

Developmental tasks' attainment in late adulthood – the construction of a new psychometric tool

Realizacja zadań rozwojowych w okresie późnej dorosłości – konstrukcja nowego narzędzia badawczego

Magdalena Zadworna-Cieślak

Instytut Psychologii, Uniwersytet Łódzki

Abstract

Introduction. In accordance with current demographic trends, i.e. the lengthening of lifespan and the growth of the proportion of seniors in the overall population, the functioning of the elderly is increasingly becoming the subject of analytical studies. In the future, there will also be a growing need for diagnoses to explain and support the development of seniors with regard to their psychosocial functioning. However, few Polish measurement tools have been designed which can accommodate the specifics of the developmental period of late adulthood. **Aim.** The paper describes the theoretical background and psychometric properties of the Developmental Tasks Questionnaire for Seniors. This tool can be used to assess the degree of attainment of developmental tasks and of adaptation for old age. **Material and methods.** The study group included 336 participants: 119 men (35.4%) and 217 women (64.6%). The group was characterised by a varied sociodemographic structure and activities - students of the University of the Third Age, members of Seniors Clubs and persons unaffiliated to any organizations, aged 60-88 years. All respondents completed an initial questionnaire based on Havighurst's theory of developmental tasks and Erikson's theory of development crises. **Results.** As a result of the analyses, a 15-item questionnaire was created, consisting of three subscales: acceptance of one's life, adaptation, and acceptance of passing. The tool demonstrated satisfactory psychometric parameters. **Conclusions.** The Developmental Tasks Questionnaire can play a role in the diagnosis of functioning of the elderly, providing a more detailed insight into the process of adapting to old age. (Gerontol Pol 2017; 25; 156-162)

Key words: developmental tasks, late adulthood, measurement

Streszczenie

Wstęp. Funkcjonowanie osób starszych staje się coraz częściej przedmiotem analiz badawczych, a skłaniają do tego zachodzące procesy demograficzne – wydłużanie się czasu trwania życia i wzrost liczby osób po 60 roku życia w populacji ogólnej. W sferze funkcjonowania psychospołecznego seniorów staje się potrzebą diagnozy w kierunku wyjaśniania i wspierania rozwoju. Tymczasem psychometryczne narzędzia pomiaru uwzględniające specyfikę okresu późnej dorosłości należą do rzadkości. **Cel.** Przedstawienie podstaw teoretycznych oraz wstępnych właściwości psychometrycznych Kwestionariusza Zadań Rozwojowych dla Seniorów, służącego do oceny stopnia realizacji zadań rozwojowych i przystosowania w późnej dorosłości. **Materiał i metody.** W badaniach wzięło udział 336 osób w wieku 60-88, 119 mężczyzn (35,4%) oraz 217 kobiet (64,6%). Byli to seniorzy o zróżnicowanej strukturze socjodemograficznej i podejmowanych aktywnościach. Wszyscy badani wypełnili wstępną wersję kwestionariusza, opartego na teorii zadań rozwojowych Havighursta oraz teorii kryzysów rozwojowych Ericksona. **Wyniki.** W wyniku przeprowadzonych analiz stworzono narzędzie 15 pytań, składające się z 3 podskal, tj. akceptacja swojego życia, adaptacja oraz akceptacja przemijania. Narzędzie uzyskało zadawane parametry psychometryczne. **Wnioski.** Kwestionariusz Zadań Rozwojowych może pełnić rolę w procesie diagnozy osób starszych, poszerzając obraz funkcjonowania seniorów o nowe, niebadane dotąd treści związane z przystosowaniem do starości. (Gerontol Pol 2017; 25; 156-162)

Słowa kluczowe: zadania rozwojowe, późna dorosłość, pomiar

Introduction

Life expectancy in Poland continues to grow, and projections indicate that by 2050, the proportion of elderly may exceed 30% of the total population [1]. The natural consequence of this demographic shift is a need to conduct research towards the identification of “successful ageing”, and the subsequent implementation of recommendations for the creation of social policy in the areas of health, social welfare and education [2-4]. However, research indicates that only by considering the nature of specific periods of development we can obtain a complete picture of life satisfaction, mental health and the psychosocial functioning of people at different stages of adulthood [5].

