

PREDICTORS OF MENTAL HEALTH AND COGNITIVE FUNCTIONS IN OLDER CROATIAN WORKERS

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Background

Modern society is confronted with various challenges due to population ageing. Although there is a common trend to develop policies to keep workers in the labour market longer, the restructuring and optimization processes are still to a big extent focused on excluding older workers from the work force. In the European Union during the period 2002-2015 employment rate of the oldest group of workers (55-64 years) has continuously been the lowest when compared to all other age groups. Older workers are at higher risk for long-term unemployment, which poses multiple challenges for their physical, mental and social health. The aim of our study was to examine some aspects of mental health and cognitive functions in older Croatian workers taking into account their gender, self-reported health, level of education, employment status, cohabitation status and place of residence.

Methods

Survey of Health, Ageing and Retirement in Europe (SHARE), wave 6 (Börsch-Supan et al. *Int J Epidemiol*, 2013;42)

Face-to face interviews computer-assisted personal interviewing (CAPI).
N = 1398, 50-65 years ⇒ N = 650 employed/self-employed or unemployed

Physical health

Self-rated health: 1 = "Poor" to 5 = "Excellent"
Self-report on chronic illness: Yes/No (estimated by participant or by doctor)

Mental health

Depression symptoms: EURO-D Scale, 12-items, scores 0-12, higher scores more symptoms. (Prince MJ, et al. *Br J Psychiatry*, 1999;174)
Loneliness: Short form of the Revised - University of California at Los Angeles Loneliness scale adapted for the SHARE study, 3 items, scores 3-9, higher score more loneliness. (Hughes et al *Res. Aging*, 2004;26)

Cognitive functions

Numeracy: calculating with percentages (4 items, score 1-5) and simple subtraction (5 items, score 0-5).
Verbal recall: 10-word list, immediate and delayed recall
Verbal fluency: animals/minute
Self-rated memory: 1 – "Bad" to 5 – "Excellent".

General characteristics of the sample of Croatian older workers

	Men N = 331	Women N = 319	Employed N = 460	Unemployed N = 190	Total N = 650
Age in years	57 (55-60)	55 (53-58)	56 (54-59)	57 (54-60)	56 (54-59)
Educational level					
Low	47%	34%	33%	59%	40%
Middle	32%	42%	40%	31%	37%
High	21%	24%	27%	10%	22%
Residence					
Urban	71%	77%	74%	74%	74%
Rural	29%	23%	26%	26%	26%
Living with partner in hh*	88%	85%	87%	85%	86%
Employment status					
Employed	73%	69%	100%	0%	71%
Unemployed	27%	31%	0%	100%	29%

*household

Results

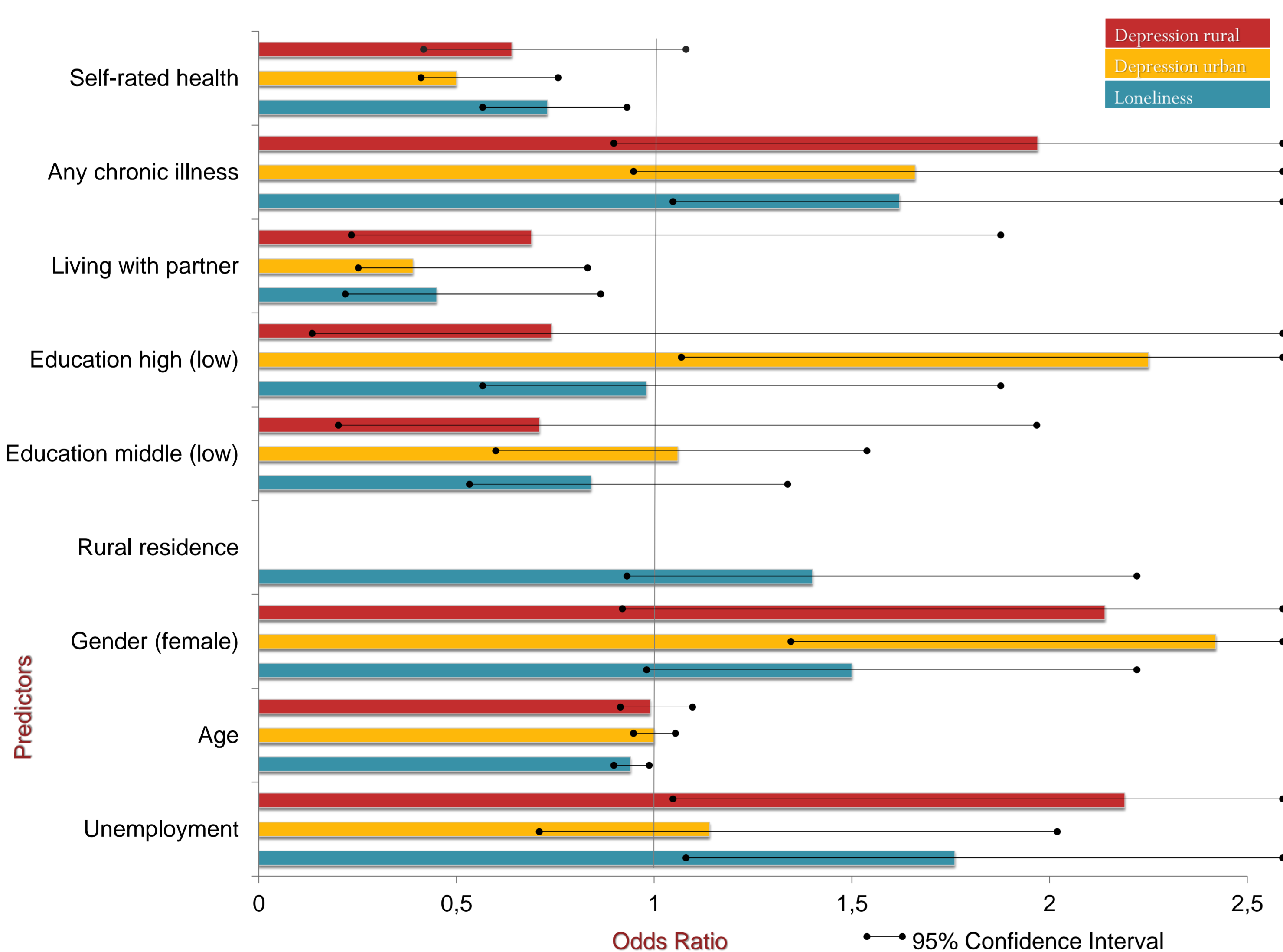
Physical and mental health status in population of older Croatian workers

