



## ENVEJECIMIENTO POSITIVO Y SOLIDARIDAD INTERGENERACIONAL

### RELIGIOSITY AND OPTIMISM IN ILL AND HEALTHY ELDERLY

**Lisete dos Santos Mendes Mónico**

Assistant Professor at Faculty of Psychology and Education Sciences - University of Coimbra;  
Member of the Institute of Cognitive Psychology, Vocational and Social Development (IPCDVS/FPCE)  
Member of the Research Group on Psychosocial and Cognitive Processes; lisete\_monico@fpce.uc.pt

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#### ABSTRACT

*Introduction:* Considering the analysis of the roles of religiosity and its impact on health, risk behaviors, and well-being as classic, research about the impact of religiosity on optimism in the elderly has been neglected. Indeed, in the ageing process religiosity has been shown to be associated with important benefits.

*Aims:* In this paper we seek to analyze the agency factors of religiosity in optimism and the mediation by satisfaction with life in healthy and ill elderly.

*Method:* The surveyed sample consisting of 250 elderly classified as healthy ( $M = 74.87$ ,  $DP = 6.77$  years old) and 244 ill elderly ( $M = 68.92$ ;  $DP = 10.35$  years old). All the participants answered to the CRSV Questionnaire (Mónico, 2010).

*Conclusions:* We found a positive relationship between religiosity and optimism only for the group of healthy elderly. For ill elderly optimism was only significantly promoted by satisfaction with life. The distinction between internality and externality optimism has shown that healthy elderly anchor their optimism in internality beliefs, while elderly patients base their optimism on external factors. The establishment of a self-regulating system in elderly is discussed with beliefs and religious practices as perpetuators.

#### KEY-WORDS

Elderly; religiosity; optimism; ill elderly; healthy elderly

Religion is considered a social force, performing vital functions in such a way that it becomes inseparable from human existence (McCullough & Willoughby, 2009). Considering the analysis of the roles of religiosity and its impact on health, risk behaviors, and well-being as classic, research about the impact of religiosity on optimism in the elderly has been neglected.



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Also regarded as a belief, optimism refers to expectations of good results (Carver & Scheier, 2000). The tendency for the positive, the expectation of future success, and the explanation given to negative events generally characterize optimism, detected in such diverse areas of life such as health, academic or professional achievement, interpersonal relationships, and security (Buunk, 2001; Hoorens, 1994; McKenna, 1993; Simonds, 2005; Weinstein, 1982, 1987). The conceptual definitions orientate to positive expectations, usually generalized and stable, demonstrating that people consider themselves, generally, slightly happier than others; they show a positive asymmetry in respect to distribution of positive experiences, whereas an opposite asymmetry for the experiencing of negative events (Scheier & Carver, 1985, 1987, 1992; Tiger, 1979; Weinstein, 1980, 1983, 1984, 1989).

There are known life areas in what the elderly direct their aims: health, emotional balance, family, social adaptation. The behavior of the elderly is determined by their aims, operating several self-regulatory mechanisms. The optimism enters in self-regulation when the elderly, although anticipate obstacles to achieving their goals, hold the conviction that they will be successful (Scheier & Carver, 1992). Prediction based on Social Comparison Theory (Festinger, 1954) does not give the optimism the widespread character that it has in literature (Alick, 1985, Carver & Scheier, 2000), especially in old age, in which the adversities of life are inevitable (Alloy & Ahrens, 1987), leading sometimes to pessimism.

In these situations, religious beliefs can take a key role in cognitive balance of the elderly, especially in the disease stage. Believing in divine beings, with superhuman powers, is, among other things, a coping mechanism (Brown, 1987; Hinde, 2006; Pargament & Mahoney, 2002) that, in times of difficulties and frustration, can promote optimism. In this sense we hypothesize that religious beliefs, legitimated by reference to a tradition or a practice (Wallis & Bruce, 1991), can be considered a determinant of the optimism of the elderly, ill or healthy.

## AIMS AND HYPOTHESIS

In our empirical study we want to analyze religiosity, optimism and satisfaction with life in healthy and ill elderly. Three research hypotheses were formulated. H1: There is a positive correlation between the extent of religiosity and levels of optimism in the elderly; H2: The relationship between religiosity and optimism is mediated by the self-perception of individuals' personal experiences, and H3: The association between religiosity and optimism of the elderly will differ in function of the anchor in internality or externality beliefs.

