

Burnout in nurses working in Portuguese central prisons and type of employment contract

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KEY WORDS

Burnout; nurses; prisons

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SUMMARY

Background: Many studies on burnout have been conducted to try to identify the most vulnerable populations and settings for burnout. Despite the existing studies on burnout in Portuguese nurses, no studies have yet been conducted in prisons. **Objectives:** This study measured the levels of burnout among nurses working in prisons and their relationship to the socio-demographic variables and type of employment contract. **Methods:** A questionnaire on the socio-demographic and professional characteristics and the MBI-GS (Maslach Burnout Inventory – General Survey) were sent to the 124 nurses working in Portuguese central prisons, resulting in a final sample of 95 nurses. Associations between burnout levels and socio-demographic variables were identified by Pearson's coefficient and differences between groups according to type of employment were verified using analysis of variance (ANOVA). **Results:** 31.57% of nurses showed both emotional and physical exhaustion and cynicism, and 6.32% lacked professional efficiency. Statistically significant differences were found ($p=0.031$) in terms of cynicism and the type of employment contract between nurses from the Ministry of Justice (Mean=13.55) and nurses who were individual service providers (Mean=7.25). Nurses working in prisons have higher burnout levels than nurses in general, as well as high levels of emotional and physical exhaustion (Mean=12.85) and cynicism (Mean=12.32). These findings confirm that special attention should be given to nurses working in these services.

RIASSUNTO

«**Burnout negli infermieri che svolgono la loro attività nelle carceri portoghesi e tipo di contratto di lavoro**». **Background:** Molti studi sul burnout sono stati condotti per cercare di identificare le popolazioni più vulnerabili e le condizioni più critiche. Nonostante ciò non esistono ad oggi studi negli infermieri portoghesi che svolgono la loro attività nelle carceri. **Obiettivi:** Questo studio valuta i livelli di burnout tra gli infermieri che lavorano nelle carceri portoghesi e indaga la loro relazione con le variabili socio-demografiche e il tipo di contratto di lavoro. **Metodi:** A 124 infermieri che lavorano nelle carceri centrali portoghesi sono stati inviati un questionario per indagare le loro caratteristiche socio-demografiche e professionali e il questionario Maslach per valutare le condizioni di burnout; di

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questi un campione di 95 infermieri ha accettato di partecipare allo studio. Le associazioni tra i livelli di burnout e le variabili socio- demografiche sono state indagate con il coefficiente di Pearson e le differenze tra i gruppi con diversi contratti di lavoro sono stati testati mediante analisi della varianza (ANOVA). Risultati: Il 31,57% degli infermieri mostravano esaurimento sia emotivo che fisico e cinismo; il 6,32% dichiarava un senso di scarsa efficacia professionale. Differenze statisticamente significative sono state trovate tra gli infermieri assunti del Ministero della Giustizia (media=13,55) e gli infermieri con contratto di lavoro autonomo (media=7,25) per quanto riguarda il livello di cinismo ($p=0,031$). Conclusione: Gli infermieri che lavorano nelle carceri hanno livelli più alti di burnout rispetto agli altri infermieri, incluso un maggior livello di esaurimento emotivo e fisico e cinismo. Questi risultati confermano che è necessario prestare una particolare attenzione a questi infermieri

INTRODUCTION

Nurses working in prisons carry out their duties in a difficult environment, where their patients are subjected to complex interpersonal relationships in closed communities and to freedom limitation. Also, the constant contact with people with deviant life stories and their difficulties in restructuring their life projects puts an additional burden on professionals with relational responsibilities. Moreover, in recent years nursing work in these organizations has been undergoing some changes, particularly regarding the different types of organizational relationships, following the general movement of the labour market, which has introduced different types of employment contracts for prison nursing professionals.

Globally, the burnout syndrome has been studied by researchers who relate its prevalence to professions that require relational responsibilities. Considering the different forms of work organization and the existence of special conditions in the assistance to prisoners and the lack of studies in these contexts, the aim of this research study was to analyse the levels of burnout in nurses working in seven national central prisons which, in Portugal, can be considered as high security facilities, and the relationship between burnout and the socio-demographic variables such as age, gender, marital status, education and length of experience and the type of employment contract.

