

The East–West divide in late-life depression in Europe: Results from the Generations and Gender Survey

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The high prevalence of depressed mood among seniors in Eastern Europe, and women in particular, is explained by the high prevalence of health problems, poverty, and widowhood, write Thomas Hansen and Britt Slagsvold.

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The prevalence of depressive symptoms increases with older age, making depressed mood one of the most serious health problems in later life (Blazer, 2003; WHO, 2008). Aging itself is not the cause of higher depression rates. Rather, the rise in depression is primarily tied to the fact that aging often involves events and conditions associated with a higher risk of depression, including retirement, bereavement, somatic illness, low socioeconomic status, and low sense of control over life (Fiske et al., 2009; Mirowsky & Ross, 2007). However, the exposure to, and impact of, some of these determinants may be modified by macro-level conditions such as welfare state policies and sociocultural context. More specifically, stronger welfare states may prevent or reduce mental health problems by providing better health care and social services, income and housing conditions, public transport, and support to family caregivers. Age-related increases in depression may thus be stronger and occur earlier in countries with poorer living conditions and welfare provision.

Comparative findings may help to enhance our understanding of possible variations among European countries in the mental health of older people. They may also inform the debate about public health policy relevant to mental health in older age groups (Ploubidis & Grundy, 2009). European comparisons of depression prevalence in older age groups are sparse, however. Note also that the existing comparative studies explore (self-reported) depressive symptomatology and not clinical depression (according to ICD-10 or DSM-IV diagnostic criteria). Depressive symptoms are at least two to three times more prevalent than clinical depression. In Western (mainly USA) community-based samples of older adults (age 65+), the prevalence of clinical depression (major depressive disorder) ranges from 1% to 5% in comparison to approximately 8% to 15% for depressive symptoms. (For reviews, see Blazer, 2003; Djernes, 2006; Fiske et al., 2009; Meeks et al., 2011; see also Methods). For ease of reading, unless otherwise noted, we will hereafter use the term “depression” or “depressed mood” to denote clinically relevant depressive symptoms.

The available studies suggest large cross-country variation in depression. Data from

the Survey of Health, Ageing and Retirement in Europe (SHARE) study, which covers 10 European countries from Scandinavia to the Mediterranean (Denmark, Sweden, the Netherlands, Germany, Austria, Switzerland, France, Spain, Italy, and Greece), show that the prevalence of depression is much higher in Southern and Central European countries than in Northern European countries ([Castro-Costa et al., 2007](#); [Kok et al., 2012](#)). The EURODEP studies reveal substantial differences in the prevalence of depression across nine large Western European centers. Centers are classified into a high depression prevalence group (17% to 24%), comprising Berlin, London, Munich, and Verona, and a low prevalence group (9% to 12%), comprising Amsterdam, Dublin, Iceland, Liverpool, and Zaragoza ([Copeland et al., 2004](#)). A study of European Social Survey data, although not focusing on country differences per se, indicates that prevalence is higher in the south and east of Europe than in the north-west ([Van de Velde et al., 2010](#)).

The literature does not reveal a clear regional pattern of differences in late-life depression across Europe. Although some findings indicate a North–South divide, others do not. A limitation of the literature is its focus on Western European countries, with few explorations of depressive symptoms in Eastern Europe. Thus, little is known about the risk of late-life depression in some of the European countries with the most severe challenges in caring for the material, social, and health needs of their older populations ([Botev, 1999](#)). The generally poor conditions of older Eastern Europeans are reflected in the comparatively high rates of poverty, health problems, and bereavement ([Botev, 2012](#)). There is thus a pressing need for prevalence studies from Eastern Europe ([Paykel et al., 2005](#)). In addition, available studies are often based on samples that are neither comparable nor nationally representative, and not all studies rely on a standardized measure of depression across countries ([Kok et al., 2012](#)). A further limitation is a lack of focus on gender. This is unfortunate given the higher prevalence of poverty, health problems, and widowhood among women than men ([Van de Velde et al., 2010](#)). Eastern European women face pronounced adversities; for example, rates of widowhood are especially high because of low male life expectancy ([Iecovich et al., 2004](#)). Finally, few studies have explored the mediating factors accounting for cross-national differences in late-life depression.

This study examines country differences in the prevalence of late-life depression in Europe, before and after control for compositional variables (individual-level explanatory variables). We focus on countries from Eastern Europe (EE) and Northern and Western Europe (NWE), also referred to here as “East–West.” Data are harmonized and nationally representative. We aim to investigate whether the generally poorer life conditions in the East versus the West translate into an East–West divide in late-life depression. Furthermore, if this is the case, we aim to explain the divide in depression by examining its association with socioeconomic status, social network variables, and physical health. In introductory analyses, we shall examine the country-specific prevalence of depression in different groups between the ages of 18 and 80 to demonstrate the extent to which inter-country inequalities in later-life depression are

unique to this age group.

