

Measuring Social Embeddedness of Older Adults¹

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In an ageing society facing challenges for the sustainable well-being of older adults, there has been an increasing focus on the potential of soft power in recent years. Like economic and structural, social indicators can become integral indicators of older generations' well-being. This study aims to propose a construct of the social embeddedness of older adults and its measurement tool, based on a critical review of the literature and the results of an original empirical study, to fill the knowledge gap in current statistics in the field. A critical review of the literature has disclosed that, despite many studies done, we do not have a methodological tool suitable for revealing patterns of social ties specific to older adults. The results of an empirical study of the population aged 50 and over in Lithuania, Latvia and Estonia ($N = 2015$) showed that the social embeddedness of older people in the Baltics is composed of these domains: socialisation with descendants, nonfamily and outside home – together named as social participation; civic participation and sense of belonging. Future research should look at ways to shorten this scale to adapt it to the needs of practical use.

Keywords: social participation, civic participation, sense of belonging, older adults, quantitative survey, measurement

INTRODUCTION

Most European countries face population ageing (Gaspari 2016; Börsch-Supan et al. 2015) and increased political and practical attention to the well-being of older people (Tur-Sinai 2022; Boerio et al. 2021). To allocate relatively limited resources available for social policies and programmes most efficiently, availability of statistical data on the well-being of older people is essential. However, not all indicators are equally well developed, which limits the ability of policymakers to adequately assess the welfare of older people in the country and to make decisions on policy measures with the greatest impact at the lowest cost.

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Literature has shown a broad consent of international scholarship, which considers a person's social well-being an essential component of quality of life and overall well-being (Fu et al. 2021; Helliwell, Putnam 2005; WHO 1948). Social exclusion researchers consider the exclusion of a person from social relations as one of the critical elements of this complex phenomenon (Walsh et al. 2017 and other). Numerous studies confirm that without the development and maintenance of social relationships a person runs the risk of becoming socially isolated and feeling lonely, with all the consequences that this entails (Holt-Lunstad et al. 2012; Asante, Karikari 2022; Santini et al. 2020).

However, the collection of statistical data on the well-being of older adults is still limited to more easily quantifiable indicators, such as income, employment status, attained education, subjective health, household structure, marital status, social services received, etc. Meanwhile, the measurement of their social embeddedness is not yet sufficiently developed (Fu et al. 2021; UNECE 2016). There are several reasons for this: the complexity of the phenomenon of social embeddedness, the diversity of theories and concepts explaining social relations, and different socio-cultural contexts moderating effects.

Therefore, we undertake an effort to fill in the knowledge gap on a less developed indicator of older adults' social wellbeing – their social embeddedness level. To this end, we will first evaluate the instruments described in the literature, design and complete our questionnaire, and evaluate the dimensionality of the constructed concept of social embeddedness of older adults using survey results in the Baltics.

THEORETICAL CONTEXT: SOCIAL PARTICIPATION, CIVIC PARTICIPATION AND THE SENSE OF BELONGING

Many studies have relied on fragmented one-sided concepts of social relationships, focusing on one or another aspect of social relations and social ties (Lubben et al. 2006; Bailey et al. 2018). Others tried to have a more complex look – to cover a broader range of objective indicators of social activities (Levasseur et al. 2010). Recently, however, researchers have emphasised the need to rely not only on objective but also subjective indicators of a person's social activity (Cordier et al. 2017). We propose a unique set of indicators for measuring social embeddedness of older adults. It consists of the following interrelated elements: social participation, civic participation, and a sense of belonging.

Most questionnaires of the well-known academic social survey programmes (EWS, WVS, ESS, EQLS, see Table 1) focus on the general population, which means that older people constitute only a small portion in the sample. With the goals and objectives of the programmes being very broad, the topic of social relationships has been narrowed and fragmented, often focusing on social support networks (GGS-I, GGS-II, SHARE) or simply on quantitative parameters of social networks (EVS, WVS, AAI, GAWI). Academic social survey programs, which target a specific group – older adults, began to emerge only in the 21st century (SHARE, AAI, GAWI, see Table 1). Although only one of them, the SHARE, managed to ensure sustainability, the other two programs were stopped. The geographical coverage of the surveys carried out (SHARE, GGS-I, GGS-II) is limited and varying, which means that information on older people in some countries is lacking.

