



## BURNOUT AND ATTACHMENT IN HEALTHCARE PROFESSIONALS PROVIDING ONCOLOGY AND PALLIATIVE CARE

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### INTRODUCTION

Burnout is characterized by physical and psychological exhaustion, usually related to work stress and dedication to a cause that does not match the person's expectations<sup>1</sup>. Burnout has been frequently reported among health professionals who are involved in the assistance of patients with chronic diseases<sup>2</sup>. The care of a patient suffering from chronic diseases represents a significant challenge, especially in an advanced stage of the disease<sup>3</sup>. HaGani et al described significant proportions of burnout levels among oncology professionals<sup>4</sup>. The increasing need for palliative care related to the high prevalence of chronic diseases often exposes the health professionals to live stressful and emotional experiences<sup>5</sup>. The prevalence of burnout in professionals working in palliative care was varying according to the studies<sup>1,6</sup>.

### AIM

With this work, the authors have two main objectives. The first aim was to examine the **risk of burnout in a sample of health professionals working in a tertiary hospital dedicated to cancer patients**. The second objective of this study was to **explore the relationship between attachment style and burnout**.

### METHOD

The authors conducted a cross-sectional descriptive and correlational study, carried out at the Portuguese Institute of Oncology Coimbra. **The studied group was composed of 337 health professionals working in a tertiary hospital dedicated to oncology patients**. After authorization by informed consent, the data were collected through an evaluation protocol designed for this purpose. **The protocol included a sociodemographic questionnaire, two Burnout level assessment questionnaires (Copenhagen Burnout Inventory - CBI; Maslach Burnout Inventory - MBI) and attachment questionnaire (Adult Attachment Scale)**. The CBI consists of three dimensions (personal, work-related and patient-related). The MBI consists of three dimensions (Emotional Exhaustion, Depersonalization, Personal Accomplishment). In this case, burnout is defined as a combination of high levels of emotional exhaustion and depersonalization and low levels of personal accomplishment. The AAS-R consists of three dimensions (Anxiety, Discomfort with closeness and discomfort with dependency). *Statistical analysis was performed by IBM SPSS Statistics version 25. The tests were performed at a significance level of 5%.*

### RESULTS

#### Sociodemographic characteristics of the sample and comparative analysis between working or not in palliative care (Burnout and Attachment scales)

In the sample, there is a predominance of professionals working in oncology services (n=; 76.8%). There are no significant differences between professionals working in oncology and palliative care, especially in gender, marital status, number of children, weekly workload and professional category (Table 1). Although, the two groups differ in terms of the mean age (on average those working in palliative are two years younger) (Table 1). They also differ in terms of number of years working in the hospital (p=0,002) (Table 1).

Comparing professionals who work in oncology services and palliative care, it appears that just over half have high levels of personal burnout, **however the groups do not differ significantly** (p=0.619); the same is observed in work-related burnout (p=0.626). The presence of high levels of patient-related burnout is observed less frequently in about a quarter of participants (p=0.672). **It is verified that the two groups do not differ in relation to all dimensions of the MBI scale**. For emotional exhaustion, medium and high levels are around 35% in both groups and low levels are below 30%, p=0,743. As for depersonalization, this is also less frequent, observing between 20 and 25% the frequency of medium and high levels, while low levels were observed in more than half of the professionals in both groups (p=0.435). Finally, regarding personal accomplishment, there are also no differences between professionals (p=0.865), observing very similar proportions of low, medium and high levels in the sample. At last, a comparative analysis was performed to test the differences between professionals who work in oncology and palliative services, according the three AAS-R dimensions (MANOVA test). It is verified that there are no differences between groups regarding attachment (F: p=0.731; partial η<sup>2</sup> = 0.004).

#### Correlation between Burnout and Attachment scales

Table 2: Correlation between Burnout and Attachment scales in the sample

Scales	Pearson Correlation Coefficient*								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
1.CBI Personal	1,000	0,825	0,551	0,754	0,374	-0,333	0,293	-0,185	-0,314
2.CBI Work		1,000	0,647	0,801	0,470	-0,382	0,297	-0,209	-0,304
3.CBI Patient			1,000	0,637	0,470	-0,456	0,246	-0,215	-0,315
4.MBI EE				1,000	0,486	-0,350	0,305	-0,152	-0,279
5.MBI DP					1,000	-0,352	0,209	-0,164	-0,299
6.MBI PA						1,000	-0,238	0,367	0,209
7.AAS-R Anxiety							1,000	-0,271	-0,481
8.AAS - R Closeness								1,000	0,282
9.AAS - R Dependency									1,000

CBI - Copenhagen Burnout Inventory; MBI - Maslach Burnout Inventory; EE - Emotional Exhaustion; DP - Depersonalization; PA - Personal accomplishment; AAS - R - Adult Attachment Scale; \* Correlations presented are significant with p < 0.001

Starting with the correlations between the three dimensions of Burnout CBI (cells in blue - Table 2), it appears that they are all positive and significant. Now considering the correlations between the MBI Burnout dimensions (cells in green - Table 2), it appears that high levels of exhaustion are related to high levels of depersonalization (positive coefficient). In Adult Attachment scale, higher levels of anxiety are related to lower levels of comfort with closeness and comfort with dependency (negative coefficients). Correlating the two Burnout scales, it is observed that high levels of personal, work and patient-related burnout are associated with higher levels of emotional exhaustion and depersonalization, as well as, lower levels of personal accomplishment.