Methods

This study is a European cross-national comparative analysis of depressive symptoms. Explorations pay attention to gender differences and the role of socioeconomic status, health, and social variables in the cross-national patterns.

Data

We use data from the Generations and Gender Survey (GGS), which is coordinated by the United Nations Economic Commission for Europe (Vikat et al., 2007). The survey forms part of the Generations and Gender Programme (GGP). The GGP is a system of national GGS surveys and contextual databases based on a number of European and some non-European countries. The GGP aims to improve the understanding of demographic and social developments and the factors that influence these developments (Vikat et al., 2007). The GGS fieldwork guidelines, developed by a consortium of demographic institutes, statistical offices, and universities, specify random sampling of the non-institutionalized population aged 18 to 80. The GGS aims to ensure cross-national comparability of data by also using standard instruments.

We first use the entire age range (18–80) ($n = 130,223$). We then restrict our analysis to the ages 60 to 80 ($n = 27,543$). We use data from the 10 countries that implemented the depression measurement and the independent variables. Data are from six EE countries (Bulgaria, Czech Republic, Georgia, Lithuania, Romania, and Russia) and four NWE countries (Norway, Belgium, France, and Sweden). Data were collected between 2005 and 2012 using face-to-face interviews. Year of data collection is unrelated to depression, net the effect of country (not shown). It is worth noting that the Norwegian and Swedish GGS, to avoid socially desirable response, posed questions about depression in a postal questionnaire (Hansen & Slagsvold, 2011). Average response rate in GGS is 68%, ranging from 37% (Lithuania) to 97% (Romania) (Fokkema et al., 2014).

Dependent variable

Depressive symptoms are measured by a seven-item version of the 20-item Center for Epidemiologic Studies Depression (CES-D) scale (Radloff, 1977). The scale was developed as a screening tool to identify persons at risk for clinical depression and not as a diagnostic tool. It is currently the most widely used instrument to measure depressive symptoms and to estimate prevalence rates in population surveys (Shafer, 2006). The CES-D has been consistently shown to be reliable and valid in different populations, with adequate internal consistency and construct validity (McDowell, 2006; Williams et al., 2002). The measurement equivalence of an eight-item version (with four of our seven items) of this scale has been shown among seniors from different European countries (Missinne et al., 2014). The cross-national measurement invariance of the scale has not been established for the scale version or countries used in the current study.

The seven-item scale encompasses the following items: I felt that I could not shake off the blues even with help from my family or friends; I felt depressed; I thought my life had been a failure; I felt fearful; I felt lonely; I had crying spells; I felt sad. Respondents were asked to report how often they had felt like this during the past week: (0) seldom or never; (1) sometimes; (2) often; or (3) most or all of the time. A mean score index (0–21) was created ($\alpha = .88$ to $.92$, pooled $\alpha = .89$) in which higher scores indicate higher levels of depressive symptoms. We use a cut-off of 6 to identify people with depressive symptoms, which matches the widely used cut-off point of 16 on the original CES-D scale with a range of 0 to 60 (Moor & Komter, 2012).

Several studies have evaluated the diagnostic accuracy of the CES-D to detect major depression in the general population. A recent meta-analysis concludes that the accuracy of the CES-D is acceptable for screening of depressive symptoms for more in-depth clinical assessment (Vilagut et al., 2016). This study shows that at the cut-off of 16, mean sensitivity is 0.87 (95% CI: 0.82–0.92) and specificity is 0.70 (95% CI: 0.65–0.70), which are comparable to those found for other similar instruments (Vilagut et al. 2016). Studies specifically on community-based samples of older adults also show high sensitivity (0.73–1.00) and specificity (0.72–0.88) (Beekman, 1997; Head et al., 2013; Lewinsohn, 1997; Papassotiropoulos, 1999). However, in the latter type of samples, the positive predictive value of the CES–D scale is modest (28% to 50%) (Fechner-Bates et al., 1994; Meeks et al., 2011). That is, between about half and two-thirds of individuals with a CES-D score ≥ 16 do not meet diagnostic criteria for major depression. In sum, CES-D scores above the established threshold do not meet criteria for major depression but indicate symptoms that fall anywhere from minor (also termed subsyndromal or subthreshold) depression to clinical (major) depression (Blazer, 2003; Fiske et al., 2009).