Table 1. The topics related to social embeddedness covered by existing academic social survey programmes²

Academic social survey programmes	Topics related to social embeddedness	Age of the target population	Frequency	Timing
European Values Study (EVS)	Social networks, confidence in others, solidarity	18+	1981, 1990, 1999, 2008, four waves	1981–2008
World Values Survey (WVS)	Societal well-being; social capital, trust and organisational membership	18 (16/17 is acceptable in the countries with such voting age)	Seven waves	1981–2022
Gender and Generation Survey (GGS-I, GGS-II)	Social support networks	18–59	Four waves	2004–2012
European Social Survey (ESS)	Participation in society and community Social exclusion and support	15+	Biannual, ten waves	2002–2022
European Quality of Life Survey (EQLS)	Social insecurity, perception of social exclusion and societal tensions, trust in people and institutions, participation and community engagement	18+	Every four years: 2003, 2007, 2012, 2016, four waves	2003–2016
Survey of Health, Ageing and Retirement in Europe (SHARE)	Family network and social support within it	50+	Biannual: eight waves	2004–2020
Active Ageing Index (AAI)	Participation in society (based on 4 items drawn from EQLS)	55+	Biannual	2008–2018
Global AgeWatch Index (GAWI) ³	Social connections (1 item)	50+	Yearly: 2013, 2014 and 2015	2013–2015

Source: compiled by authors based on European Values Study (EVS); World Values Survey (WVS); Gender and Generation Survey; European Social Survey (ESS); European Quality of Life Survey (EQLS); Survey of Health, Ageing and Retirement in Europe (SHARE); Active Ageing Index (AAI); Global AgeWatch Index (GAWI).

Besides the instruments mentioned above, there were multiple attempts to develop different research tools to measure an individual's social ties, both in the general population and among the older adults (Table 2).

Despite the multitude of scales, we do not find instruments suitable for determining the social embeddedness of older people. Most of them are designed for the goals of psychological research (Berscheid et al. 1989; Landerman et al. 1989; Koenig et al. 1993; Lee, Robbins 1995; Cornwell et al. 2008; Capanna et al. 2013; Steinman et al. 2021), focus on recording the quantitative (and objective) parameters of a person's social relationships (Lubben et al. 2006; Bailey et al. 2018) or target older people with specific needs only (see Table 2). Others

² Academic social survey programmes are large-scale, cross-national, often multi-disciplinary, repeated cross-sectional survey research programmes on a specified set of topics.

³ Since 2018 instead of Global AgeWatch Index data are collected for 12 low- and middle-income countries (LMICs) only and the instrument was renamed 'Global AgeWatch Insights' (Cruz-Martinez, Cerev 2019).

Table 2. Existing specialised scales for measuring social ties of individuals

The title of the scale	Author(s)	Year	Comments on the scale
Frenchay Activities Index (FAI)	Schuling et al.	1993	Developed for stroke patients
Adelaide Activities Profile (AAP)	Clark and Bond	1995	Revised FAI
Social Activities Index for Elderly People (SAI-E)	Hashimoto et al.	1997	Developed for older people with special needs
Social Activities Scale for Community-dwelling Older Women Requiring Support (SASOWS)	Hirano, Kawahara and Saeki	2015	–“–
Social Activities Scale for Community-dwelling Older Men Requiring Support (SASOMS)	Hirano, Saeki and Ueda	2018	–“–
Social Activities Scale for Community-Dwelling Older People Requiring Support (SASOS)	Hirano, Saeki and Ueda	2020	–“–
Duke Social Support Index (DSSI)	Landerman et al. Koenig et al.	1989 1993	Psychology questionnaire; 35 items Shortened to 23 and 10 items
Social Connectedness	Steinman et al.	2021	Psychology questionnaire, based on DSSI-10
Social Connectedness Scale (SCS)	Lee and Robbins	1995	Psychology questionnaire
Social Connectedness	Cornwell, Laumann and Schumm	2008	–“–
Social Connectedness Scale – Revised (SCS-R)	Capanna et al.	2013	–“–
Lubben Social Network Scale (LSNS-6)	Lubben et al.	2006	6 items, measures the size and frequency of contact between the R and her/his social networks
Social Disconnectedness Scale	Cornwell and Waite	2009	Complicated structure; negative formulation
Social Connectedness Index	Bailey et al.	2018	Based on friendship links on Facebook, for general population
Subjective Closeness Index (SCI)	Berscheid, Snyder and Omoto	1989	Psychology questionnaire
Social Relationships Index (SRI)	Uchino et al.	2001	Psychology questionnaire; quantity of social network; type of social ties

