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INTRODUCTION

PACE project ("Comparing the effectiveness of Palliative Care for Elderly people in long-term care facilities in Europe" funded by the EU 7th Frame Programme) was set up to assess effectiveness and quality of end-of-life care for nursing home (NH) residents across European countries: Belgium (BL), Finland (FI), Italy (IT), Netherlands (NL), Poland (PL) and United Kingdom (UK).

THE AIM OF STUDY

The aim of this analysis is to study the relationship between socio-economic status (SES) and satisfaction with end-of-life care for NH residents as assessed by their relatives.

MATERIAL AND METHOD

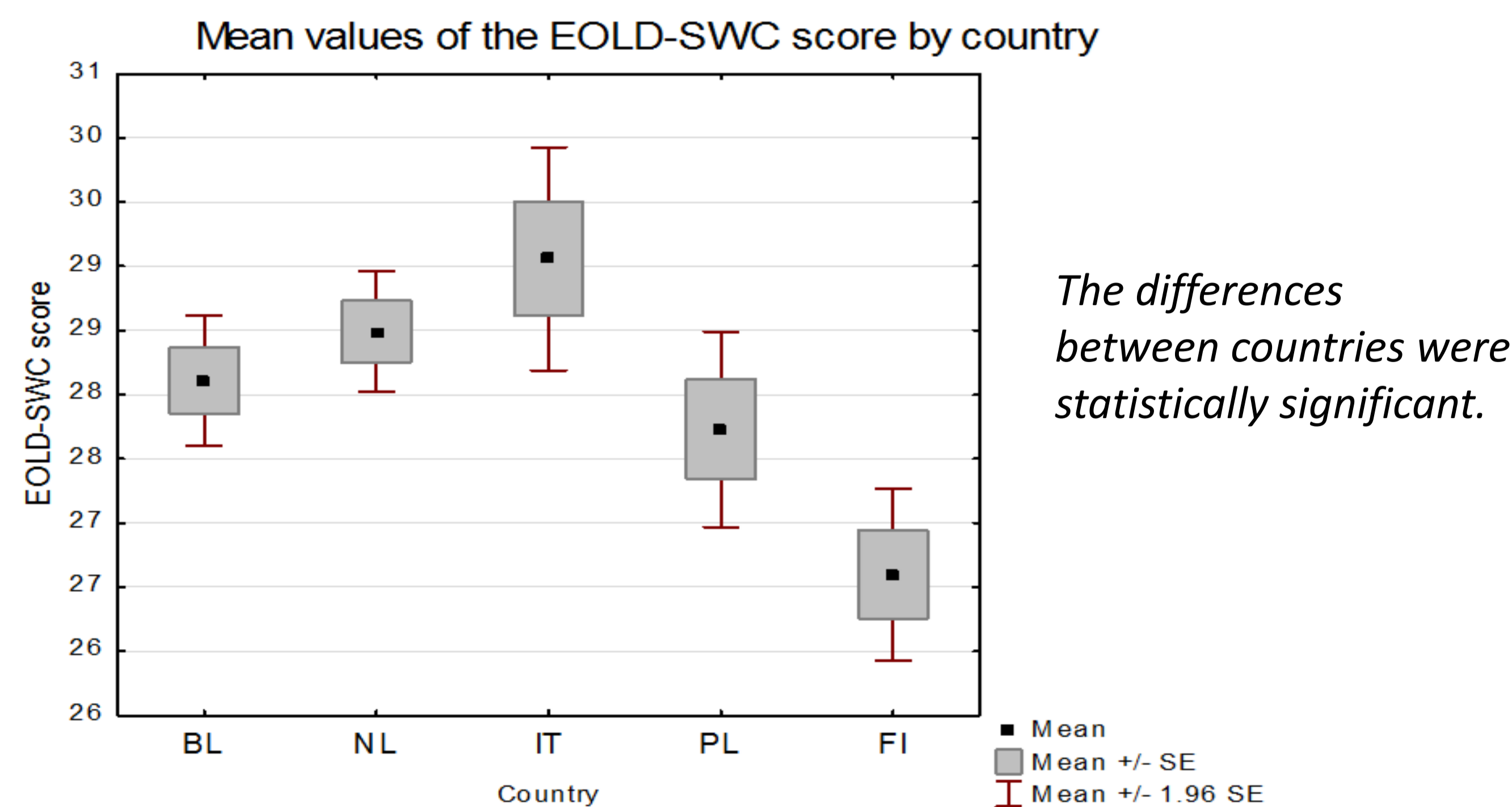
The PACE study was conducted in 2015 by recruiting a random sample of 322 NHs in 6 countries. A total of 1620 deceased residents were identified in 3 months' period prior to contact with the facilities. A questionnaire including items regarding socio-economic, educational and demographic characteristics of deceased residents and their relatives and measures of quality of end-of-life care (Satisfaction with Care End-of-Life in Dementia scale - SWC-EOLD) was sent to the relatives. SWC-EOLD consists of 10 questions about: staff empathy, quality of communication and providing information to relatives, involvement of relatives in care planning, and their feeling about measures taken to meet health needs, assure comfort and provide appropriate nursing and medical care (treatments) to dying person. Ten items, each equally ranked 1-4 give a total 10-40 score.

