The Multidimensional Aging: Subtracting

the Unnecessary Expectations

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Abstract

The rate of aging of world population is accelerating rapidly, and this trend is predicted to continue in the next few decades. This essay will explore the normal changes in various dimensions of aging and differentiate them from the stereotyped ones. Physiological, psychological and social factors contributing to healthy aging will be suggested and their interactions with each other explained. Physical exercise and diet, intellectual engagement, correction of attributional errors towards aging, retirement and family support dynamics will be included. Among those, physical exercise and intellectual engagement will be discussed further. The role of government should be to allow and encourage those changes by providing the suitable platform and changing the social stigma towards aging mainly via mass media.
The Multifaceted Aging: Subtracting the Unnecessary Expectations

We are in the middle of a profound demographic change, transforming from a world in which the majority of the population is relatively young, to one in which a significant proportion of people are over the age of 65. As a result of the aging population born during the ‘baby boom’ after World War II and increased average life expectancy, the number of older persons—those aged 60 years or over—has increased substantially in recent years in most countries and regions, with a total of 901 million older persons worldwide, that is, one in eight people worldwide is aged 60 years or over. It is also estimated that the growth will keep accelerating in the coming decades. By 2050, the global population of older persons is projected to more than double its size in 2015, reaching nearly 2.1 billion—one in every five people will be aged 60 years or over (United Nations, 2015).

Taking China as one of the examples of the leading countries with the highest rate of growth of aging population: due to China’s ‘one-child’ policy introduced in 1979, which prohibits couple from China’s ethnic majority from having more than one child as well as low morality, the proportion of elderly citizens is expected to continue to grow very quickly, from almost 90 million of people aged 65 and older in 2000, to 300 million by 2050 (Kincannon et al. 2005).

The United Nations has described elder persons as those aged 60 or over (UN, 2015) and this shall be the case in this essay for the clarity of definition. However, despite the commonly used chronological definitions, old age is also defined by a range of physiological, psychological and social characteristics which interact with each other. It then becomes crucial to distinguish the normal changes in these different aspects accompanying healthy aging from the stereotyped ones in order to find the right solutions to help reduce the unnecessary negative changes, and to take care the one eighth of us.

Physiological Changes

As the chronological ages increase gradually to a certain level (>65), a series of physiological changes take place naturally. One might expect a decline in overall metabolic activity (Shimokata & Kuzuya, 1993), change in sleep patterns (Carman, 1997), mild declination in neurological functions, etc (Kandel et al, 2008)
Motor skill also declines in the elderly: postural reflexes are often sluggish, making individuals more susceptible to loss of balance, increasing risk of falls (Kandel et al., 2008). Also, as a factor that increases the susceptibility towards certain diseases, old age is also often believed to be characterized by comorbidity of disease and chronic disease, e.g. heart disease, stroke, Type II Diabetes, etc.

However, it is now believed that much so called ‘inevitable aging’ is brought on by inactivity and disuse rather than the aging process itself. Many chronic diseases associated with aging are actually preventable or modifiable by, for example, changing lifestyles (Morgan & Kunkel, 1998). Hence, factors such as exercise and diet should not be underestimated as potential moderators of the aging process.

Exercise can be very advantageous: despite the physical benefits brought by exercise including strengthened heart muscle and reduced cholesterol level (Thompson et al., 2003), exercise also benefits elderly’s mental health. Exercise aids executive function and reduces declines in tissue density in frontal, parietal and temporal cortex (Hedden & Gabrieli, 2004; Nyberg et al, 2012).

According to the research done by Alice Heim (1990), physical confidence tends to decrease with age, and Kreitler and Kreitler (1970) have found old people to perceive their bodies as heavier and broader than they actually were, and physical tasks harder to perform. Distortion of body image, fear of activity, feelings of clumsiness and thus the following reduction in physical activity could create a vicious cycle. Thus, taking actions to act first is important to end the vicious cycle.

Gradually with continuous exercise, external reward will be gradually transformed to internal rewards, while fear of incapacitation and a desire for buoyant health are frequent motives for initiation of activity, continued development may depend on the enjoyment and the satisfaction of mastering new skills, the bettering of one’s own performance, a feeling of well-being and fitness (Stiles, 1967). A benign cycle begins instead.

A second factor contributing to healthy aging is an appropriate diet, which can benefit, again, both physical and mental health. As age changes, our bodies’ demands for different nutrients change as well, it is therefore beneficial that the patterns of diet are adjusted accordingly, e.g. Cholesterol levels in food should be reduced since the walls of blood vessels become more delicate and more prone to blood clots building up which increase the chance for coronary heart disease (Thompson et al., 2003). A diet that is high in
unsaturated fatty acids (as found in fish and olive oil), vitamin E, polyphenols and antioxidants (found in citrus and dark-skinned fruits and vegetables) might slow cognitive decline and prevent progression to Alzheimer’s disease. (Hedden & Gabrieli, 2004; Nyberg et al, 2012)

**Psychological Changes**

In the psychological dimension of aging, a lot of the changes are even more flexible and modifiable, however, a series of changes do take place in our nervous system naturally as we age.