By internality optimism we consider the expectation that good future experiences depend on their own personal skills (Mónico, 2010). The externality optimism refers to the conviction that the good results will prevail due to situational factors, not having the elderly control over these factors (luck, chance, or supernatural help).

## MATERIAL AND METHOD

### Participants

The study included 494 participants, enquired through a self-administered questionnaire, where 250 are healthy elderly ( $M = 74.87$ ,  $SD = 6.77$  years) and 244 are ill elderly ( $M = 68.92$ ,  $SD = 10.35$  years), both Portuguese citizens.

### CRSV Questionnaire

We elaborated the CRSV Questionnaire – Portuguese acronym for Religious Beliefs, in Life Situations – duly treated with reliability and factorial analyses (Mónico, 2010). We established 3 indicators: Religiosity, Favorability of life, and Optimism.



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**Procedures**

After guaranteeing the anonymity and confidentiality of the answers, we requested the informed and voluntary consent of the elderly to answer the questionnaire. We used the SPSS 19.0 version for statistical data analysis. The process of construction and adjustment of measuring instruments, as well as the reliability and factorial analysis of the measures were treated in Mónico (2010).

**RESULTS**

**Religiosity**

Concerning the Religiosity measures, we found that healthy elderly are more religious than ill elderly: the Multivariate Analysis of variance (MANOVA) indicates a Wilks'  $\Lambda = .86$ ,  $F(9, 366) = 6.48$ ,  $p < .001$ ,  $\eta^2 = .14$ ,  $(1-\beta) > .999$ . The univariate tests (see Table 1) indicate that the multivariate effect was due to all measures of Religiosity, except for the beliefs in the Paranormal / occultism, Futurology, and Synesthesia.

Table 1 – Average scores and standard-deviations of measures of Religiosity: Univariate tests

Religiosity	Healthy elderly (n = 250)		Ill elderly (n = 244)		Total (N = 494)		F (1,491)
	M	SD	M	SD	M	SD	
<b>Measures:</b>							
Belief in God	3.93	0.38	3.70	0.71	3.85	0.53	16.22***
Level of religiosity	4.06	0.89	3.38	1.10	3.81	1.02	42.70***
Attitudes towards God	4.35	.64	3.86	1.08	4.17	.86	29.62***
<i>Orthodoxy, tranquility and religious conflict</i>							
[OTCR_F1] Religiosity	.89	.15	.75	.31	.84	.23	34.10***
[OTCR_F2] A-religiosity	.89	.18	.76	.29	.84	.24	30.50***
<i>Kind of religious beliefs</i>							
[ACRE_F1] Christian beliefs	5.39	1.28	4.55	1.93	5.08	1.60	25.16***
[ACRE_F2] Paranormal / occultism	3.33	1.42	3.23	1.49	3.29	1.45	0.43
[ACRE_F3] Futurology	1.95	1.23	2.03	1.28	1.98	1.25	0.37
[ACRE_F4] Synesthesia	4.03	1.62	4.03	1.60	4.03	1.61	0.97

\*\*\*  $p < .001$

Particularly, healthy elderly believe more in God and are more religious than ill elderly (see Figure 1), although healthy elderly just indicate more Christian beliefs (see Table 1, univariate tests), in comparison with ill elderly.

