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Abstract: *This article introduces a nursing theory of successful aging that approaches capture of successful aging from a multidimensional perspective with consideration given to an individual's appraisal of his or her aging. The new theory is based on the premise that aging successfully involves one's mind, body, and spirit. Successful aging is defined as an individual's perceived favorable outcome in adapting to the cumulative physiologic and functional changes associated with the passage of time, while experiencing spiritual connectedness and a sense of meaning or purpose in life. Theory components and propositions are discussed and nursing implications are highlighted.*

Key words: *Successful aging, nursing theory, life purpose, adaptation*

A Mid-Range Nursing Theory of Successful Aging

The oldest baby boomers will reach their 65th birthday in 2011. Aging of the baby boom generation increases the need for comprehensive elder care in the U.S. Recognizing this need for elder care, nurses have become involved in professional organizations devoted to advancing gerontological health and taken active roles in planning health policy, conducting research, and developing theories related to care of the older adult. Nursing theory is a critical part of nursing science; it is the foundation upon which research is based, and it serves as a guide for nursing interventions. Most nursing theories are applicable to older adults. However, none of them offers practical direction specifically intended for successful aging of older adults. The purpose of this article is to describe development of a mid-range nursing theory of successful aging that provides a framework for care of older adults.

BACKGROUND

Due to the growing population of older adults and their health needs, the absence of a useful theory to guide nursing care seems a glaring omission. A nursing theory of successful aging is needed. Of 17 well-known nursing theories analyzed by Wadensten and Carlsson (2003), none had a description of human aging. Noting the absence of a nursing theory that deals with aging, Wadensten and Carlsson (p. 123) stated,

> *The absence of practical guidance on how nurses could act, and what actions can be taken to support older people in the process of aging highlights the need to develop further and discuss how gerontological care should be provided. It also suggests the need to develop a nursing theory based on an aging theory in which development into old age is included. What is required, quite simply, is a nursing care model based on specific theories of human aging.*

Wadensten and Carlsson (2003) found only five theories (Benner & Wrubel, 1989; King, 1981; Roy, 1997; Travelbee, 1971; and, Watson, 1997) that dealt with some aspects of human development towards old age and indirectly affect attitudes towards care of older adults. None of these theories provides practical nursing guidelines on care of older adults.

Outside of nursing, several theories of aging exist including the work of Baltes and Baltes (1999), Bryant and colleagues (2001), Rowe and Khan (1998), Crowther et al. (2001), Wong (2000), and Tornstam (1996, 1997). However, none of these theories provides a thorough explanation or description of the mental, physical, *and* spiritual aspects of aging. Furthermore, most of these theories conceptualize successful aging objectively and do not take into account the older adult's perception of his or her aging. Not only is the physical self exposed to the passage of time, but the mental and spiritual selves are subject to inevitable change as well. Mental and spiritual well-being is increasingly important as end of life approaches, and it varies for each individual. Each person's perception of these transformations is unique as well.

Several authors have highlighted the discrepancy between older adults' and researchers' views of successful aging. Strawbridge and colleagues (2002) compared self-rated successful aging with measures based on the criteria of Rowe and Khan (1987). They reported that 18.8% of participants (N = 867) were aging successfully based on these criteria. In contrast, 50.3% of the sample rated themselves as aging successfully. Of the 163 participants that were classified as aging successfully according to the Rowe and Khan criteria, 36.8% of these individuals did not rate themselves as aging successfully. Of the 704 participants who were classified as not aging successfully according to the Rowe and Khan criteria, 47.3% or these people rated themselves as aging successfully.

Phelan and colleagues (2004) note that while most researchers have conceptualized successful aging unidimensionally, a few have suggested multidimensional conceptions of the phenomenon. Phelan et al. observe that no prior studies have directly assessed older adults' beliefs about the features of successful aging. Because extant theories and research related to successful aging tend to be one dimensional, neither theory nor research has

adequately explored older adults' perceptions of successful aging. Based on results of their own research and the current state of successful aging theory and research, Phelan and colleagues suggest that other aspects of successful aging, such as inner contentment and spirituality, be considered.

