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**REVIEW** 

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# Occupational Burnout Syndrome in the nursing context: an integrative literature review

A síndrome do esgotamento profissional no contexto da enfermagem: uma revisão integrativa da literatura

El síndrome do agotamiento profesional en el marco de la

enfermería: una revisión integrativa de la literatura

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### **ABSTRACT**

Objective: To characterize the scientific production on Burnout Syndrome in the Nursing context, systematizing the location where the studies were carried out, the related constructs, the employed methods and their main results. Method: An integrative review of the literature with a bibliometric approach of articles published in Portuguese, Spanish and English between 2005 and 2016. Results: 106 articles were included. Most involved prevalence, and were descriptive, quantitative studies performed in hospitals. The Southeastern and Southern regions of Brazil had the largest number of publications, and stress was the construct most related to burnout. Most of the studies used the Maslach Burnout Inventory to investigate the presence of the syndrome. Conclusion: New case-control and cohort studies should be carried out. Qualitative-exploratory studies are necessary to better understand Burnout Syndrome among nursing professionals using focus groups or interviews, as well as comparative causal studies, with the purpose of exploring the syndrome's manifestations.

### **DESCRIPTORS**

Nursing; Burnout, Professional; Occupational Health; Review.

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### **INTRODUCTION**

For nearly four decades Occupational Burnout Syndrome (OBS) (or better known as Burnout Syndrome) has been investigated in the academic setting. The syndrome arises from chronic stress related to work<sup>(1)</sup>. Although it is recognized as an occupational psychopathology (Group V of the ICD-10) included in Annex II of the 2<sup>nd</sup> article of Decree 6.957/1999 governed by Social Security, its diagnosis is rarely used<sup>(2)</sup>.

In most cases OBS is understood as a three-dimensional theoretical model based on the psychosocial perspective. According to this model, OBS involves three dimensions: emotional exhaustion (EE), depersonalization (DS) and lack of personal accomplishment (PA). EE is a direct manifestation of individual stress, where feelings of being beyond their limits are externalized, along with a deterioration of the individual's physical resources. DS is related to the interpersonal conjuncture of the syndrome, where negative attitudes and cynicism are directed towards the people/persons for whom the work is intended. Depersonalization is characterized as a loss of compassion towards others. Finally, PA relates to negative evaluations of the individual regarding their performance at work and their future in that profession<sup>(1-15)</sup>.

Although the three-dimensional model is the most accepted and used for measuring the syndrome, there are controversies regarding this three-dimensional structure. In some cases, OBS is evaluated as a one-dimensional disorder; others consider it a two-dimensional phenomenon, considering only DS and EE as disease factors, and considering PA as an interdependent factor resulting from emotional exhaustion (EE)<sup>(16-17)</sup>.

On the other hand, the EE dimension is sometimes seen as the most important and central factor in OBS<sup>(18-19)</sup>. However, this dimension has been described in other phenomena, such as in occupational stress or stress related to work, which are models that precede the OBS definitions. In the theoretical OBS models, its manifestation occurs after the onset of stress<sup>(20)</sup>, which is considered an independent construct of the syndrome<sup>(1)</sup>. Although OBS is in some way related to occupational stress<sup>(21)</sup>, it seems that what qualifies and differentiates it is the DS dimension, being key construct of the syndrome<sup>(22)</sup>.

Empirical studies on OBS show that health professionals seem to constitute one of the most susceptible professional categories to the syndrome<sup>(23-24)</sup>. Among health professionals, nurses are the ones who experience the most stress and OBS<sup>(25-42)</sup>. These workers have the constant care of patients as their responsibility, and in this context they often witness cases of death and mourning, thereby being exposed to emotional tensions of such events, which may lead to the appearance of OBS<sup>(43-44)</sup>.

In view of the above and due to the high number of studies on OBS among nursing professionals<sup>(26)</sup>, it is relevant to analyze studies on OBS in the Nursing context. Thus, this work is an integrative bibliometric review guided by the following question: How is scientific production on OBS characterized in the context of Nursing, between 2005 and 2016?

The present study aims to characterize the scientific production on OBS in the Nursing context, focusing and systematizing the sites where the studies were carried out, their related constructs, implemented methods and the main results found.