Independent variables

We control for several country-variant factors associated with depression (Fiske et al., 2009). The respondents' *age* (continuous) is included because depression is generally associated with older age. *Marital status* is classified into four categories: never married; married/cohabiting; divorced; and widowed. We include the *number of (biological, step, or adopted) children* because children may represent an important source of social contact and support. In the multivariate analyses, numbers above 3 are coded as 3. *Health* refers to subjective health status, ranging from very poor (1) to very good (5). We also include a measure of *chronic illness* (chronic health problem or limiting longstanding illness: no/yes), which captures the respondent's functional health. Three socioeconomic variables are included. *Educational level* is classified into the following International Standard Classification of Education (ISCED) categories: low (ISCED 0–2); medium (ISCED 3–4); and high (ISCED 5–6). *Employed* (no/yes) is included because employment may reduce depression by increasing feelings of meaning and self-worth and by fostering supportive network ties and access to support. *Financial situation* (perceived difficulties in making ends meet) ranges from 1 (great difficulties) to 5 (very comfortable).

Analytic strategy

We use chi-square (χ^2)-tests and F-tests (ANOVA) for bivariate between-group comparisons. (See Table 1.) All multivariate analyses use ordinary least squares (OLS) regressions. Logistic regression rather than OLS is commonly preferred when the outcome is binary. However, we use OLS because the two methods produce very similar results and because OLS coefficients are more readily interpreted (Hellevik, 2009; Hansen et al., 2017). We control for compositional effects to indicate whether country differences exist because some countries have more people with individual characteristics associated with depression. We introduce controls in a stepwise (hierarchical) manner, starting with a model that includes only country dummies and age. Marital status and parental status are added to the second model. In the third model, we include also socioeconomic indicators. Health variables are added in the final model. We use a listwise deletion procedure. Descriptive analyses are run separately for men and women. OLS regressions are run for men and women together because no interactions are found between independent variables and gender.

Results

Figure 1 shows the prevalence of depression by age and country among men. The NWE countries show quite stable prevalence (around 10%) across age groups. By contrast, the EE countries display considerably higher rates in the oldest compared with the youngest age group. The rates almost quadruple in Georgia (from 6% to 27%), Romania (5% to 22%), Bulgaria (6% to 19%), and Lithuania (6% to 20%). Women observe similar patterns but generally with rates that are almost twice as high (Figure 2; note the use of different scales in the two figures). Georgia (from 11% to 46%) and Romania (from 11% to 44%) show the largest age-related increase in depression. Chi-square tests (not shown) indicate that age group differences in depression are significant ($p < .05$) in all countries except Norway, Belgium, and France for men and Belgium and Norway for women. It is worth noticing (1) that, in contrast to the other countries, depression rates in Sweden and Norway are indicated to be higher among the youngest than the oldest, and (2) that the countries with the highest depression rates among the oldest tend to have the lowest depression rates among the youngest age group. These patterns and the remarkably high rates of depression among young Swedes merit particular further investigation.

