

# Quality of Life Revisited

## The Concept of Connectedness in Older Adults

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Viewing quality of life from a generative context gave rise to a new perspective and the old term *quality of life* failed to capture the essence of the new idea. Creation of a new term required a series of deliberate studies to develop the concept of connectedness. This article traces the conceptual progression and presents the concept synthesis of connectedness using literary synthesis, qualitative synthesis, and quantitative synthesis. Based on the concept synthesis, connectedness in community-dwelling older adults can be defined as engaging life by self-regulating, facing aging, being part of a family, having friends, and being spiritual. **Key words:** *concept synthesis, connectedness, middle range theory, older adults, quality of life, theory development*

Quality of life (QOL) is one of the most extensively studied, universally recognized, and highly desirable outcomes in post-modern society. Researchers have examined a myriad of phenomena that influence QOL in older adults. For example, spirituality,<sup>1</sup> social networks,<sup>2</sup> supportive communities,<sup>3</sup> and a variety of health-promoting activities<sup>4,5</sup> were associated with improved QOL. At the same time, loneliness,<sup>6,7</sup> depression,<sup>2,8</sup> fear,<sup>7</sup> and isolation<sup>9</sup> were associated with decreased QOL in older adults.

More than 560 articles have been published about QOL in older adults since 2005. Clearly, QOL continues to be a very active area of research and theory development. The ontological perspective embraced by most researchers for the past 45 years was that QOL is given until something terrible like disease, dis-

ability, or social disruption occurs to reduce QOL.

We argued in the previous article<sup>10</sup> that the disease-focused and deficit-based approach to QOL failed to answer some of the most important and lingering questions about QOL. In the past, researchers have focused on QOL proxies. The difficulty with this approach is that QOL surrogates are not equivalent to QOL. Therefore, we proposed a shift in the ontological perspective where QOL was viewed as a commodity that could be gained or lost on the basis of the positive or negative encounters that occur in older adults' daily lives. Our approach represented a paradigm shift, which focused on the theoretical core of QOL. This shift required a new term to describe the phenomenon of interest. We chose the term *connectedness*, which we believe *is* QOL from a generative perspective.<sup>10</sup> We believe connectedness forms the basis for all human existence and it is the phenomenon of connectedness, which brings quality to life.

This article describes the concept synthesis of connectedness, using the process outlined by Walker and Avant.<sup>11</sup> This approach was chosen because very little systematic inquiry or development related to connectedness in older adults has been conducted.

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## CONCEPT SYNTHESIS

Adoption of a generative approach for QOL opened up a new perspective and the old term QOL, which was mired in the old paradigm, did not capture the essence of the new idea.

Our decision to view QOL from a generative perspective with the conception of a new term required a deliberate series of studies to develop the concept of connectedness. Ultimately, our goal is to develop a new middle range theory where connectedness is a focal concept.

Concept synthesis is the process of finding and naming a phenomenon that is derived from empirical observations or generated from data. In other words, it involves moving beyond what experts know. Concept synthesis is also a crucial step in theory building.<sup>11</sup>

Walker and Avant<sup>11</sup> proposed 3 approaches that may be used either together or alone to conduct concept synthesis: literary synthesis, qualitative synthesis, and quantitative synthesis. We used all 3 approaches to develop the concept of connectedness.

### Literary synthesis

Connectedness is a very common term that is deeply embedded in the popular culture. Marketing experts have inundated Internet users and television viewers with the idea of connectedness. In 2007, a Google search for the term *get connected* yielded 1.9 million hits covering a myriad of topics.<sup>12</sup> In 2009, the same search yielded 5.2 million hits for an increase of 174%.

