

Physiotherapy and Health Activity www.ptha.eu pth@awf.katowice.pl

2014;22:42-46

ISSN: 2392-2664



Assessing the quality of aging - presentation of research tool

Received: 29-05-2015 Accepted: 9-06-2015 Published: 10-06-2015	Knapik A School of Health Sciences in Katowice, Medical University of Silesia in Katowice, Department of Adapted Physical Activity and Sport
	Abstract
Background:	The analysis of demographic tendencies indicates a continuing process of extending life expectancy in numerous societies. Alongside the decline in fertility, the continuing process of extending life expectancy is the primary cause for the aging of societies. An increasing percentage of the elderly require defining the welfare among older people and its factors.
Aim:	This article presents various views on successful aging and introduces the authorial Successful Aging Index model, which was the basis for a questionnaire diagnosing the quality of aging. The author's intention was to create a diagnostic tool for said process.
Conclusions:	Presented tool according to the author can be very useful for diagnosing the course of successful aging. However, this requires additional empirical testing.
Keywords:	successful aging; well-being; old age
Word count: 1998	Corresponding author Andrzej Knapik
Tables: 0	School of Health Sciences, Department of Adapted Physical Activity and Sport, Medical University of Silesia
Figures:1References:33	40-071 Katowice, Medyków 8
Rejerences. 33	aknapik@sum.edu.pl

INTRODUCTION

The analysis of demographic tendencies indicates a continuing process of extending life expectancyin numerous societies. This primarily concerns countries belonging to the so-called Western civilizationand is the result of many factors which are components of widely understood progress: the increasing knowledge health on prevention, improvements in the field of restorative medicine, economic growth, increased environmental awareness and much more. Kijak and Szarota cite World Bank data (Life expectancy at birth, 2013) indicating that in the year 1700, the average life expectancy was 35 years, in 1900 - 46, in 2011 - 72. In 1900, only 13% of people aged 65 lived to 85. Currently, half of 65 year olds live to that age (Kijak et al., 2013).

In the last fifty years, Europe experienced a rise in life expectancy from 66 to 75, while reports predict that in 2050 it will reach 82. (A report from the Economist Intelligence Unit, 2012). This process, alongside the decreasing Total Fertility Rate (TFR) results in the aging of societies. The rise of life expectancy in Poland by three years – in comparison to the year 2000 – coupled with a drastic decline in births resultedin the fact that in 2013, the percentage of people aged 65 and more was 14,7% (Rocznik demograficzny, 2014). This is double the 7% threshold set by the UN to distinguish societies as "old". The consequences of having an aging society concern the functioning of its entire structure in all spheres: from politics and the economy to culture and education.It has to be stressed, however, that apart from adverse implications, the aging of societies may be viewed as a metric of welfare and therefore - an indicator of success.

SUCCESSFUL AGING

Aging is a natural process of an organism's decline in adaptability in regards to environmental stress. Said process is multidimensional and multilayered, being the result of internal and external factors. As a natural developmental phase in life, it is a property of all living organisms. Among people, this process is individually varied.

Many theories hoping to explain the phenomenon of aging among people exist. Medvedev alleged that the number of such theories exceeds 300 and that it will only increase with the progress of knowledge (Medvedev, 1990). Some researches go as far as to claim that due to the process' complexity, formulating a single theory to comprehensively elucidate it is impossible with the knowledge we currently possess (Viña et al., 2007). Thus, the framework on which the problem of aging is examined seems decisive (medicine, psychology, social studies) (Diener et al., 2003; Błędowski et al., 2012).

Both in the individual and social aspect, the problem of successful aging seems important. The term was first used by Havighurst and Albrecht in 1953 (Williams et al., 2009). They were authors of the theory of active aging - one of the first gerontological theories devoted tothe quality of this process (Oerlemans et al., 2011). According to this theory, the determinant for afulfilling old age is engaging in various activities, not only physical, but also cognitive and social ones. The principles of this theory were confirmed in numerous empirical studies (Lawton et al., 1999; Inal et al., 2007; Knapik et al., 2011; Knapik et al., 2014). The value of active aging is stressed by the World Health Organization's(WHO) definition of it as a "... process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age" (A contribution of the World Health Organization to the Second United Nations World Assembly on Ageing, 2002).

