources within their own right (Ferraro et al., 2009).

Resources affect how someone ages as they influence access to medical care, healthy food, education, and social networks. The resources accumulated throughout a lifetime set up the aging experience. As outlined in the theory of cumulative inequality, advantages lead to more advantages and disadvantages lead to more disadvantages (Ferraro et al., 2009). This idea is supported by several studies on a multitude of topics that have shown health risks are related to childhood disadvantage (O'Rand & Hamil-Luker, 2005), and childhood conditions are important for life course development (Bronfenbrenner, 1979). The extent of resource accumulation advantage is not limited to one generation, it is intergenerational (O'Rand, 2006). Indeed, the life course of a child is being influenced before birth. Further highlighting the impacts of accumulative disadvantage is the fact that individuals who are most disadvantaged have mortality rates resulting in a skewing of old age research because so few disadvantaged individuals live into old age (Ferraro et al., 2009).

Those fortunate enough to be raised in wealthy families have access to health care, eat quality food, and live in better neighborhoods. Although they may have stressful lives, they do not have the day to day financial stresses less fortunate individuals have. Children of wealthy parents and grandparents have fewer barriers to access higher-education, have a financial support system when they graduate, and have access to their parent's social network when landing that first job. However, looking at wealth at one point in time does not tell the full story. Access to resources in later life may not carry all of the benefits of children born into financially strong

families, but it does appear to be the best way to break the chain of disadvantage (Ferraro et al., 2009).

Hood's theory of aging states that resources influence the gerotranscendence process. In terms of long-term care, the most basic example is the ability to pay for a good long-term care community. Many assisted living communities do not accept non-private pay residents and many nursing homes have taken steps to reduce the number of residents they serve on Medicaid. Low income individuals who do find a good long-term care community will likely have limited extras as their family members themselves have limited resources. Yet, having resources alone does not mean that individuals will necessarily reach gerotranscendence. Wealthy individuals who are used to living in a large house and having many possessions may have a more difficult time adjusting to the smaller rooms of long-term care communities or may lose a sense of themselves if their care costs diminish their savings. These formally wealthy individuals may have a more difficult time adapting than disadvantaged individuals who for the first time do not need to worry about day to day living.

Second Level Effects

The variables described above have shown the aging and gerotranscendence journey are affected by life experiences. In the real world the variables listed above are interconnected and influence each other. The interconnectedness is not a simple light switch that says if you combine factor A and factor B you get factor C. Instead, it is a continuous flow of individualized actions and reactions. As specified within the cumulative inequality theory, "disadvantages accumulate within specific life domains (e.g. health, wealth) but may raise the risk of disease, loss of income, and poor mental health" (Ferraro et al., 2009, p. 422). Areas of advantage or

disadvantage spill over into other domains. This section is an expansion of these variables and will explain how variables interact with each other to further influence the journeys.

When analyzing a particular environmental constraint over a large number of people, tendencies and probabilities become apparent. For example, smoking causes lung cancer. Although this knowledge provides important information for health care workers and society in general, for each individual it means far less. Individuals respond differently to social and environmental factors. This is also true in regards to gerotranscendence. A life crisis could push one person further in the gerotranscendence process and the same life crisis could prevent another person from progressing.

To understand the aging process, individuals must be viewed in a holistic way that accounts for the interactions which occur between variables and the differences that occur between individuals. The following section briefly outlines basic examples of how variables can interact with each other. These examples are given for illustrative purposes, as the real number of interactions between variables is nearly limitless.

Physical environment and social life. The physical environment an individual lives in influences the social life and relationships one creates. Social interactions occur within the physical environments in which individuals live, work, and play. These interactions affect the aging and gerotranscendence experience. As a textbook example, subcultures exist in poor minority communities resulting in a “distinct set of life course and age-related expectations in poor minority communities. Tragically, the truncated or abbreviated life course has been established as an expected feature of the life course” (Dannefer & Kelley-Moore, 2009, p. 405). Living in a poor minority community can fundamentally change an individual’s life course and result in shorter life expectancy.

Individuals who live in high crime areas socialize less and have smaller networks than those who live in areas with lower crime rates (Newman, 2003). This in turn has implications on the physical environment. If physical spaces do not encourage gathering and engagement, fewer interactions will take place. If there is a perception that social interaction is low, then funding to improve the physical environment will not take place. When people do not feel safe to congregate, gathering places become more scarce and people are further discouraged from gathering. This cycle is reinforcing. As it applies to older individuals, lack of nearby and convenient locations to interact within the community is particularly challenging because of mobility and transportation limitations. This can result in smaller social networks when help is needed. Just as this is true in the community at large, it is true within long-term care communities. As it relates to physical health in the elderly, strong social networks can actually help protect against the development of disability (Avlund, Lund, Holstein, & Due, 2003). Thus, individuals with smaller social networks have less protection against disability.

Age and race are also associated with the size and type of social networks (Antonucci et al., 2009). Social networks that are large when an individual is young but are non-existent when the individual is old may provide little help in the aging process. This means that the timing of social support networks is important. At the same time, too large of social networks in old age may cause more stress and actually be less beneficial if the individual were to have fewer close friends (Antonucci et al., 2009). The same authors point to studies that suggests having a large number of acquaintances but no close friends may provide little support after a serious injury. This indicates that certain types of relationships can benefit individuals in different ways. Large but emotionally distant social network may be helpful for finding a job but will provide little support in old age.

Physical environment and emotion/cognition/values. The physical environment also plays a role in emotion and cognition which in turn affects the gerotranscendence process. Studies have determined neighborhoods have independent influences on income, physical health, and mental health of their residents (Ellen, Mijanovich, & Dillman, 2001). For example, environments that are violent cause individuals to be less trusting. This lack of trust causes stress, isolation, and fear (Newman, 2003). Thus, a violent environment changes emotion and cognition in the brain. These changes cause real and quantifiable emotional and cognitive damage throughout life and can inhibit the gerotranscendence process.

Other studies have shown that physical environments with underperforming schools, lack of mentors, lack of job opportunities, and few areas of capital or civic engagement will result in its residents being more likely to have lower baseline cognitive levels and thus face a more difficult aging experience as they are required to adapt to cognitive declines (Willis et al., 2009). Therefore, damaging physical environments produce lower cognition and emotional wellbeing throughout life and ultimately affects the gerotranscendence process.

Personality also affects the physical environment. An extrovert will relate to their environment differently than an introvert, and this will shape the environment. Studies have suggested “extroverts are more likely to derive a greater sense of meaning in life than introverts” (Krause, 2009, p. 106). Showing the relationship goes both ways, the amount that one exercises improves physical wellbeing into old age, but also helps maintain mental function into old age (Kahn 2004). Other research has indicated that higher levels of well-being result in “lower morbidity, decreased health symptoms and pain, increased longevity, resistance to illness, decreased stroke incidence, and improved other biological measurements” (Ryff & Singer, 2009, p. 127).

Physical environment and resources. The physical environment and resource variables have a great deal in common. Physical environments in many regards become resources if they are positive. A physical environment that includes library services, internet, good schools, and opportunities for employment is a resource itself. At the same time, the creation and continuation of positive physical environments require resources to be built, often in the form of tax dollars or other contributions from inhabitants of the physical environment.

Having resources means the ability to live in better neighborhoods, eat better food, receive better medical treatment, have less stress, receive better education, and have access to many other factors that can promote health and improve the aging process (Ferraro et al., 2009). These factors in turn affect how an individual will progress through gerotranscendence.

Individuals with fewer resources are more likely to live in areas where there is a below average physical environment, and this continues throughout the aging process and has significant consequences (Newman, 2003). Individuals who live in poor physical environments simply do not have access to the resources their wealthier counterparts do. This can be seen both at the macro levels when countries are compared, as well as at the micro level when states, cities, or neighborhoods are compared.

Social life and emotion/cognition. An individual's social life and networks impact emotions because networks are important aspects of emotional support. Individuals with no one to turn to during emotional crises will fare much worse than individuals with a strong emotional support network (Antonucci et al., 2009). This remains true as individual age and affects the gerotranscendence progress.

Social life influences emotions and cognition just as emotion and cognition influence the type social networks. Personality traits, social network, and disposition for life affect how an

individual ages. Social scientists emphasize that non-tangible variables (e.g. stress, poor relationships, support networks, etc.) change real physical processes of the body. Of equal importance, social scientists have developed theories looking at the meaning of life and how happiness plays a role in the aging process. Research has indicated social networks do matter, personality traits play an important role independent of biology, stress leads to negative physical changes, and having a sense of meaning leads to better health (Bengtson et al., 2009).

