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Abstract

Background: Compared with other European countries, older people in Romania experience high rates of poverty and disability. In this, the first study to investigate wellbeing in older Romanian people attending public and third sector day facilities, we tested our hypotheses, based on a successful ageing model, that greater wellbeing would be associated with a healthier lifestyle (lower levels of alcohol consumption and smoking), better physical health, mental health, social support (less loneliness) and absence of abuse. Methods: Older people (65+) without significant cognitive impairment, recruited from three Bucharest social care centres, completed structured questionnaires. Our primary outcome was the 5-item World Health Organization Well-Being Index (WHO-5). Results: 100/140 (71%) eligible potential participants approached participated; mean WHO-5 score was 67.7 (standard deviation = 20.7); 25 (25%) scored <50, indicating low wellbeing. In our final model, lower depression ($\beta=-0.40$, $t=-3.8$, $p<0.001$) and loneliness scores ($\beta=-0.22$, $t=-2.1$, $p=0.034$) predicted higher wellbeing. More physical health problems and hospitalisations were associated with lower wellbeing on univariate analyses, but not in the final model. Screening positive for abuse (23 (23%) of participants), activities of daily living, alcohol and smoking status did not predict wellbeing. Conclusions: Despite experiencing high rates of loneliness, depression, anxiety and abuse, this population of older, Romanian people receiving social support, reported wellbeing levels comparable to European working populations. Loneliness was a more important predictor of lower wellbeing than any other factors studied. Tailored interventions to reduce loneliness in Romanian older people receiving community social support would be a rational next step.

Keywords well-being; life satisfaction; older people; health; depression; anxiety; loneliness; elder abuse

Taxonomy Community Psychiatry, Psychogeriatrics

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Title page

Prevalence and correlates of Well-being in a cross-sectional survey of older people in
Romania attending community day facilities

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Abstract

Background: Compared with other European countries, older people in Romania experience high rates of poverty and disability. In this, the first study to investigate wellbeing in older Romanian people attending public and third sector day facilities, we tested our hypotheses, based on a successful ageing model, that greater wellbeing would be associated with a healthier lifestyle (lower levels of alcohol consumption and smoking), better physical health, mental health, social support (less loneliness) and absence of abuse.

Methods: Older people (65+) without significant cognitive impairment, recruited from three Bucharest social care centres, completed structured questionnaires. Our primary outcome was the 5-item World Health Organization Well-Being Index (WHO-5).

Results: 100 older people participated in the study; mean WHO-5 score was 67.7 (standard deviation = 20.7); 25 (25%) scored <50, indicating low wellbeing. In our final model, lower depression ($\beta=-0.40$, $t=-3.8$, $p<0.001$) and loneliness scores ($\beta=-0.22$, $t=-2.1$, $p=0.034$) predicted higher wellbeing. More physical health problems and hospitalisations were associated with lower wellbeing on univariate analyses, but not in the final model. Existing suspicion for elder abuse, activities of daily living, alcohol and smoking status did not predict wellbeing.

Conclusions: Despite experiencing high rates of loneliness, depression, anxiety and abuse, this population of older, Romanian people receiving social support, reported wellbeing levels comparable to European working populations. Loneliness was an important predictor of lower wellbeing. Tailored interventions to reduce loneliness in Romanian older people receiving community social support would be a rational next step.

Keywords:

well-being, life satisfaction, older people, health, loneliness, elder abuse

Running title:

Well-being in older people in Romania attending day facilities

Introduction

The Romanian population is aging: by 2060, it is projected that 30% of the population will likely be aged 65 or older (1). At age 65, Romanian life expectancy is second lowest in the European Union (EU). Compared with their counterparts from other European countries, Romanian people aged 65 and over live for more years with disabilities and are more likely to live in poverty. Rates of amenable (preventable) mortality are highest in the EU for women and third highest for men; Romania spends under a third of the EU average per capita on health. Levels of binge alcohol consumption are also higher than the European average (2). The low value of pensions and massive migration of children for work probably contribute to high rates of poverty among Romanian older people. The World Health Organization has described poverty as the greatest cause of suffering on earth (3).

The current study is, to our knowledge, the first to explore whether and how, despite these challenges, Romanian older people age successfully. Successful ageing has been defined not simply as longevity, but as (i) absence, or avoidance, of disease and risk factors, (ii) maintenance of physical and cognitive functioning and (iii) active engagement with life (4). Subsequent work has explored how older people are able to self-rate the extent to which they are ageing successfully; those who rated successful ageing higher were older and reported lower depression, better physical health and higher resilience (5).