The potential of activeness among the elderly was recognized in various research programs. The United Nations Economic Commission (UN) considers the aforementioned demographic changes to be a chance, not a threat- as long as individual countries adopt sensible policies (Current population changes are an opportunity, not a threat, if coupled with smart policies 2013). The research tool for gauging the quality of pursued policies in individual countries is the Active Ageing Index (AAI), which is utilized to measure a number of spheres influencing successful aging (Ageing Index .2014) Said spheres are: the possibility of employment, social activity. independence, health and security in life andthe level of environmental preparation to utilize the widely understood potential of an aging society (Konieczna-Woźniak et al., 2013).

Key factors in the concept of successful aging were the works of Rowe and Kahn (Rowe and Kahn, 1987; Rowe and Kahn, 1997). They were the authors of the positive (successful) aging model. The starting point for the researchers was to differentiate between aging connected with disability and disease (pathologic) and "normal" aging (nonpathologic, nondiseased) (Rowe and Kahn, 1987). According to them, those aging "normally" can be further divided in to two groups. The first consists of those who are relatively healthy, but high risk, therefore age "usually". The second is composed of those aging "successfully", therelatively healthy and low risk. According to Rowe and Kahn, the idea guiding this division was to stimulate studies involving the parameters and conditions of successful aging and thus determining the possible ways of intervening in cases of those aging "normally". The authors recognized the factors advantageous to successful aging as: avoiding disease and disability through healthy behaviour, engagement with life and high cognitive and physical function) (Rowe and Kahn, 1997; Baltes and Smith 2003). There is a clear

connection between this idea and Antonovsky's concept of salutogenesis, in which seeking out determinants of health (welfare) is more important than factors contributing to illness (Antonovsky et al., 2001). Rowe and Kahn's model, being a reductive one by nature, was a call for further research and analyses. Somewhat "in response" to this suggestion, multiple analyses of this problem from various perspectives appeared in scientific literature. A very interesting query of dominant beliefs was presented by (Bowling and Dieppe, 2005). They confirmed that the biomedical model of "successful aging" is the most common approach. A certain weakness of this model is the fact that only a low percentage of the elderly fit in its criteria, especially those concerning the absence of chronic diseases (Strawbridge et al., 2002). According to Poon and assoc. one can successfully age in more adverse health conditions (Poon et al., Sprouse 2003).

Somewhat in opposition to medical approaches are psychosocial ones, underlining activeness, satisfaction with life, engagement in social life, the functioning of mental resources, personal development and spirituality (Kahana et al., 2012 Crowther et al., 2002; Willcox et al., 2007; Kanning and Schlicht, 2008). An example of this sort of approach to the problem would be Carstensen's socioemotional selectivity theory (Carstensen et al., 2003). According to this theory, one of the more important aspects of positive aging should be concentrating on pleasant memories, thoughts and goals while nurturing good, emotional relations with one's environment.

By contrast, Kahana and Kahana claimed that engaging internal and external resources is crucial to manage stressors unavoidable at such age, such as: chronic disease, loss of close ones, limitations of environmental adaptation. These resources may translate into preventive(e.g.health promotion, helping others) and/orcorrective behaviour (support, environmental changes) (Kahana et al., 2003).

A very interesting model of "successful aging" was presented by German researchers: Kanning and Schlicht. Their model combines elements from both the biomedical

andpsychosocial approach. Subjectively felt welfare is the result of various factors including biological conditions (genotype, neurotype), the past, current socioeconomic status, environmental conditions, cognitive and emotional processes, individual hierarchies of values and psychological needs. In this model, physical activity is a crucial componentin successful aging (Kanning and Schlicht, 2008).

