SYSTEMATIC REVIEWS/META-ANALYSIS

I May Be Frail But I Ain't No Failure

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ABSTRACT

The terms "successful aging" and "the frail elderly" are now commonly used in aging research, but biomedical researchers may be unaware of the possible unintended negative consequences of their use. A commonly used operational definition of successful aging (high cognitive and physical function, low probability of disease, and active engagement with life) reflects values not necessarily shared by other cultures or even by older persons in our own culture. Other definitions for "a good old age" have been proposed. The adjective "successful" implies that those who do not meet its definition are unsuccessful or a failure. Labels such as "frail" predispose the person described to the phenomenon of identity spread, whereby the label becomes the master identity. Labels encourage us to regard someone as "other". Yet only 10–15% of us will die without a significant period of disability. Research has demonstrated that older persons internalize stereotypes of aging, which can have important short- and long-term effects. The language and theories of social scientists can be poorly understood by those outside of their field, yet biomedical clinicians and researchers should be aware of this literature so that unnecessary suffering is not unintentionally inflicted on our patients and our future selves.

Keywords: successful aging, frailty, functional decline

INTRODUCTION

Since the 1980s, the terms "successful aging" and "the frail elderly" have been used with increasing frequency in studies of older individuals. Attempts to define and operationalize these terms have led to investigations that have broadened our understanding of the aging process and established potential ways to enhance positive aging by preventing or delaying frailty associated with old age. While this research has advanced the fields of gerontology and geriatrics, these terms have caused considerable apprehension among social scientists with regard to the unintended negative consequences of their use. 1-3 Those working in the biomedical field are often unaware of these concerns.

Successful Aging and Frailty as Social Constructs

According to the theory of social construction, much of our understanding of the meaning of life is historical or situational, conditioned by the fabric of a given society in a historic moment. The advances made in medical science were one of the most important and influential forces in the 20th century. The social construct that evolved as a result of this powerful influence is referred to as the biomedical model, which has predisposed us to view ordinary life events such as birth, death, or the inevitable process of aging as processes requiring medical intervention. ^{1–3}

Successful aging and frailty are also social constructs of our contemporary Western culture. The Rowe and Kahn model is the most well-known and -researched model of successful aging, as well as the model that has attracted the most criticism.^{2,4} When they first proposed the model in 1987, Rowe and Kahn's purpose was to counteract the tendency in biomedical circles to focus on the negative or pathological aspects of aging.⁵ Their criteria for successful aging were i) low probability of disease and disease-related disability, ii) high cognitive and physical functional capacity, and iii) active engagement with life (i.e., interpersonal relationships and productive activity).⁶

In 1998 they declared that successful aging should be a major theme of the "New Gerontology", defining it as being able "to flourish, do well, be on top of the world, be on the crest of a wave...it implies achievement rather than mere good luck." This reflects American values such as ambition, competition, competence, and independence. It also implies that successful aging can be attained by individual effort—the ultimate American myth of the self-made man. The frail older person thus becomes a failure with only heror himself to blame—adding guilt to the burden of growing older while aging.

From a social science perspective frailty is also a social construct, which has unintended negative consequences.³ In her observational study of a geriatric assessment clinic, Kaufman observed a process that is both intrusive and controlling.³ Lived experience is reduced to a list of problems to be addressed. Proposals to resolve these problems as they are defined by the health-care professional contribute to the sense of loss of control. A person becomes a geriatric patient

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who must struggle, not only to manage her or his functional limitations but also to preserve their identity as a person.⁸

The Dangers of Labels and Stereotypes

One of the dangers of using labels such as disabled or frail is the phenomenon of identity spread, whereby the label becomes the master identity (e.g., a wheelchair athlete, an amputee, demented), overshadowing a broader vision of the unique person. Labelling individuals also fosters stereotypes. Stereotypes allow us to separate ourselves from others. In his discussion of the ethical implications of human aging in our society, the philosopher Thomas Rentsch concluded that "a moral understanding of life...is measured by the power and sensitivity to put oneself in someone else's position, to have the existential imagination to make clear to oneself as a young person that I am a potential old person."

Research has demonstrated that stereotypes of aging, both positive and negative, are internalized by older persons and can have both short- and long-term effects. In one of several studies of the effects of stereotyping on older persons, Levy¹⁰ and others used subliminal prompting by flashing either positive or negative age-related words on a computer screen prior to asking their older subjects to perform four memory tasks. The researchers observed that exposure to negative aging stereotypes resulted in poorer performance. A similar impact can be seen with both handwriting and gait speed. 11,12 In fact, the increase in gait speed over baseline of those exposed to positive aging stereotypes was comparable to that seen with several weeks of rigorous exercise. Blood pressure, pulse rate, and skin conductance all respond to exposure to stereotyping.¹³ Negative ones act as cardiovascular stressors while positive stereotypes reduce evidence of cardiovascular stress.