In scientific literature, connectedness is a nebulous phenomenon, which makes the review of literature a challenge.<sup>13</sup> To identify relevant documents for the literary synthesis, we conducted a selective review of literature published between 1999 and 2009. We queried online databases such as PubMed, PsycINFO, and the Cumulative Index of Nursing and Allied Health Literature, using a multiphased approach. We began by targeting ar-

ticles with connectedness in their title ( $n = 1041$ ) and then narrowed the search to articles that specifically addressed connectedness in older adult populations. A search using the medical subject headings (MeSH) that included root words (and their inflections) for the term *connectedness* and terms such as older adult, elder, age, and aging yielded no results. However, we identified 2 articles that discussed at least 1 dimension of connectedness in older adults.<sup>14,15</sup> Since there were significant gaps in the literature, we expanded the search criteria to include concept articles related to connectedness.<sup>16-18</sup> None of the articles in our search addressed connectedness from a multidimensional perspective. A small number of experts have discussed the *idea* of connectedness in older adults, but authors have not used the term *connectedness*.<sup>15,17-21</sup> Most experts named connectedness something different, chose to examine one aspect of connectedness, or failed to recognize it at all. Very few authors have discussed the term *connectedness* from a multidimensional perspective.<sup>17</sup>

### *Most named connectedness something different*

Bailis and Chipperfield<sup>19</sup> used the term *collective self-esteem* (CSE) to describe an individual's thoughts and perceptions about being a part of and/or being associated with social groups. The authors claimed CSE influenced an older adult's capacity to connect with groups. Other researchers used the term *social engagement* to describe a way of connecting that was a key determinant of successful aging.<sup>20,22</sup> MacKinlay and Trevitt<sup>21</sup> described spiritual reminiscence as a way of connecting with the past. Older adults used spiritual reminiscence to find meaning in their day-to-day activities and to develop strategies for coping with and accepting the various changes inherent in aging.<sup>21</sup> In a theory article, Hill<sup>23</sup> used the term *sense of belonging* to describe the dynamic nature of human existence. According to Hill, sense of belonging was a component of connectedness

and relatedness, which was essential to mental health and social well-being.

### ***Others examined one aspect of connectedness***

Other researchers recognized connectedness more explicitly. They addressed a unitary facet of connectedness such as spiritual or social connectedness. For example, Burkhardt<sup>24</sup> suggested that spiritual connectedness was manifested in 4 ways: being connected to self, others, nature, and the ultimate other. Cornwell et al<sup>15</sup> created an empirically based profile of older adults' social connectedness based on various dimensions of interpersonal social networks and volunteer associations. Their findings challenged the claim that old age has an inevitable negative influence on social connectedness.<sup>15</sup>

### ***Some failed to recognize connectedness***

Phelan et al<sup>18</sup> conducted a study that examined older adults' perceptions of successful aging. Although the researchers did not discuss the idea of connectedness at all, the instrument created for the study included a number of items that can arguably be associated with connectedness. We believe that items such as (1) having friends and family who are there for me, (2) staying involved with the world and people around me, (3) not feeling lonely or isolated, and (4) feeling good about myself were superb exemplars of connectedness.

### ***Few discussed connectedness from a multidimensional perspective***

Only a few researchers have recognized the multidimensionality of connectedness. Bellingham and Cohen<sup>17</sup> identified 3 forms of connectedness: connectedness to self, connectedness to others, and connectedness to a larger meaning or purpose in life. Connectedness to oneself meant acting congruently with one's feelings and values. Connectedness to others was described as creating opportunities and a sense of willingness to interact with other people. Being connected to something

larger than oneself meant having a profound purpose in life.<sup>17</sup>

To explore the concept of connectedness, one must examine the contrary case.<sup>11</sup> Just as people can experience connectedness, people can lose their sense of connectedness. Younger<sup>25</sup> described a continuum with alienation on one end and a sense of connectedness on the opposite end. Younger also suggested that alienation was not an absence of connection. Alienation was a state of negative connectedness. Disconnectedness was described as an alienation from one's self, from others, from one's God (gods), and from nature.<sup>25</sup> Likewise, Bellingham and Cohen<sup>17</sup> used the term *self-alienation* to describe the result of losing connectedness with oneself. People who were self-alienated were out of touch with their life goals, their values, their beliefs, and their feelings.<sup>17</sup>

Register and Herman<sup>10</sup> identified 6 categories of connectedness. Connectedness involved the act of being (1) metaphysically connected; (2) spiritually connected; (3) biologically connected; (4) connected to others; (5) environmentally connected; and (6) connected to society. The 6 categories and their respective operational definitions were described in detail previously.<sup>10</sup> A summary of the categories and definitions are provided in Table 1. Register and Herman<sup>10</sup> defined *connectedness* as a state of synchronous, harmonious, and interactive presence that is free of temporal or spatial constraints.

