5-2014

# Successful aging in the United States and China : a theoretical basis to guide nursing research, practice, and policy.

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Successful Aging in the United States and China: A Theoretical Basis to Guide Nursing

Research, Practice, and Policy

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Abstract

Successful aging is an idea gaining increasing attention given the exponential growth in the older

adult population. Criteria and definitions within multiple disciplines vary greatly in Western

literature, with no consensus on its meaning. Moreover, sociocultural, economic and political

differences between the Western view of successful aging and its use in China – with the world's

largest older adult population – add to the confusion. Similarities and differences in the meaning

of successful aging in the United States and China are examined and the potential for a common

definition that is useful to nursing in both countries is explored. Using the process of concept

analysis, shared criteria for successful aging were: decreased or delayed incidence of disease and

disability, life satisfaction, a sense of meaning and purpose in life, and the ability to cope

effectively to achieve goals based on personal values and priorities. A comprehensive,

multidimensional definition of successful aging for nursing, and a mid-range nursing theory of

Theory of Successful Aging, were identified and may be useful to guide nursing research,

practice and development of aging policy and programs.

**Successful Aging in the United States and China: A Theoretical Basis to Guide Nursing**

**Research, Practice, and Policy**

Successful aging is a concept used in multiple disciplines across the world to indicate a positive aging experience. The term has been used interchangeably with similar terms such as *healthy aging* or *positive aging*, but distinct differences in meaning exist among disciplines and across world cultures. Most often successful aging refers to freedom from disease and disability well into late life. Alternatively, life satisfaction, well-being, and the ability to cope and adapt have been used as common criteria for successful aging.

It is necessary to have a clear and precise understanding of any goal – in this case, successful aging – when setting research priorities, delivering clinical care, and developing aging policy. Yet there is no consensus on what successful aging means in Western society (Depp & Jeste, 2006), and our understanding of successful aging is further complicated when considering differences in cultural and sociopolitical factors in other nations. It is necessary to have a clear and precise understanding of any goal – in this case, successful aging – when delivering clinical care, setting research priorities, and developing aging policy and programs. Yet there is no consensus on what successful aging means in Western society (Depp & Jeste, 2006), and our understanding of successful aging is further complicated when considering differences in cultural and sociopolitical factors in other nations. This paper reviews literature on successful aging in both the United States (U. S.) and China to clarify similarities and differences in the meaning of the concept and to explore whether a common definition, grounded in nursing values, exists that is useful in both the U.S. and China.

Both the U.S. and China face challenges posed by the rapidly increasing aging population. China, the world's most populous nation with 1.3 billion people, has the largest

population of older adults worldwide, over 126 million adults aged 65 or older (Central

Intelligence Agency, 2013). The total population of the U.S. includes more than 40 million

people aged 65 years or older, which is projected to more than double to 88.5 million by 2050

(U.S. Census Bureau, 2013). How to satisfy the physical, psychosocial, and economic needs of

the older adult population has become a major concern of governments worldwide.

A modified version of Walker and Avant's (1995) process of concept analysis was used

to examine the concept of successful aging to evaluate its potential usefulness as a theoretical

foundation for future development of nursing policy, aging research, clinical practice, and

program planning. This process of concept analysis, used in both the U.S. and China (Li-Shan,

2013; Liu, 2012; Meleis, 2012), was selected to identify criteria for successful aging and to

develop a clear definition for a multidimensional perspective on successful aging appropriate to

both the U.S. and Chinese cultures.  A review of literature in multiple disciplines in the U.S. and

China identified antecedents and essential attributes of the concept. Empirical referents or

indicators of successful aging were assessed, and possible consequences of successful aging

were examined. Finally, a definition of successful aging for nursing in the U.S. and China was

proposed and a model was adapted for use in China.

## Review of the Literature

Beginning in the early 1960s, literature on successful aging from philosophy, psychology,

sociology, gerontology, and medicine was identified; a single reference to successful aging was

found in the nursing literature. The first use of the term *successful aging,* defined as life

satisfaction, was attributed to Havighurst (1961).. Originally, successful aging, based in lifespan

development theory, was seen as the result of a lifelong developmental process of adaptation or

growth resulting in life satisfaction (Baltes & Baltes, 1990). However, the groundbreaking

MacArthur Study of Successful Aging (Rowe & Kahn, 1987) launched the idea of successful aging in a new direction, setting criteria based on the absence of disease, good physical and cognitive function, and active social engagement, resulting in decreased or delayed morbidity and mortality. This view of successful aging continues to be used most often in the U.S. and other Western nations (Peel, Bartlett, & McClure, 2004). Recently, Rowe and Kahn's view of successful aging has been adopted as the dominant view in China (Chou & Chi, 2002; Du & Andrews, 2003; Hsu, 2005; Li et al., 2006; Mu, 2009).

