

Health State Utilities for Woman with Breast Cancer in Portugal

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INTRODUCTION

Breast Cancer is the most prevalent cancer among Portuguese women, being responsible for a significant socio-economic burden. Every year, there are more than 7,000 new cases and over 1,800 women die from this disease.¹ In Portugal, the impact of socioeconomic factors, as well as disease characteristics on Health-Related Quality of Life (HRQoL) are poorly understood.

OBJECTIVES

- To estimate the HRQoL and health utilities of female patients with breast cancer in Portugal;
- To explore the association between these utilities and clinical and socioeconomic characteristics.

METHODS

This cross-sectional study was based on the application of an online questionnaire, promoted by the Portuguese Cancer League between march 29th and august 31st, 2021. HRQoL was measured using EuroQol-5 Dimensions-5 levels (EQ-5D-5L). All data were self-reported.

Analyses

- The Portuguese utility *tarif* was used as value set for the estimation of index values for the EQ-5D-5L.²
- Associations with income, education, age, type of treatment, and cancer subtype were examined using t-test or one-way ANOVA.

RESULTS

- A total of 831 women, diagnosed with early or metastatic breast cancer, answered the online questionnaire.
- 807 women are from one of the 18 districts from mainland Portugal, 14 from Madeira and 10 from the Azores, thus covering all national territory.

1. Sample characteristics

Sociodemographic	N (%)	Disease characteristics	N (%)
Age group (years)		Disease stage at diagnosis	
26-40	120 (14.4)	Early	686 (82.6)
41-55	526 (63.3)	Metastatic	105 (12.6)
56-65	150 (18.1)	Do not know	40 (4.8)
66-75	27 (3.3)	Treatment	
> 75	8 (1.0)	In treatment	207 (24.9)
Education		Remission	624 (75.1)
Primary	61 (7.4)	Type of treatment*	
Secondary	277 (33.3)	Endocrine (hormonal) therapy	588 (70.8)
University degree	493 (59.3)	Chemotherapy	595 (71.6)
Income		Radiotherapy	566 (68.1)
≤ 500 €	100 (12.0)	Surgery	762 (91.7)
> 500 - 1000	251 (30.2)	Immunotherapy	68 (8.2)
> 1000 - 1500	172 (20.7)	Subtype*	
> 1500 - 2000	128 (15.4)	HER2+	325 (39.1)
> 2000	105 (12.6)	Luminal	119 (14.3)
Did not answer	75 (9.0)	Triple negative	104 (12.5)
Disease duration (years)		Do not know/ Did not answer	283 (34.1)
Disease duration (mean (SD))	5.9 (5.2)		

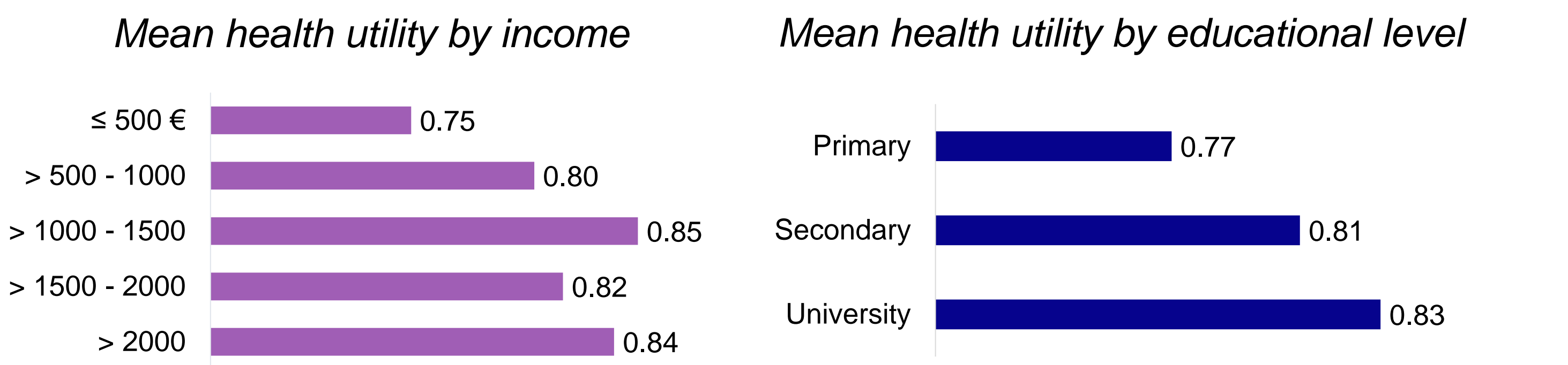
*current or past treatment

2. Quality of life

EQ-5D-5L component*	Median (IQR)	Mean (SD)
VAS	70.00 (51.00-82.00)	67.67 (20.1)
Utility value	0.86 (0.75-0.92)	0.82 (0.16)

Notes: *Higher scores reflect higher levels of HRQoL; n=831; VAS = Visual Analogue Scale