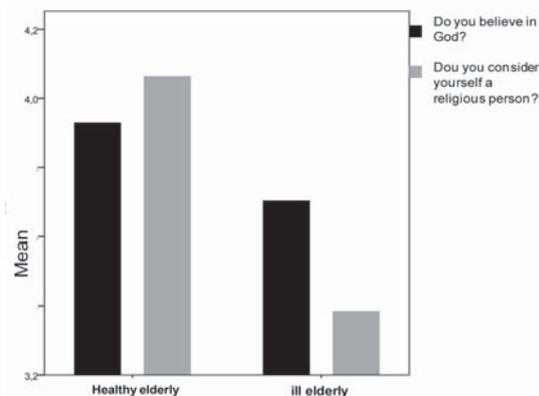


Figure 1 – Belief in God and Religiosity of healthy and ill elderly: Mean scores

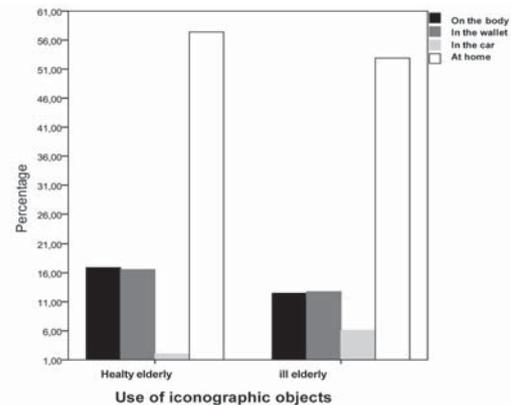


Figure 2 – Use of iconographic objects: Percentages



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Considering the use of religious iconography, we found that healthy elderly use more iconographic objects, Wilks  $\Lambda = .94$ ,  $F(4, 371) = 5.99$ ,  $p < .001$ , especially on the body, in the wallet and at home - respectively,  $F(1, 374) = 5.24, 3.66, \text{ and } 12.91$ ,  $p < .05$  (see Figure 2).

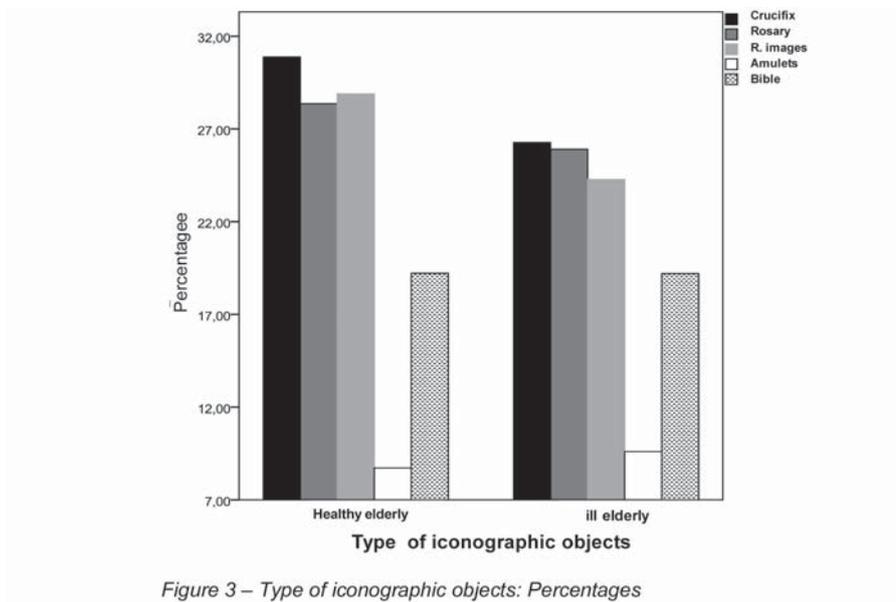


Figure 3 – Type of iconographic objects: Percentages

Regarding the type of religious iconography, healthy elderly use more the crucifix, the rosary, and religious images - respectively,  $F(1, 374) = 5.31, 3.92, \text{ and } 5.70$ ,  $p < .05$  (see Figure 3).

We also asked, "of the requests made in prayer, how many were fulfilled?". We found that healthy elderly indicate a percentage significantly higher,  $t(384) = 4.10$ ,  $p < .001$  (see Figure 4).

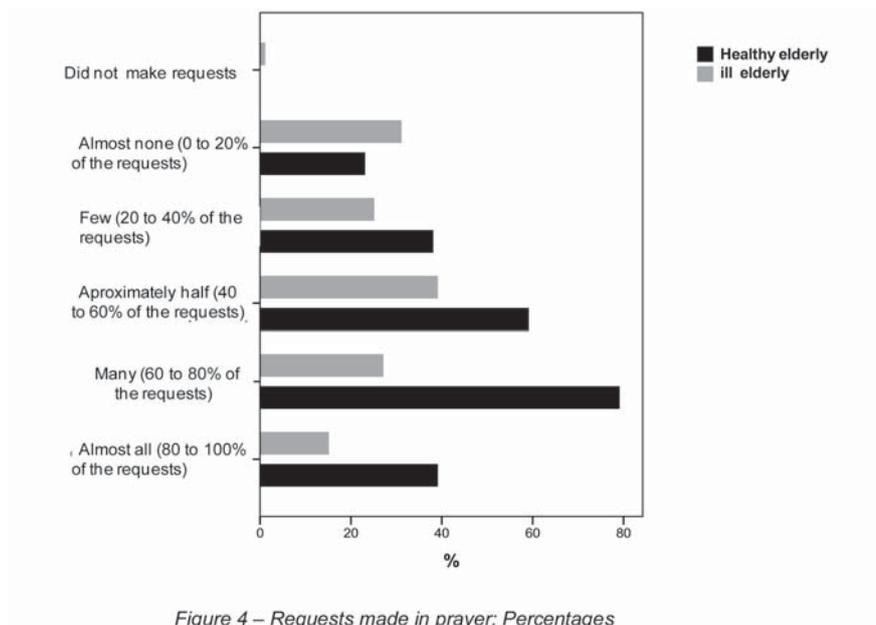


Figure 4 – Requests made in prayer: Percentages



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**Self-perceptions and attributions**