There are multiple definitions for connectedness and some authors are developing concepts that could arguably be interpreted as connectedness.<sup>10,15,21,24,26</sup> At the same time, consensus is growing among researchers. The literary synthesis confirmed 4 of the 6 categories of connectedness described by Register and Herman.<sup>10</sup> Authors recognized connectedness to self, others, nature, and God. A few of the articles underscored the importance of connections to groups,<sup>19</sup> which could be aligned with Register and Herman's category of connected to society. A few authors related connectedness to health outcomes,<sup>20,22</sup> which was consistent

**Table 1.** Categories of connectedness with operational definitions

Category of connectedness	Operational definition
Metaphysically connected	Maintaining a keen awareness of self within a larger universe through interactions with internal forces and processes such as self-esteem, self-determination, cognition, sense of purpose, optimism, and life satisfaction
Spiritually connected	Being connected with a power or divine being that exceeds any individual's sphere of influence through the act of prayer, worship, fellowship, and the search for meaning and purpose in life
Biologically connected	Optimizing functional capacity and performance, physical comfort, and activities related to health promotion and proactive health maintenance
Connected to others	Includes all human interpersonal relationships including, but not limited to, family, friends, neighbors, and acquaintances both living and deceased
Environmentally connected	Working deliberately to connect oneself with the personal living environment and the natural environment
Connected to society	Being actively involved with 2 parallel systems: a personal social system and a global societal system

with Register and Herman's category of being biologically connected. With this confirmation, we felt confident in proceeding to the next phase of qualitative synthesis.

In summary, connectedness in older adults is a concept that researchers have only begun to explore. While awareness and examination of at least 1 facet of connectedness is informative and represents a crucial first step; this approach undermines the inherent complexity and multidimensionality of the term and obfuscates conceptual precision. Because this was such a new idea that was not fully cultivated in the literature, we used a grounded theory approach, using Register and Herman's<sup>10</sup> 6 categories of connectedness to examine the processes involved with connectedness in older adults.

### Qualitative synthesis

Walker and Avant<sup>11</sup> described qualitative synthesis as the process of recognizing patterns among observations and examining data for similarities and differences, much as one would using a grounded theory approach.

Therefore, a grounded theory approach was used to examine the processes involved with connectedness in community-dwelling older adults. The investigators elected to use a grounded theory approach because there was very little known about connectedness in older adults. According to Glaser and Strauss, grounded theory is the ideal way to explore a new phenomenon by using informants' personal experiences and examining social processes.<sup>27,28</sup>

A total of 12 older adults, 65 years and older, were selected using theoretical sampling.<sup>27</sup> To provide the best opportunity for theoretical saturation to occur, the sample was restricted to older adults 65 years and older who were living independently within the community.<sup>28</sup> Since the sample was intended to represent the population of community-dwelling older adults, participants were recruited deliberately on the basis of predetermined characteristics such as gender, age, ethnic background, marital status, religious affiliation, education level, living environment, and mobility. The goal was to achieve a sample with clearly defined

parameters.<sup>28</sup> The sample was composed of 7 women (58%) and 5 men (42%). The ages of participants ranged from 67 to 85 years, with a median age of 75.5 years. Seven (58%) of participants were Caucasian, two (17%) were African American, and three (25%) were Hispanic. Six (50%) of the participants were married, four (33%) of the older adults were widows, and two (17%) were widowers. Eight (67%) of participants were Protestant and four (33%) were Catholic. Three (25%) completed high school, six (50%) completed some college, and three (25%) held a master's degree or higher. Six (50%) of the participants reported living with their spouse, four (33%) lived alone, one (8%) was living with his son, and one (8%) had just moved into an assisted living facility. Eleven (92%) of the participants described themselves as fully ambulatory and one (8%) was wheel chair bound. None of the 11 ambulatory participants reported the need to ambulate with an assistive device such as a cane or walker.

