ISSN 2079-0570, Advances in Gerontology, 2018, Vol. 8, No. 1, pp. 58–63. © Pleiades Publishing, Ltd., 2018.
Original Russian Text © S.G. Maximova, O.E. Noyanzina, D.A. Omelchenko, 2017, published in Uspekhi Gerontologii, 2017, Vol. 30, No. 4, pp. 579–586.

A Model of Social Exclusion of Elderly People in Siberian Regions

S. G. Maximova*, O. E. Noyanzina, and D. A. Omelchenko

Altai State University, Barnaul, 656049 Russia

**e-mail: svet-maximova@yandex.ru*

Abstract—This paper presents the results of construction and approbation of a theoretical model for measuring social exclusion of the elder population in Siberian regions. This study is based on the results of a sociological survey (2016) in three Russian regions: Altai krai, Zabaikalskiy krai, and Kemerovo oblast ($n = 779$, aged 55 (women) and 60 (men) years and older). The theoretical model includes the following components: social and economic (material) deprivation, deprivation of social rights (access to social institutes and services), deprivation of security (a safe environment), deprivation of social participation, cultural (normative) disintegration, and social autism. These components and indicators are specific for the group of people at retirement age, which is a priori a group potentially at risk of social exclusion. Social exclusion, as a condition and situation of deprivation, can be estimated directly from the intensity of its components. The model has a one-sided effect; i.e., the intensity of one of the exclusion indices can lead to an increased intensity of social exclusion. Based on the operationalized components of social exclusion, the index of exclusion components and the total social-exclusion index for elderly people, including its regional correlations, were assessed. The results of a posteriori testing of the proposed model demonstrate a good correlation between theoretical and empirical models of social exclusion in elderly people.

Keywords: social exclusion, elderly people, model of social exclusion, deprivation, condition and situation of exclusion, indicators, components, indices of social exclusion

DOI: 10.1134/S2079057018010083

INTRODUCTION

The issue of aging is usually linked to global processes, such as industrialization or globalization [2, 7]. According to O.V. Krasnova [5], old age is "the age of bad adaptation," because an elderly person generally acquires certain somatic and mental disturbances that change family life and environmental conditions. Mental and social statuses are changed in elderly people, resulting in less physical and social opportunities [8].

According to M.E. Elyutina [4], I.A. Grigor'eva, and A.S. Bikkulov [3], the above situation is aggravated by the prevailing belief in society of the inseparable natures of old age, morbidity, and mortality. This has a negative impact on the status of elderly people, forces them to depend on others, and, thus, leads to social exclusion [6].

The concept of "social exclusion," which was first used to describe the deprivation of physically challenged people, was further conceptualized by K. Walsh et al. [25]. At present, social exclusion is measured by indicators of risk and factors of protection, various social circumstances that people have to overcome. In a broader sense, social exclusion is defined as "the process through which individuals or groups are wholly or partially excluded from full participation in the society within which they live" [13]. The notion of "social exclusion" contains two fundamental characteristics. First, it is a multidimensional phenomenon. For example, people can become excluded from society because of unemployment, level of salary, lack of possession of property, minimal consumption, educational level, quality of life in the country, and citizenship. Therefore, excluded people appear more often deprived of close contacts or respect. However, the notion of "exclusion" focuses on the multidimensional nature of deprivation when people are often deprived from a multitude of social factors at once and thus exclusion (deprivation) can occur simultaneously in economic, social, and political spheres [8, 17]. In addition, social exclusion implies both certain interrelations between individuals and groups and the processes that led to deprivation. Individuals can be excluded from different types of groups simultaneously [10].

The factors that lead to social exclusion include poverty, subordination within the system of social identity (race, ethnic origin, religion, and gender), social position (refugees, migrants), demographic characteristics (education, professional qualification, and age), state of health, disability, or stigmatized diseases (HIV or AIDS).

The social-exclusion model developed by the Social Exclusion Knowledge Network (SEKN) [20] represents it as a result of four interconnected factors (social, cultural, economic, and political) on different

levels (individual, group, household, local community, country, and world). The scientific analysis of exclusion is usually based on this multidimensional model. In addition, making an explicit connection between exclusion and rights allows considering discrimination based on gender, ethnical or religious peculiarities, limitations associated with health, and other factors.

The aim of this paper is the conceptualization, construction, and approbation of the social-exclusion model in the elderly population in Siberian regions.