In Table 2 we show the results of univariate analysis of covariance (ANCOVA) for the measures of Satisfaction with life for healthy and ill elderly (gender covariate). As expected, healthy elderly are more satisfied with their lives.

Table 2 – Univariate analysis of covariance for the measures of Satisfaction with life: Mean scores and standard errors adjusted for gender

Satisfaction with life	Elderly					
	Healthy (n = 250)		Ill (n = 244)		F (1,491)	Gender
	Maj	SEaj	Maj	SEaj		
[AVAP] Self-perception of life	4.42	0.07	3.82	0.07	34.97***	0.04
[SITA] Satisfaction with current life	2.96	0.05	2.38	0.05	60.14***	2.07
[SITP] Satisfaction with past life	3.21	0.05	3.16	0.05	0.43	0.35
[PEPR] Current problems	0.80	0.06	1.45	0.06		
[PEPR_01] Physical health	0.45	0.03	0.78	0.03	60.99***	0.58
[PEPR_02] Psychological health	0.08	0.02	0.23	0.02	23.78***	7.93**
[PEPR_03] Love problems	0.01	0.01	0.05	0.01	5.69*	2.19
[PEPR_04] Financial problems	0.10	0.02	0.18	0.02	6.72*	0.05
[PEPR_05] Work problems	0.00	0.01	0.08	0.01	17.98***	0.13
[PEPR_06] Family problems	0.16	0.02	0.13	0.02	0.62	0.02
[POPR] Problems in the past	2.00	0.08	2.62	0.08		
[POPR_01] Physical health	0.73	0.03	0.79	0.03	2.34	0.00
[POPR_02] Psychological health	0.07	0.02	0.21	0.02	21.20***	8.73**
[POPR_03] Love problems	0.10	0.02	0.16	0.02	4.22*	3.52
[POPR_04] Financial problems	0.51	0.03	0.27	0.03	10.21**	3.12
[POPR_05] Work problems	0.12	0.02	0.16	0.02	1.23	23.09***
[POPR_06] Family problems	0.53	0.03	0.39	0.03	9.57**	11.20**
[SUCE] Attribution of successes	4.95	0.06	4.77	0.06		
[FRAC] Attribution of failures	3.29	0.07	3.82	0.07		

\* p < .05 \*\* p < .01 \*\*\* p < .001

As shown in Table 2, the healthy and the ill elderly perceive their lives as equally favorable in the past [SITP], although for current life [SITA] ill elderly report more difficulties, due not only to physical and psychological health problems, but also to love, financial, and professional problems (see Figure 5), although the major distinction are the physical health problems.

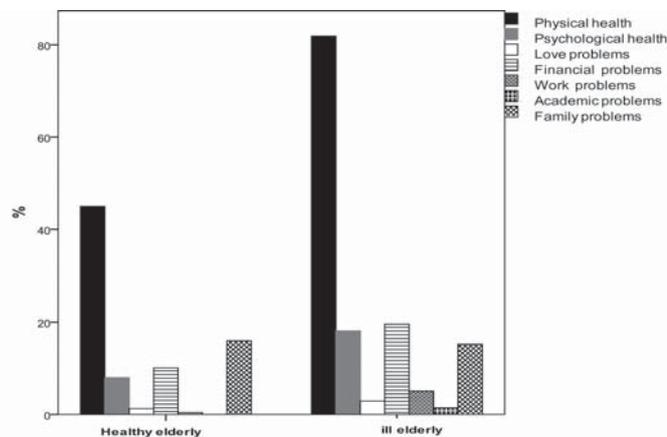


Figure 5 – Current problems: Percentages by life domains



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Figure 6 represents the mean scores of the self-perception of current life (AVAP items). The higher scores of the healthy elderly concerns to happiness, joy, hope, facilities, impression of being useful, safety, tranquility, inner peace, and sociability, Wilks  $\Lambda = 0896$ ,  $F(16,359) = 2.63$ ,  $p = .001$ .