The findings of Strawbridge et al. (2002) and Phelan et al. (2004) underscore the importance of looking at successful aging from the perspective of the aging person. If the term successful aging is associated with the degree to which someone achieves a favorable outcome in the aging process, the aging individual's opinion is the one that matters.

THEORY DEVELOPMENT

No nursing theory offers clearly delineated guidelines for care of the older adult. Without a holistic theory of successful aging available, the author identified a need for a nursing theory of successful aging. The theory needed to account for the mental, physical, and spiritual aspects of aging both subjectively and objectively. To accomplish this task, Flood (2002) initially analyzed the concept of successful aging. Using concept or linguistic analysis (Wilson, 1963), the author proposed a conceptual definition of successful aging as an individual's perception of a favorable outcome in adapting to the cumulative physiologic and functional alterations associated with the passage of time, while experiencing spiritual connectedness, and a sense of meaning and purpose in life. This definition attempted to account for the mental, physical, and spiritual elements of the aging person and viewed the individual as a unique being. Including all of these dimensions of the aging person and emphasizing the individual's self appraisal makes Flood's (2002) definition unique among other explanations of successful aging. Within the context of this new definition of successful aging, the author proposes the assumptions listed in Table 1.

Table 1. Successful Aging Assumptions

1. Aging is a progressive process of simple to increasingly complex adaptation.
2. Aging may be successful or unsuccessful, depending upon where a person is along the continuum of progression from simple to more complex adaptation and minimal to extensive use of coping processes.
3. Successful aging is influenced by the aging person's choices.
4. The self is not ageless (Tornstam, 1996). Aging people undergo changes which uniquely characterize their beliefs and perspectives as different from those young adults.

After a review of the literature on aging, the author employed a variation of deductive reformulation (Reed, 1991), a process involving the derivation of existing knowledge from a non-nursing theory integrated with knowledge obtained deductively from a nursing conceptual model. In this case, Flood (2002) used existing knowledge derived deductively from the Roy Adaptation Model and integrated these ideas with Tornstam's sociological theory of gerotranscendence and literature related to the concept of successful aging.

Roy's Adaptation Model

The Roy Adaptation Model was selected for the development of the new theory because of the theoretical fit of successful aging assumptions (see Table 1) within Roy's model. Roy's Adaptation Model is based on Helson's (1964) adaptation theory and von Bertalanffy's (1968) general systems theory. Roy (1997) referenced Erikson's developmental theory in her work and stated that specific medical problems may arise with age and consideration should be given to the age of the client. Scientific and philosophical assumptions underlying the Roy Adaptation Model are found in Table 2. These assumptions helped form the framework of proposed relationships within Flood's (2005) theory of successful aging. Four essential elements of the Roy model include person, adaptation, output responses, and coping processes.

Table 2. Assumptions of the Roy Adaptation Model

Scientific
• Systems of matter and energy progress to higher levels of complex self-organization. • Consciousness and meaning are constitutive of person and environment integration. • Awareness of self and environment is rooted in thinking and feeling. • Humans by their decisions are accountable for the integration of creative processes. • Thinking and feeling mediate human action. • System relationships include acceptance, protection, and fostering of interdependence. • Persons and the earth have common patterns and integral relationships • Persons and environment transformations are created in human consciousness. • Integration of human and environment meanings results in adaptation.
Philosophical
• Persons have mutual relationships with the world and God. • Human meaning is rooted in omega point convergence of the universe. • Persons use human creative abilities of awareness, enlightenment, and faith. • Persons are accountable for the processes of deriving, sustaining, and transforming the universe. (Roy, 2004, p. 3)

Person and adaptation

The person is considered as a holistic adaptive system with coping processes (Roy, 1997). Roy conceptualized the person as a whole comprised of parts; according to this holistic perspective, individual parts perform together to form a unified being (Roy & Andrews, 1999). People are living systems in constant interaction with the environment. An exchange of information, matter, and feedback occurs between these living systems and their environment. As adaptive systems, human beings have inputs of stimuli and adaptation level, outputs of behavioral responses that serve as feedback, and control processes known as coping mechanisms (Roy & Andrews, 1999). In addition to stimuli, a person's adaptation level serves as input to the person as an adaptive system (Roy & Andrews, 1999). Focal, contextual, and residual stimuli combine and interface to set the adaptation level of the person at a particular point in time. Significant stimuli that make up the focal, contextual, and residual stimuli include factors such as past experiences, knowledge level, strengths and/or limitations (Galbreath, 1995). The range of

response is unique to each person; every individual's adaptation level is constantly changing.