In a meta-analysis, well-being in older people has been related to higher socioeconomic status, larger social networks and competence (6). Other domains associated with subjective wellbeing, health or survival include social, leisure, productive, physical, intellectual, service and solitary activities (7). There has been a dearth of research on successful ageing, or the related construct of wellbeing in old age in Romania. In a study that recruited people aged 65 and over in Bucharest, most participants rated their health as fair, and a quarter rated it as poor. Psychological health was associated with younger age, more education, extraversion, social support and lower neuroticism scores (8). One study reported high rates of depressive symptoms in a sample of Romanian people aged 60 and over recruited from one rural village. Depressive symptoms were higher in people who were living alone, with limitations in physical functioning and poor social support (9).

The limited existing literature thus suggests that levels of wellbeing among Romanian older people may be low, and that this could be partly explained by social isolation. In one pan-European study, being childless or having one rather than two children was a predictor of depressive symptoms in Eastern but not Western European countries; while having a partner protected from depression in both areas. The authors hypothesised that availability of social support from children might be of particular importance in Eastern Europe, where economic stresses are greater (10).

Many Romanian older people attend Seniors' clubs or day centres, organised by social services. These groups are primarily intended for older people living in the community, especially those who live alone. Seniors' clubs could be an appropriate cost-effective venue for health promotion interventions, but the characteristics and wellbeing of those attending has never been evaluated. To inform future targeted interventions, we conducted the first survey of Romanian older people recruited from these social organisations. We reported levels of wellbeing and life satisfaction in this population for the first time, and tested our hypotheses, broadly based on the model of successful aging outlined above, that greater wellbeing and life satisfaction (that we used as proxies for successful aging) would be associated with: avoidance of disease and risk factors for disease (lower levels of alcohol consumption and smoking, better physical health, fewer hospitalisations, better physical and

mental health), maintaining physical functioning (fewer impairments in activities of daily living) and active engagement in life (lower levels of loneliness and absence of abuse).

Methods

Population

Participants aged 65 and over were recruited from two seniors clubs and one older people's day centre in Bucharest. The two Seniors' Clubs (attended by a total of 270 older people in an average month) are managed by public Social Services, as a centre where community-dwelling older people can take part in leisure and social activities. The Day Center (attended by around 50 older people in a month) has similar activities, but is managed by a Non-governmental organisation. Seniors clubs are public or private facilities where older people living in the community can meet and participate in activities (such as foreign language lessons, handcraft or painting workshops, dancing, board games, photography); psychological counseling is also available). Clubs staff are usually supported by a social worker, psychologist and other mental health and social care professionals. Any person who has reached retirement age can join. These services are available to older people without charge, and are typically used by more disadvantaged, frail older people living in the community. Due to the high migration of Romanian younger adults, many older people are living alone and seniors clubs are places for socialization and for different activities.

We excluded people with significant cognitive impairment (operationalised as a Clock Drawing test score of 3 or below (11) who would have been unlikely to be able to complete the self-report questionnaires.

Procedures

Between April and December 2017, we invited 147 people to take part. IC and a second researcher attended the venues on a regular basis and invited all attendees to take part. Those who expressed an interest in participating were given an information sheet and we obtained written, informed consent for all participants. We recorded the number of older persons approached who did and did not participate in the study. If an older person was cognitively impaired or too unwell to take part in the survey, we asked an informant basic sociodemographic details.

Measures

IC and a second researcher interviewed participants using a standardised questionnaire to record sociodemographic details (see Table 1). They asked about alcohol consumed in an average week and current smoking status, current physical health problems and recent hospitalisations. Participants also completed the following questionnaires:

- The 5-item World Health Organization Well-Being Index (WHO-5) (primary outcome). This is among the most widely used questionnaires assessing subjective psychological well-being. It comprises five items, which are scored between 0 and 5. The final score is multiplied by 4 to obtain the final score, with higher scores indicating better wellbeing, and the possible range of score 0-100. A score of 50 or more is considered indicative of higher levels of wellbeing (12).
- The Hospital Anxiety and Depression Scale (HADS). It does not include somatic items (which can be misleading in older subjects) and has been validated throughout the age range and in all settings to identify clinically significant anxiety and depression. It assesses how the person has been feeling within the past week. It consists of two seven-item subscales, each score 0–3, which generate scores for generalised anxiety and depression (0–21) (13).
- The Satisfaction with Life Scale (14, 15) is a 5-items tool that measures the

components of subjective wellbeing/happiness. It measures cognitive aspects of life satisfaction, from a phenomenological perspective. Respondents are asked to rate

their personal aspects against standards, higher scores meaning higher life satisfaction.