BACKGROUND

The term burnout was introduced into scientific literature by Freudenberg (10) who considered it

a specific state of fatigue or frustration as a result of a breach of the expectations that the individual placed in his work. Following the work of Freudenberg, Edlwich and Brodsky (9) developed a process model of burnout, characterized by an individual approach, where burnout is described in four stages: enthusiasm, stagnation, frustration and apathy. In these senses socio-demographic factors were studied and found to play a major role in determining burnout. According to Ahola et al (1) age, gender, education, marital status, years of experience have all been found to be predictive of burnout, however this relationship remains unclear. Whereas some studies showed that burnout occurs more often among males (2) opposite results were also found (12). With respect to marital status a higher burnout risk was found among the unmarried employees (19) but even in the married group, a 'spillover' between work life and family life exists and thus can cause burnout (7, 22). Age, experience and education are in some way related and again results of previous studies are not consistent. While some studies suggest that burnout occurs in younger professionals and is termed as 'early career burnout' caused by 'reality shocks' in the work place (7) others support the Edlwich and Brodsky model and relate it with a later stage of professional experience.

In an interpersonal approach, Maslach defined burnout as a psychological syndrome with three dimensions – emotional exhaustion, depersonalization and reduced personal accomplishment - in response to chronic emotional and interpersonal stressors resulting from relational transactions in the workplace which may be developed by professionals with relational responsibilities, in cases

where high expectations, enthusiasm and dedication were present during the early performance of their duties (17). In this model individual aspects were analyzed from an interpersonal perspective and organizational variables progressively held an increasingly important place.

Aiming to quantify this phenomenon, the authors developed the Maslach Burnout Inventory for professionals having a direct relationship with people, including nurses (18). Comparison with studies in the sphere of occupations that are not so clearly people-oriented, and the realization that this inventory cannot be used indiscriminately outside human services led Schaufeli, Leiter, Maslach and Jackson (29) to develop the Maslach Burnout Inventory-General Survey (MBI-GS), which reflects the reconceptualization of emotional exhaustion to emotional and physical exhaustion, of depersonalization to cynicism and of personal accomplishment to professional efficiency. Thus, the depersonalization which initially reflected an attitude of detachment, impersonality and insensitivity towards the persons for whom they provide a service has to be conceived as a general attitude of indifference and distance towards work in general rather than in direct reference to people. In turn, professional efficiency becomes a broader concept, when compared to personal accomplishment, since social and non-social aspects of the professional commitment are included and it assesses the expectations of workers regarding their continuing efficiency at work. On the opposite point of this continuum, engagement is defined as an energetic state in which the employee seeks high work performance and is confident of his/her efficiency. The MBI-GS is the last of three questionnaires developed by Maslach and it is frequently used because of its applicability in the different professions and professional groups, regardless of their occupational aspects as regards direct relationship with people during the work period. This syndrome proved to be a multidimensional variable that can be grouped into three distinct levels, namely organizational, occupational and individual levels (30). Therefore, burnout is undesirable and dysfunctional in professionals and institutions (20). In fact, burnout has an adverse impact on the quality of care (25) and