Output responses

Outputs of a person as an adaptive system are the person's internal and external responses (Roy & Andrews, 1999). Output responses are the person's behaviors and these responses become feedback to the person and to the environment. Roy classified outputs of the person (system) as either adaptive responses or ineffective responses, where adaptive responses are those that promote the integrity of the person (Roy & Andrews, 1999).

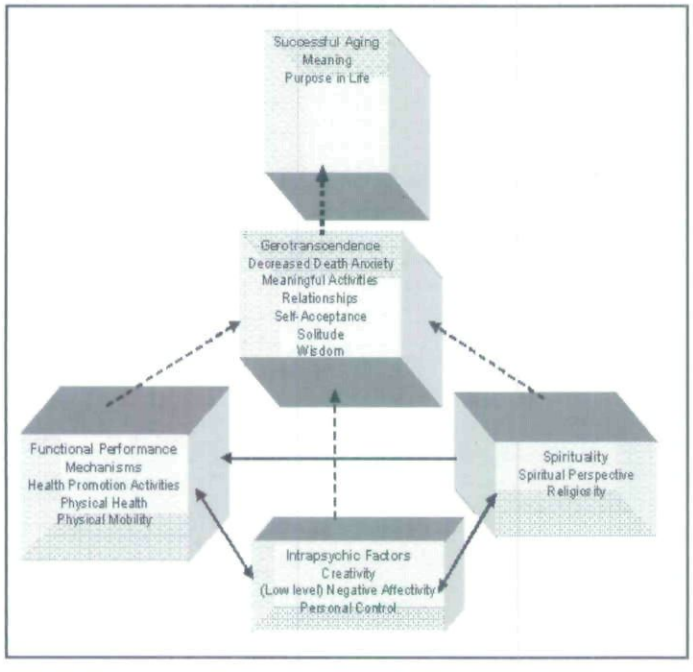
Coping processes

Roy (1997) used the term coping processes to describe the control processes of the person as an adaptive system. Some coping mechanisms are inherited or genetic, such as immune system integrity. Other mechanisms are learned, such as engaging in physical exercise as a health promoting activity. "The adaptation level of a person as an adaptive system is influenced by the individual's development and use of these coping mechanisms. Maximal use of coping mechanisms broadens the adaptation level of the person and increases the range of stimuli to which the person can positively respond "(Roy & Andrews, 1999, p. 258). Roy defined adaptation as the process and outcome whereby thinking and feeling people as individuals use conscious awareness and choice to create human and environmental integration (Roy & Andrews, 1999).

Nursing's Metaparadigm

Many of the ways in which Roy described the nursing metaparadigm are congruent with Flood's (2002, 2005) assumptions (see Table 1). The influence of the individual's development and use of coping mechanisms is one such example. Flood assumes that aging may be successful or unsuccessful, depending upon where the person is along the continuum from minimal to extensive use of coping processes. A person with more highly developed and frequently used coping mechanisms would be closer to the successful end of the aging continuum. This person would have reached a more complex adaptation level than someone with poorly developed or infrequently used coping mechanisms.

Figure 1. Flood's Theory of Successful Aging



Environment

Environment is "all conditions, circumstance, and influences that surround and affect the development and behavior of people and groups" (Roy & Andrews, 1999, p. 18). Stimuli from within and around the person represent environment. By altering environmental stimuli that relate to situations of health and illness, one can facilitate a person's adaptation.

Health

Health is a state and process of being and becoming integrated and whole that reflects person and environmental mutuality (Roy, 1997). The integrity of a person is expressed as the ability to meet the goals of growth, survival, reproduction, and mastery (Roy & Andrews, 1999). Health can be promoted by encouraging adaptive responses.