Source: compiled by authors.

(Bailey et al. 2018) developed the Social Connectedness Index based on a quite specific criteria – person’s friendship links on Facebook and focused on the general population. We also consider the Social Disconnectedness Scale (Cornwell, Waite 2009), which is formulated negatively, and its structure is quite complex to be useful for our aim.

Our principal approach is to consider the nature of social relationships among older people using positive concepts (without concentrating exceptionally on extreme cases, for example, when they feel lonely or excluded from social relationships) and to cover both quantitative and qualitative indicators. Such an approach makes it possible to reveal the levels of

manifestation (strong, moderate, weak) of the phenomenon under study and focus not solely on the lack of social ties. This conceptual position is closer to the reality and captures multiple combinations of nuances.

The concept of social embeddedness is not a new one. The theoretical foundations of social embeddedness have been developed by both sociology classics (Simmel 1908, recited from Wolff 1950; Park 1924; Weber 1978 [1922]) and more recent sociologists (Giddens 1979; Steinkamp, Kelly 1987; Hagerty et al. 1992; Cordier et al. 2017). It has always been a field of research favourably developed by social psychologists (Lewin 1951; Lee, Robbins 1995; Capanna et al. 2013; Steinman et al. 2021). However, there is still little consensus of researchers regarding conceptualisation and measurement of social embeddedness.

To the authors' best knowledge, few studies examine the social embeddedness of older people covering at the same time their social and civic participation (objective indicators) and the sense of belonging (subjective indicator) (Cordier et al. 2017).

We define social embeddedness as 'the nature, depth and degree of bond of a given entity with its environment (social community)' (Czernek-Marszałek 2020: 2), categorising relationships as falling along a continuum of strong (socially embedded) to weak (Czernek-Marszałek 2020; Mikulionienė et al. 2021).

Social participation is one of the most used indicators of person's social well-being (Fu et al. 2021; Sirven, Debrand 2008), usually measured quantitatively as the frequency of communication with others or the size and composition of social networks (Ayalon, Levkovich 2019; Uchino et al. 2001). This key reference indicator describes not only a person's social life, but also closely relates to her/his cognitive functioning (Kelly et al. 2017), and even mortality (Holt-Lunstad, Smith 2012).

If social participation is the realisation of one's social needs, ensuring a personal social well-being, the driving power of *civic participation* is caring for the good of a community/society – it is the pursuit of a higher-level goal (Serrat et al. 2020; Levasseur et al. 2010) by equating one's personal benefits with those of community/society. The prevalence of civic participation in society reflects social maturity of its members. Thus, it is one of the essential elements to include into social embeddedness construct.

Literature shows that 'most human beings evaluate whether they belong or fit in with those around them' (Allen et al. 2021: 94). Therefore, we include in the construct of social embeddedness the *sense of belonging* – to the family, neighbourhood and society as a whole. This is a particularly important indicator, as it reflects the individual's subjective perception of quality of her/his social life. In fact, up to now various social science disciplines have developed a wide range of specific measures and scales of belonging (Allen, et al. 2021; Mahar et al. 2014). Based on the *integrative framework for understanding, assessing and fostering belonging*, proposed by Allen et al. (2021), we are interested in its last component, namely, in perceptions of belonging.

We believe that the synergy of these core dimensions of social embeddedness – social participation, civic participation and the sense of belonging – have a potential to explain and contextualise social well-being of older adults in a sensitive and holistic way.