- We recorded service receipt using the Client Service Receipt Inventory (16), and calculated hours of community health care; in home and out of home social care; and days in hospital for the preceding 3 months.
- The IADL – Index of Activities of Daily Living, for assessing degree of independence or dependence of an older person. The maximum score is 8 and measures the capacity of the older person of performing current daily activities (such as meals preparation, taking the medicines, shopping, etc.) (17).
- The Elder Abuse Suspicion Index (18) is a tool for screening for the presence of neglect or maltreatment in older adults without cognitive impairment. It is composed by 6 questions. The suspicion of elder abuse is raised when the answer is Yes for one or more of the questions.
- UCLA Loneliness Scale (Version 3) (19) is the most known and used tool for measuring loneliness. It evaluates loneliness with 20 items with 4 answer options – Never, Seldom, Sometimes, Always. This version was created for the use on older population.

Data analysis

We used SPSS (version 24) and appropriate summary statistics to describe the data. We tested the association between our primary outcome, wellbeing score and the sociodemographic, lifestyle, social, and mental and physical illness variables studied. We then entered those that approached significance ($p < 0.1$) into a forwards linear regression with wellbeing score as the dependent variable. We repeated this analysis with life satisfaction as the dependent variable. In a *post hoc* calculation, observed power was 99% to detect the observed R^2 at a 1% significance level in the performed final regression model which had nine predictors.

Results

107/147 (73%) of the potential participants we approached initially agreed to participate. Seven potential participants were excluded because they had suspected cognitive impairment, as measured using the Clock Drawing test. Of the excluded participants, 5/7 were female; their ages ranged from 74 to 87; 3/7 had university degrees; 5/7 were widows, 1 was separated, 1 married and 1 divorced; 3/7 lived alone.

Characteristics of the sample

The sociodemographic and lifestyle characteristics of the participants are described in Table 1. 25 (25%) of participants scored below 50 on the WHO-5, indicating low levels of wellbeing; mean (standard deviation, sd) WHO-5 score was 67.7 (20.7); mean (sd) Life Satisfaction Scale score was 23.5 (4.8). 23 (23%) of participants screened positive for elder abuse. Most participants reported more than three medical problems and 14 (14%) had been hospitalised in the last three months, of whom five had spent a week or more in hospital.

23 (23%) of participants screened positive on the EASI; 19 participants endorsed the item „Have you been upset because someone talked to you in a way that made you feel shamed

or threatened?"; six participants the item: „Has anyone tried to force you to sign papers or to use your money against your will?"; four the item: „Has anyone made you afraid, touched you in ways that you did not want, or hurt you physically?"; and one the item: „Has anyone prevented you from getting food, clothes, medication, glasses, hearing aids or medical care, or from being with people you wanted to be with?"

Univariate analyses

In unadjusted analyses, lower wellbeing score was significantly associated with: older age, education to primary school level, scoring higher on the loneliness, anxiety and depression scales, reporting more medical problems, and spending more days in hospital in the last three months. Lower life satisfaction scores were associated with: female gender, scoring higher on the loneliness, anxiety and depression scales and reporting more medical problems. To explore further the relationship between female gender and life satisfaction, we investigated our hypothesis that there may be a significant interaction between gender and marriage. Unmarried men scored $m=24.8$ ($sd\ 3.8$) and married men $m=26.3$ ($sd=6.2$) on life satisfaction scale, while unmarried women scored $m=23.3$ ($sd=4.5$) and married women $m=22.2$ ($sd=5.6$), but these differences are not statistically significant.

Multivariate analysis

In a forward regression model ($R^2 = 0.316$) including the variables studied that approach significance in their relationship with wellbeing score, wellbeing score was predicted by depression ($\beta=-0.40$, $t=-3.8$, $p<0.001$) and loneliness scores ($\beta=-0.22$, $t=-2.1$, $p=0.034$). In a forward regression model ($R^2 = 0.243$) with life satisfaction as dependent variable, the only significant predictor was loneliness scores ($\beta = - 0.24$, $t = - 5.225$, $p < 0.001$).