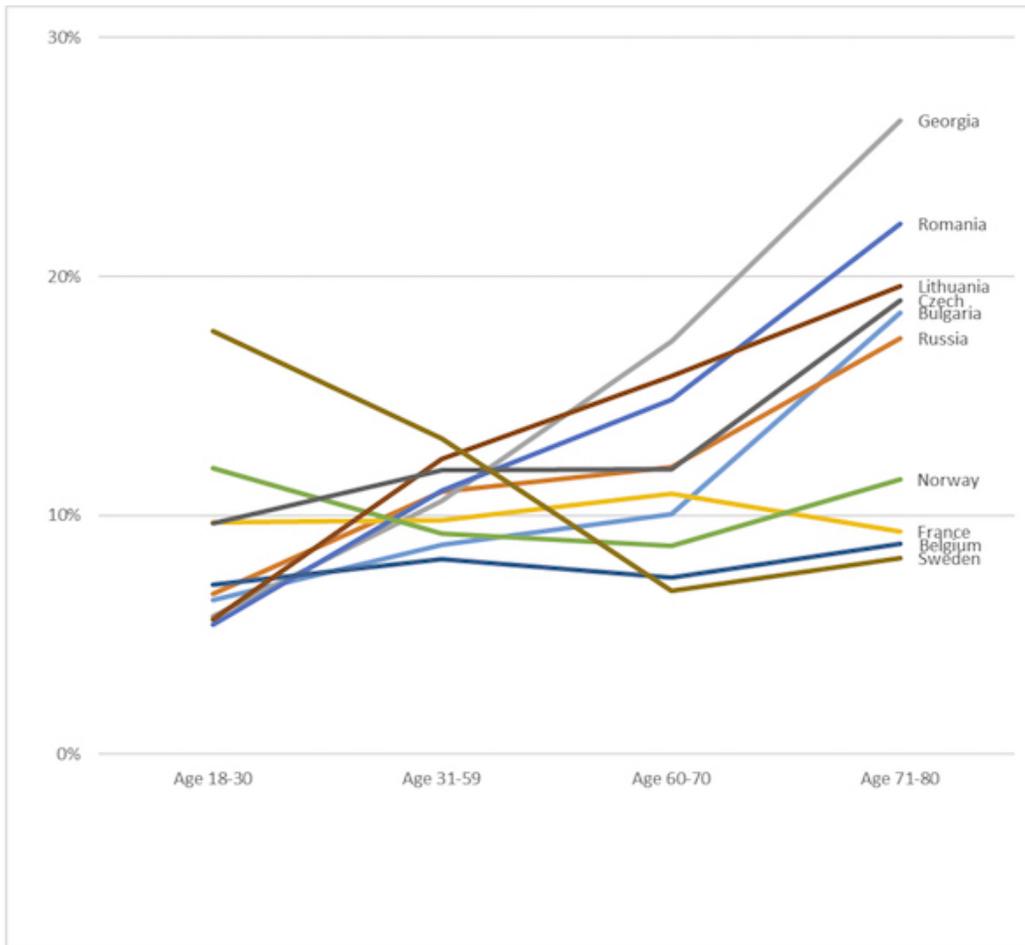


FIGURE 1: Prevalence of depression by age and country. Men. Percentages by age and country are available from the authors on request.

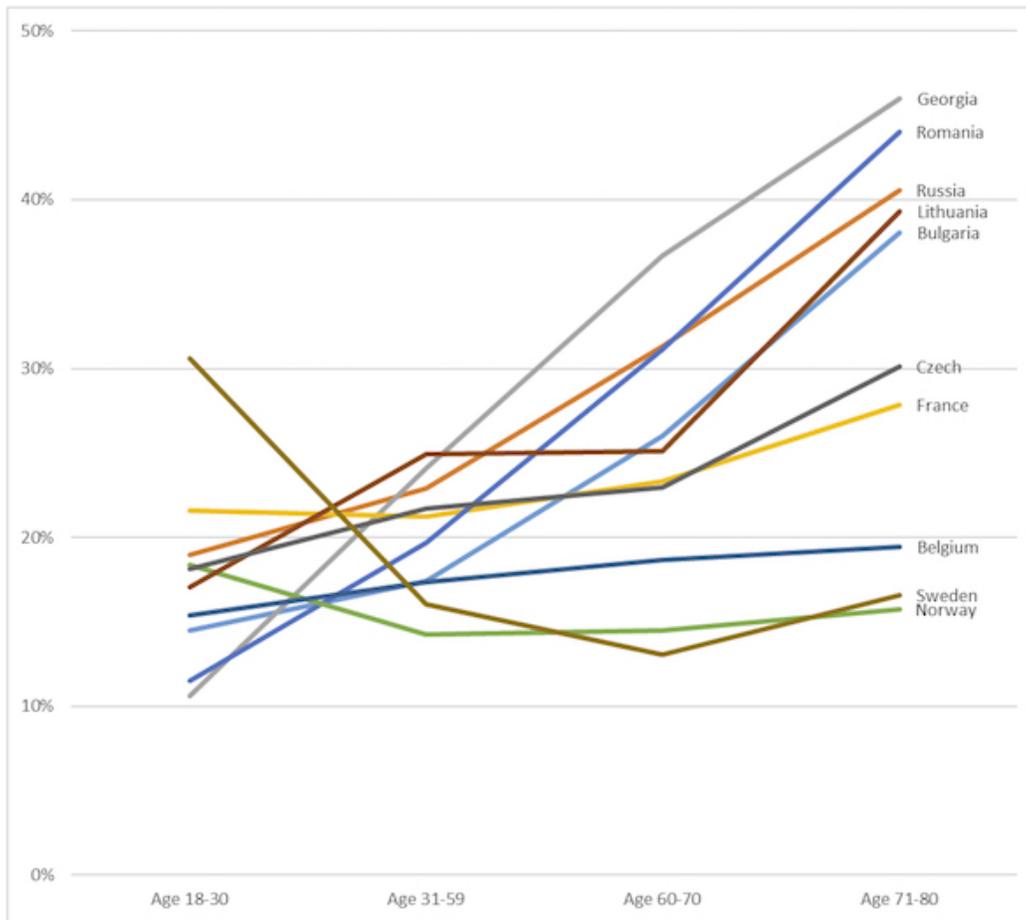


FIGURE 2: Prevalence of depression by age and country. Women. Percentages by age and country are available from the authors on request.