**Rowe and Kahn's Definition of Successful Aging**

The MacArthur Study of Successful Aging (Rowe & Kahn, 1987) distinguished pathological conditions associated with aging from "usual" or normal aging, then called attention to a third category, "successful aging". Based on a subset of older adults who remained active and disease-free well into late life, criteria for successful aging were identified: low risk of disease, good physical and cognitive function, and active social engagement. Rowe and Kahn's (1987) definition of successful aging not only generated research which decreased morbidity and mortality, it also changed attitudes toward aging in both the U.S. and China (Depp & Jeste, 2006; Li et al., 2006; Ng, Broekman, Niti, Gwee, & Kua, 2009). While research on successful aging began somewhat later, Rowe and Kahn's (1987) view of successful aging has been widely adopted in China, with a particular focus on physical and cognitive function (Ng,Cheung, & Chong, 2011). Similar to Rowe and Kahn's criteria, researchers in China defined successful aging as absence of physical disability, good cognitive function and emotional status, and independence for activities of daily living (Du & Andrews, 2003; Hsu, 2005; Li et al., 2006).

In both the U.S. and China, however, Rowe & Kahn's (1987) view focusing on disease and disability was problematic for a number of reasons. Criteria excluded any degree of chronic

disease, disability, or loss of function (Phelan & Larson, 2002), were largely limited to factors related to physical health and function, and did not adequately consider social and environmental factors (Depp & Jeste, 2006; Ng et al., 2009). Moreover, factors in the spiritual domain, such as sense of meaning, purpose in life, or connectedness to the sacred were not considered (Crowther, Parker, Achenbaum, Larimore, & Koenigg, 2002; Sadler & Biggs, 2006). One result of lack of criteria in the social, environmental, and spiritual domains was that socioeconomic and racial minorities were largely excluded from the potential for successful aging (Du & Andrews, 2003; Holstein & Minkler, 2003; Li et al., 2006).

Rowe and Kahn's (1987) view of successful aging also was not congruent with older adults' perceptions of successful aging or the criteria older adults considered most important (Depp & Jeste, 2006; Du & Andrews, 2003; Liang, & Chen, 2012; Strawbridge, Wallhagen, & Cohen, 2002). Attainment of personally meaningful goals differed widely among people and among nations, was not taken into consideration (Du & Andrews, 2003; Mu, 2009; Strawbridge et al., 2002). As Baltes and Carstensen (1996) argued, we must consider the "goals that the individual considers important, personally meaningful, and in which he or she feels competent" (p. 399).

**Alternate Views of Successful Aging**

Congruent with Havighurst's (1961) early definition of successful aging, life satisfaction and well-being were most frequently identified as alternatives to Rowe and Kahn's (1987) criteria. Nimrod and Kleiber (2007) found life satisfaction and well-being increased when participants felt they could cope sufficiently to achieve a sense of meaning and purpose by contributing to others, creating something, or learning something new.

A positive relationship between successful aging and life satisfaction, sense of purpose, and contributing to others was also identified in Chinese culture (Chou & Chi, 2002; Li et al., 2006; Mu, 2009). In traditional Chinese culture, Confucianism highly values filial piety and respect for elders. Thus adult children are expected to care for older family members (Koh & Koh, 2010). In contemporary Chinese society, where about three quarters of older adults live with their children, Confucianism is not a universally accepted moral code or set of values, but its influence on families and government policy is still felt (Bengtson & Lowenstein, 2003). Recognizing the economic and social effects on society, Mu (2009) pointed out the intellectual and social needs of older adults, saying older adults needed to contribute to society and to have reciprocal relationships rather than be a burden to family. Mu noted that this was particularly important given the effects of China's policy on family planning, which limited families to a single child. Despite the recent easing of this policy in certain situations (Laytime, 2012), the policy resulted in far fewer adult children caring for parents today and in the foreseeable future, shifting the burden to society as a whole.

It is apparent that while Rowe and Kahn's (1987) concept of successful aging has led to important research which decreased or delayed the incidence of disease and disability in late life, other factors – specifically life satisfaction and a sense of meaning and purpose in life, as well as the ability to cope effectively to achieve goals based on personal values and priorities – are equally important factors that persist even in the presence of disease and disability.

**A Nursing View of Successful Aging in the United States**

Literature on aging theory in nursing was scant; the term successful aging was not identified in nursing literature prior to 2002. However, in 2002 a nursing concept analysis defined successful aging 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" (Flood, 2002, p. 105). Citing the need for nursing theory focused on aging, Flood proposed a mid-range nursing theory, the Theory of Successful Aging, based on a synthesis of Roy's Adaptation Model (Roy & Andrews, 1999), and Tornstam's (1989) Theory of Gerotranscendence, that argued adaptation and gerotranscendence predict successful aging.