Concepts such as successful, positive, healthy or active ageing are currently popular topics for discussion. *Successful ageing* can be understood as a form of human functioning resulting in the optimal development of the human adult throughout life [6], or a combination of optimal living skills, good health and experiencing satisfaction with life [7]. Other proposed models of successful ageing highlight the importance of skills intended for adapting to changes associated with age. An example would be the theory of Selective Optimization and Compensation (SO-C) [8]. In addition, in theories addressing human development continuing through the period of old age, a perceived level of satisfaction with life is often regarded as an indicator of successful ageing [9]. Psychological adaptation to life in late adulthood is a necessary condition for successful ageing [4].

However, Robert Havighurst [10], the creator of the theory of developmental tasks, recognised a need to formulate a theory of successful ageing based on gerontology.

The implementation of developmental tasks and successful ageing

Developmental tasks can be regarded as the challenges confronting people of a certain age, and these act as important determinants of the course of normal development and its effects [2]. In this sense, the smooth implementations of tasks typical of old age are essential for successful ageing, mental health and optimal functioning.

The sources of developmental tasks include changes in the biological condition of the body related with age, cultural traditions and individual aspirations. The effective implementation of these tasks provides a sense of satisfaction for the individual and can act as a basis for inferences of normativity during development. In con-

trast, however, difficulties in their attainment, especially long-term tasks, may result in deterioration in the sense of well-being and act as a basis for a lack of normativity and punctuality of development. In this case, life of the individual may diverge from established patterns of cultural and biological rhythms, leading to a strengthening of maladjustment symptoms. The Havighurst concept of developmental tasks is one of the first to view human development as a lifelong process composed of many aspects of human activity in the form of developmental tasks.

According to Havighurst [11], after 60 years of age, these developmental tasks are required for the following functions:

- adapting to a decline in physical strength
- adapting to retirement and reduced income
- coming to terms with the death of a spouse
- maintaining social relations with people in your age
- accepting and adapting to changing social roles
- establishing good physical living arrangement

The author stresses the concept of intertwining life satisfaction in old age with previous periods of life: childhood, youth and adulthood. Satisfaction with life determines the adaptation of individual needs and expectations to social and biographical life events, and reaching a balance between them. Quality of life, however, does not result only in undertaken activity, but also includes the need to withdraw. Although continuing a style of behaviour typical of earlier periods of life and the pursuit of plans and needs are the most significant goals in the sphere of activity, coping with a reduction of physical and mental ability, as well as the loss of loved ones and lower material standards are also important.

In turn, in his theory of crises and development during the period of late adulthood, Eric Erikson [12] indicates the need for a space on the continuum of integrity-despair. Experiencing deteriorating health and infirmity, compared to others and to their own past selves, the individual is beset by two strong opposing forces: on the one hand, the desire to achieve a sense of meaning and the sense of a “well-lived life”, that is to say, to achieve a sense of integrity, and on the other hand, a tendency to fall into despair and hopelessness. The individual becomes reconciled with her identity by integrating these two aspects.

The commitment to integrity is associated with the feeling that one's own life makes sense. It is derived from a broader perspective of a re-synthesis of lived experience, experiencing the balance of one's own life; if this is accompanied by acceptance, it allows one to overcome the fear associated with transience and death.

In this light, the tasks of this period should address the physical changes in the body, focus energy on new roles, enable acceptance of one's life and shape views of death [13]. The quality of their implementation will depend on both the resources of the individual, that is to say, the competencies with which each phase of life is begun, together with the demands exacted by the social environment and the support provided in dealing with them. The virtue earned in late adulthood by this process is wisdom.

A life lived in accordance with the challenges proposed by one's age, and associated with adapting to old age and various subjective factors, as well as lifestyle, health, social support and sociodemographic influences, forms the basis of successful ageing.

Developmental tasks and the measurement of psychosocial functioning in late adulthood

The performance of developmental tasks has been discussed relatively frequently in foreign studies, particularly in groups of children and teens [14] and young adults [15]. However, few have examined senior citizens in this regard, particularly Polish ones.