Nursing

Nursing is the science and practice that expands adaptive abilities and enhances person and environmental transformation (Roy, 1997). The goal of nursing, according to Roy, is the promotion of adaptive responses. Adaptive responses are ones that positively affect health. "The person's adaptation level determines whether a positive response to internal or external stimuli will be elicited" (Galbreath, p. 261).

Adaptation

Adaptation levels represent the condition of the life processes described on three different levels: integrated, compensatory, and compromised (Roy, 1997). "The term integrated describes the structures and functions of the life process working as a whole to meet human needs" (Roy & Andrews, 1999). Someone who is aging successfully would demonstrate integrated adaptation levels. Compensatory adaptation levels existing in the subsystems of the person are activated by a challenge to the integrated processes (Roy & Andrews, 1999). An example of a compensatory adaptation level in someone who is aging successfully is seeking social support from friends and family after sustaining a hip fracture. Compromised adaptation levels result when both integrated and compensatory processes are inadequate (Roy & Andrews, 1999). When a person does not use compensatory or compromised adaptation, problems result. Such is the case when an aging person sustains a hip fracture and fails to seek out physical therapy or social support, and becomes hopeless and depressed.

A synthesis

Like the descriptions of person and adaptation, Roy's descriptions of environment, health, and nursing allow for a logical context within which Flood's (2002, 2005) assumptions are relevant. Environmental exchanges occur as part of the concepts in Flood's (2005) theory. The integration and wholeness present with health are reflected in a successfully aging person. By (Roy's) definition, nursing promotes successful aging.

A NURSING THEORY OF SUCCESSFUL AGING

Roy's model conceptualizes complex dynamics within the person as coping processes (Roy & Andrews, 1999). Three coping processes comprise the foundation of Flood's (2005) theory. These are adaptation of functional performance mechanisms, intrapsychic factors, and spirituality. These coping processes describe the ways that the person responds to the changing environment. The constructs within each of these coping processes are measurable or observable output responses. These responses become feedback to the person (and to the environment) and are interconnected by arrows in Figure 1. Solid arrows denote those exchanges that occur initially, and broken arrows indicate exchanges that occur subsequently.

Theoretical definitions for each dimension within the theory

are as follows:

1. *Functional performance mechanisms* - the individual's use of conscious awareness and choice as an adaptive response to cumulative physiologic and physical losses with subsequent functional deficits occurring as a consequence of aging.
2. *Intrapsychic factors* - the innate and enduring features of an individual's character that may enhance or impair one's ability to adapt to change and problem-solve.
3. *Spirituality* - personal views and behaviors that express a sense of relatedness to something greater than oneself; the feelings, thoughts, experiences, behaviors arising from the search for the sacred.
4. *Gerotranscendence* - a shift in metaperspective, from a materialistic and rationalistic perspective to a more mature and existential one that accompanies the process of aging.

Flood's (2005) theory describes exchanges of activity and characteristics that occur simultaneously and lead to successful aging. The foundational coping processes could be visualized as the base of a three dimensional pyramid, with gerotranscendence above them, and successful aging at its peak. Theoretically speaking, there is no beginning point to assess the foundational coping processes because each one relates to all others in a cyclical fashion.

The coping process described as *functional performance mechanisms* encompasses the ways that a person responds to the cumulative physiologic and functional changes that occur as a result of the passage of time. Indicators of functional performance mechanisms are output responses of health promotion activities, physical health, and physical mobility. Each of these output responses are manifestations of the human adaptive response of functional performance mechanisms. An example of input stimuli that might initiate an output response is a diagnosis of cancer. Examples of output might be improving nutritional intake (health promotion activity), impaired immunity (physical health), and decreased activity tolerance (physical mobility).

The second foundational coping process, *intrapsychic factors*, refers to how the person utilizes his or her inherent character traits to respond to environmental stimuli. Output responses that are indicative of intrapsychic factors include creativity, low levels of negativity, and personal control. These output responses are manifestations of the human adaptive response. Using the example of cancer as input stimuli, output of the intrapsychic factors coping process might be developing one's own nutrient-rich recipes (creativity), maintaining a sense of optimism and ventilating feelings of anger in an appropriate setting (low levels of negativity), and enrolling in an educational support group (personal control).