The analysis of literature devoted to successful aging shows that the available research tools are extremely varied. In this case, the spheres of interest of individual researchers are decisive. The amount of criteria concerning successful aging may elicit doubts whether it is even possible for most people to meet them. What is a process of successful aging and what is its determinant isalso disputable (Bowling and Dieppe, 2005). Such debates are natural and precise differentiation is not always possible, with the multilayered and multidimensional nature of this process being an important argument.

CONCEPTUALIZATION AND OPERATIONALIZATION OF THE SUCCESSFUL AGING INDEX

The aforementioned viewpoints engage the subject of positive aging in a descriptive manner.A question arises: is it possible to diagnose it using measurable indicators?Welfare or quality of life measurement tools, if only due to their universality, do not sufficiently take into account the specificity of this phase of life. Moreover, all such diagnoses were of a clearly associative characteror concerned with only specific aspects of the problem. The idea behind the presented tool - Successful Aging Scale (SAS) is to allow for a direct encapsulation of "successful aging" as synthetically as possible. Additionally, a key premise here is the individual perception of reality, regardless of how it is perceived "objectively". Therefore, a reductive approach, one that is indispensable in such cases, would be a substantial asset (with all its limitations). The conceptual foundation of the SUCCESSFUL AGING INDEX -SAI is its triangular composition which includes the following factors:

- 1. Mental and physical welfare (MPW)
- 2. Sense of security (SS)
- 3. Retrospective factors (RF)

Mental and physical warfare includes both activeness and aspects concerning one's wellbeing. In a way, it also pictures the subjects' sense of coherence. According to the author, the next area – sense of security - is not sufficiently exhibited in studies on aging. The importance of one of humanity's key needs, especially in this particular age, does not require a

deeper justification, while it is also indispensable to the process. The third element – RF – has to be examined in the context of life's continuum and also how it is perceived from an individual standpoint. It is also an expression of adaptive processes, closely linked with the previously mentioned theory of socioemotional selectiveness.

SAI is the sum of points from the aforementioned three elements. All three consist of several closed statements, rated from 1 to 5. Based on this model, an authorial questionnaire was constructed: SAI- questionnaire, which can be viewed below.

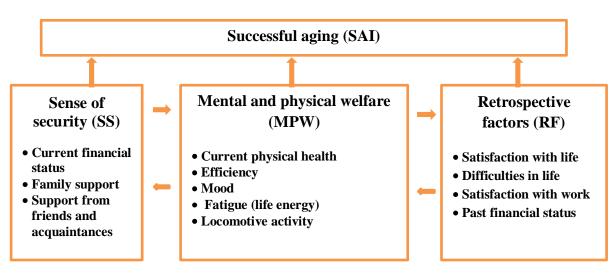


Figure 1.Outline of the successful aging index

SUCCESSFUL AGING QUESTIONNAIRE

1. Your health – in comparison to other people of your age, you rate it as:

 \Box bad rather bad I don't know good very good

2. You believe that in comparison to other people your age, you are:

much less fit less fit as fit as everyone else more fit much more fit

3. How would you generally rate your life up until now?

□ Badly rather badly I don't know rather well very well

4. You believe that your life up until now was:

 $\hfill\square$ very hard hard average rather good very good

5. Are you pleased with your working life (career)?

□ definitely not not exactly I don't know rather pleased definitely

6. Financial status-<u>in the past:</u>

bad rather bad average good very good

7. Do you currently have enough money to fulfil your needs?

no not always for a humble life - yes yes - more than enough

8. Do you have/did you have friends or acquaintances you can/could count on?

no not exactly I don't know I believe so definitely

9. Family – do you believe you can count on them?

no not exactly I don't know I believe so definitely

10. What is your mood, generally?

often bad rather bad I don't know rather good good

11. How often do you feel exhausted, to the point of feeling spent?

all the timeoftenlike other people my agerarelyvery rarely

12. How often do you leave your house?

barely not much if I need to every day a couple of times every day

Calculations:

1. SS =(I7 + I8 + I9) / 3

2. MPW = (I1 + I2 + I10 + I11 + I12) / 5

3. $\mathbf{RF} = (\mathbf{I3} + \mathbf{I4} + \mathbf{I5} + \mathbf{I6}) / 4$

SAI = SS + MPW + RF

SUMMARY

Every model, definition or hypothesis requires empirical verification. The author is aware of the limitations arising from using this particular tool.However, it seems that attempting to solve problems is the right path, one which leads to at least a partial solution.Theoretical divagations are, of course, important in the cognitive aspect and practical applications definitely enrich them.In this case, the goal is to define those variables which can be modified. This, of course, requires further studies on the relevance and reliability of this tool, alongside formulating a diagnosis of the correlates and elements of positive aging. Citing the opinion of American researchersseems to be a fitting conclusion (Martin, 2012):

"...Hopefully, the next decades of research on successful aging will further refine definitions of this very important gerontological concept".

REFERENCES

- 1. A new vision for old age Rethinking health policy for Europe's ageing society. A report from the Economist Intelligence Unit Limited, 2012; 4
- Active Ageing: A Policy Framework. A contribution of the World Health Organization to the Second United Nations World Assembly on Ageing, Madrid, Spain, April 2002; http://whqlibdoc.who.int/hq/2002/who_nmh_nph_02.8.pdf 20.01.2014
- Antonovsky A. A call for a New question Salutogenezis and a proposed answer The Sense of Coherence. Journal of Perspective Psychiatry, 1984; 2 – za: Dolińska-Zygmunt G.: Orientacja salutogenetyczna w problematyce zdrowotnej. Model Antonovsky'ego. (w:) Podstawy psychologii zdrowia. Red. Grażyna Dolińska-Zygmunt. Wyd. Uniwersytetu Wrocławskiego, Wrocław 22; 2001
- 4. Baltes PB, Smith J. New Frontiers in the Future of Aging: From Successful Aging of the Young Old to the Dilemmas of the Fourth Age. Gerontology, 2003; 49: 123-135.
- Błędowski P. Starzenie się jako problem społeczny. Perspektywy demograficznego starzenia się ludności Polski do roku 2035. Mossakowska M., Więcek A., Błędowski P. (eds.) Aspekty medyczne, psychologiczne, socjologiczne i ekonomiczne starzenia się ludności w Polsce. Termedia Wydawnictwa Medyczne, Poznań 2012
- 6. Bowling A, Dieppe P. What is successful ageing and who should define it? BMJ, 2005; 24: 1548–1551 .doi: 10.1136/bmj.331.7531.1548
- 7. Carstensen LL, Fung H, Charles ST. Socioemotional selectivity theory and the regulation of emotion in the second half of life. Motiv Emotion, 2003; 27: 103-123