Discussion

We successfully recruited older people attending Romanian public and NGO social care facilities. Participants in our survey, who did not have significant cognitive impairment, reported levels of wellbeing that are comparable to those in European working populations, where 76.44% of men and 71.67% of women were identified as reporting a good level of psychological well-being (20). suggesting that they were not a group at particular risk of psychological morbidity The WHO-5 has, to our knowledge been reported in one previous research study in a Romanian population, with dental students. The wellbeing of our sample (mean WHO-5 score 67.7) also compared favorably to that previous study (mean 12.67, 50.68 when multiplied by 4 as in our study) (21). These surprisingly high rates of wellbeing were despite participants having on average more than three medical conditions; levels of loneliness higher than in other older populations from Western countries (mean Total Loneliness Scale score 39.6 in our study, compared to 32.8 for males and 33.3 for females in New Zealand (22)); and around a quarter of participants screening positive for abuse, which is similar to previous studies in frail, vulnerable populations (23). We do not know whether cultural differences might have influenced the scoring; with more stoical attitudes or unwillingness to report low wellbeing in the older Romanian population who have lived through the Soviet occupation and the communist regime, and endured multiple difficult socio-economic conditions. Alternatively, there may have been a survivor effect, with high resilience in older people who had lived through these hardships.

We based our hypotheses on a model of successful ageing defined as (i) absence, or avoidance, of disease and risk factors, (ii) maintenance of physical functioning and (iii) active engagement with life (4). We demonstrated our hypothesis that successful ageing, operationalised as reporting higher wellbeing or life satisfaction, was associated with feeling less lonely, as reported in other studies (24). We found that loneliness predicted having lower

wellbeing and life satisfaction, and that it was a more important predictor of life satisfaction than mental health, sociodemographic characteristics or any of the other factors studied. It is likely that the older people we interviewed had been referred to the social centres for reasons that included social isolation. It is also possible that the most socially isolated, lonely people do not attend day centres, and therefore that our sample represents a population who are relatively socially engaged. We do not know how long participants had been attending the centres, but our findings suggest that further study of how social inclusion might be supported in this group is warranted, and could improve wellbeing. In a recent systematic review of interventions to promote respect and increase social inclusion in older people, all the studies were conducted in high and upper middle-income countries. Romania is a lower middle-income country. Music and singing, intergenerational interventions, art and culture and multi-activity interventions were associated with an overall positive impact on health outcomes, including wellbeing and life quality (25).

Our hypothesis that wellbeing would also be predicted by absence of disease and risk factors was partially supported; depression and loneliness did predict wellbeing in our final model, while physical health indices were not significant once other variables were considered in the final model. Alcohol consumption and physical functioning were not predictors of wellbeing, perhaps because most participants did not drink at problematic levels and few reported limitations in physical functioning.

Nearly a quarter of the older people interviewed screened positive for elder abuse, reporting possible psychological, verbal, physical or financial abuse. Loneliness and social isolation are known risk factors for experiencing elder abuse (26). Men reported higher life satisfaction than women in our univariate analyses, although this was no longer significant after controlling for factors including loneliness. In older, post-retirement populations, life satisfaction has been described as a gendered issue, in which marital status operates differently in men and women, providing greater support to men (27). There was a higher proportion of men in our sample who were married, relative to women.

Limitations

While participation rates were quite high and the interviewers sought to recruit all those participants attending centres during their visits, this was essentially a convenience sample. We excluded people less than 5% of those approached because they had more severe cognitive impairment. As the mean age of our sample was 73 and they were a relatively frail population, we would expect that many of those included had mild cognitive impairment or dementia. While the population was relatively frail, they were attending a facility outside the home; those unable or unwilling to attend social centres may experience lower wellbeing. Our selection of variables for this study was based broadly on existing models of successful ageing, availability of appropriate measures in Romanian language, concerns to minimise research burden. We did not assess resilience of personality traits, and their inclusion would have enhanced our study.

Conclusions

Despite the adversities likely to be faced by this population of older, Romanian people receiving social community support, levels of wellbeing were comparable to those reported in European working populations. Loneliness was an important predictor of lower wellbeing. Further studies are needed to investigate loneliness and protective factors for well-being in later life.