The third foundational coping process, *spirituality*, describes the person's views and behaviors that convey a sense of relatedness to a greater power or being. Output responses that demonstrate spirituality include religiosity and spiritual perspective. For the person with cancer, output responses that indicate the spiritual coping process are personal and intercessory prayer (religiosity) and a deep awareness of the role of spirituality in one's life (spiritual perspective).

Exchanges occur amongst each of the foundational coping processes. *Output processes* can influence each other, in turn, affecting the person. For the person with cancer, participating in health promoting activities might increase feelings of personal control. Spending time in prayer could help a person deal with anger about a diagnosis of cancer; effectively managed emotions can help immunity. The exchanges among the three foundational coping processes determine whether the person experiences gerotranscendence, the next adaptive process in successful aging.

Gerotranscendence is a more complex coping process in successful aging because whether someone gerotranscends is dependent upon the foundational coping processes. Gerotranscendence is a coping process that occurs when there is a major shift in the person's worldview, where a person examines one's place within the world and in relation to others (Tornstam, 1997). Values are examined and may change from what they were when the person was younger. Output responses that reflect gerotranscendence include decreased death anxiety, engagement in meaningful activities, changes in relationships, self-acceptance, and wisdom.

Roy (1997) identified the goals of the human adaptive system as survival, growth, reproduction, mastery, and personal and environmental transformation. In Flood's (2005) theory, survival, growth, and mastery are achieved through the use of the foundational coping processes; once these are achieved, the person gerotranscends. Through gerotranscendence, the goals of personal and environmental transformation are attained. For the person with cancer, gerotranscendence occurs through the integration of foundational coping processes so that the individual feels a sense of acceptance of the prognosis (decreased death anxiety), withdraws from routine social outlets, saves one's energy for spending time with close family members (engagement in meaningful activities, changes in relationships), and accepts the idea of oneself as less physically able, while celebrating one's newly found self-acceptance and wisdom.

Achieving a balanced integration of useful traits within the foundational coping processes is the initial adaptive process of successful aging. More creative people with lower levels of negative affectivity and greater degrees of personal control will have more effective adaptation of functional performance mechanisms through participation in health promoting activities and maintenance of physical mobility. Physical health reciprocates with intrapsychic factors. More creativity, less negative affectivity, and greater personal control contribute to deeper spirituality. Greater spiritual perspective and more religiosity can influence intrapsychic factors and effectiveness of adaptation of functional performance mechanisms.

A satisfactory integration of the outputs of each foundational coping process must be present in order for the aging person to experience gerotranscendence, a critical step toward successful aging. Gerotranscendence leads to more meaning and purpose in life and greater life satisfaction – indicators of successful aging.

IMPLICATIONS FOR NURSING

The scientific process of deductive reformulation lends credibility and sound logic to an emergent theory. Flood used deductive reformulation to develop her theory of successful aging. In the absence of any other useful theory of aging to guide nursing care, Flood's (2005) theory offers promise for nursing. This theory provides a useful framework for interventions that target the mental, physical, and spiritual health of aging persons. Mental health interventions based on this theory of successful aging could include counseling or self-health groups aimed at increasing feelings of personal control over one's aging or decreasing negative affectivity, individual therapy to address unhealthy coping, or participation in creative activities ranging from the practical (problem-solving) to the enjoyable (painting or writing). Physical health interventions might include maintenance of mobility through exercise programs and such health promoting activities as healthy eating or routine physical exams. Spiritual health interventions could involve expressing one's religiosity through attending church, being part of a prayer group, or exploring one's spirituality by reading inspirational literature or journaling. Options for gerotranscendence-promoting interventions could include allowing older adults to reminiscence and not correcting them when they seem to be in the past, listening and allowing conversations about death, letting older adults decide whether they want to be alone or participate in activities, and encouraging and facilitating quiet, peaceful places and times (Wadensten & Carlsson, 2003).