THEORETICAL MODEL OF EXCLUSION

We suggest a conceptualized model of exclusion for the empirical testing of hypotheses and evaluating the level of exclusion in the elderly population of three Russian regions. This model was constructed based on the above approaches. The above-mentioned model correlates with the notion of "poverty"; however, in our opinion, it is rather limited in explanatory capacity. The reason for this is that social exclusion reflects not only the process of exclusion (dynamic characteristics), but also a condition of exclusion (static characteristics). Social exclusion can have material (economic) expression (a distributional dimension) and nonmaterial characteristics (a relative dimension). The causes of social exclusion should be considered at the group and individual levels.

Thus, we first identify two dimensions: the situation and condition of exclusion, material and nonmaterial dimensions. In addition, the material component (or situation of exclusion) is described with components called "socioeconomic (material) deprivation" (*MD*), "deprivation of social rights" (*DA*, access to social institutes and services), and "deprivation of safety/a safe environment" (*Envr*). The nonmaterial component (the condition of exclusion) is measured through "deprivation of social participation" (*SP*), "cultural (normative) disintegration" (*CD*), and "social autism" (*SA*).

The material risk factors of social exclusion often form the basis for individual risk factors, interact with biological risk factors, and are less sensitive to interventions, but often function as the system of social identity (families or other groups). They include situational aspects of life under conditions of poverty, low consumption standards, and overcrowding of living space [16, 18]. Thus, N. Delfani et al. [12] demonstrated the influence of continual poverty on social exclusion.

Social and cultural components of exclusion. P.W. Kingston [15] described in the cultural-capital theory how shared norms and values shape the individual's behavior and are necessary to enter a particular group. Cultural resources through norms and social roles "constrain and prescribe opportunities for individuals, including in control of their own lives" [21].

Social resources encompass inclusion and membership in social networks that provide personal access to information and support from others [8]. Social resources can include weak and strong connections [24], as well as relations that offer emotional and instrumental assistance [27]. These connections are built on shared interests and activity, family, or other ties that unify individuals and mostly refer to the private sphere [19]. We suggest considering social resources as indicators of social and cultural components of social exclusion, since people cannot choose their gender or ethnic origin, but they can choose friends, interests, and even relatives.

Since political and civic participation are formalized and public social resources are connected within organizational structures [20], many researchers regard civic and politic participation as separate spheres of exclusion [23], but within the sphere of social resources.

The *SA* component that we termed "social autism" measures personal resources and the ability to exploit one's current situation and does not depend on the economic, cultural, or social status. These are microlevel resources that include physiological factors and physiological wellbeing and abilities [1, 11].

Hence, the proposed model is based on a range of assumptions: (1) social exclusion is a multidimensional phenomenon that reflects both economic structural and social cultural aspects of life and is measured theoretically with *MD*, *DA* and *Envr*, *SP*, *CD* and *SA*; (2) the above-named components and indicators are typical for the group of old individuals, which is a group at risk of social exclusion; (3) social exclusion as a condition and a situation of exclusion can be directly measured through the intensity of its components; and (4) the model has a one-sided effect; i.e., the intensity of one of exclusion component can lead to increased intensity of social exclusion.

MATERIALS AND METHODS

The social-exclusion model was tested on 779 people of an age of at least 55 (women) and 60 (men) from three regions of the Russian Federation. The share of men was 28.5%, and the share of women was 71.5%. The women's subsample included 30.7% of people 55–59 years of age, 32% 60–64 years of age, 21% 65–69 years of age, and 16.3% 70 years of age or older. The men's subsample included 55% of people 60–64 years of age, 27.5% 65—69 years of age, 15.8% 70–74 years of age, 1.8% and 75 years of age or older. Since some authors refer to a region-related intensity of social exclusion (K. Walsh [26]), we note that this study was performed in Altai krai, Zabaikalskiy krai, and Kemerovo oblast.

Each theoretical statement regarding social-exclusion indicators was operationalized in terms of a questionnaire. The social and cultural component of exclu-

sion, or the situation of exclusion, was described with three components, with selected indicators of exclusion for each component: (1) *MD* (20 indicators), (2) *DA* (27 indicators), and *Envr* (22 indicators). Social and cultural exclusion, or the condition of exclusion, were also described with three components, including a range of indicators: (1) *SP* (25 indicators), (2) *CD* (19 indicators), and (3) *SA* (13 indicators).