A team funded by the MacArthur Research Network suggested that individuals with low levels of self-efficacy are more willing to accept physical and cognitive declines and thus do little to overcome them (Kahn, 2004). On the other hand they suggested that individuals with high self-efficacy would take the necessary action to prevent or slow the declines. This indicates those with higher levels of self-efficacy will be more likely to do the work needed for the gerotranscendence progression.

A great deal of research has demonstrated individuals with healthy relationships age more positively than those with unhealthy relationships (Dannefer & Kelley-Moore, 2009). The type of personality traits someone has may make them more or less apt to make friends or have a strong family networks. Outgoing personalities often have larger social networks than introverts. This again supports the fact that social life and emotion/cognition are interrelated. From a medical standpoint, individuals who are ill, especially individuals struggling with clinical depression, will see their social life suffer and will face further negative biological consequences. These again influence the gerotranscendence process by either creating obstacles or opportunity for gerotranscendence.

Social life and resources. This paper has already shown the importance of social networks and resources on the aging experience. This section emphasizes the interconnectedness

of these two variables and how they work together to reinforce each other and affect the aging and gerotranscendence process.

The most fundamental resource is income earned from an occupation; therefore, the ability to obtain a job and have job growth is vital to resource accumulation. Evidence has shown social networks plays a key role in obtaining jobs and promotions (Simon & Warner, 1992). Individuals referred to a job, as oppose to turning in unsolicited applications, are more likely to be hired and earn higher wages upon hire. Thus, having well-connected and social networks will increase the likelihood an individual is able to land a job or promotion. Those with well-connected social networks will have more opportunities than their counterparts. This disparity will have a tendency to grow over time as benefits of a positive social network will accumulate and those of negative ones will deteriorate. The accumulation is intergenerational (O'Rand, 2006).

Emotion/cognition and resources. Emotion/cognition and resources interact with each other to influence the aging and gerotranscendence experience in a multitude of ways. Although each variable is important in its own right, it is more accurate to look at the two in combination to understand outcomes as well as the co-acting variable.

Individuals who have higher levels of cognition will have more opportunities than individuals who have significant cognition delays. Similarly, individuals who come from families with more resources are more likely to advance farther in school and build larger cognitive reserves. In both cases, emotion/cognition and resources are intertwined as they influence the aging experience.

The interconnectedness is also important for emotional aspects of cognition. Resources can provide a buffer against negative stressors (Dannefer & Kelley-Moore, 2009). Individuals

with more wealth, a type of resource, have better access to other resources to elevate or promote positive changes in regards to emotions such as counseling or medication. Individuals with mental health issues who lack resources to receive care will have much different outcomes than individuals with mental health issues who can receive mental health care.

The ability to cope with depression in old age is not of inconsequence. Prevalence rates of depression in the elderly are estimated to be around six percent (Ferrini & Ferrini, 2013). Depression and other psychological disorders “interfere with successful adult development and the attainment of a wise old age” (Knight & Laidlaw, 2005, p. 700). These authors go on to explain “the attainment of wisdom is blocked by the emotional, cognitive, and behavioral consequences of depression because perceptions of events are negatively biased, rigid, and nonspecific” (p. 700). These ideas strongly support Hood’s theory of aging that emotion/cognition and their interaction with resources, in this case the resources to properly treat depression, affect the gerotranscendence process.

Life Crises

Major negative life events, called life crises, are suspected to influence the gerotranscendence process by either accelerating or hindering it (Tornstam, 2005). This idea meshes well with the ideas presented in Hood’s theory of aging – namely life events and histories matter in the gerotranscendence process. Life crises are similar to the individual variables addressed above but differ in that they result in immediate influence on the aging and gerotranscendence experience. How individuals respond to life crises will be influenced by personal histories, just as stated in Hood’s theory of aging. Individuals who come out of the life crises with a change in meta-perspective will progress on their gerotranscendence journey. Others who are unable to overcome life crises may be hindered.

Summary of Hood's Theory of Aging

Hood's theory of aging is an extension of the theory of gerotranscendence as it emphasizes the fact that personal histories affect the gerotranscendence process. There may be a natural progression towards gerotranscendence, but this progression is impacted greatly by variables including physical environment, social life, emotion/cognition, and resources.

Hood's theory of aging is a practical application for long-term care communities. This is based on the idea that long-term care communities become integral part of residents' lives and have a significant impact on the variables addressed above. The physical environment of long-term care communities is the environment of its residents. A significant portion of a resident's social life is determined by the long-term care activity department and front-line workers. Residents' emotions and cognitions are influenced by the treatment they receive from long-term care staff. The resources a resident has access to are often limited by the resources provided by the long-term care community. Clearly, the environment a long-term care community provides its residents is important in the gerotranscendence process.

The following section is a guide to teach long-term care communities and their residents about gerotranscendence and Hood's theory of aging to increase the likelihood the effect long-term care communities have on residents is positive.

Bringing Theory to Practice

The ideas of Hood's theory of aging and gerotranscendence are not the commonly held beliefs by the general public or for those working in long-term care industry (Buchanan et al. 2015; Wadensten, 2001). For this reason, long-term care communities must teach their residents and staff about gerotranscendence.

In this author's review, the best study attempting to measure the effects of gerotranscendence change after teaching staff was done by Barbo Wadensten in 2003. Her study lasted 15 months and taught staff about the theories of gerotranscendence via two lectures and eight discussion groups. Staff changes in recognizing gerotranscendence signs were measured. The results showed some promise in self-reported changes in beliefs and recognition of traits consistent with gerotranscendence for residents and staff but minimal changes in staff actions. The limited results are in part due to the lack of duration of the study, staff turnover, and likely because of difficulty measuring some behaviors. Management-level staff was not included in the training, and management staff changed during the study. The study was also limited in the number of lectures and discussion groups, and further difficulty occurred because not all staff members implemented requested changes.

This author contends that more significant attitude and behavior changes would have resulted if the theory of gerotranscendence would have been introduced to staff via a different method paired with the ideas presented in Hood's theory of aging, namely emphasizing the importance of one's life course in the gerotranscendence process. Individuals enter long-term care communities at different stages in their lives both physically and developmentally. Providing the best services to residents is dependent on staff knowing the residents they are serving and providing the type of physical environment that encourages gerotranscendence. Understanding a resident's past empowers staff to foresee what might cause challenges in providing care or hinder gerotranscendence. These ideas are supported by Wadensten (2010) who writes:

Therefore, in communication, it must be important to treat the older person as a unique individual. The dialogue carried on by the staff should, therefore, be emotional and

supportive with regard to the resident. This puts great demand on the staff. They must be able to adapt to each resident. (p. 114)

Creating an Environment that Promotes Gerotranscendence

Hood's theory of aging clearly states that current and past environments and personal histories are important in the gerotranscendence process. This means that nursing homes need to provide a positive environment for its residents or it will hinder gerotranscendence progress. Why type of environment will support gerotranscendence? There are likely several types of environments that can be created. This author suggests a neighborhood model where residents know each other and are able to form meaningful relationships. It is critical to create the type of environment where there is appropriate space for positive interaction between residents and families as well as space for individual residents to seclude themselves in reflection. Perhaps most important, an environment should be created where consistent staffing ensures residents are able to form positive and trusting relationships with staff. Indeed, the ideas of Hood's theory of aging call on staff to know a great deal about the residents they serve. This can only be done when staffing is done in a neighborhood model where the same staff work with the same residents over and over. This is the difference between just providing person centered care and person focused care that is able to provide care and assistance to the whole person. With the appropriate neighborhood model residents will take pride in where they live and experience similar benefits to those living in positive environments outside long-term care communities.

Teaching Staff Department by Department

This author asserts that teaching gerotranscendence department by department, with specific lessons for each, will be more successful than through general lectures and group discussions. The reasoning behind this hypothesis is specific teaching directed at each

department will result in more action-based changes by staff. This is important because Wadensten's 2003 study noted staff reported a change in their recognition of signs of gerotranscendence but this recognition did not carry over to observable changes in actions. Following are key points that should be made within each department according to Hood's theory of aging.

Activity department. The first role of the activity department is to do no harm. This means the activity department needs to recognize the simple fact it is not in the best interest of the residents to force attendance at activities. Residents may not wish to attend activities and this request should be honored and supported. This non-action can support resident's self dimension of gerotranscendence as it shows understanding that individuals often enjoy reflecting by themselves. It also relates to the social dimension of gerotranscendence as individuals may not want to partake in activities because they do not desire these trivial interactions.