Flood (2005) proposed that to attain successful aging, older adults must first cope effectively in three areas: a) functionally, such as health promotion strategies and optimal maintenance of function; b) intrapsychically, through creativity, positive affect, and sense of control; and c) spiritually, through religiosity or development of a spiritual perspective. See Figure 1.  Only when effective coping is achieved at this level, is the individual able to progress toward the next level of coping, the development of gerotranscendence. Realization of one's full developmental potential for gerotranscendence, described as the final stage in a natural progression towards maturation and wisdom marked by a sudden shift from a materialistic and rational view of the world to a more cosmic perspective on self, others and the world (Tornstam, 1989) then results in successful aging.

**FIGURE 1 HERE**

In summary, while literature on successful aging was identified in philosophy, social science, medicine, and nursing, no consensus on criteria for successful aging or a single definition of the concept was found. The predominant definition of successful aging in both the U. S. and China came from the discipline of medicine (Rowe & Kahn, 1987). While Rowe and Kahn's criteria for successful aging – good physical and cognitive function and active social engagement – were used most often, successful aging was also defined in both the U.S. and

Chinese literature as life satisfaction, a sense of meaning or purpose in life, and ability to cope and adapt (Baltes & Carstensen, 1996; Li et al., 2006; Mu, 2009; Nimrod & Kleiber, 2007; Phelan & Larson, 2002; Strawbridge et al., 2002). A nursing theory of successful aging in the U. S. merged factors from both the social science and medicine and then added factors from the spiritual domain for a comprehensive definition of successful aging.

## Concepts Closely Related to Successful Aging

The construct of successful aging may be clarified by examining two closely related concepts – adaptation and transcendence, proposed by Flood (2005) as the primary factors influencing successful aging. Several studies have found support for the theory that together adaptation and transcendence significantly predicted successful aging as defined by Flood (2002) (Cozort, 2008; McCarthy, 2011; McCarthy, Ling, & Carini, 2013). Each of the two related concepts will be discussed briefly here to provide context to the concept of successful aging.

The first factor, *adaptation*, is defined as an inherently positive outcome of coping strategies used to alter or adjust to the environment in response to stress, enhancing one's ability to survive or thrive (Roy & Andrews, 1999). Roy's view of adaptation reflected a dynamic balance between person and environment resulting in *integrity,* or wholeness, achieved through effective coping within four domains – physiologic/physical, role function, interdependence, and self-concept/group identity. Baltes and Baltes' (1990) view of adaptation was derived from lifespan development theory and was developed specifically for older adults. According to Baltes and Baltes, adaptation was the positive outcome of coping effectively with both the inevitable challenges and losses of aging, and with gains arising from wisdom and experience. The goals older adults select, strategies to increase the potential for achieving goals, and substitution of new goals when necessary were the mechanisms that Baltes and Baltes saw as the route to

successful aging, defined as life satisfaction, well-being, and absence of loneliness. Schwarzer and Taubert (2002) also described adaptation among older adults, focusing on adaptation as the outcome of positive, future-oriented coping strategies – proactive coping – that allowed older adults to cope and adjust to the unique constraints and opportunities associated with aging, not only in response to current stress, but also coping behaviors aimed at avoiding or minimizing future stress or increasing the potential to achieve future goals.

Another concept closely related to successful aging is the concept of transcendence. Flood (2005) adopted Tornstam's (1989) theoretical view of *gero*transcendence for the Theory of Successful Aging. Multiple theorists have written about the overall concept of transcendence and agree it is an inherent aspect of developmental maturity that is a non-linear, dynamic process which changes the perspective of older adults on life within multiple domains (Maslow, 1971; Reed, 2009; Tornstam, 1989). Transcendence is accompanied by a shift in perspective that increasingly values a sense of meaning or purpose in life; self-acceptance; decreased fear of death; connectedness to self, others, and to the sacred; altruism; and generativity (living on through one's contributions to and influence on the next generation) (Maslow, 1971; Reed, 2003; Tornstam, 1989). Based on the viewpoints of multiple theorists, transcendence has been defined as an inherent, late life developmental potential toward a wider worldview, beyond everyday realities and limitations, which results in a broadened perspective on self, others, the sacred, and the nature of life (McCarthy & Bockweg, 2012).