Cognitive function declines as a result of changes in nervous system. However, not all cognitive abilities decline so dramatically as popular opinion expects them to: some are largely spared (Kandel et al, 2008). Working and long-term memories, visuospatial abilities and verbal fluency usually decline with old age. On the other hand, measures of vocabulary, information and comprehension often show minimal decline in normal individuals well into the 80s (Kandel et al, 2008). Considerable amount of individual differences exist in changes of cognitive functioning. Researchers have shown that some people maintain the integrity of brain structures very late into old age (Persson et al, 2006, 2011). The individual differences may indicate some flexibility in these changes.

To make the most out of the flexibility, there are a number of ways to decelerate the mental dimension of aging. One and probably most crucial of them is to keep intellectually engaged, just as what is termed ‘use it or lose it’ as a result of brain plasticity. People with the highest rate of activities are shown by statistics to be at a 63 per cent lower rate of developing dementia (Verghese et al., 2003). The key is to take initiation to start acting, which is also, in most cases, the most difficult to achieve. The reason for this in the relationship between psychology and social factors.

It has been shown that young and middle-aged adults, as well as elderly persons, have stereotyped and essentially negative attitudes toward aging and old people, e.g. some judge the elderly to have the fewest friends, and to be the least happy (Tien-Hyatt, 1986). However, a lot of the stereotypes, such as incapacity to work are not part of normal aging, but are caused by social expectations, which are learned mostly via mass media and reinforced by attributional errors. People’s attitudes are sometimes influenced by these social
expectation, and may therefore show passive response towards aging such as reduction in activity which results in the mental states that fit in social stereotypes. Simply put, people don’t act not because they can’t, but because they don’t think they can, eventually they really lose the capability to act and assume that this inability exists in the first place. Confirmation bias and self-fulfilling prophecies are being put into practice.

In order to end the viscous cycle, people’s attitudes towards aging should be reversed to a positive and active one. In order to do this, the underlying attributional errors should be realized and corrected. Firstly, people, both young and old, tend to attribute social changes associated with aging such as retirement with internal factors (e.g., “I am no longer capable of doing my job.”) rather than external factors (e.g., ‘Government policy that requires me to retire when I reach a certain age.’) (Shaver, 1979). Furthermore, the wide array of individual differences between old people are very likely to be ignored. For instance, when the belief of that most old people being more bad-tempered is established, whenever a septuagenarian being impatient is seen, an explanation of ‘It is because of his age’ would be offered, while he could just be a irritable person growing old; on the contrary, a mild-mannered man in his 60s may be regarded as an exception. In addition, any negative signs associated with aging shown are mostly explained as, as Martin Seligman (1978) had termed, stable and global — quality such as irritability is regarded by many people to be a common feature for all elderly people and is true across a range of situations. Therefore, in prevention of entering the golden age with a pessimistic attitude, people, both the young and the seniors, should start seeing healthy, nice and intelligent aged people as the representative, not the exceptional, and develop a more critical attitude towards the negative images in the media about aged people.

**Social Factors**

“Old” social age is indicated by a range of social changes, such as more staving off of retirement, loss of loved ones, less likelihood of contacts with relatives, etc. Given their nature as social changes, they are much more dynamic with time and are influenced and perceived in slightly different ways under different cultural backgrounds.

Retirement may create feelings of loneliness, uselessness, and aimlessness, as indicated by some researchers. For example, retirement had been suggested by Holmes and Rahe (1967) to be one of the major stressful life changes, with a stress value 45 on the Holmes and Rahe Social Readjustment Rating Scale.
However, retirement also means opportunities to escape from dissatisfying work, with the pursuit of a personally independent life. 51 percent of Norwegian workers were actually looking forward to a cessation of employment, for the greater opportunities for leisure activities and a chance to rest. (Beverfeldt, 1971)

Although retired, many chose to keep working part time, leaving career jobs for transition jobs, e.g. in South Korea, the average worker leaves employment at the age 54 but then engages in part-time or low-wage employment for another 14 years before retiring completely at the age of 68 (National Institute on Aging, 2011).

Besides, retirement does not necessarily mean stopping rhythm of work: many people still remain busy after retirement, for example, they work around the house, parish or volunteer work, hobbies, participation in entertainment and participation in social organizations (Burch and Collot, 1972).

Following this logic, retiring or not, keeping socially engaged is one significant factor that aid healthy aging. During leisure activities, the mental stimulation itself may play a role in preserving cognition, but also that participation in productive or social activities may help sustain a person’s self-concept of usefulness and competence (Wang et al. 2002).

Family is also important when it comes to social factors. Most old people in the 21st century tend to live separated from their children with their spouses or on their own. In the past living alone in older age often was equate with social isolation or family abandonment. However now, more old people may hold a high value of autonomy and independence in industrialized and modernized societies and prefer to live on their own.