The proactive role of the activity department is to structure an activity program that supports residents in accordance with ideas of gerotranscendence. This means creating activities directly addressing key components of the dimensions of gerotranscendence. Examples that address the cosmic dimension would be reminiscing both in groups and individually, discussion of life and death, discussion groups of legacy and where one fits within time and space, and sharing the small things in life that one rejoices. Activities that address the dimension of the self are not as straight forward, but could include prompts for personal reflection on the topics of self growth and discovery, one's view of their own body, thoughts of egoism and altruism, and how one views their life past. Activities addressing the social and personal relationships dimension could include discussion with families and close friends to ensure residents have meaningful time with those who are most important to them, give residents opportunities to share everyday

wisdom, and provide opportunities for residents to take on new role roles. To accomplish this type of program, activity staff will need to know the personal histories of residents, as outlined in Hood's theory of aging.

How this relates to Hood's theory of aging. Knowing residents' personal histories is necessary to create meaningful activities. If a resident was a farmer in the past, they may enjoy doing farm related activities. Often individuals identify with prior occupations and take pride in their history. For these residents, their past may be a good starting point; however, it is important to note this is not always the case. If someone hated their job they may have very little interest in doing it in their retirement. Occupational histories can be a proud identity or much less; therefore, skilled activities staff should find more nuanced approaches when creating activities. What were a resident's passions and desires? Would an individual rather be around small groups or large groups? Were they members of large groups when they were younger? How active were they when they were younger? This information can be understood by learning personal histories from residents by staff. Activity staff should not fall into the false ideology that an individual necessarily wants to do in old age what they did when they were younger. Activity staff should remember oftentimes it is easiest to just ask the resident what they want and abide.

Housekeeping. Housekeeping is an often-overlooked position in long-term care communities. This is a mistake. A little known trick by nursing home administrators to find out how a resident is really doing is to ask the housekeeper. Why? Because housekeepers can be the first person to see how a resident is changing based on how they keep their room. Residents are often not intimidated by the housekeeper and will be willing to speak to the housekeeper about problems in their own life or with the community in which they live. Residents will speak with the housekeeper about family members and not hold back when talking in front of the

housekeeper to their family. The information housekeepers get is often wasted because they are not included in the larger discussion of resident care.

Housekeepers should ask residents how they would like their rooms to be cleaned and if there are any specific tasks they would like done or if there is any cleaning that they would like to complete themselves. This will allow residents to maintain control over their own apartment, shows that the housekeeper cares for the resident, and gives the clear impression that the cleaning of the room is not just a task a universal and repetitive task but a specialized and custom service being offered to the resident. This allows the resident to maintain dignity.

Although the above is important, it is not unique to the ideas of gerotranscendence care – it is simply good customer service. What makes the ideas of Hood's theory of aging unique in this regard is that it states a housekeeper's job is more than cleaning; it includes having meaningful interactions with residents. For this reason, housekeepers must be trained to recognize signs of gerotranscendence and how to positively interact with residents. Housekeepers must be given the opportunity to have positive interactions with residents when opportunities are presented. Housekeepers should feel welcome to play the role of friend, confidant, and patient ear.-

How this applies to Hood's theory of aging. Housekeepers should know the personal histories of the residents they serve in order to better assist them with housekeeping tasks as well as assist residents with gerotranscendence development. Depending on a resident's history, he or she may have different standards and desires of what is cleaned in the apartment. More importantly, personal history is important for conversation and connection. A recently widowed male may desire more help than a woman who was used to cleaning up after her husband. Perhaps a housekeeper is treated poorly because her presence reminds a female resident that she

can no longer care for her house. Perhaps a male is rejoiced to see the housekeeper because it reminds him of his wife.

Housekeepers should be encouraged to pay extra close attention to a few items that are signals of gerotranscendence development. Are residents becoming more or less attached to material items representing progress in the cosmic dimensions? Do residents care less or more about how clean their rooms are? Are residents spending more time reflecting in their own room? Are residents eager to speak, or do they want time alone? Housekeepers should have the opportunity to note this information so it can be communicated to the rest of the care team.

Director of nursing and nurse managers. Applying the theory of gerotranscendence across a long-term care community is dependent on having the support of the director of nursing and nurse managers. If these key positions do not support or have a strong understanding of the ideas of gerotranscendence, then change will not occur. For this reason, the director of nursing and nurse managers should be held responsible for understanding how gerotranscendence works throughout the entire facility and within each department. Of particular importance for these positions is the ability to recognize and coach staff members when they are not practicing in accordance with the ideas of gerotranscendence. Further, this position needs to create the type of environment that includes neighborhoods and consistent staffing.

Facilities need to ensure nurse managers are well trained in gerotranscendence and doing frequent formal and informal training with front-line staff. Nurse managers should never complain that front-line staff doesn't get it. They must step in and assure adequate and on-going training is occurring with all front-line staff. Part of this training should be conducted by individuals other than the nurse managers and should be conducted solely for the front-line staff.

How this relates to Hood's theory of aging. The ideas of Hood's theory of aging directly relate to the role of nurse managers in their direction of their teams and establishment of care policies and care plans. These key positions must have an understanding of the collective histories of the residents they serve individually and as a whole. This knowledge should be reflected in the resident care plans front-line staff follow.

Just as each resident is different, each long-term care community is unique and should be operated in a way that best fits the residents and community it serves. It is the nurse managers' role to work with other department heads to ensure local customs and needs are being met. This could include celebrating special occasions that recognize residents' heritage or major events within the community, decorations should represent the community and those who lived in it, and ensuring major local charitable organizations visit and take input from the nursing home. It means a host of small and sometimes intangible things that can make the difference between a residents feeling that it is a home and not just a nursing home facility. Nursing managers need to ensure the building and environment pay respect to the community and residents they serve.

Floor registered nurse. The floor registered nurse (RN) plays a critical role in ensuring that front-line staff is following through with the care plan in a way that promotes gerotranscendence. Floor RNs work side by side with front-line workers and should be counted on to ensure policies and procedures are being followed. The floor RNs set the example for how residents should be treated and spoken with to encourage gerotranscendence. The floor RN should recognize when front line staff are falling into old habits and redirect. When policies and procedures are not being followed, floor RNs should use proper training as an intervention to correct the discrepancies. Floor RNs also serve an important role because they have regular contact with residents and perform cares on residents. Floor RNs should be given extra training

in recognizing signs of gerotranscendence to ensure the care plan is accurate and meets the resident's developmental needs.

Perhaps most importantly, the floor RNs should develop meaningful relationships with the residents they serve and the care managers they work with. These relationships create trust between the staff as well as between the staff and the residents. These relationships become the foundation for the neighborhood model of care and will help ensure that the ideas of gerotranscendence are implemented and sustained.

How this relates to Hood's theory of aging. Floor RNs play a critical role in evaluating if a resident's actions, behaviors, and symptoms are signs of gerotranscendence or if they are in fact pathological in nature. This task should not be taken lightly – it is vitally important to ensure residents are being cared for appropriately and signs of gerotranscendence are appropriately identified. Is a resident confusing time because they are reliving their childhood, or is the resident showing signs of dementia? Is the confusion with time peaceful or causing anxiety? Knowing a resident's past allows floor RNs to make better decisions about behaviors and interventions.

For example, assume a front-line worker reports to the nurse that a resident has been in their room all morning and has kept re-reading the same book. She appears to becoming more anxious and does not want to come to lunch. The nurse goes to visit her, asks if she is alright, and the residents responds that she wants to be left alone. What action does the nurse take? It depends on what the nurse knows about this resident. Perhaps the nurse sees that the book is one that she read to her child who passed away at the age of seven. The nurse knows the resident does not have underlying symptoms of dementia and allows the resident to remain in her room reflecting, although painfully, on the past. This action represents an understanding of the

resident's place within the cosmic dimension of gerotranscendence. Forcing the resident to come to the meal could hinder the gerotranscendence process. In the same situation the nurse may know that the resident has a history of depression around the holidays because her family is not able to visit. The nurse knows that the resident enjoys the company of others but is anxious to invite others. In this situation the nurse urges the resident to come to the holiday gathering. Although the resident refuses at first, the RN takes the time to listen to the resident speak and they both agree she would enjoy the activity. This action promotes social interaction and connection that can help advance the resident's social dimension of gerotranscendence. These situations are not unique. Floor RNs must know their residents history and provide the support needed. This requires knowing when to intervene, and when to stay away.

Front-line staff. Front-line workers have the most interaction with residents, carry out care plans, and are ultimately the ones helping or hindering residents' gerotranscendence. Despite this fact, front-line staff often receives the least amount of continuing education training. While it is relatively cheap to send a few charge nurses to an all-day conference, and when they are away from the building no one needs to replace them. It is expensive to send all front-line workers to training, and doing so comes with additional staffing challenges. Nevertheless, training for front line staff should not be ignored.

