Burnout syndrome and its prevalence in primary care nursing: a systematic review and meta-analysis

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Abstract

Background: burnout syndrome is a significant problem in nursing professionals. Although, the unit where nurses work may influence burnout development. Nurses that work in primary care units may be at higher risk of burnout. The aim of the study was to estimate the prevalence of emotional exhaustion, depersonalization and low personal accomplishment in primary care nurses.

Methods: We performed a meta-analysis. We searched Pubmed, CINAHL, Scopus, Scielo, Proquest, CUIDEN and LILACS databases up to September 2017 to identify cross-sectional studies assessing primary care nurses’ burnout with the Maslach Burnout Inventory were included. The search was done in September 2017.

Results: After the search process, n = 8 studies were included in the meta-analysis, representing a total sample of n = 1110 primary care nurses. High emotional exhaustion prevalence was 28% (95% Confidence Interval = 22–34%), high depersonalization was 15% (95% Confidence Interval = 9–23%) and 31% (95% Confidence Interval = 6–66%) for low personal accomplishment.

Conclusions: Problems such as emotional exhaustion and low personal accomplishment are very common among primary care nurses, while depersonalization is less prevalent. Primary care nurses are a burnout risk group.

Keywords: Burnout, Primary care nursing, Nursing, Family nursing, Meta-analysis, Epidemiology, Prevalence

Background

The development of burnout among healthcare professionals has been widely studied in recent years, since the large number of stress-inducing factors in the hospital environment heightens the risk of presenting burnout syndrome [1–3]. In addition, relationships and continued contact with patients and their families can be difficult, which fosters the development of chronic stress that can provoke burnout among healthcare staff [4].

The burnout syndrome has been extensively studied, even though the most widely accepted definition of burnout is that proposed by Maslach & Jackson [5], who identified it as a three-dimensional syndrome involving emotional exhaustion (EE), cynical treatment and negative thoughts towards patients and the healthcare team (or depersonalisation, DP), and a low degree of personal accomplishment (PA) regarding the own work performed. The study of burnout is important because its negative effects can impact both on the professional who suffers it, causing different signs and symptoms [6], and also on the health institution itself, by increasing staff absenteeism, and on the quality of care provided by increasing medical errors and diminishing patient safety [7, 8].

In hospital settings, nurses are among the professionals most affected by burnout [9] and for this reason numerous studies have been conducted to identify protective factors and elements of risk. For example, some sociodemographic factors such as age, gender or marital status and its influence have been assessed [10, 11]. Psychological factors like the big five personality traits [12]...
or occupational factors, such as job seniority or job satisfaction, have been also studied [13–15]. However, one key factor that may be associated with burnout syndrome is the hospital service in which nurses work; the tasks performed and the role played by the healthcare staff, as well as the type of patients treated, all vary according to the type of service provided, and this difference could influence the development of the syndrome. For example, nurses working in oncology [16], accident and emergency units [17] or intensive care [18], due to their different daily tasks, are likely to experience different levels and prevalence rates of burnout.

Primary healthcare units differ in many respects from the attention provided in hospital units, in that preventive and remedial treatment is provided for chronic diseases, to pre-assigned groups of patients. Primary healthcare is provided in the community itself, and may take place over a prolonged period [19]. By contrast, in the hospital environment the medical treatment is of a shorter-term nature, and there is greater variability among the patients. Although burnout and its risk factors in nursing primary care professionals, such as age, job seniority, anxiety and depression, have been studied previously [20], the prevalence results reported by the studies vary widely, with some authors reporting a high EE of 5.2% [21] while others report 31.3% [22]. Similar situations occur with high DP and low PA, where some authors find 92.8% of the sample with low PA [23] and others find a 4.3% of the sample with low PA [22]. So, it is difficult to ascertain the real impact of burnout syndrome on primary healthcare nurses. To our knowledge, no previous meta-analysis has been undertaken to address this question, as has been done in the case of nurses working in services such as Accident & Emergency [24] or oncology [25].

Taking into account the above considerations, we aimed to conduct a systematic review and meta-analysis of the prevalence of high levels of EE, high levels of DP and low levels of PA among primary care nurses. Thus, the question that guided this meta-analysis was: What is the prevalence rate of high EE, high DP and low PA in primary care nurses?

**Method**

This study consists of a meta-analysis, performed in accordance with the PRISMA recommendations [26].

**Literature search and study selection**

The following search terms were used: “burnout AND primary care nursing”, “burnout AND family nursing”, “burnout AND community health nursing” and “burnout AND district nursing”. The search was carried out in September 2017, consulting the following research databases: Pubmed, CUIDEN, CINAHL, LILACS, Proquest, Scopus and Scielo.

Conditions for inclusion were that the papers should be primary studies, of a quantitative type, based on a sample of primary healthcare nurses and providing data on the prevalence of any burnout dimension (EE, DP or PA), measured by the Maslach Burnout Inventory (MBI) [5]. The studies should have been published in English, Spanish or Portuguese, but no restriction was placed regarding the date of publication.

The search and study selection process was conducted by two members of the research team, working independently, to ensure the reliability of the process. If they disagreed regarding the inclusion or otherwise of a paper, a third member of the research team was consulted. The selection process involved an initial reading, of the title and abstract. The papers initially selected were then read in full, and those considered a priori suitable for inclusion were then subjected to a critical reading to detect possible methodological bias. From the papers finally selected, backward and forward citation checking was then performed.

**Critical reading**

All of the studies included were cross-sectional, and their methodological quality was evaluated by the checklist suggested by Ciapponi [27], using the items corresponding to the studies internal validity: numbers 2, 3, 4, 5, 6, 11, 12, 13, 14, 15, 16, 17 and 18. The critical reading results are shown in Additional file 1.

**Data coding**

The following study variables were collected: a) surname of the first author; b) date of publication; c) language of the study; d) country where the research was carried out; e) study methodology; f) type of sampling; g) MBI type (Human Services Survey vs. General Survey); h) sample of primary healthcare nurses; i) sample of primary healthcare nurses with high EE; j) sample of primary care nurses with high DP; k) sample of primary healthcare nurses with low PA. These data were compiled using a Coding Manual.

The intraclass correlation coefficient and Cohen’s kappa coefficient were calculated to evaluate the reliability of the data coding, producing mean values of 0.99 (minimum = 0.98, maximum = 1) and 0.97 (minimum = 0.95, maximum = 1), respectively.

**Data analysis**

Data analysis was performed using StatsDirect software, with the meta-analysis package, and the possibility of publication bias was tested by Egger’s linear regression method. Finally, a sensitivity analysis was carried out to detect whether exclusion of any of the studies would