In addition, we highlight a range of microlevel risk factors of exclusion, some of which are unmanageable factors, while others are manageable risk factors. The unmanageable (independent) risk factors of social exclusion are gender, age (55 years and over for women, 60 years and over for men), solitary living, status (employed/unemployed pensioner), scale of pension, marital status, religion, ability to live independently, years of pensionable service, and type of settlement (urban/rural area). The manageable (dependent) risk factors are mobility, state of health, absence of a privately owned dwelling, low educational level, coping strategies, estimation of financial situation, and level of adaptation after retirement.

We calculated the social-exclusion index, which is the total index of the intensity of six social-exclusion components: *MD*, *DA*, *Envr*, *SP*, *CD*, and *SA*. To determine the intensity of each indicator, we transformed the estimation scales ensuring the correspondence of the maximum rates with the maximum social exclusion of respondents. Each indicator in the sample was determined using self-evaluations by older people according to the measurement rates formulated in the questionnaire. The maximum score was associated with the maximum intensity of exclusion. The total possible were *MD*, 81 (according to the results of summation, min = 32, max = 75); *DA*, 156 (min = 40, max = 137); *Envr*, 157 (min = 40, max = 150); *SP*, 104 (min = 43, max = 77); *CD*, 66 (min = 21, max = 55), and *SA*, 60 (min = 15, max = 55), corresponding to the maximum exclusion intensity of each component.

In addition, for the purpose of a comparative analysis, we transformed the acquired total indices of each of the components into ten-point scales. The total indices of a situation (*SitExclInd*) and condition (*CondExclInd*) of respondent exclusion were estimated; in total, their combined values made of the general index of social exclusion (*GenExclInd*) of the elderly and very elderly population in three regions of the Russian Federation, which was also transformed into a ten-point scale. The indices were transformed into a ten-point scale with account for the established rules of fraction rounding; i.e., 0–0.49 were equal to 0 and 0.5—1.49 to 1 and so on. The data were statistically processed and visualized using the IBM SPSS 23.0 and MS Excel software.

RESULTS AND DISCUSSION

The index of the situation of social exclusion consisted of the total transformed indices of three components: *MD*, *DA*, and *Envr*. With respect to the first component, 83.3% of elderly people had an index in the range of 0–0.49; i.e., deprivation of economic behavior was not noted in this group of materially unexcluded respondents. In the group of materially deprived elderly and very elderly respondents, the *MD* index (*MDInd*) varied from 4 to 9, with 4 in 0.4% of the elderly population, 5 in 2.4%, 6 in 4.9%, 7 in 3.5%, and 9 in 1.4%.

A nonzero value of *DA* index (*DAInd*) was found in 36.5% of elderly people and varied from 3 to 9; the most numerous group experiencing *DA* (15.3%) had a *DA* index of 6.

An *Envr* index (*EnvrInd*) in the range of 3–10 was characteristic for 42.5% of elderly people. Thus, almost half of elderly and very elderly respondents lack a safe environment. This is the only component of social exclusion with the maximum value of 10 for 0.4% of respondents, and 11.2% of the elderly population experienced exclusion from a safe environment with a score of 8.

The total index for the situation of social exclusion (*SitExclInd*) of the elderly population in three Russian regions ranged within 1–8, and an exclusion value of at least 1 was revealed for more than half of respondents (60.3%). In addition, the situation of social exclusion showed a medium intensity for most excluded people: 4% respondents had a total index of 6 and 0.5% of 7. The mean value for the index of the situation of social exclusion was 5 for 8.3% of respondents. Values lower than the mean were characteristic for 8.2% (4), 5.8% (3), 27.9% (2), and 3.2% (1).

The condition of social exclusion (*CondExclInd*) in the proposed conceptualized model is described by indices of deprivation of social participation (*SPInd*), cultural (normative) disintegration (*CDInd*), and social autism (*SAInd*). It is noted that the distribution of indices toward higher intensity and evident asymmetry toward higher values indicate coherence between the indicators of condition of social exclusion, unlike the indices for a situation of social exclusion.

Nonzero values of the *SP* index (*SPInd*) were noted for 15% of elderly people, and the values were rather high: 4–7. The exclusion of an individual from the system of social networks has a multidimensional character with alienation from a number of ties—family, friends, the neighborhood, and others. Hence, 0.6% of respondents had *SPInd* of 4, 6.4% 5, 5.8% 6, and 0.6% 7.