METHODS

Sampling and fieldwork. At a national level, representative samples of the population aged 50 and over in Lithuania, Latvia and Estonia were taken from the most recent population data from the national statistics offices. The total sample size was 2015 respondents (800 in Lithuania, 605 in Latvia and 610 in Estonia; for more information on the sample, see Mikulionienė et al.

2021). The survey was conducted through face-to-face interviews at each respondent's home in the late 2019.

The *survey questionnaire* (among other questions) included 15 items (the list of them is introduced in Table 3) representing the dimensions of social embeddedness construct. The first

Table 3. Loadings from the first five factors from the Principal Component Analysis solution

	Dimensions and indicators	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	h ²
Social participation							
1	Hosted guests	0.811	0.144	0.083	-0.225	0.070	0.678
2	Visited others	0.735	0.085	0.366	-0.171	0.218	0.624
3	Participated in social eating in public place	0.305	-0.056	0.760	-0.148	-0.028	0.649
4	Consumed culture	0.233	-0.013	0.795	-0.185	0.021	0.659
5	Participated in religious or spiritual meeting	-0.035	-0.025	0.050	-0.095	0.685	0.492
6	Participated in sports activities	-0.064	0.142	0.649	-0.223	0.207	0.499
7	Interacted with children	0.154	0.862	0.030	-0.133	-0.029	0.759
8	Interacted with grandchildren	0.109	0.863	0.013	-0.126	0.161	0.757
9	Interacted with neighbours	0.387	0.266	-0.112	-0.157	0.625	0.564
10	Interacted with friends	0.408	0.221	0.275	-0.194	0.451	0.383
Civic participation							
11	Voted in national elections	-0.088	-0.040	0.382	-0.407	0.329	0.347
12	Undertook civic actions	0.211	-0.176	0.432	-0.242	0.408	0.376
Sense of belonging							
13	Feels close to family	0.127	0.337	0.172	-0.757	0.066	0.651
14	Feels close to neighbourhood	0.286	0.130	-0.013	-0.751	0.383	0.692
15	Feels a full-fledged member of society	0.092	-0.053	0.271	-0.783	0.037	0.657
Proportion of variance		21.89%	12.34%	9.11%	8.47%	6.77%	
Domains assessed		Socialisation at home, with friends	Socialisation with descendants	Civic actions and socialisation in public spaces	Lack of sense of belonging	Community-related actions	

version of the questionnaire was reviewed by three experts in the field of ageing research, one from each Baltic country. Items 1–12 were assessed by all three experts as corresponding to the conceptual framework and suggested for the final version of the questionnaire; for items 13–15 two experts provided remarks to consider before including them into the final questionnaire (e.g. paying attention that item 13 is not relevant for those without a family). The remarks were regarded where relevant for the aims of the research. The updated version of the questionnaire was reviewed by the field-work coordinating company; after initial remarks and revision, the Lithuanian version of the questionnaire was piloted in Lithuania with the respondents from the target population and reviewed again. Further, the questionnaire was translated by professional translators into Latvian, Estonian and Russian languages; translations were thoroughly checked by research team members who knew at least one or two of the languages. At the next step, the translated questionnaires were piloted in Latvia and Estonia, respectively. The pilots did not reveal any major issues; however, some clarifications or corrections were considered. After the last reviews were completed, the questionnaire was released for the field-work.

Analysis. Due to its conceptual multiplicity and measurement strains, an operational definition of social embeddedness was constructed from three main dimensions – social participation, civic participation and the sense of belonging. These three key dimensions functioned as a platform for conducting an empirical survey of the social embeddedness of older adults in the Baltics. We explored the dimensionality of our scale in a two-step procedure. The first step involved a Principal Component Analysis (PCA) aimed at identifying how the items of the initial model behave in our sample. The second step was to assess the suggested structure by Confirmatory Factor Analysis (CFA). The two steps of analysis were performed using separate samples by splitting the data and randomly assigning half of the sample to PCA and half to CFA. The factor analysis was performed using *oblimin rotation with Kaiser Normalization*. To check if our data met the relevant assumptions, we investigated each individual variable for normality and the extent of variable inter-correlation. Factorability was tested by analysing the sampling adequacy measures and determining whether the sample size was sufficient. All analyses were performed using the IBM SPSS Statistics 27 with the AMOS extension for CFA.