The principal aim of the qualitative study was to elucidate the processes involved with connectedness. The older adults were interviewed using a semistructured interview guide based on Register and Herman's<sup>10</sup> 6 categories of connectedness. For example, participants were asked the following: (1) How do you feel about yourself? (2) Tell me about any activities you are involved with. (3) How do you feel about yourself physically? (4) Tell me about your relationships with family and friends. This approach was selected to ensure the integrity of the methodological intentions espoused by Glaser and Strauss.<sup>27</sup> Data analysis did not focus solely on the 6 relatively fixed categories. Open-ended questions were also used to elicit additional information about connectedness. For example, each participant was also asked: (1) Are there other types of connections that are important that we did not talk about? (2) Which are the most important connections in your life? (3) If another senior asked you what it means to be connected, what would you say? (4) From your perspective, what else do I need to know about being connected?

Qualitative data analysis consisted of constant comparative analysis followed by the category development and then category reduction procedures.<sup>27,28</sup> Data analysis was accomplished using NVivo 7 computer software that was designed to support qualitative research.<sup>29</sup> Saturation was facilitated by theoretical sampling (recruiting a clearly defined and restrictive sample) and the use of explicit interview questions.<sup>28</sup> Theoretical saturation was achieved when no new data emerged that were relevant to the free nodes (open coding) and tree nodes (provisional and core categories), when the tree nodes reached a high degree of conceptual density, and variations among the tree nodes were well defined.<sup>28,30</sup>

Eight major themes were identified during the category reduction phase (by collapsing the tree nodes). The themes included (1) connecting, (2) feelings, (3) spiritual, (4) family, (5) friends, (6) health, (7) social and political views, and (8) tools and strategies for maintaining connections. The next phase of data analysis focused on modification and integration of the themes.<sup>27,28,30</sup> The 8 themes clustered around 4 processes of connectedness. The 4 processes were (1) having something to do, (2) having relationships, (3) having a stake in the future, and (4) having a sense of continuity. Various aspects of spirituality were integral to each of the 4 processes.

Analysis of the conceptual progression for each of the 6 categories, 8 major themes, and 4 processes led to greater clarity and a better understanding of connectedness in older adults. Table 2 contains a summary of the concept synthesis that occurred during the literary synthesis and the qualitative synthesis.

One example of this progression is the idea of being connected to society. Being connected to society was one of the 6 original categories proposed by Register and Herman.<sup>10</sup> The idea of being connected to society was clarified using the grounded theory approach. During the interviews, older adults described ways they were connected to society. For example, the older adults shared information about news stories they had been following,

**Table 2.** Summary of concept synthesis

Literary synthesis	Qualitative synthesis		Quantitative synthesis
	Major theme	Process of connectedness	
Metaphysically connected	Feelings Connecting Tools and strategies	Having something to do Having relationships Having a stake in the future Having a sense of continuity	Being part of a family Self-regulating
Spiritually connected	Spirituality	Having something to do Having relationships Having a stake in the future Having a sense of continuity	Being spiritual
Biologically connected	Health	Having a sense of continuity	Facing aging Self-regulating
Connected to others	Family Friends	Having something to do Having relationships Having a sense of continuity	Being part of a family Having friends
Environmentally connected	Tools and strategies	Having something to do	Self-regulating
Connected to society	Social and political views	Having something to do Having a stake in the future Having a sense of continuity	Facing aging
Evolution of Definitions across Concept Synthesis			
Quality of life (Literary synthesis)	Connectedness (Qualitative synthesis)		Connectedness (Quantitative synthesis)
The essence of being connected with the forces and processes that constitutes an assenting existence.	The ultimate expression of human existence that determines how older adults engage in the world.		Engaging life by self-regulating, facing aging, being part of a family, having friends, and being spiritual.

such as the run up to the 2008 presidential election. Some also shared stories about their favorite daily newscast. They also described ways they kept engaged in society through a variety of volunteer activities. They were eager to express their views on a number of current issues such as the Iraq war, the price of gasoline, the changing family structure in the United States, and illegal immigration, to name a few. Almost every partic-

ipant described how different things are in the world today compared with how they experienced society when they were young. The various expressions of being connected to society were apparent in the major theme of social and political views. Expressions of the older adults' social and political views were exemplified in 3 of the 4 processes involved with connectedness including (1) having something to do (following a special news

story), (2) having a sense of continuity (keeping up with current events), and (3) having a stake in the future (worrying about our country's future).