Reed (2003) developed a mid-range nursing theory, the Theory of Self-transcendence, proposing that self-transcendence expands "self-boundaries and awareness of dimensions greater than self without devaluing the individual. Self-boundaries may be expanded – inwardly (through self-acceptance and finding meaning), outwardly (by reaching out to others or

connecting with nature), upwardly (by reaching out to a higher entity or purpose), and temporally (by integrating one's past and future into the present" (Reed, 2009, p. 397). While the term transcendence is often used to refer to the mystical or existential aspects of the concept, Reed emphasized that self-transcendence also related to connectedness to self and others in the here and now (McCarthy & Bockweg, 2012). Both Tornstam's (1989) Theory of Gerotranscendence and Reed's (2003) Theory of Self-transcendence were specifically developed for older people in the final stage of life, although Reed also argued that events such as life-threatening diagnoses also hasten development of transcendence. Both theories reflect a balance between the inevitable challenges and losses of aging, and other aspects of aging such as greater opportunity for positive solitude, and increased wisdom and knowledge gained from life experiences.

In China, while the concept of transcendence has been important in philosophical discussions of Confucianism, Daoism and similar belief systems integral to Chinese culture, limited references to transcendence in a context related to successful aging were identified in the literature. Only one Chinese study was found that examined relationships between gerotranscendence, exercise, and successful aging (Xie et al., 2012). However, a concept similar to transcendence was found in Confucian philosophy, an important part of Chinese theoretical thought on aging. Confucian philosophy proposes that man is not able to transcend time and space, but he can transcend his emotions and thoughts. Traditional Chinese culture suggests that individuals after 60 years of age should focus on achieving harmony and wisdom, passing knowledge along to the next generation, and living in accordance to Confucian principles: while individuals after 70 years of age should enjoy life without concern for the here and now, focusing on the eternal (Ying, 2010).

**Antecedents of Successful Aging**

The first factor which is a necessary antecedent of successful aging is, of course, age. Perceptions of when "old age" occurs vary somewhat across the world. Presently in most developed countries a person is considered to be aged at the age of 65 or older (Bengtson & Lowenstein, 2003), but in China the threshold for old age is 60 years of age (National People's Congress of the People's Republic of China, 2012).

The related concepts of adaptation and transcendence taken from Flood's (2005) Successful Aging theory are also antecedents of successful aging, i.e., occurring prior to and necessary to the existence of successful aging. Other antecedents of successful aging include demographic and psychosocial characteristics. Higher income and education level, white ethnicity, physical activity, mental health, community involvement, and having close personal contacts were found to increase the odds of aging successfully (Strawbridge et al., 2002). Psychosocial factors positively related to successful aging included self-efficacy, social support, and a sense of control or autonomy. Self-efficacy influenced both older adult's selection of goals and their confidence in their ability to achieve those goals (Phelan & Larson, 2002). Social support, especially close relationships with loved ones, was an important prerequisite for successful aging (Baltes & Baltes, 1990; Phelan & Larson, 2002; Rowe & Kahn, 1987). Older adults also reported that a sense of control and autonomy were significant contributors and thus antecedents of successful aging viewed as life satisfaction (Baltes & Baltes, 1990; Phelan & Larson, 2002). Absence of disease and disability, although often considered an antecedent of successful aging and certainly of importance, was not necessarily correlated with self-reported successful aging. Older adults consistently reported aging successfully even in the presence of chronic disease and some degree of functional limitations (Baltes & Baltes, 1990; Phelan & Larson, 2002; Strawbridge et al., 2002).

Similar sociodemographic factors were antecedent to successful aging in China. In the Beijing Multidimensional Longitudinal Study on Aging (Du & Andrews, 2003), which extended the MacArthur Study criteria for successful ageing to the Beijing older adult population, successful aging was associated with lower age, male sex, more years of education, and more household assets or higher monthly income. After controlling for the effects of age, gender, education and income – physical function, health, and psychological status significantly predicted successful aging. In other studies, education, income, male sex, being married, social support, healthy diet, physical activity and adequate sleep were associated with successful aging and logically could be considered antecedents (Li et al., 2006; Chou & Chi, 2002).

## Defining Attributes of Successful Aging

Phelan and Larson (2002) identified attributes that older adults in Western society reported were important to successful aging. These attributes reflect all four domains of life (physical, cognitive, psychosocial, and spiritual). In the physical domain, the ability to function with a level of health acceptable to the individual – although not the absence of disease – was consistently reported to be an important attribute of successful aging. In the cognitive domain, continuing to learn new things was highly valued. In the psychosocial domain, social support and engagement with others, autonomy or control, self-efficacy, and the ability to adapt and coping sufficiently to achieve personally meaningful goals were all of significant importance. Finally, in the spiritual domain, a sense of meaning or purpose received the highest rating of importance among all attributes, for all participants.