RESULTS

Prior to running the factor analysis, the normality of variable distribution was checked using a Shapiro–Wilk test. All of the variables were shown to be significantly skewed even after attempts to transform them logarithmically. However, since the Shapiro–Wilk test has been reported to be overly conservative, we additionally visually inspected the data distribution and the QQ plots.

Items 6 ‘Participated in sports activities’ and 12 ‘Undertook civic actions’ were shown to have a clear flooring effect and item 11 ‘Voted in national elections’ had binary responses, therefore yielded a limited variation. However, since the aim of this study was to compare the answers of the Baltic population on the same items that had been analysed elsewhere and the reasons for the skew could be attributed to the population and the concept studied, it was decided to proceed with the analysis without removing the skewed or binary variables from the model.

The factor analysis was performed on half of the sample. This included 1,007 randomly selected participants for the PCA and 1,008 participants for the CFA. The distributions of items in the datasets were shown to be well matched and exhibited identical skew tendencies.

In the first sample, 737 (73.2%) participants had complete data and thus were included in the PCA. Since a large share of items were non-normally distributed, we chose to employ the non-parametric Spearman's test to measure the extent to which the items were inter-correlated. The items were found to be sufficiently inter-correlated to allow further analysis. The Bartlett's test of sphericity was found to reach significance ($X^2 = 2089, p < 0.001$); the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy for the overall model was 0.728. Measures of Sampling Adequacy (MSA) were above 0.5 for all individual items, therefore none of them were removed. Further analysis was performed on 15 variables on 737 subjects, giving a ratio of 49.13 (Cases/Items), which was reasonably high to allow further investigations.

To determine the most appropriate number of factors to extract from the PCA we used the Cattell's Scree Plot. Five factors had Eigenvalues over the value of 1, supporting a five-factor solution, explaining 58.6% of variance (Table 3). It is important to note that communalities of items 10 'Interacted with friends', 11 'Voted in national elections' and 12 'Undertook civic actions' were less than 40% thus should be interpreted with caution.

In the CFA sample, 762 (75.6%) subjects had complete data and were included in the confirmatory factor analysis. Again, the items were found to be sufficiently inter-correlated to allow further analysis. The Bartlett's test of sphericity was found to reach significance ($X^2 = 2249, p < 0.001$); the KMO measure of sampling adequacy for the overall model was 0.705. MSA were above 0.5 for all individual items, therefore none of them were removed. The CFA model explained 58.95% of the data and the variables loaded on the five factors (Table 4).

Table 4. Loadings from the five factors from the Confirmatory Factor Analysis model

	Dimensions and indicators	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	h^2
Social participation							
1	Hosted guests	0.657	-0.294	-0.042	-0.370	0.145	0.555
2	Visited others	0.608	-0.491	-0.079	-0.272	0.209	0.604
3	Participated in social eating in public place	0.181	-0.797	-0.013	-0.012	0.051	0.647
4	Consumed culture	0.152	-0.810	0.127	-0.029	0.142	0.663
5	Participated in religious or spiritual meeting	0.187	-0.009	-0.099	-0.030	0.802	0.707
6	Participated in sports activities	0.036	-0.637	0.180	0.047	0.039	0.432
7	Interacted with children	0.140	-0.014	0.163	-0.851	0.083	0.730

Table 4. (Continued)

	Dimensions and indicators	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	h ²
8	Interacted with grandchildren	0.171	0.071	0.134	-0.844	0.039	0.724
9	Interacted with neighbours	0.696	0.195	0.225	-0.163	0.165	0.607
10	Interacted with friends	0.688	-0.254	0.157	-0.069	0.032	0.517
Civic participation							
11	Voted in national elections	-0.057	-0.142	0.311	-0.070	0.666	0.532
12	Undertook civic actions	0.264	-0.354	0.294	-0.032	0.278	0.267
Sense of belonging							
13	Feels close to family	0.135	-0.082	0.696	-0.380	0.207	0.580
14	Feels close to neighbourhood	0.460	0.128	0.639	-0.141	0.328	0.651
15	Feels a full-fledged member of society	0.089	-0.284	0.749	-0.103	0.015	0.627
Proportion of variance		20.99%	13.56%	9.15%	8.28%	6.98%	
Domains assessed		Socialisation with nonfamily	Lack of socialisation outside home	Sense of belonging	Lack of socialisation with descendants	Community-related actions	

In the CFA only a small amount of item ‘Undertook civic actions’ variance (communalities below 30%) was included in the model, therefore the loadings of this item should be interpreted with caution.