on the caregivers' health, on their performance and their satisfaction (6). In the prison context, nurses and other professionals are continually confronted with situations of tension and criticism due to direct contact with individuals serving sentences who might exhibit hostile behaviour, be aggressive and have mental health problems (14). On the other hand, prisons are places of great concentration and amplification of health-related risk situations (24). Studies in prisons show a high prevalence of mental disorders among prisoners, ranging from over 90% reported by Birmingham (3) for English and Welsh prisoners and 54% reported in an Irish study (31). Moreover, according to Duggan (8), if approximately 90% of the prison population has mental disorders, 25% require specialized care. Despite all this, nurses working in prisons do not have any special support or specialization to deal with these situations. Health care is, therefore, fundamental in prison establishments' practices, and it is a priority in the approach to the treatment of prisoners, as well as in the systematization of health practice concepts and methodologies, indicating that health professionals play a vital role in the functioning of modern prisons (11). According to the same authors, the lack of health care provision can lead to more violent behaviour and to the deterioration of certain mental disorders. In Portugal, in 2009, the General Directorate of Prison Services introduced a Handbook of Procedures for prisons, in order to establish guidelines and standardize procedures in health care to inmates. However, the work of nurses in prisons is acknowledged as being carried out under very specific conditions, due to the fact that health care providers should seek to achieve institutional goals according to the prisons' mission, particularly the maintenance of security, respecting the rules prevailing in prisons and the rehabilitation of prisoners (11). Consequently, there is an impending conflict between the caring expectations and the specific restrictive culture of the prison environment. These conditions create what Brotheridge and Lee (5) described as "emotional labour", the effort involved when employees "regulate their emotional display in an attempt to meet organisationally based expectations specific to their roles". Huynh, Alderson, and Thompson (13),

in their concept analysis, also noted the correlation between emotional labour and professional burnout.

METHODS

A quantitative descriptive, correlational study was conducted aiming to assess the levels of burnout and their relation to the socio-demographic and professional characteristics of nurses in the area of health care delivery in seven national central prisons (CPs).

The selected prisons were classified according to security and autonomy requirements, management complexity, capacity, characteristics of the prison population and other factors such as the regulation system and the diversity of regimes (Law nº 115/2009 – Code of enforcement of prison sentences and imprisonment measures – Article 10). For this study, we considered the total of all nurses (124) who provide care in those prisons. A questionnaire was sent to all nurses and a final sample of 95 nurses was obtained, which corresponds to the number of properly filled out and returned questionnaires.

Data was collected using a socio-demographic questionnaire which consisted of questions on the following aspects: gender, age, marital status, professional qualifications, length of professional career, length of experience in the prison and type of employment contract.

The scale used to measure burnout and its dimensions was the MBI-GS, validated for the Portuguese population by Nunes (2000). In the present study, the scale showed a good reliability with a Cronbach's alpha of 0.81 for the emotional and physical exhaustion dimension (Ex), 0.76 for cynicism (Cy) and 0.79 for professional efficiency (PE). According to Queirós (2005), a 15 cut-off point for Ex and Cy and an 18 cut-off point for PE were considered to differentiate between groups with and without burnout.

To carry out statistical analysis all data were entered in an SPSS software version 19 database. Descriptive statistical analysis was performed with the determination of central tendency and dispersion

measures and, after the normality test of the variables under study, an inferential statistical analysis was performed, establishing the level of significance at $p \leq 0.05$.

The normality test, with the Kolmogorov-Smirnoff test, revealed that emotional and physical exhaustion ($p=0.26$) and cynicism ($p=0.67$) had a normal distribution, unlike the professional efficiency dimension ($p=0.01$). Parametric or non-parametric statistics was performed consequently. Differences between groups were calculated with t-test and ANOVA (Mann Whitney and Kruskal Wallis for professional efficiency) for differences between two or more groups and correlations (Pearson or Spearman) for interval variables.

Ethical considerations

This study was approved by the Director of Prison Services, with due notification to the respective Health Centre services. During the research process, all participants were guaranteed respect for the universal ethical procedures recommended for research involving human subjects.

RESULTS

From the total of 124 nurses working in CPs we obtained a sample of 95 nurses, which was the number of respondents who completed validated questionnaires (76.96%). Table 1 presents the distribution of respondents in the prisons studied.