- Crowther MR, Parker MW, Achenbaum WA, Larimore WL, Koenig HG. Rowe and Kahn's Model of Successful Aging Revisited Positive Spirituality - The Forgotten Factor. The Gerontologist, 2002; 42 (5):613-620. doi: 10.1093/geront/42.5.613
- 9. Current population changes are an opportunity, not a threat, if coupled with smart policies UN-hosted regional conference. Published: 01 July 2013. http://www1.unece.org/stat/platform/display/AAI/I.+AAI+in+brief (23.01.2014).
- 10. Diener E, Scollon CN, Lucas RE. The evolving concept of subjective well-being: the multifaceted nature of happiness. Advances in Cell Aging and Gerontology 2003: 187-220
- 11. http://www1.unece.org/stat/platform/display/AAI/Active+Ageing+Index+Home 23.01.2014
- 12. Inal S, Subasi F, Ay SM, Osman H. The links between health-related behaviors and life satisfaction in elderly individuals who prefer institutional living. Health Serv Res, 2007; 7: 1–7
- 13. Kahana E, Kahana, B, Kercher K. Emerging lifestyles and proactive options for successful aging. Ageing International, 2003; 28(2): 155-180
- Kahana, E, Kahana, B. Contextualizing successful aging: New directions in age-old search. In R. Settersten, Jr. (Ed.), Invitation to the Life Course: A New Look at Old Age. NY: Baywood Publishing Company 2003: 225-255
- Kahana E, Kelley-Moore J, Kahana B. Proactive adaptationsand successful aging: A longitudinal study of stress exposureand quality of life. Aging Ment Health, 2012; 16, 438–451 .doi:10.1080/13607863.2011.644519
- 16. Kanning M, Schlicht W. A bio-psycho-social model of successful aging as shown through the variable "physical activity". European Review of Aging and Physical Activity, 2008; 5,(2): 79-87
- 17. Kanning M,Schlicht W. A bio-psycho-social model of successful aging as shown through the variable "physical activity". European Review of Aging and Physical Activity 2008; 5,(2): 79-87.
- Kijak RJ, Szarota Z. Starość między diagnozą a działaniem. Centrum Rozwoju Zasobów Ludzkich, Warszawa 7; 2013
- 19. Knapik A, Rottermund J, Myśliwiec A, Plinta R, Gruca M. Aktywność fizyczna a samoocena zdrowia osób w starszym wieku. Prz Med Uniw Rzesz, 2011; (9) 2: 195 204
- 20. Knapik A, Rottermund J, Warmuz-Wancisiewicz A, Witanowska J. The activity and its barriers and the wellbeing of older Poles. PTHA, 2014; 22: 8-15
- 21. Konieczna-Woźniak R. Uczenie się jako strategia pozytywnego starzenia się, RocznikAndragogiczny 2013: 185-200 .doi: http://dx.doi.org/10.12775/RA.2013.010.
- 22. Lawton MP, Winter L, Kleban MH, Ruckdeschel K. Affect and quality of life. J Aging Health, 1999; 11: 169–198
- Martin P, Kelly N, Kahana E, Kahana B, Poon LW. Defining Successful Aging: A Tangible or Elusive Concept? UGA Institute of Gerontology, 12; 2012 vhttps://healthyandsuccessfulaging.wordpress.com/2012/11/12/paper-1-defining-successful-aging-a-tangibleor-elusive-concept/ 23.01.2015
- 24. Medvedev Z A. An attempt at a rational classification of theories of aging. Biol. Rev, 1990; 65: 375 398
- Oerlemans WGM, Bakker AB, Veenhoven R. Finding the key to happy aging: A day reconstruction study of happiness. Journal of Gerontology Series B: Psychological Sciences and Social Sciences 2011 .doi:10.1093/geronb/gbr040 23.01.2014
- 26. Poon LW, Gueldner SH,SprouseB. Successful aging and adaptation with chronic diseases in older adulthood. New York, Springer 2003
- 27. Rocznik demograficzny 2014. Główny Urząd Statystyczny, Warszawa 66; 2014
- 28. Rowe JW, Kahn RL. Human aging: usual and successful. Science 1987; 237, (4811): 143-149
- 29. Rowe JW, Kahn RL. Successful aging. Gerontologist, 1997; 37, (4): 433-440
- 30. Strawbridge WJ, Wallhagen MI, Cohen RD. Successful aging and well-being. Self-rated compared with Rowe and Kahn. Gerontologist, 2002;42: 727-33
- 31. Viña J, Borra's C, Miquel J. Theories of Ageing. Life 2007; 59 (4 5): 249 254 .doi:10.1080/15216540601178067
- Willcox, DC, Willcox, BJ, Sokolovsky, J, Sakihara, S. The cultural context of "successful aging" among older womenweavers in a northern Okinawan community: The role of productiveactivity. Journal of Crosscultural Gerontology 2007; 22, 137–165
- 33. Williams RH, Tibbits C, Donohue W. Process of Aging. Social and Psychological Perspectives, Vol 1. New York 2009