In comparison to Register and Herman's<sup>10</sup> 6 original categories of connectedness, the qualitative synthesis again confirmed the ideas of family, friends, health, society, and spirituality as being central to connectedness. When comparing findings of the qualitative synthesis to the literary synthesis the dimensions of feelings (self), family and friends (others), and spirituality (God) remained central ideas of connectedness. A new dimension of connectedness was uncovered in the qualitative study: tools and strategies for maintaining connections. The 8 themes identified in the qualitative synthesis were used to generate items for the tool used to conduct the quantitative synthesis.

### Quantitative synthesis

To conduct quantitative synthesis, researchers use experimental or nonexperimental, single case or group designs to obtain quantitative data about the phenomenon of interest. Statistical methods such as factor analysis are used to generate meaningful clusters.<sup>11</sup>

The purpose of the quantitative synthesis was to extract clusters of critical attributes comprising connectedness in community-dwelling older adults.<sup>11</sup> We began the quantitative synthesis by developing a 72-item survey that was based on results of the qualitative study. The survey items were derived from the interviews with the 12 older adults who participated in the qualitative study, as previously described. In most cases, the survey items were quotes from the older adults that occurred during the intensive interviews.

Content validity was ensured by commissioning a panel composed of 3 PhD-prepared gerontological experts and one older adult. The disciplines of nursing, social work, and public health were represented. Panel mem-

bers received a review guide with operational definitions for the 8 major themes identified in the qualitative study. Experts were asked to evaluate the congruence between survey items and the operational definitions by providing dichotomous feedback related to the conceptual congruence (Yes/No). Reviewers indicated that none of the items were considered incongruent. Panel members also evaluated the relevance and clarity of each survey item on a scale of 1 to 4. Item relevance and clarity were scored either 3 or 4 for each item. The overall visual presentation, organization of items, readability, and ease of survey use were also evaluated. Comments from the reviewers resulted in minor changes in phrasing and verb tense for a few items.

A total of 428 older adults completed the survey. This number exceeded the minimum sample size of 360, which required a minimum of 5 participants per survey item.<sup>31-33</sup> The sample ranged in age from 65 to 98 years with a mean of 76 years; most were female (70%), Caucasian (74%), and widows or widowers (50%). Data analysis consisted of a series of factor analysis procedures including maximum likelihood, using squared multiple correlation and Promax rotation. Missing values were managed using multiple imputation procedures.<sup>33</sup> In interpreting the rotated factor pattern, an item was said to load on a given factor if the factor loading value was 0.40 or greater. Reliability was assessed using coefficient alpha estimates.

Forty-five items loaded positively on 5 factors of connectedness. Factor loadings ranged from 0.40 to 0.86. The quantitative synthesis of connectedness revealed 5 critical attributes. A list of the critical attributes and their operational definitions is provided in Table 3. The coefficient alpha reliability estimate for each factor was (1) self-regulating (0.86), (2) facing aging (0.85), (3) being part of a family (0.87), (4) having friends (0.87), and (5) being spiritual (0.88). Based on the concept synthesis presented, connectedness in community-dwelling older adults can be defined as engaging life by self-regulating, facing

**Table 3.** Critical attributes of connectedness with operational definitions

Critical attribute	Operational definition
Self-regulating	Modulating feelings and actions to promote optimism, self-determination, and self-fulfillment
Facing aging	The thoughts and activities older adults engage in as they come to terms with the normal process of aging and their own mortality
Being part of a family	Seeking ongoing interactions with family members and feeling needed, wanted, and loved by family members
Having friends	A variety of activities, thoughts, and feelings older adults engage in that are associated with friendship
Being spiritual	Acknowledgment of a higher power or divine being that exceeds any individual's sphere of influence

aging, being part of a family, having friends, and being spiritual.