In both models, the first factor explained the variance relating to socialisation at home, whether being a guest or hosting guests, as well as with friends and neighbours. This factor explained the largest share, over a third of the total model variance, thus it can be concluded that being a guest or hosting guests is a large and clear dimension of social embeddedness in the Baltics. The other dimensions included socialisation with family, socialisation in public spaces and participating in community-related activities. Therefore, there is evidence that the CFA has supported the dimensionality proposed by the PCA.

The extracted factors showed a weak inter-correlation (Figure), meaning that the underlying factors represent clear and separate domains of social embeddedness that need to be assessed separately in future scales. Only two items loaded on more than one domain – ‘Feels close to neighbourhood’ and ‘Visited others’, revealing that besides socialisation with nonfamily they measure the sense of belonging and socialisation outside home, respectively.

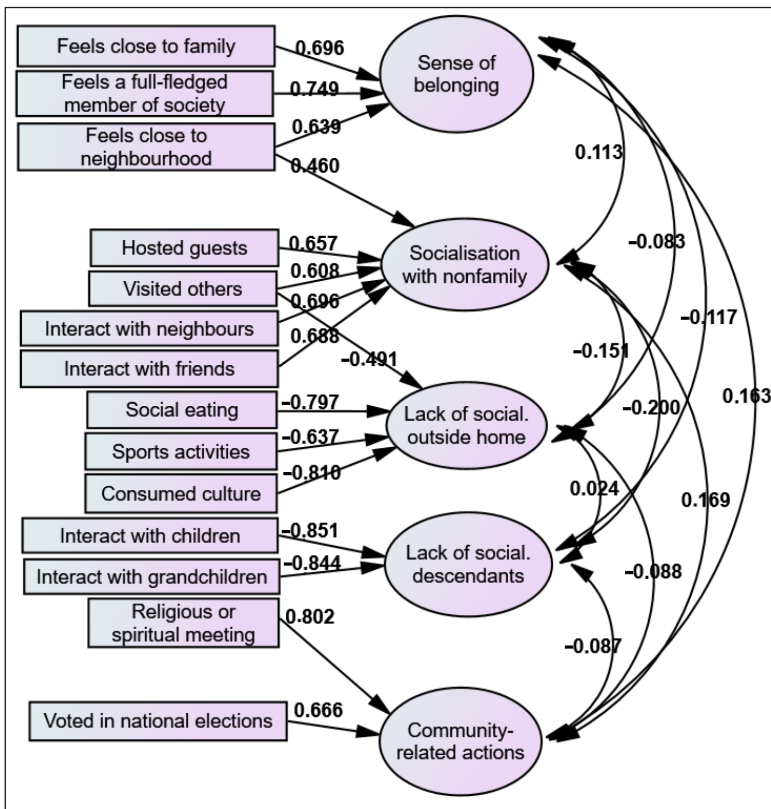


Figure. Relationships among items and factors in the Confirmatory Factor Analysis model

The results of the analysis allow us to conclude that the Exploratory Factor Analysis indicated the five-factor structure, based on 15 items, which accounted for 58.6% (for PCA) and 58.95% (for CFA) of the total variance. It was characterised by strong factor loadings ranging in values from $-.85$ to $.80$.

DISCUSSION AND CONCLUSIONS

This paper reports the analysis of dimensionality of social embeddedness' construct of older adults in the Baltics. The gathered data and the performed analysis provided evidence that only the items measuring the sense of belonging group together not only in a theoretic sense, but also when analysed psychometrically. Social participation, however, appeared to be consisted of three separate domains that future scales should evaluate separately. There is a substantial statistical evidence that the sense of belonging is a separate domain. Civic participation seems to be partly separate, although it involves voting and religious gatherings. And here is the biggest discovery: social participation is very heterogeneous – both psychometric analyses have revealed that this construct consists of three distinct substructures: socialisation with descendants, with nonfamily, and socialisation outside home.