Physical and mental health	Employed N = 460	Unemployed N = 190	Men N = 331	Women N = 319
Self-rated health	3.39	2.96	3.37	3.12
Any chronic illness	52%	62%	52%	59%
Depression symptoms ≥ 4 urban sample	19%	24%	13%	30%
Depression symptoms ≥ 4 rural sample	17%	42%	19%	33%
Loneliness ≥ 4	18%	30%	17%	28%

Cognitive functions in population of older Croatian workers

Cognitive functions	Employed N = 460	Unemployed N = 190	Men N = 331	Women N = 319
Verbal fluency	21(17-26)	21 (17-26)	21(17-27)	21 (17- 25)
Poor subtraction urban sample	18%	20%	13%	26%
Poor subtraction rural sample	17%	48%	20%	35%
Poor calculation with percentages urban sample	45%	48%	43%	50%
Poor calculation with percentages rural sample	41%	62%	46%	48%
Poor immediate verbal recall	36%	40%	38%	36%
Poor delayed verbal recall	33%	38%	36%	32%

Prediction of loneliness and depression symptoms in older Croatian workers



Prediction of verbal and numerical abilities in older Croatian workers

	Odds ratio [95% confidence interval]					β [95% confidence interval]
	Poor calculation with percentages (urban)	Poor subtraction (urban)	Poor subtraction (rural)	Poor immediate verbal recall	Poor delayed verbal recall	
Unemployment	0.88 [0.58, 1.34]	1.07 [0.63, 1.82]	3.05* [1.36, 6.82]	0.91 [0.63, 1.33]	0.92 [0.63, 1.36]	0.02 [-0.03, 0.06]
Age	1.04 [0.99, 1.11]	0.99 [0.93, 1.06]	1.08 [0.97, 1.22]	0.96 [0.92, 1.01]	0.97 [0.92, 1.02]	0.00 [-0.01, 0.01]
Gender (female)	1.52* [1.07, 2.15]	2.28* [1.40, 3.71]	2.58* [1.09, 6.12]	0.78 [0.56, 1.10]	0.82 [0.60, 1.12]	-0.02 [-0.05, 0.02]
Rural residence	-	-	-	0.96 [0.64, 1.43]	1.05 [0.67, 1.65]	-0.07* [-0.13, -0.01]
Middle (low)	0.53* [0.33, 0.84]	0.50* [0.28, 0.89]	1.13 [0.49, 2.60]	0.52* [0.35, 0.76]	0.60* [0.40, 0.88]	0.04 [-0.01, 0.09]
High (low)	0.53* [0.31, 0.91]	0.79 [0.42, 1.46]	0.24 [0.03, 1.82]	0.43* [0.26, 0.70]	0.42* [0.25, 0.73]	0.06 [-0.01, 0.12]
Living with partner in hh	0.51* [0.28, 0.93]	1.24 [0.61, 2.53]	0.50 [0.19, 1.34]	0.72 [0.44, 1.18]	0.87 [0.53, 1.44]	0.02 [-0.05, 0.08]
Any chronic illness	0.87 [0.57, 1.33]	0.95 [0.56, 1.63]	1.60 [0.58, 4.45]	1.23 [0.83, 1.82]	1.28 [0.85, 1.92]	-0.01 [-0.06, 0.04]
Self-rated health	1.09 [0.89, 1.34]	0.80 [0.63, 1.02]	0.83 [0.56, 1.22]	0.94 [0.78, 1.14]	1.12 [0.93, 1.35]	0.03* [0.00, 0.05]
Self-rated memory	-	-	-	0.78* [0.64, 0.96]	0.70* [0.56, 0.86]	-

Conclusion

The results of our study implicate that belonging to the active workforce helps older workers in Croatia feel socially engaged as a fully contributing member of the community. Prolonged unemployment status may elicit different physical and/or mental health impairments as well as impairments in some aspects of cognitive functioning. The unemployed residents of rural areas in Croatia seem to be at even greater risk. Since loneliness is a significant predictor of future increase in depressive symptoms, and the unemployed workers largely report fragile health, the strategies aiming at keeping older workers in the active workforce may present as reasonable preventive intervention regarding the health care system expenditures.

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