The *CD* had the maximum intensity, with 72.8% of respondents being culturally deprived to a certain extent with the *CDInd* at a level of 3–8. The majority of excluded respondents had a high *CD* intensity: 31.3% had an index of 6, 16.2% of 7, and 1.8% of 8.

The *SA* index (*SAInd*) varied from 5 to 9 in 41.8% of elderly and very elderly people: 0.4% of respondents

Table 1. Social-exclusion values among elderly people, %

Index value	*MDInd*	*DAInd*	*EnvrInd*	*SPInd*	*CDInd*	*SAInd*	*SitExclInd*	*CondExclInd*	*GenExclInd*
0–0.49 (0)	83.1	63.5	57.5	85.0	27.2	58.2	*39.7*	*20.8*	15.4
0.50–1.49 (1)	–	–	–	–	–	–	*3.2*	*1.7*	21.1
1.50–2.49 (2)	–	–	–	–	–	–	*27.9*	***35.8***	20.2
2.50–3.49 (3)	–	0.6	0.5	–	0.1	0.5	*5.8*	*9.8*	17.2
3.50–4.49 (4)	0.4	4.4	2.4	0.6	2.7	7.3	***8.2***	*19.9*	13.9
4.50–5.49 (5)	2.4	8.2	10.7	**6.4**	20.7	**15.4**	***8.3***	*7.6*	8.1
5.50–6.49 (6)	**4.9**	**15.3**	10.8	5.8	**31.3**	11.6	*2.7*	*4.0*	3.6
6.50–7.49 (7)	4.4	6.3	0.6	2.2	16.2	5.6	*3.2*	*0.5*	0.6
7.50–8.49 (8)	3.5	1.5	**11.2**	–	1.8	1.0	*1.0*	–	–
8.50–9.49 (9)	1.4	0.1	5.8	–	–	0.4	–	–	–
9.49–10 (10)	–	–	0.4	–	–	–	–	–	–

The maximum value corresponds to the maximum exclusion. Here and in Table 2, the maximum mean values are in bold and indices of a situation and condition of social exclusion are italicized. *MDInd*, the index of social economic (material) deprivation; *DAInd*, the index of deprivation of social rights; *EnvrInd*, the index of deprivation of safety; *SPInd*, the index of deprivation of social participation; *CDInd*, the index of cultural (normative) disintegration; *SAInd*, the index of social autism; *SitExclInd*, the total index for a situation of social exclusion in respondents; *CondExclInd*, the total index describing a condition of social exclusion in respondents; *GenExclInd*, the general social-exclusion index in the population.

Table 2. Region-based comparison of mean indices of social exclusion in elderly people

Region		*MDInd*	*DAInd*	*EnvrInd*	*SPInd*	*CDInd*	*SAInd*	*SitExclInd*	*CondExclInd*	*GenExclInd*
Altai krai	Mean	1.0000	2.0458	2.6660	0.7214	3.2939	1.9771	*1.9237*	*1.9885*	2.0763
	N	262	262	262	262	262	262	262	262	262
	Standard deviation	2.32264	2.84292	3.17920	1.86381	2.91933	2.67374	2.01001	1.72536	1.75782
Zabaikalskyi krai	Mean	0.8872	**2.1479**	2.2159	0.7121	4.0000	2.2451	*1.7588*	*2.3385*	2.1595
	N	257	257	257	257	257	257	257	257	257
	Standard deviation	2.20416	2.85481	2.94960	1.87572	2.87228	2.75678	1.87609	1.72476	1.55179
Kemerovo oblast	Mean	**1.5308**	2.0962	**2.9903**	**1.1038**	**5.6115**	**2.6308**	***2.2462***	***3.1000***	**2.8115**
	N	260	260	260	260	260	260	260	260	260
	Standard deviation	3.07610	2.84923	3.30067	2.31846	1.69688	2.89358	2.33179	1.52381	1.69915
Total	Mean	1.1399	2.0963	2.6258	0.8460	4.3004	2.2837	1.9769	2.4750	2.3492
	N	779	779	779	779	779	779	779	779	779
	Standard deviation	2.57628	2.84559	3.15924	2.03615	2.73455	2.78545	2.08914	1.72247	1.70250

The maximum value corresponds to the maximum exclusion.

had 9, 1% 8, 5.6% 7, and 11.6% 6, with a mean value at a level of 5 describing 15.4% of elderly people.