In China, which is strongly aligned with Rowe and Kahn's view of successful aging (Ng et al., 2011), attributes within the physical, psychological, and social domains were necessary components of successful aging (Du & Andrews, 2003). In other studies, important attributes

related less to the presence of disease than to the absence of disability and to independence for

basic activities of self-care, as well as to adequate cognitive function and positive mood or

emotional status (Hsu, 2005; Li et al., 2006).

Crowther and colleagues (2002), as well as Sadler and Biggs (2006) argued that spiritual

or existential factors were necessary precursors of successful aging. It should be noted that

spirituality is used in a broad sense and is not synonymous with religiosity. Within this category

are awareness of one's inner self and a sense of meaning and connectedness to a higher being,

nature, others, or to some purpose greater than oneself. In China, a sense of harmony and living

within Confucian values could be considered attributes of successful aging (Ying, 2010).

### Consequences of Successful Aging

Beyond the obvious medical outcomes of successful aging – morbidity, mortality and

longevity – the primary consequence of successful aging identified was the presence of

perceived quality of life, measured as: a) life satisfaction; b) well-being, c) connectedness to

others and to a higher power; and d) satisfaction with the ability to achieve personally valued

goals (Baltes & Carstensen, 1996; Flood, 2005). In China, apart from criteria associated with

Rowe and Kahn's (1987) view of successful aging, life satisfaction and well-being were also

seen as consequences of successful aging (Chou & Chi, 2002; Li et al., 2006; Mu, 2009).

### Empirical Referents

Empirical referents are measurable indicators of a construct that cannot be directly

observed or measured, often operationalized definitions such as questionnaires or surveys

(Walker & Avant, 1995). Depp and Jeste(2006) confirmed the predominance in Western

literature of the biophysical view of successful aging based on Rowe and Kahn's (1987)

definition, which is measured by empirical referents such as mortality, morbidity and longevity

statistics. Other indicators or referents were various measures of life satisfaction and emotional

well-being (Baltes & Baltes, 1990; Baltes & Carstensen, 1996). As noted by Crowther at al.

(2002) and by Sadler and Biggs (2006), measures of spirituality – broadly defined as meaning or

purpose in life, and a sense of connectedness with self, others, the world or nature, and/or a

higher power – might also be considered referents or indicators of successful aging. Congruent

with the prevailing use of Rowe and Kahn's (1987) view of successful aging in China and the

attributes considered essential to successful aging (ability to perform ADLs and absence of

physical disability, good cognitive function and mood), a variety of Chinese-language versions

of familiar scales and measurements were used to assess successful aging, including measures of

physical and cognitive function, health, and life satisfaction.

The Successful Aging Inventory developed by Flood (Troutman, Nies, Small, & Bates,

2011) is a recently developed instrument used as a referent of successful aging. The 20-item

questionnaire considered the individual's own values, priorities, and goals, within physical,

functional, psychosocial and spiritual domains. This scale has been used to assess successful

aging in U.S., Spain and South Korea (Cozort, 2008; McCarthy, 2011; McCarthy et al., 2013),

although it has not yet been used in China.

### Conceptual Definition of Successful Aging for Nursing

Flood's (2002) definition of successful aging incorporated all four of nursing's domains

of life: physical, functional, psychosocial and spiritual. This definition and Flood's theory (2005)

addressed a number of limitations attributed to Rowe and Kahn's (1987) view of successful

aging. Flood's theory incorporates an individual's own judgment of success, based on personal

values and priorities, as well as the universal need to cope with the cumulative physical,

cognitive and functional changes associated with aging. Concerns for health and function are

included in the coping strategies. Outcomes in the spiritual or existential domain, represented by

spiritual connectedness and a sense of meaning or purpose in life, are also encompassed. Flood's

definition of successful aging appears to offer a more comprehensive and holistic view of

successful aging that merges social scientists' concern for life satisfaction, well-being, purpose in

life, adaptation and coping with medicine's concern for health, and adds the spiritual domain as

an integral factor in successful aging.

Flood's (2005) theory has not yet been used in China. Nevertheless, Flood's view of

successful aging may fit the unique sociocultural characteristics of China, especially in the areas

of social and interpersonal relationships, which differ from Western culture. Since ancient time,

the culture of China has been ingrained with the concept of harmony between human beings and

between human beings and nature, that is, "universal harmony" (Ying, 2010). Traditional

Chinese culture emphasizes harmony among family, society and nature. Mu and colleagues (Mu,

2009, 2011) emphasized the importance of harmony between parents and children, between

husband and wife, and between the older adult population and their environment. The value of

harmonious social and interpersonal relationships is a necessary and important consideration for

successful aging in Chinese elderly, and is encompassed in Flood's (2002, 2005) view of

successful aging.