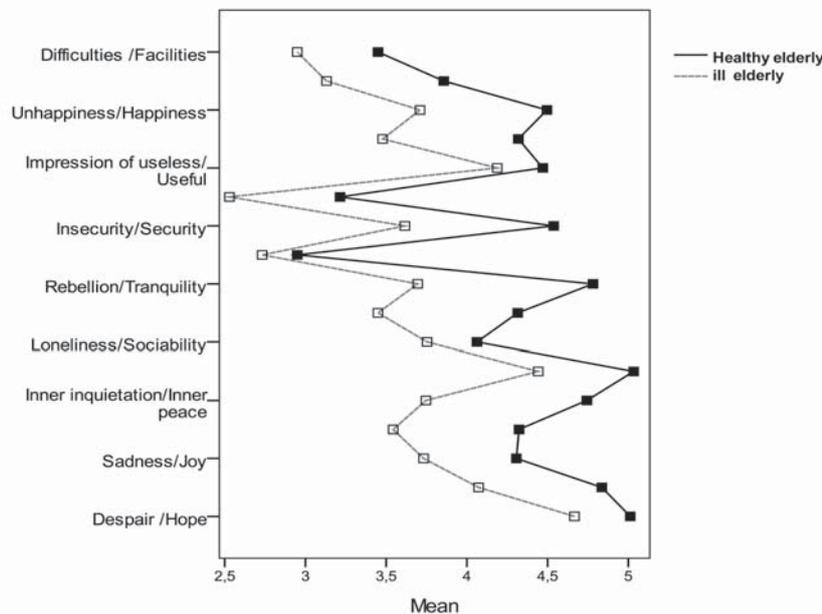


Figure 6 – Self-perception of current life [AVAP]: Mean scores

Regarding the attribution of successes [SUCE] and failures [FRAC] throughout life, we found that healthy elderly attribute their success to God's help and ill elderly to their own abilities: Wilks'  $\Lambda = 0919$ ,  $F(6, 369) = 5.43$ ,  $p < .001$ , measurement scale from 1 = strongly disagree to 7 = strongly agree. There are no differences in the other causes, namely, their own abilities, the opportunities that had appeared, the help of others, and the courage to risk (items of SUCE measure, see Figure 7).

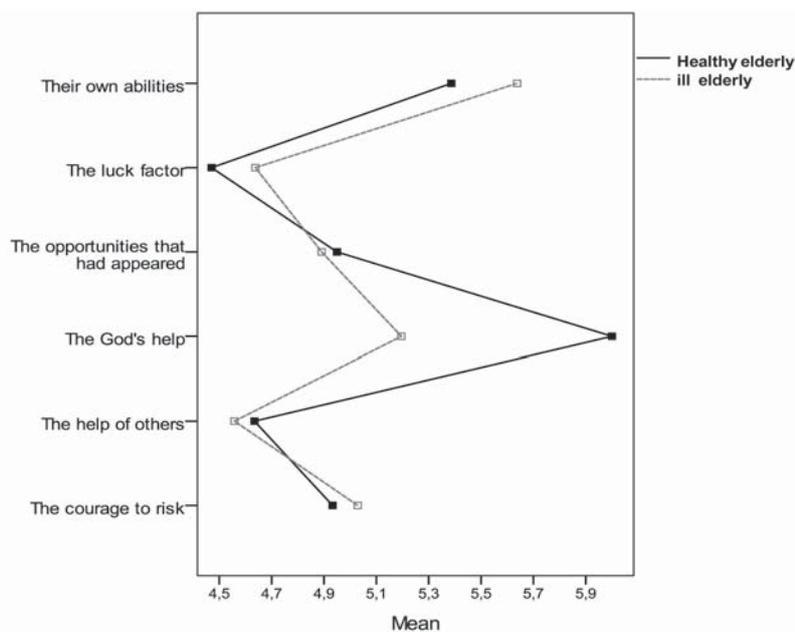


Figure 7 – Attribution of successes [SUCE] throughout life: Mean scores



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On the attribution of failures, we found significant differences in all items Wilks  $\Lambda = 0.963$ ,  $F(6, 369) = 2.34$ ,  $p = .03$ . Ill elderly attribute their failures more to their lack of abilities, their bad luck, to waste the opportunities that had appeared, the lack of help of God, the damage of other people, and their afraid to take risks (items of FRAC measure, see Figure 8).