The socio-demographic study showed an age distribution between 22 and 60 years (Mean=38.30; Std=8.90). 55 (57.89%) nurses were

Table 1 - Distribution of respondents by prison

	Total Respondents	Non respondents	% of adherence/P	
Prison 1	13	10	3	76.92
Prison 2	4	0	4	0.00
Prison 3	9	7	2	77.78
Prison 4	13	9	4	69.23
Prison 5	10	9	1	90.00
Prison 6	11	8	3	72.73
Prison 7	64	52	12	81.25

Table 2 - Burnout measurement

	N	Minimum	Maximum	Average	Standard Deviation
Ex	95	2	29	12.85	6.37
Cy	95	0	30	12.32	6.39
PE	95	11	36	28.95	5.39

female and 40 (42.11%) male, and most were married (n=51), when compared to singles (n=20) and divorced/separated (n=24) subjects.

The sample had a high percentage of respondents with a Bachelor of Science in Nursing (BSN) (78.94%) and 6.32% of respondents had a master's degree. Regarding professional experience, nurses had developed their professional activity for an average of 14 years and 7 months, with an average of 6 years and 11 months of experience in prisons.

There were three types of employment contracts: 42 (44.21%) belonged to the workforce of the Ministry of Justice (MJ); 45 (47.37%) had a contract with agencies which provide temporary

workers, and only 8 (8.42%) had an individual employment contract.

Regarding burnout assessment, the study revealed an average of 12.85 for emotional and physical exhaustion (Ex), 12.32 for cynicism (Cy) and 28.95 for professional efficiency (PE), as is shown in table 2.

Considering the cut-off points proposed by Queirós (2005), there was a high percentage of nurses with physical and emotional exhaustion and cynicism (31.57%) and only 6.32% with professional inefficiency (figure 1).

Regarding the relationship between burnout and socio-demographic variables, no statistically significant results were obtained for the relationships between the different dimensions of burnout and socio-demographic variables: age, professional experience and professional experience in prisons, gender, marital status, academic qualifications and professional category ($p>0.05$), as can be seen in table 3.

On the other hand, ANOVA analysis of type of employment contract, showed a statistically signifi-