Flood's definition of successful aging (2002) was selected as the most appropriate to

nursing, based on the preceding examination of the history of aging theory, varied definitions of

successful aging, uses of the term within multiple disciplines, analysis of the related concepts of

adaptation and transcendence, and identification of antecedents, defining attributes,

consequences, and empirical referents. Thus, the conceptual definition of successful aging

selected for this paper, based on Flood's definition (2002) and adapted to incorporate Chinese

cultural and spiritual values was, "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, harmony with self, others, and the world and a sense

of meaning and purpose in life. The relationship between Flood's successful aging theory in the

U.S and in China is reflected in the similarities and differences between Figure 1, Flood's

conceptual model, and an adaptation of Flood's model for China depicted in Figure 2.

**FIGURE 2 HERE**

**Conclusion**

The view of successful aging offered by Flood (2002, 2005) reflects nursing's unique

perspective and values, including the importance of an individual's right to choose meaningful

goals and priorities, based on personal and cultural values. It also represents a holistic,

multidimensional viewpoint which encompasses the physical, cognitive, psychosocial, and

spiritual nature of nursing's domains. The Theory of Successful Aging may have an important

role in guiding effective aging research, clinical practice, and health and social policy for the

swelling population of older adults in the U.S. and China. It may spark further interest in a more

holistic view of successful aging, generating nursing research in China, as it has in the U. S.

Certainly nursing practice in both countries would benefit from increased understanding of the

importance of factors in the spiritual domain such as spiritual connectedness, harmony with self,

others, and the world, and a sense of meaning and purpose in life. And it is crucial that

successful aging be measured using metrics other than disease and disability as both countries

develop policies for programs and services for two ugh segments of the world's aging

populations.

**References**

Baltes, M. M., & Carstensen, L. L.  (1996). The process of successful ageing. *Ageing and*

*Society, 16*, 397-422. doi: Doi 10.1017/S0144686x00003603

Baltes, P. B., & Baltes, M. M.  (1990). *Successful aging: Perspectives from the behavioral*

*sciences*. New York: Cambridge University Press.

Bengtson, V. L., & Lowenstein, A. (Eds.).  (2003). Global aging and its challenge to families.

New York: Walter de Gruyter, Inc.

Central Intelligence Agency.  (2013). The World Factbook. Retrieved from

https://www.cia.gov/library/publications/the-world-factbook/geos/ch.html

Chou, K., & Chi, I.  (2002). Successful aging among the young-old, old-old, and oldest-old

chinese. *International Journal of Aging and Human Development, 54*(1), 1-14.

Cozort, R. W.  (2008). Revising the Gerotranscendence scale for use with older adults in the

southern United States and establishing properties of the Reised Gerotranscendence scale.

Retrieved from http://libres.uncg.edu/ir/listing.aspx?id=639

Crowther, M. R., Parker, M. W., Achenbaum, W. A., Larimore, W. L., & Koenig, H. G.  (2002).

Rowe and Kahn's model of successful aging revisited: Positive spirituality - The

forgotten factor. *Gerontologist, 42*(5), 613-620.

Depp, C., & Jeste, D.  (2006). Definitions and predictors of successful aging: A comprehensive

review of larger quantitative studies. *American Journal of Geriatric Psychiatry, 14*(1), 6-

20. doi: 10.1097/01.JGP.0000192501.03069.bc

Du, P., & Andrews, G. R.  (2003). 成功老龄化研究：以北京老年人为例 [Sucessful aging

research among Beijing elder people]. *Population Research,27*(3), 4-11.

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

Flood, M.  (2005). A mid-range nursing theory of successful aging. *Journal of Theory Construction and Testing, 9*(2), 35-39.

Havighurst, R. J.  (1961). Successful aging. *The Gerontologist,1*(1), 8-13.

Holstein, M. B., & Minkler, M.  (2003). Self, society, and the "new gerontology". *The Gerontologist, 43*(6), 787-796.

Hsu, H. (2005). Gender disparity of successful aging in Taiwan. *Women and Health, 42*(1), 1-21.

Koh, E. & Koh, C.  (2010). Caring for older adults: The parables in Confucian texts. *Nursing Science Quarterly, 21*(4), 365-368. doi: 10.1177/0894318408324320.

Laytime. (2012). New policy for 2013 birth control [2013计划生育新政策]. Retrieved from http://www.lawtime.cn/info/hunyin/jihuashengyu/20121113165701.html

Liang, B., & Chen, G. (2012). Successful aging: Perceptions of elderly [成功老龄化：老年人主体地位的诉求与实现]. *Labor Security World, 8*(4), 4-10.