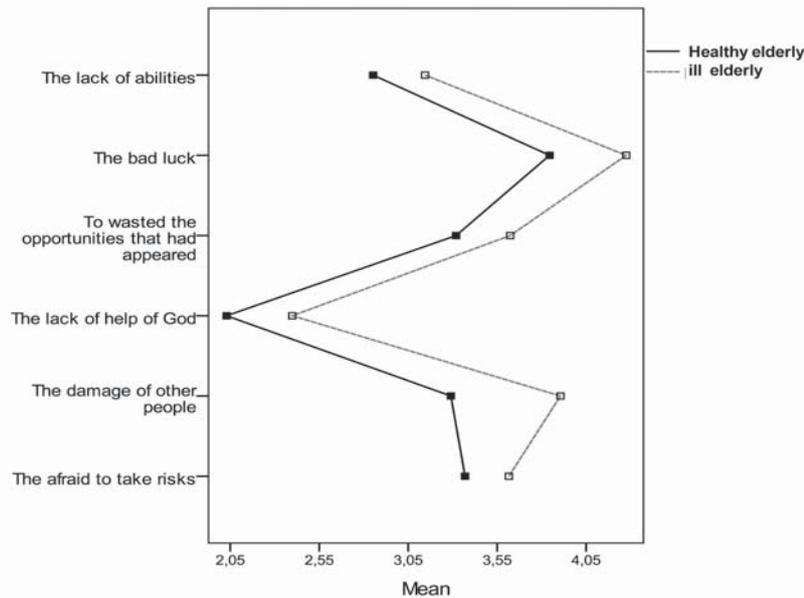


Figure 8 – Attribution of failures [FRAC] throughout life: Mean scores

**OPTIMISM AND PESSIMISM**

A MANCOVA was performed, considering the measures of Optimism and Pessimism adjusted for gender. As we can see in Table 3, healthy elderly are more optimistic than ill elderly.

Table 3 – MANCOVA for the measures Optimism: Means and multiple standard-errors adjusted for gender

Optimism and Pessimism Measures:	Elderly				F (1,491)	
	Healthy (n = 250)		Ill (n = 244)		Elderly	Gender
	Maj	SEaj	Maj	SEaj		
<b>Optimism</b>						
[OISE] Optimism	3.63	0.04	3.37	0.04		
[OISE_F1] Internality optimism	3.30	0.05	3.14	0.05	4.28*	1.07
[OISE_F2] Openess to experience	3.50	0.04	3.70	0.04	10.40**	0.19
[OISE_F3] Positive expectations	3.74	0.05	3.62	0.05	3.28	1.60
[POAC] Positive future events	36.71	1.14	37.85	1.16		
[POAC_F1] Happiness, love, courage and luck	46.85	1.43	55.68	1.44	18.81***	0.03
[POAC_F2] Physical attractiveness, admiration and success	17.11	1.23	15.77	1.25	2.24	2.37
[POAC_F3] Highly unlikely desirable event	19.43	1.39	23.66	1.41	4.55*	0.79
[DAPO] Wish for positive future events	4.64	0.07	5.09	0.07		
[DAPO_F1] Happiness, love, courage and luck	5.41	0.07	6.09	0.08	41.46***	0.52
[DAPO_F2] Physical attractiveness, admiration and success	2.85	0.10	3.79	0.10	46.47***	1.76
[DAPO_F3] Highly unlikely desirable events	4.21	0.11	4.75	0.12	11.15**	1.75



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### Pessimism

[PESS] Internality pessimism	3.11	0.04	3.34	0.04	14.59***	1.68
[PANE] Negative future events	28.65	1.08	39.29	1.10		
[PANE_F1] Depressive profile	24.25	1.18	35.85	1.19	46.06***	1.97
[PANE_F2] Fatalist profile	47.50	1.49	62.07	1.51	47.01***	3.17
[PANE_F3] Victim profile	17.93	1.18	27.62	1.19	33.28***	0.23
[MANE] Fear of negative future events	3.61	0.08	4.23	0.08		
[MANE_F1] Depressive profile	3.27	0.09	3.90	0.09	26.28***	1.11
[MANE_F2] Fatalist profile	4.85	0.09	5.53	0.09	26.88***	7.72**
[MANE_F3] Victim profile	3.06	0.08	3.60	0.09	19.64***	0.01

\*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Healthy elderly consider they have more luck and they live their lives with more optimism than ill elderly, have a higher internality optimism and positive expectations, but the ill elderly wish for more positive future events concerning with happiness, love, courage, luck, physical attractiveness, admiration, success, and highly unlikely desirable events.