On the basis of on the total index for a condition of social exclusion (*CondExclInd*), we concluded that the majority of respondents experience a condition of social exclusion (79.2%) with an intensity of 1–7. A considerable number of elderly people had a *CondExclInd* value of 2, 0.5% of respondents at a level of 7, 4% of 6, and 7.6% of 5, while the *CondExclInd* was lower for other groups.

Let us consider the total index of social exclusion (*GenExclInd*) of elderly and very elderly people in Altai krai, Zabaikalskiy krai, and Kemerovo oblast. In all three regions, the majority of old people are vulnerable to exclusion to a certain extent (86.4%), with the general social exclusion of old people being weak and medium in intensity. Hence, a fifth of the elderly population (21.1%) had *GenExclInd* in the range of 0.5–1.49. Almost the same amount of elderly people (20.2%) had 1.50–2.49, 17.2% were excluded at a level of 3, and 13.9% of 4. In these three regions, 8.1% of elderly people had a *GenExclInd* of 4.50–5.49. An amount of 3.6% of elderly people, with *GenExclInd* of 6, and, 0.6%, of 7 were socially excluded people at a level higher than the mean value.

Thus, the maximum value of the *GenExclInd* for the elderly and very elderly population in three regions

was 7 (the index values were 6.50 to 7.49). Table 1 presents the distribution of estimated index values.

The region-associated differences in distribution of the exclusion component indices were assessed with a comparative analysis of the mean index values (Table 2). According to the data in Table 2, there were no significant differences in the intensities of social-exclusion components. However, people from Kemerovo oblast were the most excluded, with higher mean exclusion values in almost all components and the higher mean total indices for the situation and condition of exclusion. Deprivation of social rights, *DA*, was the only component that was more intense in Zabaikalskiy krai than in Kemerovo oblast (the mean value was 2.15 in Zabaikalskyi krai, 2.10 in Kemerorvo oblast, and 2.05 in Altai krai).

In addition, elderly people in Altai krai had a similar level of both the condition (1.9885) and situation (1.9237) of social exclusion, while a condition of social exclusion had the maximum intensity in Kemerovo oblast and Zabaikalskiy krai: μSitExclInd = 1.7588 and μCondExclInd = 2.3385 in Zabaikalskiy krai and μSitExclInd = 2.2462 and μCondExclInd = 3.1000 in Kemerovo oblast, and μGenExclInd = 2.8115 in Kemerovo oblast, μGenExclInd = 2.1595 in Zabaikalskiy krai, and μGenExclInd = 2.0763 in Altai krai (μ is mean value).

IDENTIFICATION OF A POSTERIOR MODEL OF SOCIAL EXCLUSION

The correlation between the theoretical and empirical models of exclusion was tested using structural equation modeling (SEM) [9] based on a confirmatory approach. The model was tested using quality confirmation tests in the SEM to reveal the extent of coherence between patterns of dispersion and covariations in initial data with the structural (path) model specified by the researcher. During the modelling and model testing, we used the AMOS module (Analysis of Moment Structures) version 22.0.0 for IBM SPSS.

Three latent unobserved variables were used to construct the structural model: *F*1 describes a situation of social exclusion, *F*2 a condition of exclusion, and *F*3 the risk of social exclusion. Based on previous analysis, we assumed that a situation of exclusion consists of *MD*, *DA*, and *Envr* and a condition of exclusion consists of *SP*, *CD*, and *SA*. The latent variable *F*3 indices were gender, financial situation, educational level, family status, presence of children, and scale of pension.

As a result of the modeling, we tested the derived null model (Fig. 1) for confirmation. The results of a posteriori testing of the proposed model demonstrate a good correlation between theoretical and empirical models of social exclusion in elderly people: the model value χ^2 is not significant at $p < 0.0001$ and CMIN/DF ≤ 4 (CMIN/DF is the χ^2 value divided by

