

Burnout and job demands among nurses: a comparative study between Portugal and Italy

Cristina Queirós¹, Raffaella Ruggieri², Elisabete Borges³, Elena Fiabane⁴

¹Faculdade de Psicologia e de Ciências da Educação da Universidade do Porto, CPUP, Portugal, cqueiros@fpce.up.pt

²Department of Psychology, University of Pavia, Italy, raffaella.ruggieri01@universitadipavia.it

³Escola Superior de Enfermagem do Porto, CINTESIS, Portugal, elisabete@esenf.pt

⁴Department of Physical and Rehabilitation Medicine, ICSMaugeri Spa SB, Institute of Genoa Nervi, Genoa, & Department of Brain and Behavioral Sciences, University of Pavia, Italy, elenamaria.fiabane@unipv.it

Abstract: *Burnout* is currently considered an epidemic phenomenon among nurses, due individual, management, organizational, and work characteristics, decreasing nurses' skills to cope adequately with their strong job demands, especially when nursing workforce is ageing and job demands are increasing. This study aims to compare, among Portuguese and Italian nurses, *Burnout* and job demands levels, and to verify if job demands predict *Burnout*. A quantitative, exploratory, descriptive, comparative and cross-sectional study was performed, collecting data with the Oldenburg *Burnout* Inventory and the Copenhagen Psychosocial Questionnaire. Participated, voluntary and anonymously, 194 Portuguese nurses and 199 Italian. Both countries presented moderated levels of all dimensions studied, and comparative analysis revealed statistically significant more emotional exhaustion, quantitative and emotional demands, and skill discretion, and less job satisfaction in Portugal. Job demands explains in Italy 51% of emotional exhaustion and 47% of *disengagement*, while for Portugal, explains 44% of emotional exhaustion and 53% of *disengagement*. *Burnout* seems to be a global phenomenon. Due the aging of nurse workforce and the increase of job demands, it is important to prevent *Burnout*, using occupational health programs helping to reduce nurses' negative emotional states and turnover, allowing them to develop plans to work longer.

Key-words: *Burnout*; Job demands; Nurses; Comparative study; Portugal; Italy.

1. Introduction

Burnout is currently considered an epidemic phenomenon, with cost for workers and for organizations, as consistently the European Agency for Safety and Health at Work is alerting during last years (EU-OSHA, 2018), namely with "*Healthy workplaces*" campaign. Moreover, in September 2018 the European Foundation for the Improvement of Living and Working Conditions (EUROFOUND, 2018) published the report "*Burnout in the workplace: A review of data and policy responses in the EU*", alerting for the need to consider *Burnout* as a serious problem and for the need to have better measures to assess *Burnout* levels among different occupations. Among nurses, due individual, management, organizational and work characteristics *Burnout* is also a concern (Bakhamis *et al.*, 2019), since it decreases nurses' skills to cope adequately with their strong job demands (emotional, physical, related with teamwork, etc.). If we consider that nurses are the majority profession in health systems and that nursing workforce is ageing and job demands are increasing (McCarthy, Wills & Crowley, 2018), *Burnout* should be a priority to health organizations and their managers.

This study aims to compare, among Portuguese and Italian nurses, *Burnout* and job demands levels, and to verify if job demands predict *Burnout*.

2. Methods

A quantitative, exploratory, descriptive, comparative and cross-sectional study was performed, collecting data with a brief sociodemographic and professional questionnaire, the Oldenburg *Burnout Inventory* (Demerouti *et al.*, 2003; Campos *et al.* 2012; Pompili *et al.* 2010) and the Copenhagen Psychosocial Questionnaire (Kristensen *et al.*, 2005, Fernandes da Silva *et al.*, 2011; Setti *et al.*, 2017), using national versions of each country.