3. Quality of life by income and educational level

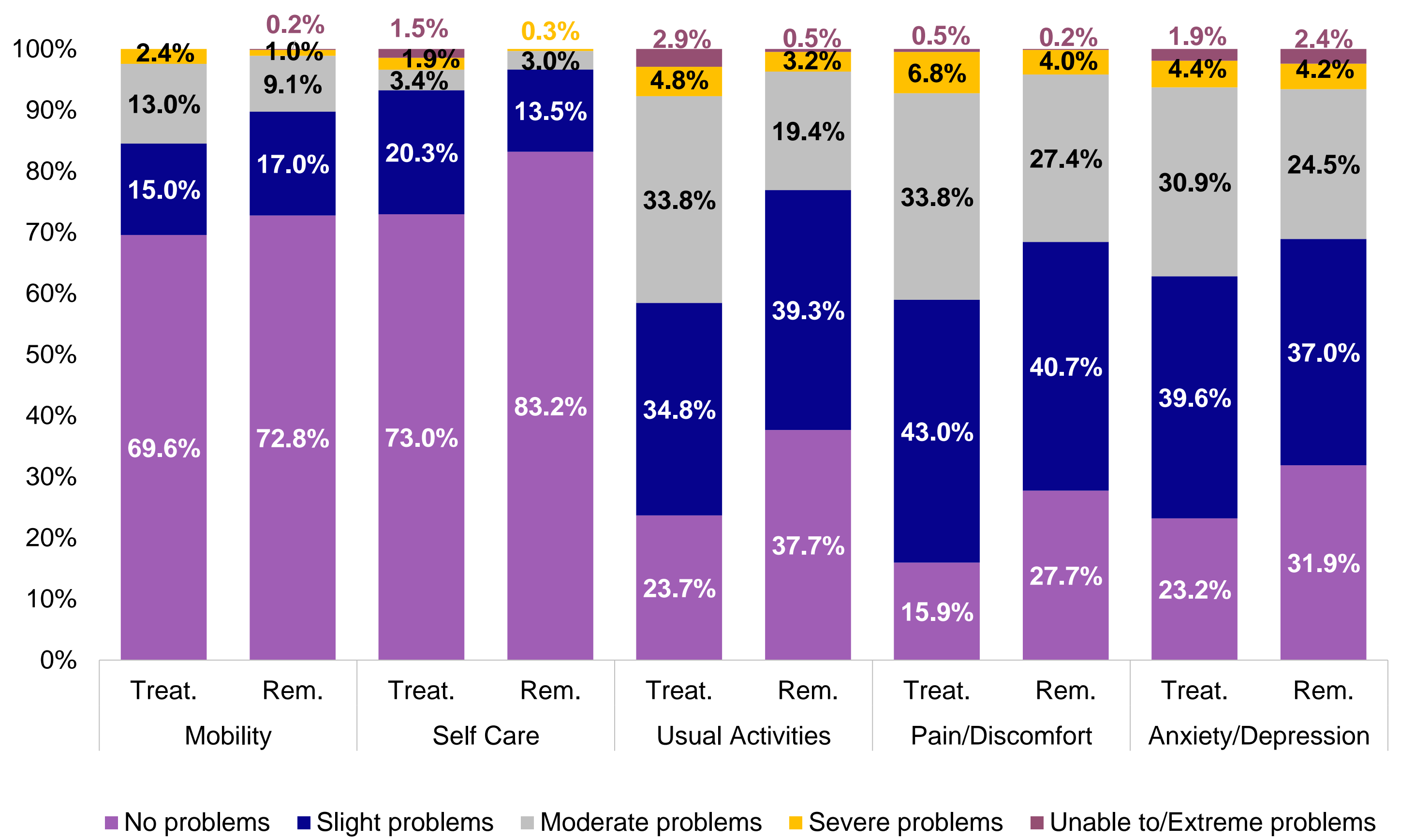


Statistically significant differences were observed across income categories ($F(4.751)=8.36, p<0.01$), and educational levels ($F(2.828)=5.10, p<0.01$).

4. Quality of life during treatment vs remission

Women currently on treatment reported worse mean health utility than those in remission (0.78 vs 0.83, $p<0.01$), and a lower VAS (60.23 vs 70.14, $p<0.01$).

EQ-5D-5L subscale in women currently in treatment, and in remission



The t-test revealed that mean health utility does not vary between women who underwent treatment and women who did not (e.g., there was no statistically significant difference in mean health utility between women who underwent surgery and women who did not). This result was found across all treatment types.

5. Quality of life by cancer subtype

	HER2+	Luminal	Triple negative	Between group differences (one-way ANOVA)
VAS (Mean (SD)) (n=548)	68.0 (20.1)	68.4 (19.8)	67.4 (20.3)	$F(2.545)=0.07, p=0.937$
Utility (Mean (SD)) (n=548)	0.82 (0.16)	0.83 (0.15)	0.80 (0.15)	$F(2.545)=1.61, p=0.202$

HRQoL does not vary significantly with the cancer subtype. Additionally, results showed that mean health utility does not vary significantly with age groups ($F(3.827)=0.97, p=0.41$).

Limitations

- The results should be interpreted with caution, since the sample might not be representative of all women with breast cancer in Portugal.
 - The data collection method (online) may have contributed to this bias.
- Greater detail about the cancer subtype would be desirable, as well as a more in-depth analysis of the association between health utility and the types of treatment.

TAKE HOME MESSAGES

- Women currently in treatment have lower HQoL, but that HQoL does not vary significantly with the type of treatment;
- Low income and a lower education level are significantly related to a lower HQoL;
- These results can potentially inform economic evaluation studies.