As regards to pessimism, ill elderly are more pessimists. They estimate more future negative events related to depressive, fatalist, and victim profiles. They also show more fear about these future negative events.

### TEST OF RESEARCH HYPOTHESIS

A multigroup structural equation modeling was performed for healthy and ill elderly, regarding the test of the two first research hypothesis, goodness of fit  $CMIN / DF = 3.26$ ,  $\chi^2 (417) = 1358.55$ ,  $p < .001$ ,  $NFI = .706$ ,  $CFI = .787$ , and  $RMSEA = .068$ .

We found that the optimism of healthy elderly was significantly determined by their religiosity, while for ill elderly optimism is essentially promoted by satisfaction with life (see Figure 9).

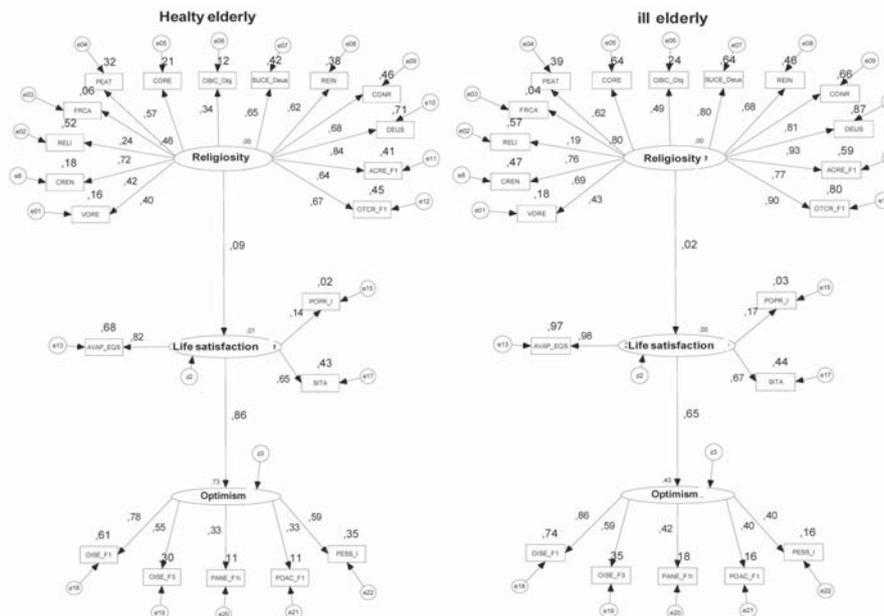


Figure 9 – Multigroup structural equation modeling: Regression coefficients for healthy and ill elderly



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We have made a distinction between internality and externality measures of Optimism and performed a new multigroup structural equation modeling. The results are highlighted in Figures 10 and 11. When we compare the models considering the internality optimism and the externality optimism, we found that the optimism of the healthy elderly is based on internality beliefs (see Figure 10) and the optimism of the ill elderly is more based on externality beliefs (see Figure 11).