Positive perceptions about aging have impressive long-term effects. The Ohio Longitudinal Study of Aging and Retirement enrolled subjects 50 years of age and older. After controlling for age, functional status at baseline, gender, race, self-rated health, and socioeconomic status, those with positive self-perceptions of aging at baseline were found to have better functional abilities in the six subsequent waves of follow-up that extended from 1977 to 1995. As well, those with more positive self-perceptions at baseline lived 7.5 years longer that those whose perceptions of aging were more negative. 14

What Are the Chances of Aging Successfully?

A common hope is to be healthy and independent in our later years and die painlessly in our sleep at a ripe old age. How likely is this to occur?

Experience and numerous studies indicate that most of us can anticipate a significant period of functional disability prior to death. In 1980, Fries predicted that in the coming years increases in longevity would be modest while the onset of infirmity would be more rapidly delayed. Disability would then become compressed into a shorter period of time before death.¹⁵ There was a great deal of controversy over his Compression of Morbidity hypothesis at the time. However, a recent systematic review of the literature found eight cross-sectional cohort surveys supporting his hypothesis.¹⁶ Nevertheless, the average person can still expect to spend a significant length of time near the end of life in a disabled state. Using data from the U.S. National Health Survey from 1982–1996, Manton and Land observed that the proportion of life expectancy spent in an impaired functional state remains significant.¹⁷ At age 65, the average woman can anticipate spending 3.9 of the 22.4 expected remaining years of life with moderate to severe functional impairments or institutionalization. At 75 this becomes 4.1 of the remaining 14.8 years, at 85 it becomes 4.2 of the remaining 9.3 years, and at 95 it becomes 3.7 of the remaining 5.7 years.

Longitudinal studies also present a gloomy prospect. Perhaps the most disheartening is Vaillant and Mukamal's study of one of the most advantaged populations in the contemporary world. 18 In 1940 they selected 268 male Harvard sophomores on the basis of their excellent physical and mental health for a longitudinal study. By age 50 years, 12 had died (six killed in World War II) and 19 were lost to follow-up. Of the remaining 237, at 75 to 80 only 26% could be classified as the happy-well. Approximately a third (32%) were "intermediate", 17% were sad-sick, and 25% had died. Results from the Canadian Study of Health and Aging suggest that the number of "successful agers" among those who survive past 85 is meagre indeed.¹⁹ Of 1332 community-dwelling and 503 institutionalized Canadians 85 years and older followed for 5 years, only 73 (4.0%) met the study criteria for successful aging (maintenance of functional independence, intact cognition, and good self-rated health). In another study from the Netherlands of 599 inhabitants who were 85 years of age and older, von Faber et al. found that only 10% could be classified as successfully aged on the basis of their functioning and sense of well-being.²⁰

Another approach to the question "What are the chances of aging successfully?" is to examine trajectories of dying to try to establish what proportion of the population die without a terminal period of frailty. On the basis of their work in the Support Study, which focused on the last 6 months of life, Lunney et al. hypothesized four trajectories of dying. They then tested their hypothesis on data from the prospective longitudinal Established Populations for Epidemiological Studies of the Elderly (EPESE) study, a community-based cohort of persons aged 65 and older begun in 1981, with baseline in-person interviews followed by annual in-person or telephone interviews.²¹ The sample for Lunney and colleague's study was the 4,190 persons who had died and been interviewed in their final year of life. The decedents were grouped into the four theoretical trajectories based on information from death certificates and the interviews. Only 15% fell into the sudden death group (those who died with no diagnosis of cancer, congestive heart failure, or chronic obstructive pulmonary disease on the death certificate, no hospitalization or nursing home stay in the year preceding death, and no medical history of cancer, heart disease, diabetes, hip fracture, or stroke). One might infer that they were the successful agers, as they remained physically well until death—the "one-hoss shay" of "The Deacon's Masterpiece" by Wendell Holmes.¹⁵

The frail group (20%) were already dependent a year prior to death. During their remaining year of life they continued to steadily decline until they were almost totally dependent at the time of death.

Does Frailty Preclude Successful Aging?

If one compares Rowe and Kahn's definition of successful aging (low probability of disease and disease-related disability coupled with high cognitive and physical functional capacity)⁶ with Fried's criteria for frailty (three or more of weight loss, muscle weakness, slow gait speed, low levels of physical activity, and self-reported exhaustion),²² the obvious conclusion is that frailty is not compatible with successful aging. Many investigators, as well as older persons themselves, would disagree. In other words, to them frailty is not necessarily the flip side of successful aging.