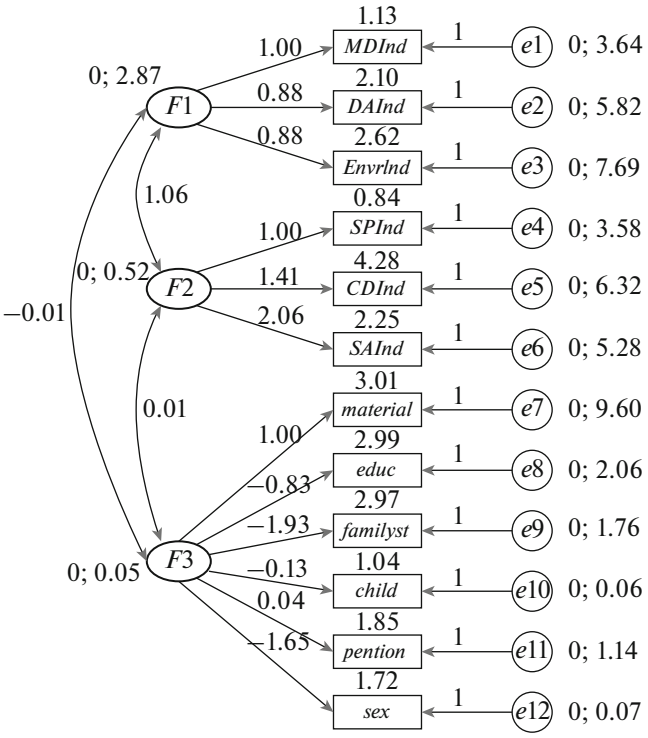

Fig. 1. Structural model of social exclusion among elderly people. *MDInd*, index of socioeconomic (material) deprivation; *DAInd*, index of deprivation of social rights; *EnvrInd*, index of deprivation of safety; *SPInd*, index of deprivation of social participation; *CDInd*, index of cultural (normative) disintegration; *SAInd*, index of social autism; *F*1, situation of exclusion; *F*2, condition of exclusion; *F*3, risk of social exclusion; *e*1, 2, 3, 4, 5, 6, 7, 8, 9, errors of endogenous (dependent) variables; *material*, financial situation; *educ*, educational level; *familyst*, family status; *child*, presence of children; *pension*, pension scale; *sex*, gender.

the number of degrees of freedom in the model; the criterion shows the adequacy of the χ^2 value for the model, with the optimal value of CMIN/DF varying from 1 to 3). the sample size is adequate for testing the model (HOELTER, $n = 327$), and the RMSEA (root-mean-square error of approximation) ≤ 0.05 corresponds to the research by L. Hu and P.M. Bentler [14].

CONCLUSIONS

In conclusion, the indicators selected during the theoretical modelling effectively reveal the probability of social exclusion in an empirical model and characterize a general situation, condition, and risk of social exclusion among elderly people living in the Siberian Federal Region of the Russian Federation.

ACKNOWLEDGMENTS

This study was supported by the Russian Foundation for the Humanities, grant no. 15-03-00579

"Social Exclusion of Older People in Contemporary Russia" for 2015–2017.