Few such measurement tools are suited to the specifics of development during late adulthood. However, some exist which have been adapted or created in Polish conditions, and which show a partial convergence with the presented construct. One example is the Successful Ageing Index (SAI), which was based on the theories of successful ageing by Rowe and Kahn, adapted by Knapik et al [16]. It comprises a set of 12 questions, which can act as a general indicator of successful ageing, and three categories of positive ageing: health/well-being, sense of security and retrospective factors. In turn, the Life Balance Questionnaire by Izdebski and Polak [17], based on Erikson's theory of psychosocial development, provides an insight into the life balance of people aged over 60 years. Developmental tasks were also the starting point of the design of the Sense of Punctuality of Life Events Questionnaire by Brzezińska and Kaczan [18], intended for young adults and people in middle and late adulthood. The tool gives an indication of the global assessment of the sense of punctuality of life events as well as in various categories including relationships with people and family, work and study, as well as leisure time and time for oneself. The Health-Related Behaviour Questionnaire for Seniors by Zadworna-Cieślak [19] can also be used to study the lifestyles of seniors. It enables an overall health behaviour indicator to be calculated, as well as individual behavioural categories, including a positive attitude to life, behaviour related to physical he-

alth, attention to mental condition, behaviour associated with prophylaxis and treatment, and environmental behaviour. The discussed problem also closely resembles that of the construct of quality of life. For older people, it can be evaluated using the WHOQOL-AGE Scale, adapted by Zawisza et al. [20].

Taking into account the specific nature of functioning in late adulthood and the growing number of studies on the mental health of Polish seniors and various aspects of their functioning, it is important to realise the need for creating measurement tools suited for this age group. It is not always reasonable to use tools created for general populations, as these do not take into account the unique characteristics of old age, and their standardisation procedures do not always include people over the age of 60.

Aim of research

The aim of the presented study was to describe the process of designing tools for measuring the realisation of developmental tasks in the elderly and to perform an initial evaluation of their psychometric properties.

Material and method

Havighust's theory of developmental tasks and Erikson's theory of psychosocial development were used as the starting points for the design of the Developmental Tasks Questionnaire for Seniors. A pool of 40 statements was created, which then was assessed according to theoretical accuracy and linguistic goodness; repetitive, vague and ambiguous descriptions were rejected, as were those that were not specific for the period of late adulthood. Based on the opinions of four competent assessors (psychologists dealing with developmental psychology), 28 of these statements were chosen. These related to areas such as:

- Adapting to a decline in physical strength, deteriorating health and the establishment of a satisfactory standard of comfort in life
- Focussing energy on new roles, and adapting to retirement and reduced income
- Crystallizing views of death and the acceptance of the death of a partner/spouse/friends
- Accepting one's life and establishing clear membership of this age group

Thus, an experimental 28-question version was created, which was used to examine a group of 336 people above 60 years of age (aged 60-88, $M = 68,05$; $SD = 6,14$).

The research was conducted in Central Poland, in the Łódź voivodeship¹. The study group comprised 119 men (35.4%) and 217 women (64.6%), these being students of the University of the Third Age (15%), members of Seniors Clubs (35%) and persons unaffiliated to various organizations (50%). A total of 12% of the subjects were residents of large cities (larger than 50 thousand inhabitants), 43% of small towns, and 43% came from rural areas. Most of those surveyed had completed secondary education (51%), 23% primary or professional education and 26% higher education. Most of the subjects were married (47%), 30% were widowed, 18% divorced and 4% had never been married. Most of those surveyed lived with family (75%) and 25% alone.

Results

Firstly, an analysis of the discriminatory power of the questionnaire positions was carried out to eliminate the statements demonstrating the weakest correlation with the general result (i.e. less than 0.36). During this stage, 10 questions were removed.

Following this, to determine whether the data met the requirements necessary to perform the factor analysis, the sampling adequacy was established using the Kaiser-Mayer-Olkin (KMO) test, and Bartlett's sphericity test was performed. The KMO value was 0.869, which confirmed that the data had good properties. Bartlett's

sphericity test applied on the basis of the obtained values (DF = 153; $\chi^2 = 1452,3$; $p < 0.0001$) indicated meaningful application of the factor analysis. The determinant of the correlation matrix was 0.009, indicating strong covariance of variables and confirming that the data can be submitted for factor analysis.