Next, we focus on the age 60–80 group and explore patterns and mediators of cross-national differences in depression. Table 1 presents the descriptive statistics of the variables used in the analyses per country and region. Mean age is quite similar across countries. The marital status of older adults varies considerably between countries, especially among women. Compared with their peers in EE countries, older adults in the NWE countries are more often married or cohabiting. The rate of married/cohabiting women varies from 32% in Russia to 71% in Sweden. The rate of widowhood for men varies from 2% in Norway to 18% in Russia and for women from 10% in Norway to 46% in Lithuania. The number of children is generally higher in the West than in the East. Furthermore, older adults in the NWE countries are relatively more financially satisfied and more often employed and highly educated. The differences in financial satisfaction are noteworthy: Western Europeans on average score around 4 (“... able to make ends meet ... fairly easily”) and Eastern Europeans around 2 (“... with difficulty”). In the NWE countries, only 1%–4% report to have “great difficulties” in making ends meet—far fewer than in countries like Romania (20%), Russia (32%), Bulgaria (43%), and Georgia (43%) (not shown). Older Western Europeans also report better health status and fewer of them have disabilities than older adults in the Eastern European countries. Finally, older adults in North-West Europe report a far lower prevalence of depression than other older adults. The

prevalence of depression in the age group 60–80 varies for men from 7% (Sweden) to 21% (Georgia) and for women from 14% (Sweden) to 41% (Georgia).

TABLE 1: Sample characteristics, means (\bar{x}) and proportions (%), age 60–80. Countries ordered by rate of depression among women.

	Sweden	Norway	Belgium	France	Czech	Lithuania	Bulgaria	Russia	Romania	Georgia	NWE	EE
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	total	total
Men (N)	1354	1881	877	1182	1061	1353	1281	874	1656	929	5294	7154
Age (X)	67.9	68.0	68.8	68.7	68.3	69.4	68.8	69.3	69.0	69.4	68.2	69.0 **
Never-married (%)	7.1	5.7	6.9	11.1	11.4	7.7	5.6	2.1	4.3	4.6	7.5	6.0 **
Married/cohabiting (%)	84.9	84.2	83.3	73.5	70.5	71.6	84.3	75.6	79.6	81.6	81.7	77.4 *
Divorced (%)	6.2	5.9	4.9	5.8	4.9	4.2	2.5	4.5	2.4	0.5	5.8	3.1 **
Widowed (%)	1.8	4.2	4.8	9.6	13.2	16.6	7.6	17.7	13.7	13.2	5.0	13.5 **
Number of children (\bar{x})	2.4	2.3	1.7	2.2	1.6	1.6	1.8	1.8	2.0	2.4	2.2	1.7 **
Financial situation (1–5, \bar{x})	4.6	4.9	4.1	3.9	3.2	3.1	2.0	2.3	3.0	2.0	4.6	2.7 **
Education (1–3, \bar{x})	2.0	2.0	1.8	1.9	1.9	1.6	1.7	1.8	1.5	1.9	1.9	1.7 **
Low (%)	26.1	22.8	47.3	51.9	24.1	54.1	48.8	45.3	57.3	31.3	34.2	45.4 **
Medium (%)	49.0	49.9	26.3	32.7	61.4	30.7	31.4	28.6	35.3	44.9	41.7	38.0 **
High (%)	24.9	27.3	27.3	15.4	14.5	15.2	19.8	26.2	7.4	23.8	24.1	16.5 **
Employed (%)	28.9	30.4	10.5	5.8	4.8	8.8	7.3	18.0	5.6	25.0	21.3	10.4 **
Health (1–5, \bar{x})	4.0	3.9	3.7	3.6	3.2	2.8	3.1	2.7	3.1	2.6	3.8	2.9 **
Chronic illness (%)	41.2	41.6	31.8	48.6	41.9	48.7	49.0	57.8	37.7	46.9	41.5	46.3 **
Depressed (%)	7.3 ^{ei}	10.2 ^{ei}	8.0 ^{ei}	10.2 ^{ei}	14.7 ^{o.d.,i}	17.2 ^{o.d.,g,i}	13.4 ^{o.d.,f,i,j}	14.2 ^{o.d.,i}	17.8 ^{o.d.,g}	20.9 ^{o,h}	8.9	16.4 **
Women (N)	1427	1853	902	1449	1280	1531	1288	1995	1963	1407	5631	9464
Age (X)	68.0	68.2	68.4	69.1	68.7	68.9	68.1	69.3	69.3	69.6	68.4	69.0 **
Never-married (%)	71.0	62.0	66.3	49.3	44.3	31.9	53.0	31.7	50.3	44.5	62.5	42.1 **
Married/cohabiting (%)	7.2	6.7	15.6	16.1	13.2	13.2	11.1	12.8	8.7	13.9	10.8	12.0 *
Divorced (%)	12.1	12.6	7.1	8.4	8.5	8.8	3.2	12.9	3.4	1.8	10.4	6.6 **
Widowed (%)	9.8	18.7	11.0	26.2	34.1	46.2	32.7	42.7	37.6	39.7	17.3	39.3 **
Number of children (\bar{x})	2.4	2.3	1.7	2.3	1.7	1.6	1.8	1.7	1.9	2.3	2.2	1.6 **
Financial situation (1–5, \bar{x})	4.6	4.6	3.9	3.7	3.0	2.8	1.8	2.0	2.7	1.8	4.3	2.4 **
Education (1–3, \bar{x})	2.1	1.9	1.7	1.6	1.6	1.6	1.6	1.8	1.3	1.9	1.8	1.6 **
Low (%)	23.2	28.7	56.3	64.6	42.0	49.2	54.6	46.4	78.5	33.8	40.7	52.2 **
Medium (%)	44.2	49.2	22.2	24.7	52.6	38.1	31.1	23.4	17.7	47.1	37.3	33.2 **
High (%)	32.6	22.0	22.5	10.7	5.4	12.6	14.3	30.1	3.9	19.0	22.0	14.6 **
Employed (%)	24.4	25.7	5.7	5.5	0.5	4.7	1.6	10.9	1.7	11.4	17.0	5.4 **
Health (1–5, \bar{x})	3.9	3.9	3.7	3.5	3.1	2.7	2.8	2.4	2.8	2.3	3.7	2.7 **
Chronic illness (%)	47.6	47.3	37.0	45.3	48.2	54.2	60.8	74.9	50.5	59.6	45.3	58.7 **
Depressed (%)	14.1 ^{ei}	15.1 ^{ei}	19.0 ^{o.d.,i}	25.2 ^{o.d.,f,j}	25.8 ^{o.d.,f,j}	30.6 ^{o.d.,f,j}	30.7 ^{o.d.,g,j}	34.6 ^{o.d.,i}	36.5 ^{o.d.,g}	40.6 ^{o,h}	18.5	33.6 **