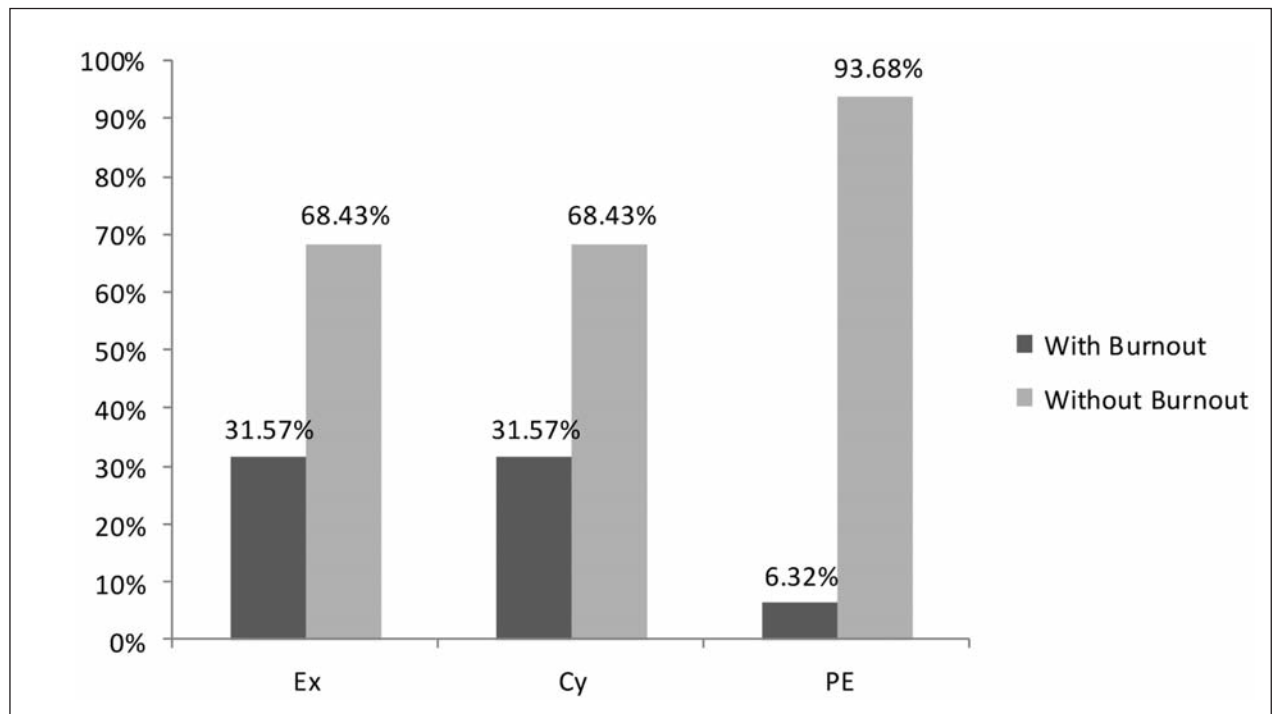


Figure 1 - Percentage of nurses with and without burnout in the emotional and physical exhaustion, (Ex), cynicism (Cy) and professional efficiency dimensions (PE)

Table 3 - Relationship between burnout and socio-demographic variables

Socio-demographic variables		Ex	p	Cy	p	PE	p
Age		r=0.01	0.89	r=-0.03	0.81	Sp(rho)=-0.01	0.91
Professional experience		r=0.00	0.99	r=-0.02	0.86	Sp(rho)=0.03	0.75
Experience in prisons		r=0.23	0.78	r=-0.00	0.98	Sp(rho)=0.02	0.84
Gender	Male	13.43	0.46	12.90	0.45	46.85	0.73
	Female	12.44		11.89		48.84	
Marital status	Married or similar	11.78	0.06	11.61	0.37	29.31	0.63
	Single	12.27		12.09		29.36	
	Divorced, separated or widowed	15.60		13.95		27.57	
Academic qualification	Up to 12 years	18.00	0.17	14.14	0.29	25.57	0.09
	Bac	13.29		16.29		52.57	
	Lic	12.37		11.80		50.57	
	Master	12.33		12.00		36.75	
Professional category	Nurse	13.59	0.27	11.80	0.42	28.77	0.20
	Graduate nurse	11.12		13.68		28.76	
	Clinical nurse specialist	12.54		11.38		30.00	

cant difference between groups (different types of employment contracts) for the cynicism scale ($p=0.03$). The average found for the different groups was 13.55 for nurses of the MJ workforce, 7.25 for the providers of independent work and 12.07 for those who provided services through an agency.

When analysing the results with the Bonferroni *post hoc* test, a significant difference ($p=0.03$) was obtained between the average of MJ nurses (Mean=13.55) and the average obtained for the group with an individual employment contract (Mean=7.25), as can be seen in table 4.

DISCUSSION

We found that 31.57% of nurses presented similar levels of physical and emotional exhaustion and cynicism, whereas only 6.32% showed professional inefficiency. Despite the potential sampling bias on gender, it appears that these results were higher than those found in other studies. In a larger study on Portuguese nurses and their families, Queirós (28) found lower scores for the three burnout dimensions: 27.15% showed emotional and physical exhaustion, 16.06% cynicism and 2.18% professional inefficiency. Then Marques-Teixeira (16),

Table 4 - Bonferroni *post hoc* test for differences between groups

Dependent Variable	(I) Type of employment contract	(J) Type of employment contract	Mean Difference (I-J)	Std. Error	Sig.
MBI-Cy	MJ workforce	Independent work	6.298*	2.400	0.03
		Agency Work	1.481	1.335	0.81
	Independent work	MJ workforce	-6.298*	2.400	0.03
		Agency Work	-4.817	2.387	0.14
	Agency work	MJ workforce	-1.481	1.335	0.81
		Independent work	4.817	2.387	0.14

* The mean difference is significant at the 0.05 level

based on several studies conducted in Portugal, argued that 20% to 25% of health professionals develop burnout. These outcomes are also lower than the results found in this study. Despite the fact that no comparative studies have been conducted in different work settings, and the fact that this conclusion should be seen in perspective, these results seem to indicate that nurses who carry out their duties in prisons have higher levels of burnout.