Li-Shan, K.  (2013). Frailty in the elderly: A concept analysis [Chinese]. *Journal of Nursing, 60*(1), 105-110. doi: http://dx.doi.org/10.6224/JN.60.1.105

Li, C., Wu, W., Jin, H., Zhang, X., Xue, H., He, Y., . . . Zhang, M.  (2006). Successful aging in Shanghai, China: Definition, distribution and related factors. *International Psychogeriatrics, 18*(3), 551-563.

Liu, T.  (2012). A concept analysis of self-efficacy among Chinese elderly with diabetes mellitus. *Nursing Forum, 47*(4), 226-235. doi: 10.1111/j.1744-6198.2012.00282.x

Maslow, A. H.  (1971). *The farther reaches of human nature*. New York: Viking Press.

McCarthy, V. L.  (2011). A new look at successful aging: Exploring a mid-range nursing theory. *Journal of Theory Construction and Testing, 15*(1), 17-21.

McCarthy, V. L. & Bockweg, A. E.  (2013). The Role of Transcendence in a Holistic View of Successful Aging: A Concept Analysis and Model of Transcendence.  *Journal of Holistic Nursing, 31(2),* 83 - 91.  DOI 0.1177/0898010112463492.

McCarthy, V. L., Ling, J., & Carini, R.  (2013). The role of self-transcendence: A missing variable in the pursuit of successful aging? *Research in Gerontological Nursing, 6*(3), 178-186. doi: 10.3928/19404921-20130508-01.

Meleis, A. I.  (2012). *Theoretical nursing: Development and progress.* Philadelphia: Wolters Kluwer Health/Lippincott, Williams & Wilkins.

Mu, G. (2009). The Chinese response to the challenges of aging. *Social Sciences in China, 30*(1), 119-136. DOI: 10.1080/02529200802703904

Mu, G., & Zhang, T.  (2011). 我国人口老龄化的发展趋势及其战略应对 [Trends and strategies of population aging in China]. *Journal of Huazhong Normal University(Natural Sciences), 50*(5), 29-36.

National People's Congress of the People's Republic of China.  (2012). Senior citizens' relative rights and interests protection.  Retrieved from http://www.npc.gov.cn/npc/xinwen/lfgz/flca/2012-07/06/content_1729109.htm

Ng, S. H. , Cheung, C. K., & Chong, A. M. L.  (2011). Aging well socially through engagement with life: Adapting Rowe and Kahn's model of successful aging to Chinese cultural context. *International Journal of Aging and Human Development, 73*(4), 313-330.

Ng, T. P., Broekman, B. F. P., Niti, M., Gwee, X., & Kua, E. H.  (2009). Determinants of successful aging using a multidimensional definition among Chinese elderly in

Singapore. *American Journal of Geriatric Psychiatry, 17*(5), 407-416. doi:

    10.1097/Jgp.0b013e31819a808e

Nimrod, G., & Kleiber, D. A.  (2007). Reconsidering change and continuity in later life: Toward

    an innovation theory of successful aging. *International Journal of Aging & Human*

    *Development, 65*(1), 1-22.

Peel, N. M., Bartlett, H. P., & McClure, R. J.  (2004). Healthy ageing: How is it defined and

    measured? *Australian Journal on Ageing, 23*(3), 115-119.

Phelan, E. A., & Larson, E. B.  (2002). Successful Aging: Where next? *Journal of the American*

    *Geriatrics Society, 50*(7), 1306-1308.

Reed, P. G.  (2003). *Middle range theory for nursing*. New York: Springer Pub.

Reed, P. G.  (2009). Demystifying self-transcendence for mental health nursing practice and

    research. *Archives of Psychiatric Nursing, 23*(5), 397-400. doi:

    10.1016/j.apnu.2009.06.006

Rowe, J. W., & Kahn, R. L  (1987). Human aging: Usual and successful. *Science, 237*(4811),

    143-149.

Roy, C., & Andrews, H. A.  (1999). *The Roy adaptation model*. Stamford, CT.: Appleton &

    Lange.

Sadler, E. & Biggs, S.  (2006). Exploring the links between spirituality and 'successful ageing'.

    *Journal of Social Work Practice, 20*(3), 267-280. doi: 10.1080/02650530600931757

Schwarzer, R., & Taubert, S.  (2002). *Tenacious goal pursuit and striving toward personal*

    *growth: Proactive coping*. London: Oxford University Press.

Strawbridge, W. J., Wallhagen, M. I., & Cohen, R. D.  (2002). Successful aging and well-being:

    Self-rated compared with Rowe and Kahn. *The Gerontologist, 42*(6), 727-733.