## DISCUSSION

The concept of connectedness has evolved from the original conception as an indicator of QOL to an idea that represents QOL from a generative perspective. The new definition of *connectedness* provides a mechanism for answering some of the lingering questions about QOL.<sup>10</sup> For example, why some people with the same condition, symptoms, or diagnosis report very different levels of QOL<sup>34</sup>; why some desperately ill people report good QOL<sup>34-36</sup>; and why personal wealth, status, and health are not good predictors of QOL.<sup>34</sup>

The following sections trace the evolution of connectedness as a result of the concept synthesis. Each section begins with Register and Herman's<sup>10</sup> original definition of the category of connectedness and traces the evolution through literary, qualitative, and quantitative synthesis. A summary of the evolution of connectedness is provided in Table 2.

### *The evolution of metaphysically connected*

*Metaphysically connected* was defined as "a keen awareness of self within a larger universe through interactions with internal forces and processes such as self-esteem, self-determination, cognition, sense of purpose,

optimism, and life satisfaction."<sup>10(p344)</sup> In the qualitative synthesis, the older adults articulated metaphysical connectedness through the major themes of feelings, connecting, and tools and strategies for maintaining connections.

Feelings, which was identified as a major theme in the qualitative synthesis, loaded positively on the factors of being part of a family, and self-regulating. Feelings relating to being needed, wanted, and loved by family members loaded on the factor of being part of a family. Feelings of being appreciated and feeling good about oneself loaded on the factor self-regulating.

Connecting was identified as a major theme in the qualitative synthesis and loaded positively on the factor self-regulating. The theme of connecting was manifested in events such as helping others and wanting to be around others, spending time with other people, and having a place and purpose in the world. The theme tools and strategies loaded positively on the factor of self-regulating and encompassed spending time doing something the older adults enjoyed such as listening to music or singing a song, and taking a walk.

### *Evolution of spiritually connected*

Being spiritually connected meant "being connected with a power or divine being that exceeds any individual's sphere of influence



through the act of prayer, worship, fellowship, and the search for meaning and purpose in life."<sup>10(p344)</sup> The category being spiritually connected evolved into the major theme of spirituality in the qualitative synthesis. The older adults expressed spirituality in a variety of ways such as the acknowledgment of a higher power, finding comfort in their faith, praying about something important to them, being part of a religious group, and believing that God bestowed personal blessings on them. All of the descriptors of spirituality loaded positively on the factor being spiritual in the quantitative synthesis. A number of older adults expressed the hope of reuniting in heaven with loved ones who had died. Their yearning and resolute confidence in life after death was unquestionably grounded in a deep and profound spirituality.

### ***Biologically connected***

Biologically connected referred to "optimizing functional capacity and performance, physical comfort, and activities related to health promotion and proactive health maintenance."<sup>10(p345)</sup> The category biologically connected evolved into the major theme of health in the qualitative synthesis. The older adults' desire for better health and ongoing focus on health loaded positively on the factor facing aging and self-regulating in the quantitative synthesis. Concerns about health and efforts to maintain health were a component of facing aging and self-regulating. Researchers might expect health to be a major consideration for older adults, yet it was only one of many ideas that loaded positively on facing aging. This finding is consistent with the argument we have been making that the deficit-based and disease-focused approach to QOL is not an accurate depiction of reality for older adults.

### ***Connected to others***

Connected to others included "all human interpersonal relationships including, but not limited to family, friends, neighbors, and ac-

quaintances both living and deceased."<sup>10(p345)</sup> Connected to others evolved into the theme of family and the theme of friends in the qualitative synthesis. The theme family and the theme friends loaded positively on the factors being part of a family and having friends. Some items such as spent time with my family and felt loved by my family were clearly important components of being part of a family. Talking with an old friend and wanting to be with friends was central to having friends.

### ***Environmentally connected***

*Environmentally connected* was defined as "working deliberately to connect oneself with the personal living environment and the natural environment."<sup>10(p345)</sup> The original category environmentally connected developed into the theme tools and strategies for maintaining connections in the qualitative synthesis. Tools and strategies such as being physically active, getting outdoors, and deriving pleasure from nature loaded positively on the factor self-regulating in the quantitative synthesis.