On the other hand, in line with other studies, it appears that burnout is mainly explained by the existence of higher scores of emotional and physical exhaustion and cynicism. According to Maslach, Leiter and Schaufeli (21) the relationship of inefficiency to the other two aspects of burnout is somewhat more independent and more complex and it is acknowledged that diminished efficiency is not inevitable in the burnout process. Considering the underlying theoretical model, while exhaustion and cynicism is clearly related to the demands of work, including work overloaded, emotional demands, unfavourable physical work environment and social conflict, inefficiency is more closely related to personality. According to Maslach and Leiter (20), cynicism plays a key role and the predictors of this dimension are related to factors of administrative nature whereas emotional exhaustion is considered the core of the syndrome and reflects depletion of emotional resources. In this study, an average of 28.95 was found for the professional efficiency dimension and 6.32% of nurses showed professional inefficiency, which is a much lower ratio than that obtained for the other two dimensions.

The inferential study showed that only the employment contract variable showed statistically significant differences in burnout mean values and that nurses belonging to the MJ had higher scores for cynicism than those who worked with individual contracts.

Nurses who belong to the MJ work full-time in the prisons, while nurses with an individual employment contract only work part time. This part-time work (18 hours weekly) is in addition to their main work in hospitals of the National Health Service. So, in spite of working in a prison environment, their culture and expectations regarding healthcare may be more influenced by other con-

texts. However, the nurses of the MJ only have contact with prison inmates, many of whom with personality disorders, and they are more prone to conflicts between a philosophy of care and a philosophy of custody. In fact, a recent study on nurses' attitudes towards people with personality disorders (4) showed that they tend to regard these people as more difficult to deal with, leading them to have more pessimistic expectations of efficiency and treatment outcomes. At the same time, as Walsh (32) mentioned, the contradiction between the nurse caring philosophies and prison custody services is felt more intensely in nurses who work in prisons than in those who work in forensic psychiatry services because the culture of those who work in prison is predominantly custody over health.

In this study, none of the socio-demographic variables, except for the type of employment contract, explained the variations in burnout measurements. The sample used in this study had a much higher percentage of men (42.11%) than that which is usual for the population of nurses in general. According to data released by the Portuguese Association of Nurses in January 2011, only 18.7% of nurses are male and, for that reason, makes this a biased sample in comparison with other studies on Portuguese nurses. Literature on gender differences in burnout has produced inconsistent results. A meta-analysis study (27) on gender differences in burnout showed that these variances are small, with women tending to have more emotional exhaustion and men more cynicism. Another study (15) found that male gender was significantly associated with a burnout condition. In our study, gender differences were not statistically significant. Other socio-demographic variables such as age, marital status, professional experience (both general and in prison settings), academic qualifications or professional category, which are often studied in relation to or as moderators of burnout, did not influence our results. Age and duration of professional activity have been suggested as possible predictors of burnout. However, in this study, despite the fact that nurses belonging to the MJ workforce had more years of experience and more service time in prison settings (on average, 19 years and 11

months of work experience, while nurses who were independent workers had, on average, 14 years and 4 months of work experience), this difference did not result in statistically significant differences in burnout levels. There were also no differences in the duration of professional experience, nor in the gender distribution between those two groups. Thus one might consider the possibility that the differences in cynicism were, in fact, due to the different employment contracts.

The main limitations of this study are related to an absence of a comparative group, the unusual percentage of males and the small group of independent nurses, which suggest that the results should be interpreted with caution.

However, this research has provided important evidence considering the burnout levels in nurses working in prisons, particularly for those who belong to the Ministry of Justice and have a full commitment with this employer.

Future research should try to assess turnover and engagement in prisons since the provision of individual services through accumulation of shifts may be a temporary nursing resource in these workplaces.

NO POTENTIAL CONFLICT OF INTEREST RELEVANT TO THIS ARTICLE WAS REPORTED

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