For the study, during May 2018 a snowball sampling method using nursing personal contacts of the authors was used to recruit participants, due the vastness of nurses as professionals and the need to recruit simultaneously at Italy and Portugal (Heckathorn *et al.* 2017), which limit to identify the percentage of participation after the dissemination. The inclusion criteria were to be a nurse with a job contract in one of the two participating countries, being excluded students and trainee nurses. Regarding ethical considerations, the study was developed inside of the international project INT-SO (From work contexts to occupational health of nursing professionals), having as institutional leadership the Higher Nursing School of Porto and as partner the Faculty of Psychology and Education Sciences of University of Porto. Participation was free, voluntary, and anonymous. Before completing the questionnaire, each participant must mark the screen "I agree to collaborate", and it was allowed to not submit the questionnaire without prejudices for participants. Overall, nearby 600 nurses participated during June 2018 and for this study we selected a sample of nurses working in public organizations.

Participated, voluntary and anonymously, 194 Portuguese nurses and 199 Italian, being 84% women, 80% working in public hospitals, 20% in primary health care and 8% in other places (such as clinics, prisons and elderly houses). Most of the participants (75%) worked by shifts, age varied between 23-58 years ($M=39.9$) and job experience between 1-38 years ($M=16.2$).

Statistical analysis was performed using the IBM SPSS program version 25, doing descriptive statistics, comparisons with t-student test across countries, R Pearson correlation analysis and multiple linear regressions (Enter method).

3. Results

Comparative analysis revealed (Figure 1) that both countries presented moderated levels of all dimensions studied, while comparative analysis with t-test independent revealed statistically significant more emotional exhaustion ($p=.005$), quantitative and emotional demands (respectively $p=.00$ and $p=.016$), and skill discretion ($p=.002$), and less job satisfaction ($p=.005$) in Portugal. *Disengagement*, demands related with work pace, satisfaction with decision authority and supervisor's support are similar in both countries.

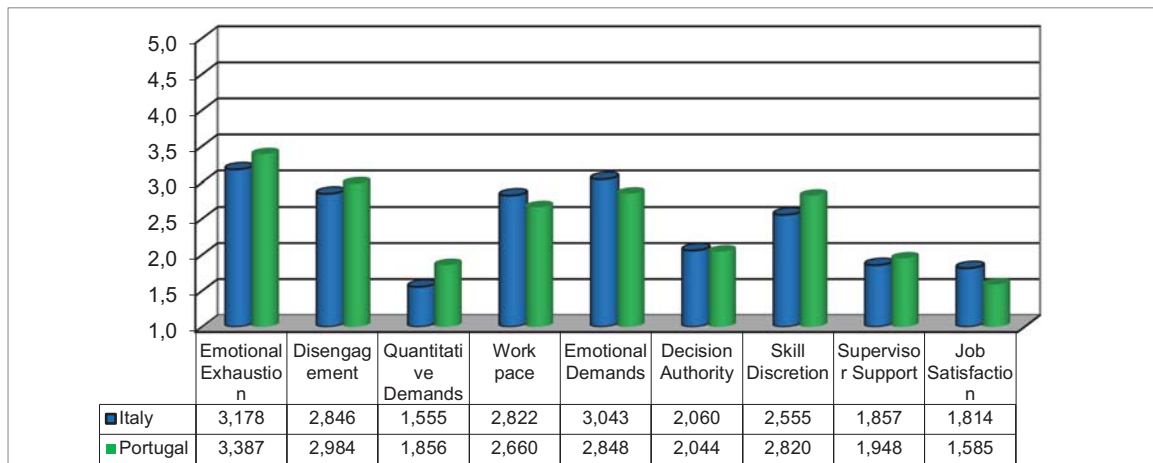


Figure 1: Burnout and job demand comparison between Italy/Portugal

Using correlational analysis, Pearson coefficient revealed (Table 1) that job experience correlated positively with satisfaction with decision authority, and negatively with work pace but only among Portuguese nurses, while age correlated positively with satisfaction with decision authority and negatively with work pace but only among Italian nurses. Besides expected correlations inside of each questionnaire's dimensions and some exceptions, emotional exhaustion and disEngagement correlated positively with quantitative demands, work pace (in Italy no correlation with disEngagement) and emotional demands (only in Portugal), and negatively with satisfaction with decision authority, skill discretion, supervisor support and job satisfaction. Some internal correlations between job demands' dimensions vary slightly between both countries, however without a specific pattern.