Exploratory factor analysis was then conducted to establish the structure of the realised developmental tasks (principal component analysis by Varimax orthogonal rotation). Based on Kaiser's criterion, with a recommended eigenvalue above 1, and scree analysis (cf. Figure 1), a three-factor structure was adopted for the inventory.

Items that were not specific to any factor or strongly correlated with two or more factors were removed. The final version of the questionnaire included 15 statements. All positions were filled with factors with values above 0.5. The factor structure is given in Table I.

The resulting factor structure overlaps only partially with the theoretical structure established previously. The extracted factors, however, are based around key tasks of late adulthood associated with a summing-up of one's life, the formation of attitudes of acceptance, adoption of behaviour associated with adapting to ageing-related changes, and reconciliation with the recognition of passing relatives and the prospect of the arrival of one's own death. The psychometric properties of the tool are given in Table II.

¹ Studies have been carried out within the framework of a Master's Seminar.

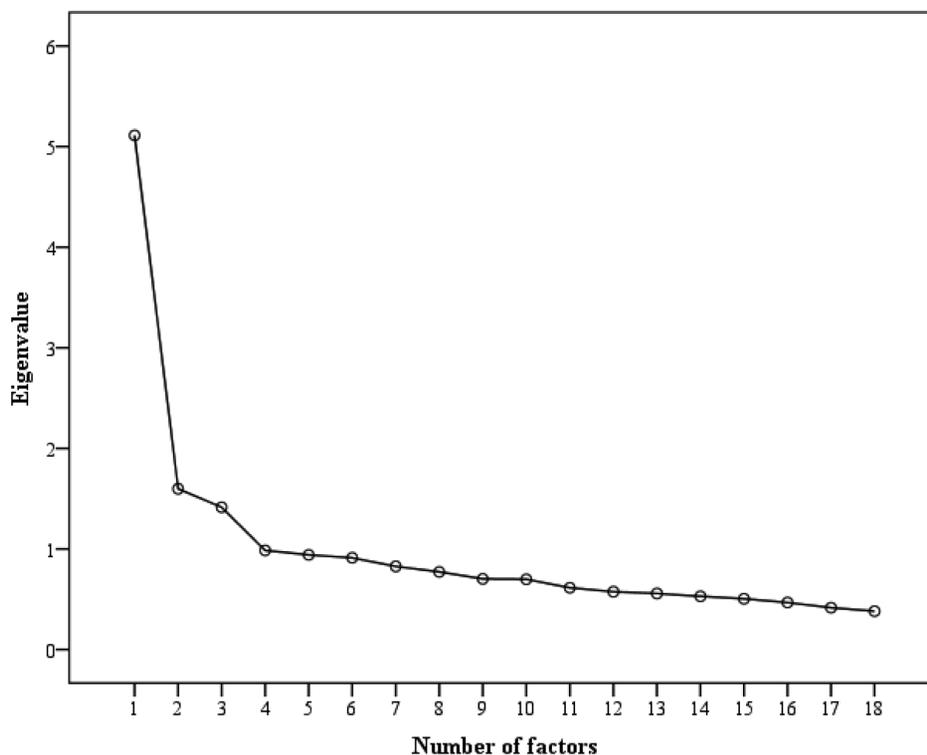


Figure 1. The Developmental Tasks Questionnaire eigenvalue – scree analysis

Table I. The Developmental Tasks Questionnaire factors and their eigenvalues

Factors	Eigenvalue	The percentage of variance explained	Cumulative variance
Acceptance of one's life	5.11	28.39	28.39
Adaptation	1.60	8.88	37.27
Acceptance of passing	1.41	7.85	45.13

Table II. The psychometric properties of the statements forming The Developmental Tasks Questionnaire