The most important idea front-line staff should be taught is to treat the residents as human beings, not patients. The care given to residents needs to go beyond simple person centered care. Care needs to be provided in a person focused manner that accounts for the resident's past, where they currently are, and where they want to be. Care should be given in a manner that encourages gerotranscendence. Caregivers should be encouraged to form relationships with residents, ask questions, and not be afraid to have real conversations with

residents, not just small talk about the weather or sports. Front line-staff should form real and meaningful relationships Front-line staff should know the priorities of the resident, their desires, and how they want to live out their life.

To do this kind of person focused and gerotranscendence care, front-line staff needs to be trained on the theories of gerotranscendence, and this training should be ongoing and supported by nurse managers. Further, front-line staff should be trained and encouraged to support each other in the process of gerotranscendence. Time should be given to them to discuss their observations as a team and have significant input in to care of residents.

How this relates to Hood's theory of aging. It is important for front-line workers to know a resident's past to ensure the highest quality of care is delivered in a manner that promotes gerotranscendence. The better staff known the past of a resident, the better they are able to relate to the resident, speak with the resident, interpret the needs of the resident, care for the resident, interpret signs of gerotranscendence, and help the resident further develop in gerotranscendence. Said simply, the better a front-line worker knows a resident, the better caregiver they will be. Specific examples have been listed throughout this paper illustrating the importance of staff knowing residents, and these examples hold true and are most applicable for direct care providers.

Physicians, nurse practitioners, and other medical professionals. Facilities should work to ensure physicians they work with are familiar with the ideology of gerotranscendence, and, when possible, are given the same training opportunities as other staff. Facilities that do not have a medical director should work to establish a relationship with a group of physicians that perform in-facility visits on a monthly basis. Having consistent medical professionals who know staff and residents is beneficial for numerous reasons with the most important being that they

know the philosophy and expectations of the community. It is one thing for a charge nurse to communicate to front-line staff that certain aspects of aging are normal in their residents; it can be far more influential for a physician to support this finding. On the contrary, if a physician does not buy into the ideas of gerotranscendence and instructs staff against its practices, it is unlikely that staff will stand up to the doctors or carry out the wishes of the charge nurses.

Almost by definition individuals living in long-term care communities have reached advanced age and/or have complex medical needs. Most residents are on numerous medications and have comorbidities. Doctors need to be trained to understand that once individuals reach the final stages of life, there is a fundamental meta-perspective change. Medical treatment and pharmaceutical use should not be pursued without careful consideration of the impact on the patient's quality of life, goals, aspirations, and wishes. Just as all workers in long-term care communities, doctors must take time to learn about the entire person they are serving. Long-term care communities should assist doctors by sharing information they know about residents.

How this relates to Hood's theory of aging. Well documented medical records are kept to ensure a patient's medical history follows them and proper care is delivered based on this medical history. Physicians will review this medical history before any office visit. In long-term care communities the practice of establishing a medical history is important, but should not stop here. Patients should have a social history created which follows them and allows caregivers to provide personalized care. Medical records already include social factors such as smoking, medical family history, number of kids, seat belt use, drug use, occupation, and religion. It is well known these social factors are important, yet often little attention is paid to them.

When medical providers understand their patients better they are able to provide better care. In the elderly, it can result in doing less medical treatments. This point is supported in work

outside of the ideas of gerotranscendence and is the main subject of a book by Dr. Atul Gawande entitled *Being Mortal* (2014). Dr. Gawande makes clear there is a significant problem in the medical field with practitioners treating diseases and conditions rather than individuals. This causes both worse medical outcomes and reduced quality of life for patients. The connection to personal history could not be stronger. Each individual ages differently and reaches advanced age in a different place. Individuals who are supported by their doctors in the idea that aging is natural can have a much different dying experience than that of going out fighting. Doctors helping residents make decisions need to understand the development process of gerotranscendence in the elderly and help residents better understand the aging and dying process.

Physical plant. Physical plant employees are responsible for helping create the environment that individuals call home. Although there are some transformations that will be cost prohibitive, the physical plan can make dramatic transformations within the building as well as providing the day to day services to residents that allow residents to feel comfortable in their apartments.

Further, the physical department should see that the physical environment matches that environment the residents want to live in. To do this successfully, physical plant staff must know about the residents they are serving, including the residents past as outlined by Hood's theory of aging. Physical plant personnel should ensure that resident's rooms and community rooms are kept in a manner with resident desires and so the spaces promote reflection, introspection, and encourage group activities when desired. To do this, they must be trained in the theory of gerotranscendence and be empowered to create change. Further, much like housekeepers, those working in the physical plant have far more contact with residents and know more about

residents than often given credit for. This means physical plant employees should be given explicit permission to interact with residents and have input in the overall care of the resident.

How this relates to Hood's theory of aging. This relates directly to Hood's theory of aging because it emphasizes the importance of knowing residents personal history to provide better care and enable gerotranscendence. For example, assume a physical plant employee goes to a resident room to complete a maintenance request for a broken shade. While in the room, the resident starts speaking about how she was concerned that the shades were broken and is anxious they are fixed right away. This may mean little if this physical plant employee does not know about the resident, but with knowledge it can be empowering. Perhaps the resident is fearful of a break-in and would benefit from additional reassurance. The concern is not about the shade, but about safety. Perhaps the resident has extra privacy concerns and different types of shades would better suit her needs. Or, perhaps the real concern was she wanted to make sure the shades were always open so she could watch the birds. In this last situation, perhaps a simple bird feeder outside would bring great joy to the resident. Physical plant employees need to feel comfortable to take the time to ask questions in order to best serve residents.

Dietary. The dietary department greatly impacts the lives of the residents by the food they serve and the environment they create; however, providing good food and environment are the goal of every restaurant and is not unique to the ideas of gerotranscendence. To provide a gerotranscendence environment the dietary department must create an environment that encourages community and interaction but also creates space for those who desire to eat alone. Servers should not just deliver food to tables, but take the time to speak and connect with the residents they are serving just as front-line workers are expected. In fact, in certain neighborhood models, the servers will be front-line workers. Servers can give conversation prompts to start the

process of residents connecting and speaking about topics thought to accelerate the gerotranscendence process. Questions of this nature can ask about past favorite meals or what the resident liked to make themselves, or can be more broad questions about life, reflection, and family history.

The dietary staff must be trained in the ideas of gerotranscendence and the ideas presented in Hood's theory of aging to provide this type of environment to residents. The entire dietary department must understand the dining environment should promote conversations between residents and between residents and staff. The dietary staff must ensure an appropriate noise level to allow this conversation to occur. Allowing residents to sit and visit before and after meals, and helping prompt conversation when necessary. A further responsibility is to ensure residents receive food that fits with their schedule and that does not interfere with moments of reflection or gerotranscendence. If an individual wants to eat in their room because they want to be alone, this should be allowed and the resident should not be, in most circumstances, talked into coming to the dining room for staff convenience. The dietary department should support residents' individual lifestyles, especially when they align with gerotranscendence.

How this relates to Hood's theory of aging. One sign of gerotranscendence is individuals will find joy in the small things in life and begin to look forward to some things that younger individuals may not see as meaningful (Tornstam, 2005). A great example of this can be the excitement and joy residents get from meals, both by eating the food and by socializing with other residents. This will only occur if the food and environment reach a certain level of quality and are in line with resident expectations. For the dietary staff to successfully create the type of food the residents enjoy and create the right type of environment, they must know the residents.

As with all other departments, this relates to Hood's theory of aging in that it is necessary to know residents' personal histories to provide the type of care that promotes gerotranscendence. It emphasizes the point that providing quality care includes going outside of the normal boundaries of job duties and requires a person-centered approach.

Universal Worker. A universal worker is a long-term care worker that works in several departments and has a wide range of job duties. In the gerotranscendence care model, universal workers are preferred over workers confined to one department. This is because universal workers will result in more consistent care with staff and residents forming better and deeper relationships. It is often unrealistic for a housekeeper or certified nursing assistant to deeply know all of the residents in a long-term care community; however, if a limited number of staff continuously serve the same residents then the unlikely becomes the routine.

Additional Training Information

The suggested method of teaching is a department by department model that has identifies specific areas which intervention can be concluded. The following section provides insights on how training within each department can be conducted.

Lectures. Lectures are an efficient way to communicate information about gerotranscendence and Hood's theory of aging. Lectures should be used to disseminate the basic theories of Hood's theory of aging and gerotranscendence. This includes lectures about the three dimensions of gerotranscendence and the concept that personal histories influence the gerotranscendence process. Further, the lectures should include a clear message that the ideas of gerotranscendence care go beyond providing mere person centered care as is traditionally understood, rather to provide care to the whole person. Training should emphasize that the non-

medical care relationship aspect is vitally important to the well-being of the resident and is part of all employee's job responsibilities.

