

PSYCHOSOCIAL ADAPTIVE CAPACITY AND SURVIVAL IN VERY OLD PERSONS

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INTRODUCTION

Population ageing challenge:

- 80+ years old – the fastest growing population age group.
- EU= 6% ; CRO = 5,5% of total population (Eurostat, 2022)

Longevity research:

- Very old persons - an important source of information on:
 - individuals' heterogeneity,
 - functioning maintenance,
 - adaptive capacity in ageing...
 - ...and its determinants.

(Poon et al., 1992; Smith & Ryan, 2016)

➤ **Could such adaptive capacity be found in the oldest-old persons, who are already long-lived?**

AIM

- ❖ To investigate the contribution of psychosocial factors in the survival prediction in very old institutionalised persons.
- **Hypothesis:** cognitive function, subjective functioning, post-retirement activity and quality of life would contribute to the prediction of longevity.



METHOD: Participants

➤ **Participants***: $N = 301$

- from 13 retirement homes in Zagreb, Croatia
- **227 (75 %)** women, **74 (25 %)** men

➤ **Age at baseline interview in 2008:**

- $M = 88$ ($SD=3.5$), range 80–101 yrs.


➤ **Follow-up in 2018:**

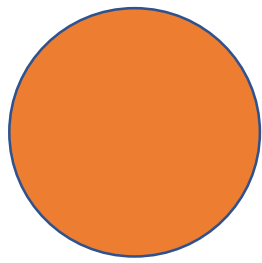
- Average survival $M = 92.6$ ($SD=3.9$), range 84–103 y.

**Part of the HECUBA project sample, $N=345$; HRZZ IP-01-2018-2497*



Method: Instruments & Procedures

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1. In 2008: Questionnaire for the Oldest-Old (HECUBA project), *administered individually*:
 - **Sociodemographic data:** Age, Gender, Education
 - **Self-report scales** (*higher score = better rating*):
 - Post-Retirement Activity (3 items, TR 3-6)
 - Subjective Functioning: Hlth, Indep. (4 items, TR 4-12)
 - Quality of Life (4 items, TR 4-12).
 - ❖ **Cognitive function:** MMSE (TR 0-30; < 17= impaired)
 2. In 2018: Life Status (Age of Death) – checked (the Croatian Registry of Deaths)



RESULTS

Table 1. Descriptive Statistics (N = 301)

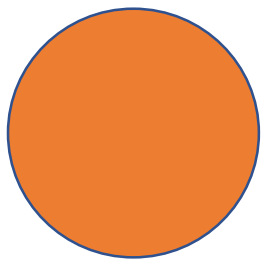
Variables	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
• Age at Interview	88	3.5	80	101
• Age at Death	92.6	4.11	84.9	103.8
• Cognitive Functioning	23.4	4.08	10	30
• Post-Retirement Activity	4.6	1.18	3	6
• Subjective Functioning	8.5	2.09	4	12
• Quality of Life	9.3	1.55	4	12

Average survival:

- Survived **4 years** more after the interview

Average functioning scores:

- Satisfactory baseline overall subjective functioning – indicates participants' **adaptive capacity**.



RESULTS

Table 2. Correlations (Pearson's r) between observed variables (N = 301)

Variables	1.	2.	3.	4.	5.
1. Age at Death	-	0.10	0.13*	0.12	0.13*
2. Cognitive Functioning		-	0.21**	0.09	-0.01
3. Post-Retirement Activity			-	0.13*	0.15*
4. Subjective Functioning				-	0.17**
5. Quality of Life					-

* = $p < 0.05$; ** = $p < 0.01$

Correlations:

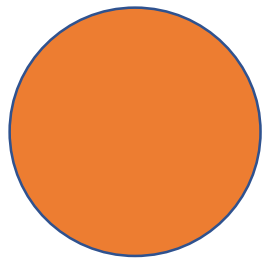
- Weak
- Statistically significant

Survival - positively correlated with:

- Post-Retirement Activity
- Quality of Life

Other correlations:

- Indicate adaptative capacity



RESULTS

Table 3. *RA results: Prediction of survival (N = 301)*

Predictor Variables	β
Cognitive Functioning	0.12*
Post-Retirement Activity	0.13*
Subjective Functioning	0.09
Quality of Life	0.10
$R = 0.25$; $R^2 = 0.06$; $F_{(4, 297)} = 3.845^*$	

- ❖ RA model significant:
 - 6% survival variance explained
- ❖ Better **cognitive functioning** & more **post-retirement activity**:
 - Contribute to the prediction of participants' longevity

β = standardised regression coefficient; R = multiple correlation coefficient;
 R^2 = multiple determination coefficient; * $p < 0.05$

DISCUSSION

Observed set of psychosocial factors: cognitive functioning, post-retirement activity, subjective functioning & quality of life:

➡ Small (significant) contribution to the prediction of longevity in very old persons.

Higher self-rated functioning, activity and quality of life:

➡ Indicate very old persons' capacity to **adapt to ageing and living environment** (Allerhand et al., 2014; Baltes & Smith, 2003; Reyes Fernández et al., 2016).

Participants' **living environment**: provided care, stimulating activities, social support and participation etc.:

➡ All in favour of longer life and **longevity** (Hsu, 2007; Engelhardt i sur., 2010; Seeman i sur., 2011) .

Other contributing factors?

➡ **Biological** (chronic illnesses, genetic factors ... - *HECUBA!*); **Social** (social support, socio-economic status ...); **Psychological** (personality, affect ...). .

Study Limitations & Recommendations

Methodological limitations:

- Sample of participants
- Variables' choice
- Self-report measures
- Design: Single measurement + life status

Recommendations:

- Larger, representative sample
- Add selected variables
- Mixed/Qualitative methods
- Longitudinal study design



CONCLUSION

Presented findings suggest:

- ❖ Growing 80+ population - **key goal:** recognise unique risk/protective factors for their functioning!
- ❖ Planning/providing the support for older persons' **adaptive potential:**
 - ✓ to improve the **quality of their life** in very advanced age,
 - ✓ to set a **support model** for **prospective long-living** cohorts.

THANK YOU!