Conflict of interest declaration:

None.

Description of authors' roles:

I.C. has participated in designing the study, collected the data and participated in writing the article. V.B. participated in analysing the data and in writing the article. C.C. participated in designing the study, analysis of data and writing the article.

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Table one: Sociodemographic, wellbeing and illness characteristics and univariate associations with main outcomes

		n (%) unless stated	Wellbeing score: Mean (sd)	association with Wellbeing score (p)	Life satisfactio n score: Mean (sd)	association with life satisfacti on score (p)
Age		m= 72.6 (6.2)	-	r^P=-0.22 (0.029)*	-	r ^P =0.11 (0.28)
Gender	Female	77 (77%)	61.6 (20.6)	t=0.11 (0.92)	23.0 (4.8)	t=2.0 (0.04)
	Male	23 (23%)	62.1 (21.2)		25.3 (4.7)	
Education	Primary school	17 (17%)	50.6 (22.6)	F=3.3 (0.032)*	21.4 (6.1)	F=2.4 (0.099)
	High school	50 (50%)	65.0 (18.9)		23.6 (4.7)	
	University	33 (33%)	62.3 (20.9)		24.5 (4.1)	
Marital status	Currently married	27 (27%)	67.9 (20.1)	t=1.8 (0.07)	23.4 (6.0)	t=-0.19 (0.85)
	Other	73 (73%)	59.4 (20.6)		23.6 (4.4)	
Living situation	Living alone	57 (57%)	60.6 (21.2)	t=0.62 (0.54)	23.4 (6.0)	t=-0.19 (0.85)
	Living with others	43 (43%)	63.2 (20.1)		23.6 (4.4)	
Instrumental Activities of Daily Living Score		M = 8 (0)	-	r ^s =0.027 (0.79)	-	r ^s =- 0.046 (0.65)
UCLA loneliness scale		m=39.6 (9.4)	-	r^P=-0.46 (<0.001)* **		r^P=- 0.47 (<0.00 1)***
Screening for elder abuse	positive	23 (23%)	56.9 (23.4)	t=1.3 (0.21)	22.2 (6.0)	t=1.5 (0.14)
	negative	77 (77%)	63.1 (19.7)		23.9 (4.4)	
HADS anxiety scale		m=5.7	-	r^P=-0.44		r^P=-0.41

		(4.0)		(<0.001)***		(<0.001)***
HADS depression scale		m=4.6 (3.0)	-	r^p=-0.53 (<0.001) ***		r^p=-0.29 (<0.001) ***
Number of medical problems		M = 3.5 (3)	-	r^s=-0.36 (<0.001) ***		r^s=-0.25 (0.011)*
Alcohol consumption (Units)		M = 1.9 (5)	-	r ^s =-0.18 (0.074)		r ^s =-0.06 (0.056)
Service use in past 3 months	Health care professional contact (hours)	M =1.4 (2.7)	-	-0.026 (0.80)		-0.063 (0.53)
	Social service contact (hours)	M= 0.18 (0.15)	-	0.14 (0.18)		-0.035 (0.73)
	Days in hospital	M=0 (0)		r^s=-0.22 (0.032)*		r ^s =-0.11 (0.30)

m = mean (standard deviation); M= median (interquartile range); r^p= Pearson correlation coefficient; r^s= Spearman correlation coefficient; t= independent student t test; F = ANOVA test statistic; SD= standard deviation; * = p<0.05 ** = p<0.01 ***=p<0.001

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CONFLICT OF INTEREST FORM

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome. We confirm that the manuscript has been read and approved by all named authors and that there are no other persons who satisfied the criteria for authorship but are not listed. We further confirm that the order of authors listed in the manuscript has been approved by all of us.

We confirm that we have given due consideration to the protection of intellectual property associated with this work and that there are no impediments to publication, including the timing of publication, with respect to intellectual property. In so doing we confirm that we have followed the regulations of our institutions concerning intellectual property.

We understand that the Corresponding Author is the sole contact for the Editorial process (including Editorial Manager and direct communications with the office). she is responsible for communicating with the other authors about progress, submissions of revisions and final approval of proofs. We confirm that we have provided a current, correct email address which is accessible by the Corresponding Author and which has been configured to accept email from – ioanacaciula@yahoo.com

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Ioana Caciula – 14.11.2018

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