Factors relating to socialisation with family, socialisation in public spaces and the sense of belonging have yielded both positively (as a trait) and negatively (as its lack) in the two analyses. Even though both models showed the importance of these aspects for overall social embeddedness, we noted that this relationship seemed a bit more complex – it appeared that lacking such interactions diminishes one's embeddedness. We conclude that the concept of social embeddedness should be considered not only as a compilation of factors that have a positive effect, but also as lack of factors that have a negative effect.

There are some limitations of this study. Three of the 15 variables did not fit the required normality assumption to be included in the factor analysis; however, as already been argued earlier, we chose to sacrifice the psychometric properties of the scale in order to retain all of the variables so that their relationships in the Baltic population could be studied. This was since the reasons for the observed skew could be attributed to the study population. For example, very few elderly people participate in sports activities or undertake civic actions (items 6 and 12), giving a significant flooring effect to these variables, which could represent the specific traits of the Baltic population rather than a poor question construction. It can be inferred that the Baltic residents with each passing year participate less and less in activities outside their home, shifting the answer distribution towards a negative skew in the elderly. Moreover, the binary item 11 'Voted in national elections' was chosen to retain as it contains valuable information that could not be obtained in other formats. Therefore the 3 non-normally distributed items were chosen to retain in the scale, hence affecting the amount of variance explained.

The application of the social embeddedness lens allows for the nuanced disclosure of the embeddedness of older people in the family, neighbourhood and society. It enables more affluent, sensitive and detailed interpretations of the levels of social embeddedness of older adults. The study contributed to the development of the social embeddedness construct – through its theoretical shape to a measurement tool. The analysis reveals that social embeddedness is composed of five domains, rather than three and that future scales measuring social participation should split the questions into three domains, measuring social participation with descendants, nonfamily and outside home separately. The construct can be used as a good quality data to inform social policy and programme response. However, there is room for future researchers to think about how to modify this scale to an even shorter version that would be more suitable for practical use.

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SARMITĖ MIKULIONIENĖ, INGA GAIŽAUSKAITĖ, RAMUNĖ DIRVANSKIENĖ

Vyresniųjų suaugusiųjų socialinio įsitvirtinimo matavimas

Santrauka

Senstančioje visuomenėje, susiduriant su iššūkiais užtikrinti tvarią vyresnio amžiaus žmonių gerovę, pastaraisiais metais vis dažniau atkreipiamas dėmesys į švelniąsias galias. Socialiniai rodikliai, panašiai kaip ir ekonominiai bei struktūriniai, gali tapti integraliais vyresniosios kartos gerovės rodikliais. Todėl šio tyrimo tikslas, remiantis kritine literatūros apžvalga ir originalaus empirinio tyrimo rezultatais, pasiūlyti vyresnio amžiaus žmonių socialinio įsitvirtinimo konstrukta ir jo matavimo instrumentą, taip siekiant užpildyti žinių spragą dabartinėje statistikoje. Kritinė literatūros apžvalga atskleidė, kad, nepaisant daugybės atliktų tyrimų, neturime instrumento, tinkamo atskleisti vyresnio amžiaus žmonėms būdingų socialinių saitų modelių. 50 metų ir vyresnių Lietuvos, Latvijos ir Estijos gyventojų empirinio tyrimo ($N = 2015$) rezultatai parodė, kad vyresnio amžiaus žmonių socialinis įsitvirtinimas Baltijos šalyse susideda iš šių sričių: socializacijos su palikuonimis, ne šeimos nariais ir viešose vietose (tris minėtas sritis kartu vadinant socialiniu dalyvavimu) bei pilietinio dalyvavimo ir priklausymo jausmo. Atliekant tolesnius tyrimus, reikėtų ieškoti būdų, kaip sutrumpinti šią skalę, kad ji būtų pritaikyta naudoti praktiškai.

Raktažodžiai: socialinis dalyvavimas, pilietinis dalyvavimas, priklausymo jausmas, vyresnieji suaugusieji, kiekybinis tyrimas, matavimas