REFERENCES

1. Anisimov, V.N. and Zharinov, G.M., Lifespan and longevity among representatives of creative professions, *Adv. Gerontol.,* 2014, vol. 4, no. 2, pp. 83–94.
2. Bashkireva, A.S., Vylegzhanin, S.V., and Kachan, E.Yu., Urgent problems in social gerontology in modern Russia, *Usp. Gerontol.,* 2016, vol. 29, no. 2, pp. 379–386.
3. Grigoryeva, I.A. and Bikkulov, A.S., Aging, health, and active longevity: semantic context of references to them in social networks, *Adv. Gerontol.,* 2015, vol. 5, no. 4, pp. 315–319.
4. Elyutina, M.E., Elderly people: attitude to death and tanatic anxiety, *Sotsiol. Issled.,* 2015, no. 10, pp. 111–119.
5. Krasnova, O.V., Retirement and identity of women, *Psikhol. Issled.,* 2014, vol. 7, no. 35, p. 6. http://psystudy.ru. Accessed May 24, 2017.
6. Maksimova, S.G., Noyaznina, O.E., Maksimova, M.M., and Shcheglova, D.K., Social exclusion of older persons: socio-economic aspects, *Vestn. Altaisk. Gos. Agrar. Univ.,* 2015, no. 5 (127), pp. 180–184.
7. Maksimova, S.G., Omel'chenko, D.A., Avdeeva, G.S., et al., Empirical models of old age perception in the context of a new gerontological reality: a comparative analysis of the results of sociological research in four regions of Russia, *Izv. Altaisk. Gos. Univ.*, 2012, no. 2-2 (74), pp. 242–245.
8. Saponov, D.I. and Smol'kin, A.A., Social exclusion of the elderly people: the development of a measurement model, *Monitoring,* 2012, no. 5 (111), pp. 83–94.
9. Structural modeling in SPSS AMOS. http://moodle.herzen.spb.ru. Accessed October 29, 2016.
10. Bonfatti, A., Celidoni, M., Weber, G., and Börsch-Supan, A., Coping with risks during the great recession, in *Ageing in Europe—Supporting Policies for an Inclusive Society,* Börsch-Supan, A., Kneip, T., Litwin, H., et al., Eds., Boston: De Gruyter, 2015, pp. 225–234.
11. Dahlberg, L. and McKee, K.J., Correlates of social and emotional loneliness in older people: evidence from an English community study, *Aging Mental Health,* 2014, vol. 18, pp. 504–514.
12. Delfani, N., De Deken, J., and Dewilde, C., Poor because of low pensions or expensive housing? The combined impact of pension and housing systems on poverty among the elderly, *Int. J. Hous. Policy,* 2015, vol. 15, pp. 260–284.
13. Hrast, M.F., Mrak, A.K., and Rakar, T., Social exclusion of elderly in Central and Eastern Europe, *Int. J. Soc. Econ.*, 2013, vol. 40, pp. 971–989.
14. Hu, L. and Bentler, P.M., Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives, *Struct. Equation Model.,* 1999, vol. 6, no. 1, pp. 1–55.
15. Kingston, P.W., The unfulfilled promise of cultural capital theory, *Soc. Educ.,* 2001, vol. 74, pp. 88–99.
16. Milbourne, P. and Doheny, S., Older people and poverty in rural Britain: material hardships, cultural denials and social inclusions, *J. Rural Stud.,* 2012, vol. 28, pp. 389–397.
17. Myck, M., Najsztub, M., and Oczkowska, M., Measuring social deprivation and social exclusion, in *Ageing in Europe—Supporting Policies for an Inclusive Society*, Börsch-Supan, A., Kneip, T., Litwin, H., et al., Eds., Boston: De Gruyter, 2015, pp. 67–78.
18. Najsztub, M., Bonfatti, A., and Duda, D., Material and social deprivation in the macroeconomic context, in *Ageing in Europe—Supporting Policies for an Inclusive Society,* Börsch-Supan, A., Kneip, T., Litwin, H., et al., Eds., Boston: De Gruyter, 2015, pp. 79–90.
19. Ogg, J. and Renaut, S., Social inclusion of elders in families, in *From Exclusion to Inclusion in Old Age: A Global Challenge,* Scharf, T. and Keating, N., Eds., Bristol: Policy Press, 2012, pp. 89–108.
20. Popay, J., Escorel, S., Hernández, M., et al., *Understanding and Tracking Social Exclusion: Final Report to the WHO Commission on Social Determinants of Health,* Lancaster: Social Exclusion Knowledge Network, 2008, p. 207.
21. Rozanova, J., Keating, N., and Eales, J., Unequal social engagement for older adults: constraints on choice, *Can. J. Aging,* 2012, vol. 31, pp. 25–36.
22. Scharf, T. and Keating, N., Social exclusion in later life: a global challenge, in *From Exclusion to Inclusion in Old Age: A Global Challenge*, Scharf, T. and Keating, N., Eds., Bristol: Policy Press, 2012, pp. 1–16.
23. Serrat, R., Villar, F., and Celdrán, M., Factors associated with Spanish older people's membership in political organizations: the role of active aging activities, *Eur. J. Ageing,* 2015, vol. 12, pp. 239–247.
24. Victor, C.R. and Bowling, A., A longitudinal analysis of loneliness among older people in Great Britain, *J. Psychol.,* 2012, vol. 146, pp. 313–331.
25. Walsh, K., Scharf, T., and Keating, N., Social exclusion of older persons: a scoping review and conceptual framework, *Eur. J. Ageing,* 2017, vol. 14, no. 1, pp. 81–98.
26. Walsh, K., Interrogating the 'age-friendly community' in austerity: myths, realties and the influence of place context, in *Ageing Through Austerity: Critical Perspectives from Ireland,* Walsh, K., Carney, G., and Léime, A.N., Eds., Bristol: Policy Press, 2015, pp. 79–95.
27. Warburton, J., Cowan, S., Winterton, R., et al., Building social inclusion for rural older people using information and communication technologies: perspectives of rural practitioners, *Aust. Soc. Work.,* 2014, vol. 67, pp. 479–494.

Translated by M. Novikova