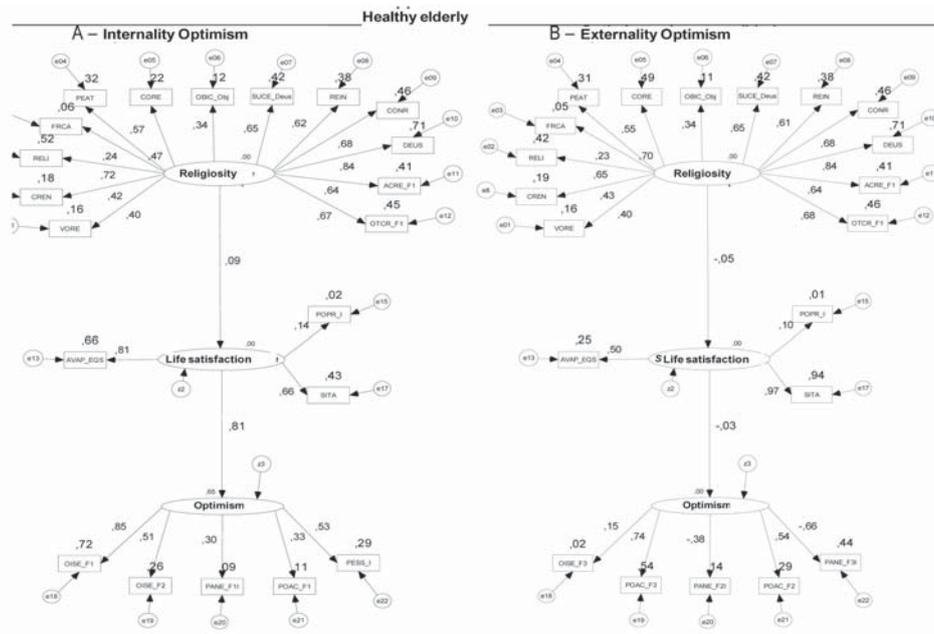


Figure 10 – Multigroup structural equation modeling: Regression coefficients for healthy elderly

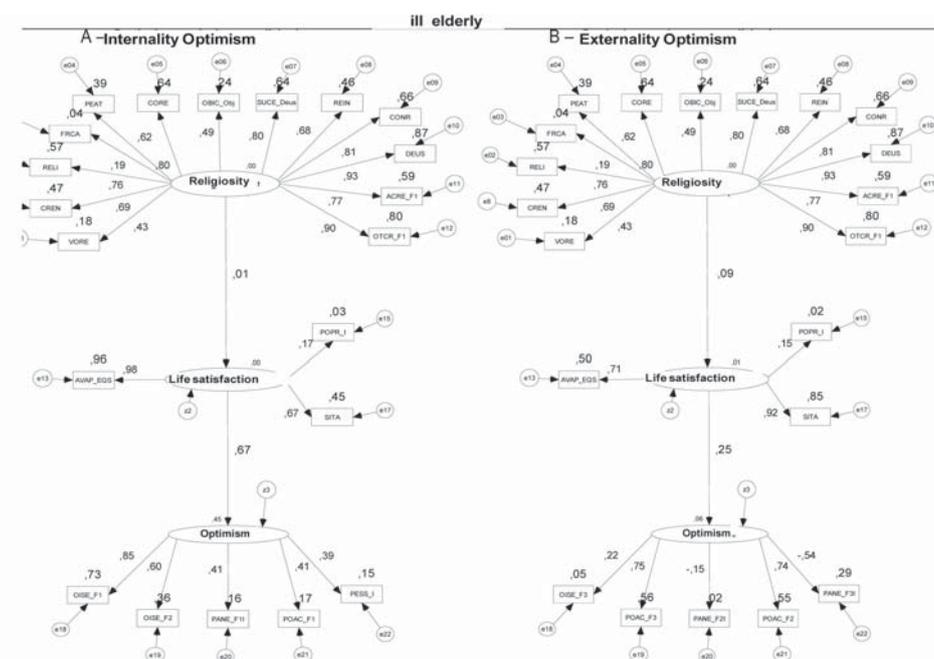


Figure 11 – Multigroup structural equation modeling: Regression coefficients for ill elderly



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### DISCUSSION AND CONCLUSIONS

In this article it was seen that a more intense religiosity is associated to higher optimism in the elderly. The differentiation in terms of antecedent and consequent was evaluated in the structural equation modeling, in which we expressed the possibility of anticipating the level of optimism of an individual from their results in the indicator Religiosity, mediated by Life Satisfaction (Hypothesis 2).

The state of health or disease of the elderly showed clear effects at the Religiosity, Optimism, and Life Satisfaction measures. The religiosity was presented as an antecedent of idiosyncratic optimism only in healthy elderly, being the optimism of ill elderly dependent of their satisfaction with life.

The Hypothesis 1 found empirical support only in the healthy elderly, where religiosity promotes optimism. In ill elderly optimism is promoted by satisfaction with life. The distinction between internality and externality optimism (Hypothesis 3) has shown that healthy elderly and ill elderly anchor their optimism in different kind of beliefs. Healthy elderly anchor their optimism in internality beliefs, while elderly patients base their optimism on external factors.

The personal frailty caused by old age and, specifically, the state of disease promotes disembedding, as described by Giddens (1991, 1997), emerging the need to reduce tensions and reach security and self-control. In that circumstances religiosity can be seen as a self-regulatory strength, a route of self-monitoring, and a coping strategy, enabling a new cognitive balance that promotes the reembedding (Giddens, 1991, 1997). A self-regulatory system is established, where beliefs and religious practices are promoters of optimism, anchored in internality or in externality beliefs.

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