Videos. Videos can be a useful tool in at least two key aspects. First, they can be used to show how the ideas of Hood's theory of aging are supported by other prominent individuals in the field. This can create buy-in to the ideas being taught. Second, it can be used to show examples of individuals providing excellent care in accordance with gerotranscendence.

Peer Training. The most effective type of training will occur as peer-to-peer training. Individuals who are more experienced with gerotranscendence care should be placed as a peer-trainer with those who are less familiar with gerotranscendence. This will have at least two benefits. First, less experienced individuals will be able to learn about residents faster through the more knowledgeable peer. Second, the more experienced worker will be able to model and provide active examples of gerotranscendence care for the less experienced caregiver.

Meetings. Team meetings are important for staff working on the same team or with the same group of residents to discuss success stories and challenges as a means to grow in their approach to gerotranscendence care. Some of these meetings should include elders that the team cares for in order to deepen the relationships and knowledge between staff and residents.

Summary of Staff Training

The direction to staff may vary slightly from department to department, but the overall theme is the same. Providing the type of care that promotes gerotranscendence requires all staff to know the personal histories of the residents they serve. It is only with this individualized personal knowledge that each resident can be cared for in a manner that will assist him or her on their gerotranscendence journey. Further, each staff should not confine their role to that of the duties of a housekeeper, janitor, or provider of medical services. Rather, each staff member holds

a responsibility for the overall wellbeing of the resident and should have explicit permission to interact with and help guide residents. Although training is conducted on a department-by-department basis, it will take communication between the departments to share what they know about the residents and provide best practices for each resident.

Teaching Residents

The bulk of the second section of this paper has been aimed at teaching staff at long-term care communities about the theories of gerotranscendence. This is important, and will remain important, but should not overshadow the importance of teaching the residents and their families about gerotranscendence and Hood's theory of aging. Indeed, before the ideas of gerotranscendence are implemented, residents and resident's families should be notified of this change and be given ample opportunity to learn about the theory and ask questions. This author suggests following the lecture series in Wadensten's (2003) study to teach residents as well as having ongoing resident-staff training. This combined training is recommended because it is thought that residents speaking about their ideas and perceptions of gerotranscendence with staff will result in higher levels of buy-in from staff because the ideas of gerotranscendence will be more than just theory, rather, ideas that the residents they serve believe.

Looking Forward Ten Years

If a community initiates the ideas of Hood's theory of aging today, what can they expect in ten years? This is an important question for at least two reasons. First, it creates an ideal to inspire the work of today. Second, it sets a hypothesis to be measured after implementation.

Walking through the front doors of a community that has fully implemented gerotranscendence practices will not look any different than any other community on the surface. What will be vastly different are the attitudes, beliefs, perceptions, and actions of staff and

residents. Some of the change will be similar to communities that fully implement a form of person centered care model. Below are the expected changes that will occur unique to a gerotranscendence model of care.

Staff will have a fundamental change in how they understand the aging process in accordance with gerotranscendence and be able to recognize when residents have obstacles preventing the gerotranscendence process and what dimension of gerotranscendence is being hindered. This understanding will be passed on to residents and residents will come to understand the gerotranscendence process, seek to reach gerotranscendence, and become able to communicate with staff what their gerotranscendence needs are. This self-reflection and awareness will not be displayed by all residents and staff, but will grow with tenure in the long-term care community.

In ten years the meaning and idea of person centered care in a gerotranscendence model community will change to include the ideas of gerotranscendence. This means that the ideas of care will be expanded beyond physical care and be inclusive of the work that needs to be done to help the resident progress in the three dimension of gerotranscendence. All staff will understand that the need to pay attention to the resident's past personal histories is as important as the resident's medical history.

The activity department and nursing department will work together to expand the resident's care plan to include activities that directly address the resident's gerotranscendence needs. These activities will address the three dimensions of gerotranscendence and change as the resident progresses in the gerotranscendence process. Extra attention should be given to activities that include personal reflection.

The physical plant of the building will not necessarily change; however, there will be a change in the organizational structure of the building and how residents are cared for. There will be consistent staffing, and the residents will be divided into a neighborhood model of care. The staff will intimately know the residents they are caring for and the resident will know the staff. This is not necessarily unique to gerotranscendence, but is an important component.

Testing Hood's Theory of Aging

The theory of gerotranscendence has empirical support. Although there are strong indications from other research that the ideas presented in Hood's theory of aging influence gerotranscendence, they do not have the same empirical backing. Testing the full scope of the ideas of Hood's theory of aging will require studies aimed at several aspects.

First, research should be conducted to better understand how personal histories influence the gerotranscendence process. This can be approached by conducting interview based studies similar to studies already conducted on gerotranscendence. Respondents would self-report events that they believed helped them progress through gerotranscendence or hindered progress. Studies of how gerotranscendence is influenced by personal histories can also be conducted by creating a list of life variables, as outlined in the model presented with this paper, and teasing out correlations between personal histories and gerotranscendence. Hood's theory of aging predicts that having more positive variables is advantageous over having negative variables. Individuals with more resources will be more likely to progress than individuals with fewer resources. Individuals with strong social networks will progress more favorably than those with limited social networks. Individuals subject to positive physical environments will face fewer barriers than those in unhealthy physical environments. Individuals who have stronger cognition and emotional control will be more likely to reach gerotranscendence than those with lower levels of

cognition and emotional control. Although these primary variables are expected to have strong associations with gerotranscendence, making further analysis on how combinations of factors will play out is more difficult because variables are not all positive or negative. Variables change over time and interact with a multitude of other variables throughout life. Moreover, individuals can have pivotal life moments, called life crises, that can accelerate or hinder the gerotranscendence process regardless of previous variables. These life crises can be taken into account as either quantitative or qualitative data.

The research listed above will be critical in supporting the ideas of Hood's theory of aging but does not address the goal of practical application in long-term care communities. For this aim, research must be done in long-term care communities to determine if providing the type of care outlined in Hood's theory of aging actually helps residents progress through gerotranscendence faster. This type of testing is straightforward. Residents can be asked to complete gerotranscendence questionnaires upon entry into a community and then complete the same survey at different time intervals. Results of a control long-term care community can be compared to those of the long-term care community where gerotranscendence is being actively pursued in accordance with Hood's theory of aging. In addition to resident self-reported questionnaires, staff can fill out questionnaires about the residents they serve, themselves, and the community on a whole. In addition to providing feedback if interventions are working, the surveys will provide insight into what dimensions of gerotranscendence are being met and what dimensions need more focus.

Discussion

The purpose of Hood's theory of aging is to extend the theory of gerotranscendence to account for personal histories and provide a practical guide for long-term care communities in

delivering the type of care and environment that enables gerotranscendence. The theory of gerotranscendence, as created by Lars Tornstam, acknowledges that personal histories will influence the gerotranscendence process but little ink is devoted to outlining how these histories affect the process. This paper has helped fill in this void.

Personal histories indeed influence the gerotranscendence process but their affects are not liner and they operate on individuals differently. Similar circumstances can result in vastly different outcomes. Individuals are not the result of anything in particular, rather the combination and interactions of their collective history. Research above has shown much is already known about what is likely to advance or hinder gerotranscendence, but these trends must be used with caution. Some personal history variables will have more influence than others, but all variables work in combination with others. This interconnectedness means predicting a trajectory for any particular individual is non-sensible. The complexity of what influences the gerotranscendence further emphasizes the fact that each individual must be viewed as an individual.

As with any theory, it is important to state what success or failure would look like when put into practice. Success should be measured both at the individual level and community level. Measuring the progress an individual has made towards gerotranscendence can be done by conducting surveys dealing with direct questions of gerotranscendence as well as overall resident well being.

Measuring success at the community level should be comprised of the individual gerotranscendence scores of residents, as discussed above, and similar measurements taken from staff. Both resident and staff measurements should be followed up with observations. Signs that residents are indeed progressing in gerotranscendence include: residents will be more active, residents will have less fear about death, residents will form better relationships with staff,

residents will report higher levels of life satisfaction, and residents will simply say that they see the world in a different way. Additional measurements and signs of gerotranscendence that can be measured are outlined by Tornstam (2005).

A community will always have room to grow and improve in terms of gerotranscendence as there is a continuous movement of staff in and out; however a community should recognize itself as having successfully created a positive gerotranscendence model when the model become self-sustaining. This will occur when residents and staff have bought into the model and help teach and guide each other. This type of transformation is not as far off as some might think. When residents and their families get use to the positive treatment associated with gerotranscendence, they will demand it from all staff. Families, managers, and co-workers will come to expect it. What was once far out will become business as usual. The same result is true for residents who see their peers adapting the ideology of gerotranscendence. Just like a resident may not want to partake in medication if they are the only one, but if 30 other individuals are doing it then it becomes normal.