Despite the independence, the importance social support from family and community cannot be ignored. The immediate family of the old person is the major social support in time of illness and the extended family of the old person, children, siblings and other relatives, is the major tie of the elderly to the community (Shanas, 1979). Increased social support is associated with less functional decline, a good social network may be protective against physical decline (Unger et al. 1999). Family support also has culture-specific significance to aged people, e.g. In Chinese culture, old people are of the highest social status, so for them respect from others, especially from younger generations within the family, is very important for building self-esteem.
However, this support may be threatened by upcoming shift in family structure. People will receive less family care as they have fewer siblings and fewer children. In addition, in many countries younger populations are with higher rates of divorce rates and separation age, meaning that futures generations may face more problems with living without spouses (National Institute on Aging, 2011). Also, the number of available caregivers for old people is decreasing. In China, for example, more female caregivers have jobs now, and their labour force participation is expected to increase (Thompson, 2010). As a result, more attention should be paid into community care to compensate for this.

**Lifestyle Changes**

Given the influence of expectations towards aging on change of behaviors, especially reduction in activity, after entering old age, maybe the best choice for lifestyle changes to reverse negative pathological changes is to not to change, that is, to keep physically and mentally active, in a strategic way.

The key of exercising in an effective way is variety, intensity and duration. A range of physical activities such as strength training, general/aerobic fitness and balance can all be practiced, since the more exercise routine is varied the more chance one has of exercising different muscles and joints (“Physical activity for older adults,” n.d.). Unlike what most people would like to believe, the modern daily work does not usually provide a sufficient intensity of effort to maintain physical condition (Allen, 1966; Buskirk et al, 1971), so extra attention should be paid to the intensity. In fact many old people remain very busy after retirement, and where possible, part of the required activity should be built int the normal duties of the week such as walking the dog and mowing the lawn with a hand mower (Shephard, 1997).

Despite everyday activities, signing up for classes is recommended. On the one hand, exercises designed by health professionals are safer, more scientific, and effective and can be individually tailored. On the other hand, it provides motivation for continuous exercise not only because money has been invested so one feels compulsory to go, but also because peers within the same class can act as encouragement to each other. Some people are introverted and less self-directed, and they can be encouraged by more extroverted people.

Exercise is not exclusive for old age, rather, it should be initiated from a young age to make a use of the power of habits. According to research, parents of middle-aged active men had encouraged their participation
from an early, and they enjoyed both completion and the feeling of fatigue that followed strenuous activity (D.V. Harris, 1970).

Being intellectually engaged is just as important, and should be done in an effective way. While some cognitive declines are hard to be completely prevented as they are influenced by genetics among other biological factors, individuals can optimize their performance in old age by carefully considering and their skills, limitations and priorities, selecting their strengths and focusing on these at the cost of less practicing of others. This is a very constructive theoretical approach for improving cognitive performance and well-being in old age proposed by Mary and Paul Baltes, called ‘selective optimisation with compensation’. In their study, the pianist Rubinstein is taken as an example, he conquered weaknesses of aging in his piano playing in the following way: he reduces his repertoire and players fewer pieces (selection); then he practices these pieces more often (optimization); finally he slows down his speed of playing prior to fast movements, thereby producing a contrast the enhances the impression of speed in the fast movements (Baltes and Baltes, 1988).

**Government Programs and A Conclusion**

While the change-initiators are old people themselves, government can provide aid to support and encourage those changes, which means making it more likely for the positive actions to occur and preventing external factors from restricting those changes.

Retirement can pose a serious threat to old people’s frequency of activity. In compensation for the loss of intellectual and social engagement at work, continuing education and part-time employment opportunities for older workers will become more important. Keeping the elderly at work could also mean increase in tax income and lower health bill for National Health Service. Government should also try to provide volunteering, employment and training options for elderly citizens. Making policy and legislation to prevent discrimination is also essential. Holding community events may be another opportunity for elderly leisure activity. To encourage participation, public events should be appealing, scheduled and located conveniently and accessibly to older people. A variety of diverse events can be organized to meet the individual differences.

Even with all the services and facilities available, the most significant factor is still the willingness of elderly to make use of them. A positive and active attitude thus is key for the initiation of actions, and to do
that, the current social expectations towards aging and aged people from the general public must be altered. Mass media, as one of the most powerful tools for spreading ideas, can be used by government to change the stereotypes. Also, an effort should be made to involve old people themselves into the conduction of programs to play an active role in order to give them a sense feeling of solidarity and ownership of the process. One good example would be a project called ‘Representing Self — Representing Aging’, initiated in Sheffield, UK, which is aimed at countering the often negative stereotypes of older women found in the mass media, using feminist visual methodologies to explore different ways in which to convey positive images of older women, including the portrayal of their sexuality. The outcomes in the end, including public exhibitions, newspaper and media coverage, impacted positively on elderly women’s well being and improved their feeling of public validation (Warren, 2014). By realizing those changes that can be ‘changed’ and by subtracting the expectations associated the mere concept of ‘being aged’, we may finally be able to get to the bare bones of aging and start asking the question: ‘Is it all in my head?’
References


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