### ***Connected to society***

Connected to society referred to "being actively involved with 2 parallel systems: a personal social system and a global societal system."<sup>10(p346)</sup> Connected to society evolved into the theme social and political views in the qualitative synthesis. This theme loaded positively on the factor facing aging in the quantitative synthesis. Older adults expressed a great deal of interest in social and political events that occurred locally, nationally, and globally. Older adults expressed social and political involvement as they kept up with the 24-hour news cycle, discussed current events with other people, and harbored tremendous concerns about the future of the United States. This evolution makes perfect sense. Older adults are generally encouraged to assume a less dominant role in society and politics as they age.<sup>37</sup> As their roles in society

are redefined, older adults become less directly involved in the mainstream and tend to remain engaged in vicarious ways. Older adults' adaptation to the changing roles in society was ensconced in facing aging in the quantitative synthesis.

The critical attributes of connectedness evolved through the concept synthesis process. Likewise, the definition of QOL and connectedness evolved. The definition moved from a high level of abstraction to one that is more concrete with a higher degree of precision. The definition of connectedness from the quantitative analysis with its critical attributes provides a new focal concept for the development of a new middle range theory with optimal aging as the outcome.

## IMPLICATIONS FOR NURSING RESEARCH

Realization of a new ontology for QOL is reminiscent of the identification of a new star. However, development of the concept connectedness, with the identification of the critical attributes and operational definitions, is akin to discovering a new galaxy. The possibilities for nursing research and practice are boundless. Concept synthesis of connectedness could encourage development of a number of middle range theories where connectedness would serve as a focal concept. Connectedness may also provide a basis for the development of an entirely new set of nursing interventions for use with older adults.

## REFERENCES

1. Yoon DP, Lee EK. The impact of religiousness, spirituality, and social support on psychological well-being among older adults in rural areas. *J Gerontol Soc Work*. 2007;48(3/4):281-298.
2. Gallegos-Carrillo K, Mudgal J, Sanchez-Garcia S, et al. Social networks and health-related quality of life: a population based study among older adults. *Salud Publica Mex*. 2009;51(1):6-13.
3. Berg-Warman A, Brodsky J. The supportive community: a new concept for enhancing the quality of life of elderly living in the community. *J Aging Soc Policy*. 2006;18(2):69-83.
4. Lee TW, Ko IS, Lee KJ. Health promotion behaviors and quality of life among community-dwelling elderly in Korea: a cross-sectional survey. *Int J Nurs Stud*. 2006;43(3):293-300.
5. Sguizzatto GT, Garcez-Leme LE, Casimiro L. Evaluation of the quality of life among elderly female athletes. *Sao Paulo Med J*. 2006;124(5):304-305.
6. Liu LJ, Guo Q. Loneliness and health-related quality of life for the empty nest elderly in the rural area of a mountainous county in China. *Qual Life Res*. 2007;16(8):1275-1280.
7. Jakobsson U, Hallberg IR. Loneliness, fear, and quality of life among elderly in Sweden: a gender perspective. *Aging Clin Exp Res*. 2005;17(6):494-501.
8. Van der Weele GM, Gussekloo J, De Waal MW, De Craen AJ, Van der Mast RC. Co-occurrence of depression and anxiety in elderly subjects aged 90 years and its relationship with functional status, quality of life, and mortality. *Int J Geriatr Psychiatry*. 2009;24(6):595-601.
9. Bartels SJ, Pratt SI. Psychosocial rehabilitation and quality of life for older adults with serious mental illness: recent findings and future research directions. *Curr Opin Psychiatry*. 2009;22(4):381-385.
10. Register ME, Herman J. A middle range theory for generative quality of life for the elderly. *ANS Adv Nurs Sci*. 2006;29(4):340-350.
11. Walker L, Avant K. *Strategies for Theory Construction in Nursing*. 4th ed. Upper Saddle River, NJ: Pearson Prentice Hall; 2005.
12. Register ME. *Development of the Register-Connectedness Scale for Older Adults: A Study of Reliability and Validity* [Dissertation]. Columbia, SC: College of Nursing, University of South Carolina; 2008.
13. Miner-Williams D. Connectedness in the nurse-patient relationship: a grounded theory study. *Issues Ment Health Nurs*. 2007;28(11):1215-1234.
14. Ashida S, Heaney CA. Differential associations of social support and social connectedness with structural features of social networks and the health status of older adults. *J Aging Health*. 2008;20(7):872-893.
15. Cornwell B, Laumann EO, Schumm LP. The social connectedness of older adults: a national profile. *Am Sociol Rev*. 2008;73(2):185-203.
16. Lee RM, Keough KA, Sexton JD. Social connectedness, social appraisal, and perceived stress in college women and men. *J Couns Dev*. 2002;80(3):355-361.
17. Bellingham R, Cohen B. Connectedness: some skills for spiritual health. *Am J Health Promot*. 1989;4(1):18-24.
18. Phelan EA, Anderson LA, LaCroix AZ, Larson EB. Older adults' views of "successful aging"—how do they compare with researchers' definitions? *J Am Geriatr Soc*. 2004;52(2):211-216.