Ca. 58% (840) relatives responded. The full set of data required to run analysis was available for 561 respondents (age 59.2; SD=10.8; min 24 - max 90) and for 575 deceased NH residents (after excluding data from UK due to very small number of relatives who responded to questionnaire). We applied a generalized linear model (GLM) to find SES and demographic factors which are associated with satisfaction of end-of-life care assessed by relatives of deceased NH residents. Analysis was conducted in IBM SPSS Statistics 23.

RESULTS

Cross-national analysis showed the highest satisfaction with care in Italy and the lowest in Finland. Differences between countries in quality of care measured with SWC-EOLD scale were statistically significant only when relatives' responds from Finland were compared with these from Belgium, Netherlands or Italy (fig. 1). Interestingly, demographic and socio-economic factors describing both residents (tab. 1) and their relatives (tab. 2) were associated with the relatives' opinions on quality of end-of-life care for deceased NH residents, yet they differed depending on country. We considered several variables – only these of statistical significance are presented in the tables. In addition, we standardized our calculations for relatives' marital status, living with resident before her/his admission to NH, if resident's death was expected, which occurred to be not significant.

Figure 1. Satisfaction with end-of-life care – SWC-EOLD average score by countries.



CONCLUSIONS

- Satisfaction with care as reported by relatives of deceased residents in studied NHs differed between analysed countries.
- Some demographic and socio-economic characteristics of deceased NH residents and their relatives may have impact on relatives' views on quality of end-of-life care provided in these facilities. Yet, these factors differ country by country, and should be explained by cultural differences.

Table 1. Demographic and SES characteristics of deceased residents of NH associated with evaluation of quality of end-of-life care by their relatives (GLM).

NH Residents' demographics & SES factors associated with SWC-EOLD score

Characteristics of deceased NH residents	BL N=158	NL N=124	IT N=95	PL N=91	FI N=107
Gender (female vs. male)	-1.50*	2.04*	-0.63	0.61	1.68
Age (cont.)	0.05	-0.07	0.08	-0.10*	-0.01
Education (higher vs. lower)	0.20	0.26	1.28	-1.58	0.65
Marital status (single vs. married/partner)	0.80	-1.23	0.06	2.07*	-1.83
Religion (Christian vs. no or other)	-0.98	1.13	3.93*	-2.53	0.79
Financial situation before NH admission:					
Good	-2.54	4.17	2.97*	0.09	0.61
Moderate	-2.96	4.93*	0.78	-0.29	0.29
Bad	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Length of stay in NH					
Less than 90 days	0.20	-1.66*	-0.24	-1.62	-1.52
91-180 days	-1.07	1.09	-1.47	-1.16	1.96
>180 days	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
NH Type 2 vs. Type 1	x	-0.50	0.55	-2.82*	x

*p<0.05

B – value in red, when statistically significant

NH Type 1 – nurses and physicians 24h/7days a week on site;

NH Type 2 – nurses 24h/7days a week on site and GP/physician off-site

Table 2. Demographic and SES characteristics of relatives which may have impact on their opinion on quality of end-of-life care provided in NHs (GLM).

Relatives' demographics & SES factors associated with SWC-EOLD score

Characteristics of relatives of deceased NH residents	BL N=129	NL N=138	IT N=89	PL N=95	FI N=110
Gender (female vs. male)	1.51*	-0.10	-0.05	0.04	0.51
Age (cont.)	-0.02	0.03	0.09	0.01	0.07
Education					
Tertiary	-0.94	-1.40	2.07	-1.02	1.02
Secondary	-1.11	-1.61*	1.51	-0.71	-0.10
Primary	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Relationship to deceased resident (other vs. spouse/partner)	2.58	-3.33*	0.34	-0.09	-1.57
Hours spent with resident					
None	-1.10	-1.88	-0.07	3.25*	-1.29
Up to 7h/week	-1.01	-0.42	-1.30	1.39	-0.96
8-14h/week	0.04	-0.22	-1.23	0.42	-0.14
>14h/week	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Working status: Retired	1.09	0.06	-0.21	-0.76	-2.44*
No job	-0.26	0.34	0.70	-1.21	-1.38
Employed	(ref.)	(ref.)	(ref.)	(ref.)	(ref.)
Emotional burden (cont.)	-0.10	-0.13	0.17	-0.37*	-0.47*
NH Type 2 vs. Type 1	x	-1.28*	0.52	-2.66*	x

*p<0.05

B – value in red, when statistically significant