In addition to providing guidance for a number of interventions, Flood's (2005) theory of successful aging has several other

positive features. Interventions based on this theory are low-cost and can be taught to caregivers of elders. Examples of interventions are offering exercise groups at senior centers, educating about health-related topics such as diabetes and hypertension, enhancing creativity and gerotranscendence through reminiscence, utilizing volunteer pastoral care services from local churches, and providing a quiet, peaceful location and time for self-reflection. Flood's theory offers a new and unique view of successful aging because it accounts for the mental, physical, and spiritual dimensions of the aging person. Unlike other successful aging theories, Flood's theory also considers the individual's perception of his or her aging,

Testing the propositions of Flood's (2005) theory is the next step in developing a nursing theory of successful aging. Although an initial pilot study (Flood, 2005) showed a significant predictive relationship (p= 0.03) between functional performance mechanisms and purpose in life, future studies are needed to assess whether this relationship holds true and to test the other theoretical propositions.

REFERENCES

Baltes, P. & Baltes, M. (1999). Psychological perspective on successful aging: The model of selective optimization with compensation. In P. Baltes and M. Baltes (Eds.), *Successful aging: Perspectives from the behavioral sciences,* (pp. 1-35). New York, NY: Cambridge University Press.

Benner, P., & Wrubel, J. (1989). *The primacy of caring.* Menlo Park: Addison-Wesley Co.

Bryant, L., Corbett, K., & Kutner, J. (2001). In their own words: A model of healthy aging. *Social Science and Medicine, 53,* 927-941.

Crowther, M., Parker, M., Achenbaum, W.A., Larimore, W., & Koenig, H. (2002). Rowe and Khan's model of successful aging: Spirituality-the forgotten factor. *The Gerontologist, 42*(5), 613-619.

Flood, M. (2002). Successful aging: A concept analysis. *Journal of Theory Construction and Testing, 6*(2), 105-108.

Flood, M. (2005). Promoting successful aging through creativity. Unpublished doctoral dissertation. University of South Carolina at Columbia.

Galbreath, J. (1995). Calista Roy. In J. George (Ed.), *Nursing theories: The base for professional nursing practice* (4th ed.). Norwalk, CT: Appleton & Lange.

Helson, H. (1964). *Adaptation level theory.* NY: Harper & Row.

King, I. (1981). *A theory for nursing-Systems, concepts, process.* NY: Delmar Publishers, Inc.

Phelan, E., Anderson, L., LaCroix, A., & Larson, E. (2004). Older adults' views of "successful aging"-how do they compares with researchers' definitions? *Journal of the American Geriatric Society,* 52(2), 211-216.

Reed, P. (1991). Toward a nursing theory of self-transcendence: Deductive reformulation using developmental theories. *Advances in Nursing Science. 13*(4), 64-77.

Rowe, J. & Khan, R. (1987). Rowe, J., & Khan, R. (1987). Human aging: Usual and successful. Science, 237, 143-149. Rowe, J. & Khan, R. (1998). *Successful aging.* New York, NY: Pantheon Books.

Roy, C. (1997). Future of the Roy Model: Challenge to redefine adaptation. *Nursing Science Quarterly, 10,* 42-48.

Roy, C. & Andrews, H. (1999). *The Roy Adaptation Model,* 2nd ed. Stamford, CT: Appleton & Lange.

Strawbridge, W., Wallhagen, M., & Cohen, R. (2002). Successful aging and well-being: Self-rated compared with Rowe and Khan. The Gerontologist, 42(6), 727-733.

Tornstam, L. (1996). Gerotranscendence-A theory about maturing into old age. *Journal of Aging and Identity, 1(1),* 37-50.

Tornstam, L. (1997). Gerotranscendence: The contemplative dimension of aging. *Journal of Aging Studies, 11*(2), 143-154.

Travelbee, J. (1971). *Interpersonal aspects of nursing.* Philadelphia: F.A. Davis.

von Bertalanffy, L. (1968). *General system theory: Foundations, development, applications.* New York, NY: George Braziller.

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.

Watson, J. (1997). The theory of human caring: retrospective and prospective. *Nursing Science Quarterly, 10,* 49-52.

Wilson, J. (1963). *Thinking with concepts.* London: Cambridge University Press.

Wong, P. (2000). Meaning of life and meaning of death in successful aging. In A. Tomer (Ed.), *Death attitudes and the older adult.* New York, NY: Bruner/Mazel Publishers.

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