Tornstam, L. (1989). Gero-transcendence: A reformulation of the disengagement theory. *Aging, 1*(1), 55-63.

Troutman, M., Nies, M. A., Small, S., & Bates, A. (2011). The development and testing of an instrument to measure successful aging. *Research in Gerontological Nursing, 4*(3), 221-232.

United States Census Bureau. (2013). U.S. and world population clock. Retrieved at http://www.census.gov/population/www/popclockus.html

Walker, L. O., & Avant, K. C. (1995). *Strategies for theory construction in nursing*. Norwalk, CT: Appleton & Lange.

Xie, W., Wang, H., Kang, S., Xie, Y., Peng, T., & Duan, G. (2012). 3种运动方式对老年人超越老化影响的研究 [Comparison of three physical exercise programs on gerotranscendence of elderly people]. *Journal of Nursing Science, 27*(9), 73-75.

Ying, K. (2010). 儒道视阈中的和谐思想探微 [A probe into the Confucian and Taoist thought of harmony]. *Journal of Huainan Normal University, 4*(12), 15-18.
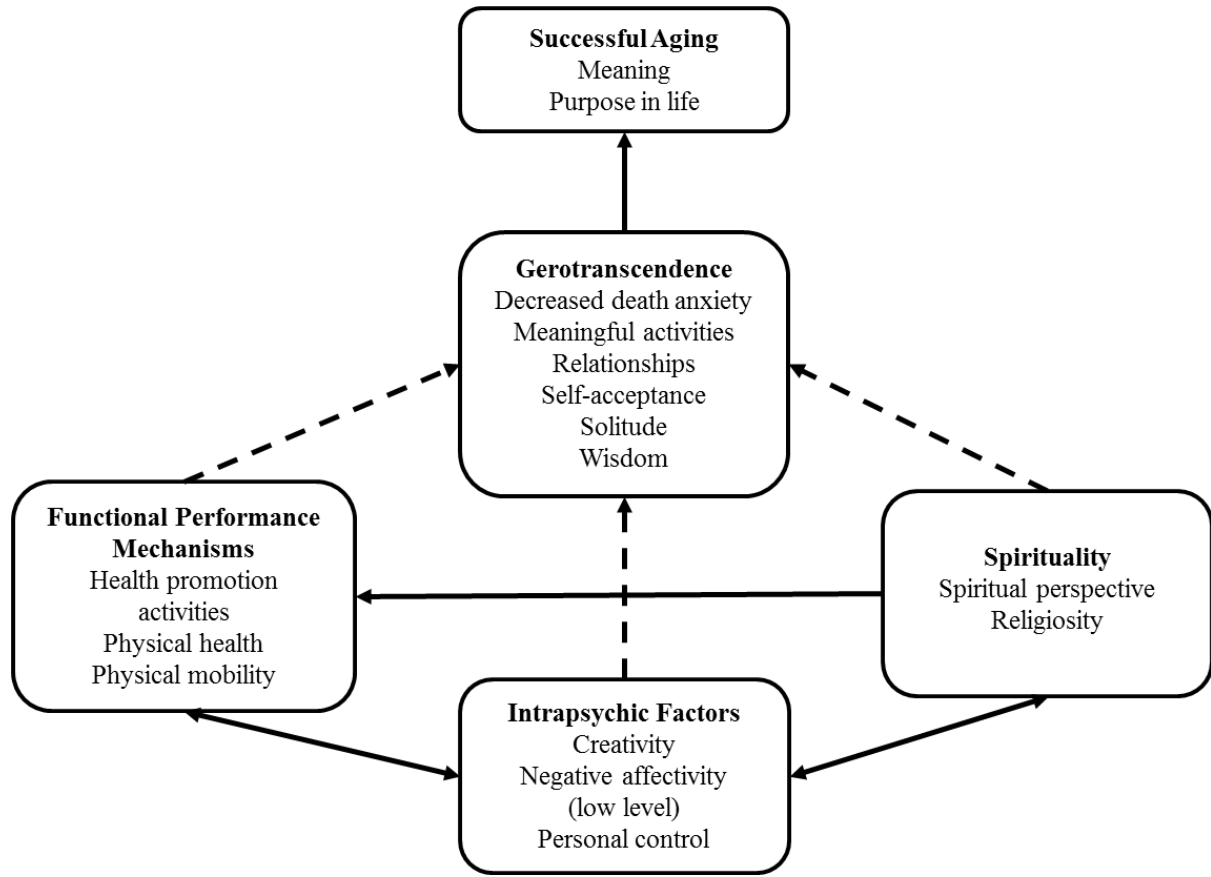
Figure 1.

Flood's theory of successful aging

Figure 2.

Successful aging theory for Chinese population