Further Research

There is a great deal of room for additional research on the factors that influence the gerotranscendence process. Although the ideas of gerotranscendence are improved by Hood's theory of aging, they are not yet complete. The teaching of gerotranscendence via a department structure will increase buy-in and create better results, but for this training to take root it must be done in a community that is ripe for change and has person-centered care. The type of training and change described herein will likely fail in long-term care communities that are institutionalized in structure. Long-term care communities that have embraced culture change

will be better suited to implementing the suggested changes and will by the nature of their environment do a better job of fostering gerotranscendence.

Writing this thesis has sparked a plethora of ideas that could be implemented to create change that promotes gerotranscendence care. One particular idea was creating a gerotranscendence care plan that would be created by the resident, their family, and staff. This care plan would provide staff with the most important information about residents and provide clear preferences and expectations of care from the resident. This idea may be revolutionary in terms of gerotranscendence, but it is not unique in the general idea of creating person-centered care. This leads to the question, can person centered care be delivered without regard for gerotranscendence? Surely these concepts go hand-in-hand. Is the theory of gerotranscendence best suited to be an addition to the basic and well-known theories of person-centered care? This line of thinking lead to the simple question of, “what would a gerotranscendence community look like?”

This paper has discussed a great deal of work long-term care communities can do to influence gerotranscendence, but surely in a process as important as gerotranscendence there are other influencers. Research is lacking on the role that family, friends, and community play in the gerotranscendence process as well as how other psychological tools such as counseling and psychoanalysis can influence the gerotranscendence process. A better understanding how cognitive reserves, cognitive ability, and other cognitive levels influences the gerotranscendence process is needed to understand what cognitive facilities accelerate or hinder the gerotranscendence process and what type of cognitive training, if any, can be used to aid gerotranscendence. The theory of gerotranscendence has been supported by research, it would

benefit this theory to create the empirical backing of the factors that influencing gerotranscendence.

Appendix 1: Examples of Practicing Hood's Theory of Aging

This appendix will provide a brief description of a theoretical resident and problem then detail what things can be done in accordance with gerotranscendence and Hood's theory of aging.

Example 1. A 75 year-old male resident has been living in a long-term care community for three months. In this time, he has not had family or friends visit. Staff describes him as being grumpy and rude. His progress with therapy has not been going well, and it has become apparent he will likely need to remain in the nursing home long-term.

This type of situation presents difficulty for the staff because the resident puts up barriers to the staff learning information about him and forming relationships. In a traditional person centered care model, staff would respect this preference. This is not the case in a gerotranscendence model of care. First, staff should work to break down barriers to earn trust. This can be done with small talk about the weather or any other area where they can make connections. Then the more important work starts - staff should work to gain an understanding of the individual's past and future goals. Good questions to ask include: As a child, what things did you most enjoy doing? What do you get meaning from doing today? What type of relationships do you have with your family? What things are most important to you? Are you happy with who you are? Are you afraid of death? What types of relationships do you desire to have?

These questions can seem awkward and do not need to be asked in a direct manner, but the idea is to ask questions to better understand where the resident is on the gerotranscendence path and what can be done to assist in progression. Notice that these questions address the dimensions of gerotranscendence.

In this example, it is important for the staff to understand why the resident has not had visitors. This relates to the social dimension. Is he estranged from his family? If this is the case, could the staff could assist the resident in reconnecting with his family or simply help him work through the difficulty? Does the resident care that he has no family or friends? Is he content being by himself? If he is simply content, has he made more progress than first thought in gerotranscendence or is his isolation related to mental illness or depression? If he desires relationships, staff can become those relationships and actively help the resident develop new friendships. If the individual truly does not desire relationships, then other dimensions of gerotranscendence can be focused on such as helping the resident make other connections to see his cosmic place in the world.

Continuing the example, it is important to know the type of response the resident is having due to his new care needs and the possibility that he will need care long-term permanently. Answering these questions addresses what the theory of gerotranscendence calls self dimension. Was the resident previously an active individual? If yes, then additional work may need to be done to help the resident come to accept his new limitations or find new activities that produce meaning. Staff should be sensitive to the resident's new restrictions and use words of encouragement to build the resident's confidence. Reassuring words and perspective should be given to help the resident understand that life goes on beyond his new restrictions. A traditional person centered care model would respect this resident's request to be inactive, but this is not the case for the gerotranscendence model of care. Staff should continue to work to help the resident see from a new perspective.

The more information the staff knows about the above hypothetical resident the better they can assist. Why did the estrangement occur? Was it a result of a deeper problem that the

resident has not yet confronted such as abuse, infidelity, alcohol use, finances, a difficult divorce, or a multitude of other things? This history is important because the real problem may not be the estrangement but rather the past behaviors or circumstances that lead to this. Identifying the real problem that must be worked through can help with the gerotranscendence process.

Example 2. An 85 year-old female resident has recently been admitted to a long-term care community. Depression inventories indicate the resident is mildly depressed and staff support this diagnosis. Her husband passed away three months prior. She has no prior history of depression. Since admission, she does not want to partake in activities and is withdrawn.

The traditional person centered care model would have staff respect the wishes of the resident and provide limited intervention. The gerotranscendence care model proposed as part of Hood's theory of aging calls for action by staff to help the resident work through this difficult situation.

The death of a spouse can be a traumatic experience, but it means different things to different people. The staff should try to find the answers to several questions. What does the resident miss about her husband? Did they travel together? Did they always eat dinner together? What was their routine? Did they always sleep together? Where they intimate? What times of day or what situations cause the most pain? Was the resident dependent on the husband's social network? What role did she play in the marriage? The idea of asking these questions is not to stop the resident's grief, rather to understand it. The grieving process is not uniform, but if staff know about a resident's past they can better empathize with the resident and be a better listener to help the resident work through their struggles.

Gerotranscendence and Hood's theory of aging recognize that events like the death of a spouse as a life crisis that can result in the acceleration or hindrance of gerotranscendence. In this

case, the death of her husband may cause the resident to care less about her appearance and physical objects (self dimension) and concentrate more time and energy on close relationships (social dimension) as she is forced to recognize her own mortality. Staff should encourage this type of thought process and ask questions that lead to this type of thinking. Does the loss of your husband make you fear death more or less? Do you still feel connected to your spouse despite his death? What would bring the most meaning to the time that you have left? Do things seem not to be as important as previously?

As outlined throughout Hood's theory of aging, the more the staff knows about the past relationship, the better they will be able to help the resident resolve past grief and move closer to gerotranscendence. Staff should take an active role in asking questions that force the issue of gerotranscendence and life review.

Example 3. A 70 year-old resident is admitted to the long-term care community because her daughter can no longer take care of her in her own home. The resident has advanced stage rheumatoid arthritis. She reports significant flare-ups of pain and a moderate level of nearly constant pain.

In a traditional model of person centered care, the resident would be cared for per request by the resident. More is required in a gerotranscendence care model. First, staff should gather other background information to put the condition in context. Did the resident need to retire early because of mobility issues? Did they need to stop doing activities they enjoyed? Has the condition accelerated the person's attachment and preoccupation with their body and self (self-dimension of gerotranscendence), or has it prevented progress?

Next, the staff should identify if the medical condition or recent move to the long-term care community is inhibiting the gerotranscendence process or advancing it. Key questions the

staff should ask follow. Does the resident feel like she has lost part of herself because she can no longer live in her own home? Does the resident find relief that she no longer is a burden to her daughter? If the resident feels like she has lost part of herself, the staff can make an extra effort to ensure she feels at home in her new apartment. They can speak with her in terms that will make her become less attached to the physical world and the home she has left. The staff can encourage the resident to have positive memories of the house and help her understand that these memories will remain with her without the house. On the extreme negative side, no matter what the staff says, the resident may not progress. This will not be typical; in most cases residents will be able to see both negatives and positives of the transition and encouragement towards reflection will positively influenced gerotranscendence. In situations where the resident is happy to move into the long-term care community, little will need to be done to help her adjust. Rather, attention can be made to help the resident progress in other areas.

Staying on this same example of a resident with rheumatoid arthritis, the pain that the resident is having can hinder or accelerate the gerotranscendence process. If the resident's pain is causing consistent physical and mental discomfort, then the resident may not be able to perform the mental reflective and cognitive work required for gerotranscendence. In these situations the staff has several tasks. The first is to do what any long-term care community should do – help control the resident's pain. In addition to this, a gerotranscendence model of care should help the resident find meaning in the pain and even find meaning in life outside of her medical condition. Example questions to start the discussion include: Despite your pain, what meaning do you have in your life? Do you feel a connection to the world around you? What thoughts keep you going each day? What goals do you still want to accomplish? There is no easy way to help with this transaction; it is done by building a relationship with the resident and reinforcing their worth and

helping them find their purpose. Admittedly, working through pain can be a difficult task, but if individuals are able to progress in the cosmic dimension of gerotranscendence they will have a different world view of time, pain, and suffering.