19. Bailis DS, Chipperfield JG. Compensating for losses in perceived personal control over health: a role for collective self-esteem in healthy aging. *J Gerontol B Psychol Sci Soc Sci.* 2002;57(6):P531-P539.
20. Depp CA, Glatt SJ, Jeste DV. Recent advances in research on successful or healthy aging. *Curr Psychiatry Rep.* 2007;9(1):7-13.
21. MacKinlay EB, Trevitt C. Spiritual care and ageing in a secular society. *Med J Aust.* 2007;186(10, suppl):S74-S76.
22. Barondess JA. Toward healthy aging: the preservation of health. *J Am Geriatr Soc.* 2008;56(1):145-148.
23. Hill DL. Sense of belonging as connectedness, American Indian worldview, and mental health. *Arch Psychiatr Nurs.* 2006;20(5):210-216.
24. Burkhardt MA. Becoming and connecting: elements of spirituality for women. *Holist Nurs Pract.* 1994;8(4):12-21.
25. Younger JB. The alienation of the sufferer. *ANS Adv Nurs Sci.* 1995;17(4):53-72.
26. Spaniol L. Spirituality and connectedness. *Psychiatr Rehabil J.* 2002;25(4):321-322.
27. Glaser BG, Strauss AL. *The Discovery of Grounded Theory: Strategies for Qualitative Research.* 1st ed. Hawthorne, NY: Aldine Transaction; 1967.
28. McCann TV, Clark E. Grounded theory in nursing research: part 1-methodology. *Nurse Res.* 2003;11(2):7-18.
29. QSR International. NVivo 7. 2006. <http://www.qsrinternational.com>. Accessed March 4, 2007.
30. McCann TV, Clark E. Grounded theory in nursing research: part 3-application. *Nurse Res.* 2003;11(2):29-39.
31. McDowell I. *Measuring Health: A Guide to Rating Scales and Questionnaires.* 3rd ed. New York, NY: Oxford University Press; 2006.
32. Polit D. *Data Analysis and Statistics for Nursing Research.* Upper Saddle River, NJ: Prentice Hall; 1996.
33. Tinsley HE, Tinsley DJ. Uses of factor analysis in counseling psychology research. *J Couns Psychol.* 1987;34(4):414-424.
34. Carr AJ, Gibson B, Robinson PG. Measuring quality of life: is quality of life determined by expectations or experience? *BMJ.* 2001;322(7296):1240-1243.
35. Sahlberg-Blom E, Ternstedt BM, Johansson JE. Is good "quality of life" possible at the end of life? An explorative study of the experiences of a group of cancer patients in two different care cultures. *J Clin Nurs.* 2001;10(4):550-562.
36. Steinhauser KE, Bosworth HB, Clipp EC, et al. Initial assessment of a new instrument to measure quality of life at the end of life. *J Palliat Med.* 2002;5(6):829-841.
37. Hooyman NR, Kiyak HA. *Social Gerontology: A Multidisciplinary Perspective.* 7th ed. Boston, MA: Pearson; 2005.