PSYCHOSOCIAL ADAPTIVE CAPACITY AND SURVIVAL IN VERY OLD PERSONS

- **Jasminka Despot Lučanin[1]**
- **Ana Perinić Lewis[2]**
- **Šime Smolić[3]**
- **Tatjana Škarić-Jurić[2]**

[1] University of Zagreb, Faculty of Croatian Studies, Croatia

[2] Institute for Anthropological Research, Zagreb, Croatia

[3] University of Zagreb, Faculty of Economics & Business, Croatia

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

1. **In 2008: Questionnaire for the Oldest-Old** *(HECUBA project), **administered individually**:*

   - **Sociodemografic 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	*M*	*SD*	*Min*	*Max*
• 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
$R = 0.25$; $\mathbf{R^2 = 0.06}$; $F_{(4, 297)} = 3.845$*	

- 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 & Reccommendations

Methodological limitations:

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

Reccommendations:

- 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!