NOTE: * $p < .05$, ** $p < .01$. All omnibus tests of country differences are significant at $p < .01$. Pairwise tests of country differences are conducted only for depression: Superscript letters indicate which countries display significantly different rates of depression, as reported by pairwise X^2 -tests.

TABLE 2: Hierarchical multivariate regression on depression (0/1), age 60–80. Unstandardized coefficients.

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
	<i>Country, age</i>	<i>+ marital status, children</i>	<i>+ socioeconomic indicators</i>	<i>+ health</i>
Sweden (ref.)				
Norway	0.01	0.00	0.01	0.01
Belgium	0.03 *	-0.02	-0.04 **	-0.05 **
France	0.07 **	0.04 *	-0.03 **	-0.04 **
Czech	0.10 **	0.05 **	-0.05 **	-0.09 **
Lithuania	0.13 **	0.07 **	-0.04 *	-0.13 **
Bulgaria	0.13 **	0.10 **	-0.10 **	-0.14 **
Russia	0.14 **	0.10 **	-0.07 **	-0.17 **
Romania	0.16 **	0.14 **	-0.01	-0.05 **
Georgia	0.20 **	0.15 **	-0.03	-0.12 **
Age/100	0.58 **	0.40 **	0.28 **	0.05
Never-married		0.19 **	0.15 **	0.15 **
Divorced		0.15 **	0.11 **	0.11 **
Widowed		0.17 **	0.15 **	0.14 **
Number of children (0–3)		-0.02 **	-0.02 **	-0.02 **
Financial situation (1–5)			-0.07 **	-0.05 **
Education (1–3)			-0.04 **	-0.02 **
Employed			0.00	0.02
Chronic illness				0.01
Health				-0.10 **
R ²	.04	.07	.12	.15

NOTE: * $p < .05$, ** $p < .01$.

In Table T2, country and controls are regressed on depression for men and women together aged 60 to 80. (Associations are similar for men and women.) The first model shows country-level mean differences in depression, controlling for age. Older Swedish (and Norwegian) men and women report significantly lower depression rates than their peers in the EE countries. The model also shows a positive association between age and depression.

The second model takes into account marital status and number of children. These factors are significantly associated with depression and partially explain the differences in depression rates between the NWE and EE countries. In this model, the high prevalence of widowhood among Eastern Europeans is the factor that explains most of the East–West gap in depression.

In the third model, differences in financial satisfaction, education, and employment are taken into consideration. Higher education and financial satisfaction significantly predict (lower) depression and fully explain the remaining country differences in depression rates. We also note that, in the 60–80 age group, depression is unrelated to employment status.

In the final model, differences in health and health problems are accounted for. Depression is associated with self-rated health and health problems. After controlling for compositional differences, depression is actually higher in the West than in the East. The most extreme example is Georgia, which in the gross model is associated with a 20-percentage-points higher rate of depression than Sweden but a 12-percentage-points *lower* rate in the net model. The final model also indicates that old age is unrelated to depression once various age-related losses are accounted for.