The German psychologists Baltes and Baltes have proposed a model of successful aging whereby an individual may age successfully in spite of declines in physical and mental capacity and functional ability.²³ They describe the process of successful aging as one of selective optimization with compensation. As a result of a diminution of a given capacity, people select areas of importance to them on which to concentrate their energies, adapt to and optimize what they are able to do, and compensate by using mechanical aids or with the help of others. Other forms of positive aging have been proposed in the literature (e.g., productive aging, optimal aging, or comfortable aging). They emphasize character traits such as resilience,²⁴ wisdom,²⁵ and spiritual growth.²⁶ None require the criteria set out by the Rowe and Kahn model. Neither do they exclude those meeting the criteria for frailty proposed by Fried.

The recent literature on happiness is also relevant. Following the World War II, the discipline of psychology was largely about healing within the disease model.²⁷ In the past decade, the field has turned to the study of the more positive aspects of the human experience. Happiness has been found to correlate poorly with age, gender, socioeconomic status, or objective physical health. Factors shown to contribute to happiness or a sense of well-being are social acceptance, close interpersonal relationships, a satisfying job or career, and faith. Freedom from disease or disability is not a prerequisite.

What Do Older Persons Think?

While few studies address the beliefs of older persons themselves, those available suggest that their viewpoint differs from that of many researchers. In their study of self-perceptions of successful aging in community-dwelling persons age 65 and older living in California, Strawbridge *et al.* observed that half of the 899 participants felt they were aging successfully, demonstrating many of the characteristics suggested by Rowe and Kahn. ²⁸ However, there were interesting discrepancies. A quarter of those with three or more chronic conditions listed themselves as aging successfully, while a third of those with no chronic conditions did not. Findings on self-rated health and mobility impairment were similar. As well, a significant number of those who rated themselves as aging successfully were not involved with activities, one of the criteria of successful aging suggested by Rowe and Kahn.

Phelan and colleagues, in their study of beliefs about successful aging among community-dwelling older Americans, observed that psychological health was an important attribute—specifically "feeling satisfied with my life", "adjusting to changes related to aging", "having a sense of peace", "having no regrets", "feeling good about myself", and "being able to cope with the challenges of aging". Character and personality were perceived as important influences on one's ability to achieve and maintain well-being.²⁹

A study of 205 community-dwelling adults in California over the age of 60 found that, although 92% felt that they were aging successfully, only 5% met all three of Rowe and Kahn's criteria.³⁰

It appears that most older persons do not expect to achieve the model of successful aging where high cognitive and physical functioning is maintained until death. ^{31,32} A Finnish study of biographical interviews of subjects aged 90 and over revealed a theme of "the unavoidability of deterioration". Illness and frailty were seen not only as inevitable signs of old age, but also as the very essence of old age. A good old age depended on how one reacted to the vicissitudes of old age. ³²

The Effect of Culture

The attitude towards frailty and disability associated with aging has changed in our Western culture. In the past, death and the frailty of old age were accepted as an inevitable part of life. Since the rise to prominence of the biomedical model and our consumer society in the 20th century, we have come to reject the waning of vigour and ability in the twilight years prior to death and have set out on a desperate quest to prolong the attributes of mid-life. Such ideas are not necessarily shared by other cultures.³³

CONCLUSION

Biomedical health-care professionals and researchers may be unaware of the unintended negative consequences of the social constructs of successful aging and frailty. In an era of information overload and subspecialization, the language and theories of social scientists can be unknown to those outside of their field. As they have pointed out, it can be harmful and misleading to imply, as unintentionally suggested by the Rowe and Kahn model, that those who are not successful agers are failures with only themselves to blame. Likewise, the use of the term frailty is also of concern. It is subject to the phenomenon of identity spread, stereotyping, and possibly social control.

We need more studies of the beliefs and expectations of the older persons themselves, as well as a familiarity with the writings in the social sciences and humanities, in order to broaden our understanding of the meaning of "a good old age". As Hadler eloquently expressed it, "The likelihood that contemporary science can shepherd more of the high-functioning octogenarians into the meagre ranks of the high-functioning nonagenarians is more meagre yet. I would rather we learn to better support these octogenarians through the transition toward decrepitude and comfort them in the final passage....When the high-functioning octogenarian suffers the doldrums and progresses in decrepitude, it is because her or his time is nearing....It only matters that the journey was as gratifying as possible."³⁴

CONFLICT OF INTEREST DISCLOSURES

None declared.

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