

Association of The Subjective Perception of Loneliness and Well-being with Mortality: A Preliminary Analysis

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1. INTRODUCTION

Loneliness is associated with increased mortality. Positive psychological well-being, on the other hand, is associated with reduced all-cause mortality.

2. AIMS

The aim of this study was to analyze the differential association of loneliness and well-being with mortality.

3. METHODS

- Nationally representative sample of 4753 non-institutionalized Spanish participants from the longitudinal survey EDAD con Salud, part of the COURAGE In Europe survey.
- Loneliness was assessed with the UCLA Loneliness scale and subjective well-being with the DRM obtaining two affect scores (positive affect and negative affect). Mortality was obtained from the National Death Index or from contacts with household members.
- A nested logistic regression was used to evaluate the differential impact of well-being and loneliness in mortality, after controlling for socio-demographics. Loneliness and well-being were introduced in different blocks. The increase in the proportion of variance explained in each block was tested at each step by means of the difference in the likelihood ratio chi-square for each model.

Table 1. Nested logistic regression predicting mortality controlling by covariates.

Variables	1 st Block O.R. (95% CI)	2 nd Block O.R. (95% CI)	3 rd Block O.R. (95% CI)
Sex (Ref. Female)	4.18 (2.52, 6.94) ***	4.16 (2.51, 6.88) ***	4.44 (2.67, 7.38) ***
Married or in partnership (Ref. Not married)	1.82 (1.00, 3.33) *	1.66 (0.90, 3.08)	1.73 (0.94, 3.21)
Age	1.10 (1.08, 1.12) ***	1.10 (1.08, 1.12) ***	1.10 (1.08, 1.13) ***
Years of educ.	0.98 (0.95, 1.02)	0.99 (0.95, 1.03)	0.98 (0.95, 1.02)
H. income (Ref. 1 st or 2 nd quintile)	0.99 (0.63, 1.53)	0.99 (0.64, 1.54)	1.05 (0.67, 1.65)
H. composition (Ref. Living 1)			
Living 2	1.21 (0.63, 2.34)	1.29 (0.66, 2.52)	1.27 (0.65, 2.48)
Living 3 or +	1.43 (0.70, 2.93)	1.53 (0.74, 3.16)	1.47 (0.71, 3.05)
		$\Delta R^2 = 0.002$ n.s.	
Loneliness		1.10 (0.96, 1.26)	1.03 (0.89, 1.19)
			$\Delta R^2 = 0.012$
Positive affect			0.78 (0.64, 0.96) *
Negative affect			1.12 (0.87, 1.44)

* $p < .05$; ** $p < .01$; *** $p < .001$. || Indicates significant increase of variance explained at a 99% confidence level. n.s. Indicates non-significant increase of variance explained at a 95% confidence level. H. income: Household income. H. composition: Household composition.

4. RESULTS

- A total of 141 participants died in the following 3 years.
- The mean age of the deceased participants was 79 years (SD=11.55), with a 60% of males.
- Significant increase of variance in the block of well-being measures ($p=0.007$), but not when the block of loneliness score was added ($p=0.18$).
- In the final model, positive affect was a marginally significant protective factor [O.R.=0.78; 95% CI=(0.64, 0.95)].
- Negative affect and loneliness did not have a significant effect.
- Being male and a higher age were also significantly related with mortality.

5. CONCLUSIONS

Positive affect had a favorable effect on survival in contrast with the effect of the subjective feeling of loneliness. Several studies have found that loneliness could be associated with mortality indirectly through health problems. Further research is needed to understand the association of loneliness and well-being, and the association of each one with mortality.

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