It is also important to note that the resident's pain might be an accelerator for some dimensions of gerotranscendence. Perhaps, because of the pain and disability the resident no longer care about what she looks like or what others think of her (self dimension) and concentrates all of her energy on the relationships that matter the most to her (social dimension). Further, this resident may think she has limited time left due to her condition and found peace with the life that she has lived. In this situation, staff need only provide the opportunities for the resident to continue on their gerotranscendence path.

Example 4. An 82 year-old female resident is admitted to a long-term care community and has significant loss in sight (hearing could be substituted for this example). The loss of sight evolved over the course of the last two years and the individual was not able to adapt to their prior living setting. The person is a widower of 20 years. The resident is fairly independent in other activities of daily living but needs assistance due to the loss of vision. The resident's past occupation was a painter.

Loss of sight or hearing is a significant loss for anyone; however, circumstances matter greatly in how one responds to the loss. In a traditional person centered care model, staff would respond to the residents requests and establish a care plan based on the resident's needs. A gerotranscendence care plan would call for additional intervention to create the type of environment best suited for gerotranscendence growth.

The staff should start by understanding how the vision loss affects the resident. For this particular example, some of the questions have already been answered. Was the loss gradual

allowing the individual to slowly adapt, or was it sudden? Have other losses of independence resulted from the condition? Has the loss limited the resident from doing things they love to do? Has the resident found activities to replace those she can no longer perform? Was vision tied to the individual's meaning in life?

The fact of the matter is, individuals will respond differently to vision loss. The loss of vision for the painter in this example will likely be a much bigger obstacle to gerotranscendence than for a musician who loses their vision but is still able to play. If the resident is facing anguish over this loss, the staff should ask questions to understand what the root cause of the anguish is. Is it caused by the overall loss of meaning in life? Is the resident now bored with lack of meaningful activities? Is the resident upset because of lack of independence?

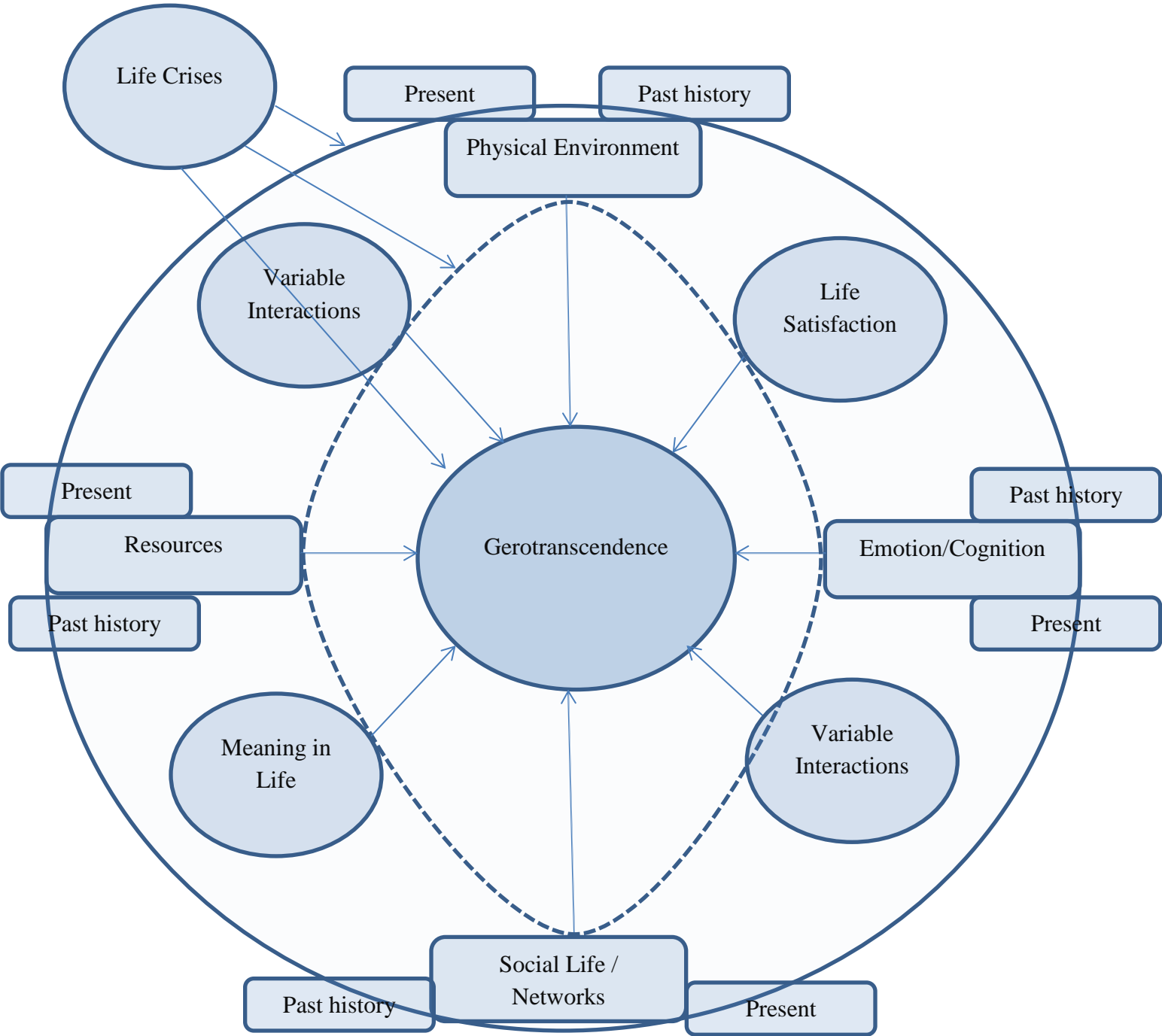
If the anguish is due to lack of meaning in life, then staff should take action to help the resident realize that meaning in life exists beyond painting. This transaction will not happen overnight and could start with the staff helping to replicate the resident's painting experience. Staff can describe works of art to the resident and ask the resident to describe past works of art to them. Then staff can paint on the resident's behalf. This can then transition to having the resident describe their work through music or other meaningful activities. This can lead to the resident accepting the loss of vision and moving along the cosmic dimension of gerotranscendence.

On the other hand, this same resident may have already progressed in gerotranscendence and easily accepted that although painting and vision was fun when it lasted, it was what the individual did and not who she was. It is possible that the loss of vision could propel this person further along the gerotranscendence path as they become less connected with the physical world. Either way, it is important for staff to know how a resident is responding to particular circumstances so they can tailor their response accordingly.

Example 5. A 72 year-old resident is admitted to the facility after a three day hospital stay for a unitary tract infection, dehydration, and confusion. She was brought to the hospital by a church friend when she became confused. The friend does not feel that the resident is safe to live by herself and the attending physician agrees. The resident was never married nor had children. She was orphaned at a young age and became independent as a teen.

The above resident may not have any physical limitations obstructing gerotranscendence, but the situation does present a barrier to gerotranscendence. Most individuals are able to observe how others age before they reach advanced age themselves. This experience prepares individuals for their own gerotranscendence journey. Residents who have not experienced or been close witness to the dying process may not know what to expect. Further, as evidence above indicated, part of the gerotranscendence process includes seeing how you link with the past and future. If individuals have few connections to their past and do not have children who will carry-on into the future, they may have a more difficult time with the cosmic dimension of gerotranscendence and thus will benefit from different interactions and connections with staff.

If the resident is not familiar with the aging process, then the staff can simply be open with the resident about their perceptions of aging and the resident should be encouraged to speak with other residents about their expectations. Further, in this situation staff should ask the resident questions which promote the resident in making meaningful connections to the past and future. Was there an individual the resident had an impact on? Are there meaningful connections the resident wants to maintain? What does the resident want to be their legacy? These questions can help guide the resident in the gerotranscendence process.



Dotted line represents continuous interaction of variables.

Solid line represents the interactions of one variable on another.