Table 1: Burnout and job demand correlations separately for Italy/Portugal

Dimensions	Country	Age	Job experience	Emotional Exhaustion	DisEngagement	Quantitative Demands	Work pace	Emotional Demands	Decision Authority	Skill Discretion	Supervisor Support
Emotional Exhaustion	Italy	,065	,004								
	Portugal	-,014	-,057								
DisEngagement	Italy	,049	-,022	,616**							
	Portugal	,001	-,018	,678**							
Quantitative Demands	Italy	,005	-,033	,452**	,253**						
	Portugal	-,036	-,080	,433**	,420**						
Work pace	Italy	-,144*	-,159*	,294**	,071	,309**					
	Portugal	-,141	-,142*	,397**	,257**	,369**					
Emotional Demand	Italy	-,103	-,082	,118	-,111	,059	,321**				
	Portugal	-,118	-,123	,344**	,190**	,254**	,528**				
Decision Authority	Italy	,147*	,194**	-,406**	-,316**	-,290**	-,142*	,018			
	Portugal	,176*	,175*	-,265**	-,294**	-,111	-,018	,150*			
Skill Discretion	Italy	,004	,037	-,381**	-,530**	-,101	,072	,311**	,460**		
	Portugal	,036	,041	-,224**	-,401**	-,034	,175*	,192**	,294**		
Supervisor Support	Italy	-,073	-,024	-,309**	-,294**	-,284**	-,136	,044	,394**	,384**	
	Portugal	-,090	-,087	-,354**	-,407**	-,205**	-,082	-,013	,175*	,393**	
Job Satisfaction	Italy	,084	,129	-,685**	-,637**	-,365**	-,196**	-,045	,423**	,416**	,296**
	Portugal	-,075	-,046	-,572**	-,719**	-,446**	-,263**	-,158*	,297**	,328**	,430**

Note: * $p < .050$ ** $p < .010$

Multiple regression analysis using Enter method (Table 2) revealed that job demands explains in Italy 51% of emotional exhaustion and 47% of disEngagement, while for Portugal, it explains 44% of emotional exhaustion and 53% of disEngagement. No influence of sociodemographic and professional characteristics was found.

Table 2: Regression for *Burnout* separately for Italy/Portugal

Dependent variable	Country	Predictor	R square	R square change	F	p
Emotional Exhaustion	Italy	Sociodemographic/professional	,070	,070	1,724	,095
		Job demands	,580	,510	30,505	,000***
	Portugal	Sociodemographic/professional	,073	,073	1,705	,100
		Job demands	,509	,437	21,227	,000***
Disengagement	Italy	Sociodemographic/professional	,069	,069	1,694	,102
		Job demands	,536	,467	25,344	,000***
	Portugal	Sociodemographic/professional	,076	,076	1,799	,080
		Job demands	,602	,526	31,494	,000***

Note: * $p < .050$ ** $p < .010$ *** $p < .001$

4. Discussion

Countries presented different patterns, having Portugal worst psychologic well-being. However, both presented moderate results for *Burnout* and job demands, suggesting *Burnout* as a global phenomenon that is affecting all countries due the current job characteristics (Bakhamis *et al.*, 2019). Individual characteristics don't predicted *Burnout*, suggesting *Burnout* as a job problem despite some studies focused on individual prevention strategies (McCarthy *et al.*, 2018), while best interventions seems to be those that combine individual and organisational strategies.

5. Main conclusions

Due the aging of nurse workforce and the increase of job demands, it is important to prevent *Burnout*, using occupational health programs helping to reduce nurses' negative emotional states and turnover, allowing them to develop plans to work longer (Molero *et al.*, 2018). Moreover, nurses seem to be vulnerable to *Burnout* in different countries due job demands, alerting organizations to change their workplace demands and to take care of those caregiving professionals, whose health and motivation can heavy hard costs for organizations and the quality of care they give to patients (Liu *et al.*, 2018).

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