In the population of health professionals working in palliative care, it is observed that high levels of personal and work-related burnout are associated with higher levels of emotional exhaustion and lower levels of personal accomplishment. However, high levels of patient-related burnout is associated with higher levels of exhaustion (Table 3).

Table 1: Comparative analysis between professionals working in general and palliative care services (sociodemographic characteristics)

VARIABLES	Working in Health Service (n=245)	Working in Palliative care (n=74)	p*	
Age (years), mean ± standard deviation	42 ± 9	40 ± 10	0,046	
Gender, n (%)	Female	205 (83,7)	63 (85,1)	0,764
	Male	40 (16,3)	11 (14,9)	
Marital status, n (%)	Single	60 (24,5)	22 (29,7)	0,799
	Divorced	24 (9,8)	5 (6,8)	
	Widow	3 (1,2)	1 (1,4)	
	Married	158 (64,5)	46 (62,2)	
Number of children, n (%)	0	68 (27,8)	31 (41,9)	0,201
	1	76 (31,0)	23 (31,1)	
	2	89 (36,3)	17 (23,0)	
	3	10 (4,1)	3 (4,1)	
	4	1 (0,4)	0 (0,0)	
Weekly workload, mean ± standard deviation	38 ± 4	36 ± 6	0,112	
Professional Category, n (%)	Physician	30 (12,2)	8 (10,8)	0,198
	Nurse	108 (44,1)	41 (55,4)	
	Operational assistant	52 (21,2)	16 (21,6)	
Years of work, n (%)	Other	55 (22,4)	9 (12,2)	0,002
	<=3 years	24 (9,8)	20 (27,0)	
	4-5 years	7 (2,9)	1 (1,4)	
	6-10 years	41 (16,8)	13 (17,6)	
Night work, n (%)	> 10 years	172 (70,5)	40 (54,1)	<0,001
	Yes	82 (34,0)	44 (59,5)	
Employment link, n (%)	No	159 (66,0)	30 (40,5)	0,035
	Yes	229 (96,2)	66 (89,2)	
Management position, n (%)	No	9 (3,8)	8 (10,8)	0,781
	Yes	30 (12,5)	8 (11,3)	
Extra-work activities, n(%)	No	210 (87,5)	63 (88,7)	0,260
	Yes	94 (39,2)	34 (46,6)	
Sleep hours per day, n (%)	No	146 (60,8)	39 (53,4)	0,459
	<=6h	58 (24,0)	17 (23,3)	
	>6h - <=8h	180 (74,4)	53 (72,6)	
>8h	4 (1,7)	3 (4,1)		

\* In the case of categorical variables, the comparison between the two groups was performed using asymptotic chi-square test or exact chi-square test, depending on whether or not the assumptions for applying the test. In the case of the two continuous variables, their means were compared between the two groups using t-test for independent samples.

Table 3: Correlation between Burnout and Attachment scales in the group of professionals working in palliative care

Scales	Pearson Correlation Coefficient								
	1.	2.	3.	4.	5.	6.	7.	8.	9.
1.CBI Personal	1,000	r=0,805*	r=0,534*	r=0,633*	r=0,268	r=-0,437*	r=0,541*	r=-0,292	r=-0,407*
2.CBI Work		1,000	r=0,691*	r=0,740*	r=0,351	r=-0,453*	r=0,412*	r=-0,239	r=-0,327
3.CBI Patient			1,000	r=0,669*	r=0,336	r=-0,380	r=0,306	r=-0,235	r=-0,389
4.MBI EE				1,000	r=0,438*	r=-0,389	r=0,408	r=-0,231	r=-0,263
5.MBI DP					1,000	r=-0,434*	r=0,193	r=-0,267	r=-0,396
6.MBI PA						1,000	r=-0,218	r=-0,395	r=0,400
7.AAS-R Anxiety							1,000	r=-0,323	r=-0,543*
8.AAS - R Closeness								1,000	r=0,327*
9.AAS - R Dependency									1,000

### CONCLUSIONS

In this study, it was found that higher levels of personal, work, patient-related burnout, exhaustion and depersonalization are associated with higher levels of anxiety. The authors acknowledge some limitations of the present research. Firstly, the design of the study does not allow us to make causal inferences. The heterogeneous sample did not allow us to differentiate the burnout severity among the different professional groups. Although, our study has considered all the professionals working in multidisciplinary health care team. Secondly, our study did not evaluate possible interventions in the prevention of burnout. **Our findings indicate indeed that attachment style domains contribute to explain burnout syndrome among oncology and palliative care professionals**. Burnout is a complex process that appears to depend on both organizational/environment and personal factors. **The absence of significant differences between groups leads us to conclude that working in palliative care does not increase the risk of burnout, as describe in other studies. This work brings the advantage of using two burnout assessment scales (particularly CBI scale), in addition to trying to correlate the level of burnout and attachment in professionals exposed to suffering.**

### ACKNOWLEDGEMENT

The authors have no conflicts of interest to report. Informed consent was obtained from all the participants. Data collection respected the rules of the Helsinki Protocol and the Oviedo Convention, and it was approved by the ethics and management committee of the hospital.

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