References

- Achenbaum, A. (2009). Making sense of biological theories of aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (pp. 25-38). New York: Springer.
- Ahmadi, F. (2001). Gerotranscendence and different cultural settings. *Aging and Society*, 21(4), 395-415.
- Allen, K. R. & Walker, A. J. (2009). Theorizing about families and aging from a feminist perspective. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (pp. 517-528). New York: Springer.
- Antonucci, T. C, Birditt, K. S. & Akiyama, H. (2009). Convoys of social relations: An interdisciplinary approach. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of Theories Aging* (pp. 247-260). New York: Springer.
- Atchley, R. C. (1999). *Continuity and adaption in aging: Creating positive experiences*. Baltimore, Maryland: The Johns Hopkins University Press.
- Austad, S. (2009). Making sense of biological theories of aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (pp. 147-161). New York: Springer.
- Avlund, K., Lund, R., Holstein, B. E. & Due, P. (2003). Social relations as determinant of onset of disability in aging. *Archives of Gerontology and Geriatrics* 38(1), 85-99.
doi:10.1016/j.archger.2003.08.003
- Bengtson, V. L., Gans, D., Putney, N.M. & Silverstein, M. (2009). Theories about age and aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (pp. 1-24). New York: Springer.

- Blanchard-Fields, F. & Kalinauskas, A. (2009). Theoretical perspectives on social context, cognition, and aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (2nd ed., pp. 261-276). New York: Springer.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
- Buchanan, J., Lai, D. & Ebel, D. (2015). Differences in perception of gerotranscendence behaviors between college students and community-dwelling older adults. *Journal of aging studies, 34*, 1-9. <<http://dx.doi.org/10.1016/j.jaging.2015.03.003>>.
- Calasanti, T. (2009). Theorizing feminist gerontology, sexuality, and beyond: An intersectional approach. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (pp. 471-485). New York: Springer.
- Chetty, R., Hendren, N, & Katz, L. (2015). "The effects of exposure to better neighborhoods on children: New evidence from the moving to opportunity project." Harvard University. Retrieved on May 25, 2015 from <http://scholar.harvard.edu/hendren/publications/impacts-neighborhoods-intergenerational-mobility-childhood-exposure-effects-and>
- Crabtree, S. (2011). "U.S. seniors maintain happiness highs with less social time." *Gallup Well-Being*. Retrieved April 5th, 2014 (<http://www.gallup.com/poll/151457/seniors-maintain-happiness-highs-less-social-time.aspx>).
- Cumming, E. & Henry W. E. (1961). *Growing old, the process of disengagement*. Basic Books.
- Dannefer, D. (2011). Age, the life course, and sociological imagination: prospects for theory. In R. H. Binstock (Ed.), *Handbook of aging and the social sciences* (7th ed., 1-24). Amsterdam: Elsevier/Academic, 2011.

- Dannefer, D. and Kelley-Moore, J.A. (2009). Theorizing the life course: New twists in the paths. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (ed. 2nd., pp. 389-411). New York: Springer.
- Effros, R. (2009). The immunological theory of aging revisited.” In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp. 163-177). New York: Springer.
- Elder, G. H. Jr. (1998). The life course as developmental theory. *Child Development*, 69(1), 1-12. Doi: 10.1111/j.1467-8624.1998.tb06128.x
- Ellen, I., Mijanovich, T. & Dillman, K.M. (2001). Neighborhood effects on health: exploring the links and assessing the evidence. *Journal of Urban Affairs* 23(3-4), 391-408.
- Ferraro, K. F., Shippee, T. P. & Schafer, M. H. (2009). Cumulative inequality theory for research on aging and the life course. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 413-433). New York: Springer.
- Ferrini, A. F. & Ferrini, L. R., (2013). *Health in the Later Years*. (5th Ed.). New York: McGraw-Hill.
- Gawande, Atul. (2014). *Being mortal: Illness, medicine and what matters in the end*. London: Wellcome Collection.
- Gavrilov, L. & Gavrilova, N. (2001). The reliability theory of aging longevity. *Journal of Theoretical Biology*. 213 (4), 527-545. Academic Press.
- Gonidakis, S. and Longo, V. D. (2009). Modalities of gene action predicted by the classical evolutionary theory of aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 215-228). New York: Springer.

- Kahn, R. (2004). *Successful Aging: Myth or Reality*. The 2004 Leon and Josephine Winkelman Lecture. University of Michigan School of Social Work. University of Michigan, Ann Arbor. Retrieved from <http://deepblue.lib.umich.edu/handle/2027.42/49494>.
- Knight, B. G. & Laidlaw, K. (2009). Translational theory: A wisdom based model for psychological interventions to enhance well-being in later life. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 693-705). New York: Springer.
- Krause, N. (2009). Deriving a sense of meaning in late life: An overlooked forum for the development of interdisciplinary theory.” In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 101-116). New York: Springer.
- Kryla-Lighthall, N. & Mather, M. (2009). The role of cognitive control in older adults’ emotional well-being. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 323-344). New York: Springer.
- Labouvie-Vief, G. (2009). Dynamic integration theory: Emotion, cognition, and equilibrium in later life. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 277-293). New York: Springer.
- Lewin, A. & Thomas, E. (2008). Gerotranscendence and life satisfaction: Studies of Religious and Secular Iranians and Turks. *Journal of Religious Gerontology*, 12(1), 17-41.
- Martin, G. (2009). Modalities of gene action predicted by the classical evolutionary theory of aging.” In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 179-191). New York: Springer.

- McFadden, S. H. & Atchley, R. C. (2001). *Aging and the meaning of time: A multidisciplinary Exploration*. New York: Springer
- Newman, K. (2003). *A different shade of gray: Midlife and beyond in the inner-city*. New York: The New Press.
- O'Rand, A. M. (2006). Stratification and the life course: Life course capital, life course risks, and social inequality. In R. H. Binstock & L.K. George (Eds.), *Handbook of aging and the social sciences* (6th ed. pp. 145-162). Boston: Academic Press.
- O'Rand, A.M. and Hamil-Luker, J. (2005). Processes of cumulative adversity: Childhood disadvantage and increased risk of heart attack across the life course. *Journal of Gerontology*, 60B(2,Special Issue), 117-124.
- Ryff, C. & Singer, B. (2009). Understanding healthy aging: Key components and their integration. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 117-144). New York: Springer.
- Shringarpure, R. & Davies, K. J. A. (2009). Free Radicals and Oxidative Stress in Aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 229-243). New York: Springer.
- Simon, C. & Warner, J. T. (1992). Matchmaker, matchmaker: The effect of old boy networks on job match quality, earnings, and tenure. *Journal of Labor Economics*, 10(3), 306-330.
Retrieved from <http://www.jstor.org/stable/2535091>
- Tornstam, Lars. (1989). "Gero-transcendence: A Meta-theoretical Reformulation of the Disengagement Theory." *Aging Clinical and Experimental Research* 1.1, 55-63.
- Tornstam, L. (2005). *Gerotranscendence: A developmental theory of positive aging*. New York: Springer.

- Vasunilashorn, S. & Crimmins, E. (2009). Free Radicals and Oxidative Stress in Aging. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 63-85). New York: Springer.
- Wadensten, B. (2003). Gerotranscendence from a nursing perspective – from theory to implementation. Acta University Upsaliensis. *Comprehensive summaries of dissertations from the faculty of social sciences*. ISBN 91-554-5712-6.
- Wadensten, B. (2005). Introducing older people to the theory of gerotranscendence. *Journal of Advanced Nursing* 53(4), 381-388.
- Wadensten, B. (2007). The theory of gerotranscendence as applied to gerontological nursing – Part I.” *International Journal of Older People Nursing* 2(4), 289-294.
- Wadensten, B. (2010). Changes in nursing home residents during an innovation based on the theory of gerotranscendence. *Journal of Older People Nursing* 5(2), 108-115. doi: 10.1111/j.1748-3743.2010.00215.x
- Wadensten, B. & Carlsson, M. (2001). A qualitative study of nursing staff members’ interpretations of signs of gerotranscendence. *Journal of Advanced Nursing*, 36(5), 635-642.
- Wadensten, B. & Carlsson, M. (2003). Theory-driven guidelines for practical care of older people based on the theory of gerotranscendence. *Journal of Advanced Nursing* 41(5), 462-470.
- Wadensten, B. & Carlsson, M. (2007). The theory of gerotranscendence in practice: Guidelines for nursing – part II. *International Journal of Older People Nursing* 2(4), 295-301.

- Wadensten, B. & Carlsson, M. (2007). Adoption of an innovation based on the theory of gerotranscendence by staff in a nursing home – part III. *International Journal of Older People Nursing*, 2(4), 302-314.
- Wang, J. (2011). “A structural model of the bio-psycho-socio-spiritual factors influencing the development towards gerotranscendence in a sample of institutionalized elders. *Journal of Advanced Nursing* 67(12), 2628-2636. Doi: 10.1111/j.1365-2648.2011.05705.x
- Willis, S. K., Schaie, W. & Martin, M. (2009). Cognitive plasticity. In V. L. Bengtson, D. Gans, N. M. Putney & M. Silverstein (Eds.), *Handbook of theories aging* (Ed. 2nd., pp 295-322). New York: Springer.