Discussion

The current study corroborates and extends previous research showing considerable between-country heterogeneity in late-life depression across European countries and regions. In harmonized nationally representative data from 10 countries, we show a “West” versus “East” divide in late-life depression in Europe. Depression is up to three times more prevalent among older men and women in Eastern Europe than among their peers in North-Western Europe. For women, rates vary between 25% and 41% in the East versus 14% to 25% in the West. For men, this contrast is 14% to 21% versus 7% to 10%. Norway and Sweden report the lowest prevalence, a fact that may be underestimated. That is because these countries decreased the influence of social-desirability biases by posing questions about depression in a more anonymous way (questionnaire) than the other GGP countries (personal interviews) ([Hansen & Slagsvold, 2011](#)).

The East–West divide in depression is primarily evident among the oldest respondents, generated by the steep age-related increase in depression rates in the East. In the East, rates are up to four times higher among the old than the young. In the West, rates of depression in old age are actually comparable to those among young adults. The prevalence of depressive symptoms in the West is in reasonable agreement with the corresponding figures from reviews of Western (mainly U.S.) studies showing a prevalence of up to 15% (e.g., [Meeks et al., 2011](#)). Our findings also are also consistent with studies showing higher rates in the South-East than in the North-West of Europe (e.g., [Van de Velde et al., 2010](#)).

The pronounced vulnerability of depression among seniors in the Eastern countries seems explained by their poorer health and socioeconomic resources and their high rates of bereavement. The higher vulnerability among women reflects that these adversities disproportionately affect women, especially in former socialist countries (Botev, 2012). These stressors may contribute to depressive symptoms by compromising opportunities for meaningful activities and relationships and by decreasing feelings of self-worth, a positive outlook on life, and hope for the future. They may also decrease the chance of recovery for those who become depressed.

Somewhat surprisingly, findings indicate that seniors in Eastern Europe with sample “average” health, marital status, and socioeconomic resources are *less* depressed than their peers in the West. One explanation may be differences in cultural norms and expectations. Relatively low (net) depression in the East could reflect that Eastern Europeans are unlikely to be depressed over “average” European life circumstances because such circumstances are likely to exceed expectations and normative standards in these countries. Western Europeans, conversely, may be depressed over “average” European circumstances because such circumstances would compare unfavorably to their comparative standards. A different interpretation is that there are certain sociocultural risks factors, unaccounted for, that are more prevalent in the West. One may speculate, for example, that aging, and the negative changes that accompany it, may be harder to accept in individualistic Western cultures that emphasize youth, achievement, and independence. However, empirical findings usually associate individualistic cultures with *less* psychological distress. (See Hansen & Slagsvold, 2016.)

Both current and prior research associates a higher national level of welfare generosity with less depression among older people (e.g., Kok et al., 2012). Macro-level factors may represent the “upstream” conditions that affect the more immediate determinants of depression. Generous welfare states may promote better conditions for engagement, control, and self-reliance, in particular among seniors with health limitations or low socioeconomic resources (Hvinden, 2010). By providing a safety net, these states may also foster a greater sense of security, hope, and optimism, which in turn may decrease worry and psychological distress. These states also provide more effective treatment for those who become depressed. In many of the former socialist countries, by contrast, formal welfare support structures are largely absent and an increasing number of retirees face severe financial strain due to rising inflation and decreasing value of pensions (Botev, 2012; Iecovich et al., 2004). Political upheavals, economic insecurity, and greater socioeconomic inequalities may also have eroded feelings of trust and social integration, which in turn may have increased the risk of depression among seniors in Eastern Europe (Rokach et al., 2001).

Limitations and future research

Several limitations in this study highlight areas for future research. First, we are limited in our coverage of countries per region. In particular, we have few NWE countries. This

and prior research (e.g., [Kok et al., 2012](#)) indicate, however, that rates of late-life depression are quite similar across NWE countries. Furthermore, and as indicated by the somewhat modest level of explained variance in our models, our study lacks a solid basis for explaining country differences in late-life depression. For example, we lack information about important aspects of older adults' social networks, such as social contact and access to, or receipt of, social support. Other omitted predictors of depression include caregiving and change in financial circumstances ([Djernes, 2006](#)). We were also unable to examine the role of macro-level factors such as welfare state spending. To what extent and by what mechanisms can welfare state spending affect depression? Can country indicators of welfare explain cross-national differences in depression over and above individual-level factors? To answer such questions we need more countries to analyze and adopt a multi-level analytical framework. We would also have liked to have investigated the oldest old (age 80+), for whom rates of depression are likely higher and country differences possibly even more pronounced ([Blazer, 2003](#); [Hansen & Slagvold, 2012](#)).