Statement number and factor name	M	SD	Correlation coefficient of the position with the overall score	Factor load
Factor 1. Acceptance of one's life				
1. I am satisfied with my past life	3.55	1.21	0.49	0.60
4. I am satisfied with life in retirement	3.50	1.31	0.38	0.51
7. I feel fulfilled in my life	3.54	1.18	0.49	0.70
10. In my retirement, I'm trying to pursue my dreams and interests	3.79	1.17	0.39	0.59
13. Looking back, I feel I have lead a well-lived life	3.51	1.2	0.54	0.67
Cronbach's $\alpha = 0.70$				
M = 17.89, SD = 4.04				
Factor 2. Adaptation				
2. I am adapting my expenses to my reduced income in retirement	3.87	1.18	0.45	0.67
5. I maintain social contacts with people my age	4.08	1.16	0.44	0.62
8. I'm adapting my behaviour and decisions to the state of my health	3.79	1.22	0.48	0.58
11. I am adapting to the changes that come with retirement	3.81	1.14	0.42	0.51
14. I use the help of others when necessary	3.67	1.12	0.40	0.55
Cronbach's $\alpha = 0.68$				
M = 19.19, SD = 3.88				
Factor 3. Acceptance of passing				
3. I have become accustomed to the fact of loved ones passing	3.33	1.35	0.36	0.56
6. I have come to terms with the inevitability of death	3.31	1.35	0.53	0.72
9. I feel peace when thinking about passing	3.28	1.18	0.43	0.58
12. I accept the fact that the end of my life is approaching	3.35	1.33	0.44	0.62
15. I see the signs of ageing occurring in me as normal events at my age	3.35	1.33	0.46	0.62
Cronbach's $\alpha = 0.70$				
M = 17.07 SD = 4.27				

Each of the derived factors included five questions.

Factor 1 (Acceptance of one's life) allows an assessment of an accepting attitude toward one's own life, satisfaction with life in the context of the past and the present, its positive balance and a focus on growth.

In turn, Factor 2 (Adaptation) refers to adaptive behaviour, i.e. adapting to changes typical of old age such as a decrease in physical strength, receiving a pension and its related reduced income, maintaining social contact, but also recognition of the need to enlist the help of others if necessary.

Factor 3 (Acceptance of passing) is associated with a reconciliation with the imminence of ageing and the prospective of death, both one's own and that of loved ones.

The reliability analysis found Cronbach's alpha to be satisfactory, this being 0.81 for the overall score (M = 54.19, SD = 9.553). Slightly lower values were obtained for the subscales, but given that each of them only included five statements, they can be regarded as satisfactory (between 0.69 and 0.70).

Discussion

The demographic situation in Poland justifies research on the groups of the elderly. There is a need for thorough diagnosis when examining the psychosocial functioning of senior citizens, both for the purposes of description and clarification, and more importantly, the creation of programs for the promotion of mental health and support of development. For this reason, it seems well founded to evaluate the key properties for well-being and optimal functioning of those of older age, i.e. making a summary of life, adapting to changes and coming to terms with the prospect of the inevitability of death. The Developmental Task Questionnaire for Seniors can fulfil this role. The present study performs only a preliminary assessment of the psychometric tools; they will be subject to further validation research in subsequent groups of seniors (for confirmatory factor analysis, accuracy analysis and absolute stability). The obtained psychometric properties can be considered as satisfactory. The factor analysis provided interesting data, which could be seen as an empirical attempt to confirm Havighurst's and Erickson's theories of developmental tasks. However, it should be noted that not all developmental tasks were included in the final version of the tool. This may be accounted for by the specificity of the functioning of today's senior citizens; their lifestyle has changed over the course of the past few decades. The changes obliged by modern civilization are transforming many of the

challenges posed by life, and hence, their associated developmental tasks. Development paths also demonstrate more individuality, and the path to the achievement of an integrated personality can be viewed differently depending on the culture and the dominant style of life in the tested country [21]. The key challenges of old age obtained in the course of the analysis of the factors included in the Developmental Task Questionnaire for Seniors, indicated above, include the acceptance of one's life, adaptation to changes associated with old age and acceptance of passing.

Conclusions

1. The Developmental Task Questionnaire for Seniors contains 15 questions and can be used to assess the overall achievement of key tasks for late adulthood in people after the age of 60, in particular the level of acceptance of one's life, adaptation, and acceptance of passing.
2. The tool demonstrated satisfactory reliability. Accuracy parameters will be determined in another study.
3. The questionnaire can play an important role in the diagnosis of functioning of the elderly, providing a more detailed insight into the process of adapting to old age.

Conflict of interest

None

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