We are limited in several ways as well by the fact that we are analyzing only one time point in time. For example, we do not know whether some of the cross-national differences in late-life depression stretch back to earlier times. In addition, the direction of associations cannot be determined. It may be, for example, that the association between depression and health is reciprocal ([Fiske et al., 2009](#)). Associations between health and depression may also potentially be inflated due to conceptual overlap and common underlying factors (e.g., mood of the day and stable personality traits). Furthermore, because of the inevitable selection biases in larger surveys of healthier, non-frail, and non-institutionalized adults, the presented prevalence of depressive symptoms is likely an underestimate. This problem is compounded by the fact that sensitive questions about depression were posed in personal interviews (except in Norway and Sweden), thus increasing social-desirability issues in the measurement of responses. Also, because in all countries investigated less-educated people are underrepresented ([Fokkema et al., 2014](#)) and low education is tied to more depression, rates of depressive symptoms may be further underestimated, perhaps especially in countries with low response rates. The different timing of data collection may also matter, for example with respect to the impact (timing, duration, and level of austerity) of the financial crisis (of 2007–2008). However, of the countries used here, it is only Belgium and Sweden that collected data after 2007.

Another issue concerns the comparability of age groups from countries with different life expectancies. Theoretically, depression might generally be stable until very old age, but that aging and the onset of “very old age” occur earlier in countries with a lower life expectancy. We are not fully able to account for this possibility by controlling for self-rated health and the presence of a chronic illness alone. Ideally, we need to control for other aspects of biological (objective health, sensory problems), psychological (cognition, memory, sense of control), and social aging (network and support deficits). For instance, because cognitive function can affect depression ([Hammar & Årdal,](#)

2009), it could be of interest to explore the role of cognitive tests such as the Mini-Mental State Examination (MMSE). These unobserved variables might have explained some country differences but not the fact that even the middle-aged in the East report higher depression rates than seniors in the West. (See figures.)

Moreover, cross-national comparative research on psychological outcomes has some methodological challenges. Notably, different age groups from different cultures and languages may demonstrate unique understanding of questions or may be differently inclined to admit to feelings of depression. Further, there is likely important between-country variation, especially among the Eastern European countries, that we have not addressed. These countries vary greatly in terms of their economic development and reforms, their welfare provisions, and their public expenditure on social care for older people (Botev, 2012).

Conclusion

Contrary to common belief, depression is not a normal or inevitable outcome of aging. Yet in many Eastern Europe countries, so far under-researched in the relevant literature, cross-sectional data suggest that up to one-third of the older population report experiencing depressed mood. Depression is a comparatively less common experience in North-Western Europe. Findings attest to and reflect the unequal conditions of aging across Europe, and they indicate serious deficits in late-life quality of life in some European countries. The lowest rates of depression are found in the stronger welfare states of the Nordic countries. These rates are perhaps at a level below which it is difficult to decline further without new breakthroughs in prevention or treatment. In Scandinavia, the high rates of depression among the young warrant more attention.

The importance of preventing and reducing depression extends beyond the emotional realm. Depression appears to hasten physiological and cognitive decline and to increase the use of health and care services (Fiske et al., 2009). The disability burden of mental disorders is immense, and depression is the most important single contributor to disability in the European Union (Wittchen et al., 2011). Because depression can show up as withdrawal, lack of interest, or irritability, it also affects friends and family. Depressed and unhappier people are generally also less socially engaged and prosocial in their behavior, which may in turn affect mental health in their social network and community. Alleviating depression is thus important for both individuals and societies, and the costs of depression may exacerbate the costs of population aging, especially in the East. For Eastern European countries, keeping health inequalities high on the agenda at a time of great economic strain will be no mean feat, but this challenge needs to be met if both population health and health inequality are to be improved.

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Abstract

The East–West divide in late-life depression in Europe: Results from the Generations and Gender Survey

This study explores Europe’s country differences in depressed mood among older men and women and the role individual-level socioeconomic status, health, and social variables play in these patterns. We use cross-sectional, nationally representative data from the Generations and Gender Survey. The sample comprises 27,543 Europeans aged 60 to 80 from 10 countries. Depressive symptoms are measured with a seven-item version of the Center for Epidemiologic Studies Depression scale. Findings show considerable between-country heterogeneity in depressed mood, especially among older women. An East–West gradient is evident, with rates of depressed mood up to three times higher in Eastern European than in North-Western European countries. Rates are about twice as high among women versus men in all countries. Among older women, the rate of depressed mood is 25% to 41% in Eastern European countries versus 14% to 25% in North-Western Europe. For men, these rates are 14% to 21% and 7% to 10%, respectively. The high prevalence of depressed mood among seniors in Eastern Europe, and women in particular, is explained by the high prevalence of health problems, poverty, and widowhood in countries of this region. Macro-level factors such as welfare provision and pension spending may moderate the exposure to, and impact of, some of the determinants. They may thus contribute to buffering against, or postponing, the risk of late-life depression in stronger welfare states.

Keywords: depression, Europe, Generations and Gender Survey, older adults, socioeconomic status.

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