### **METHOD**

This is an integrative review study with a bibliometric approach. This technique allows for synthesizing methods and results of multiple published studies regarding a given topic in a systematic way, and points out knowledge gaps that need to be filled, thereby collaborating to further deepen the phenomenon investigated. We sought to characterize the scientific production on OBS in the Nursing context – nursing professionals (nurses, technicians and nursing assistants) and professors and students of nursing courses. Scientific articles from the period between 2005 and 2016 were investigated. The review consisted of the following steps: searching for the articles in the databases; defining inclusion and exclusion criteria; collecting information to be extracted from selected articles; analysing and interpreting the selected studies.

The databases initially investigated from the start of the research were: the Virtual Health Library (Biblioteca Virtual em Saúde – BVS); the Brazilian Nursing Database (Base de Dados de Enfermagem – BDENF); the Spanish Bibliographic Index of the Health Sciences (IBECS); the Psychology Index – Technical-scientific journals (Index-Psi); the Latin American and Caribbean Health Sciences Literature (LILACS) and the Medical Literature Analysis and Retrieval System Online (MEDLINE). Next, the Scientific Electronic Library Online (SciELO) and the Electronic Psychological Journals portal (PePSIC) databases were also consulted.

The descriptors used were generated from the list of Descriptors in Health Sciences (DeCS), which were: Burnout, Professional; Nurses; and Nursing. The Boolean search was performed using the connector AND, which allowed access to articles that have intersections between the different descriptors.

Only articles focusing on nursing professionals, Nursing professors or Nursing students were selected for analysis, and studies in which OBS was discussed and/or investigated. The articles could have been published in Portuguese, English or Spanish and their complete texts should be freely available. The articles were collected at two moments. The first was carried out between May 2<sup>nd</sup> and 6<sup>th</sup>, 2015, while the second between February 5<sup>th</sup> and 7<sup>th</sup>, 2017. Articles that did not meet the characteristics described above were excluded.

After the initial search and exclusion process, a chart was prepared for characterizing the remaining articles with the following information: article identification (title, year, study site, journal, authors) and article characteristics. The script of a research project was followed in order to verify the characteristics of the article, classifying them by type of study, type of objective(s), approach(es), delineation, collection procedure and data source, as well as the main results, relationships with other constructs and the recommendations<sup>(45)</sup>.

### **RESULTS**

# PROCESS OF INCLUSION/EXCLUSION OF THE ARTICLES FOUND

Through the search conducted by two independent researchers, 18,683 articles were initially retrieved. Next, titles, abstracts and descriptors were read from these, and each researcher selected articles for analysis. A third reviewer was then invited to check the relevance of the selected studies, commenting on the differences between the two researchers

and determining the group of studies to be analyzed. Finally, 170 records were selected from this initial analysis to go through a more rigorous selection process<sup>(46)</sup> (Figure 1).

According to the process shown in Figure 1, only 106 articles qualified for the analysis (2-20,22-44,47-110). The main publication language of these manuscripts was English (64 articles), followed by articles in Portuguese and Spanish (25 and 17, respectively). The analyzed productions were published in 63 periodicals, and the most frequent was the *Revista Latino-Americana de Enfermagem* with 10 articles.

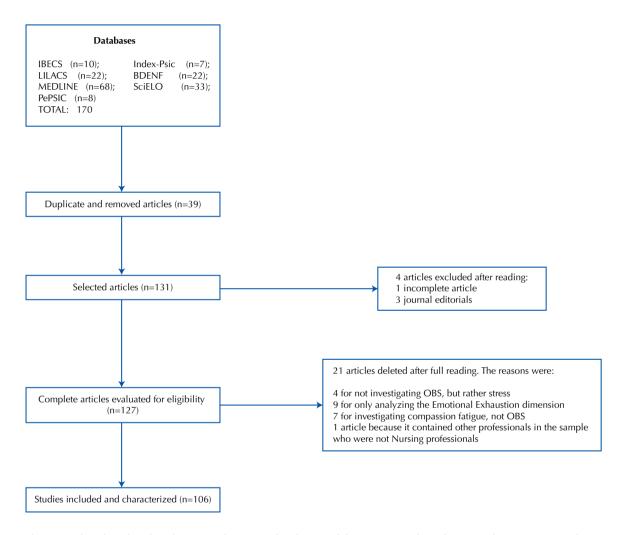


Figure 1 – Flowchart for identification, selection and inclusion of the investigated articles – Fortaleza, Ceará, Brazil, 2017.

### **CHARACTERIZATION OF THE STUDIES**

Of the 106 studies found in the studied period, the greatest number of publications occurred in 2015 (16.98%), followed by 2012 (16.04%) and 2014 (13.21%). Studies on OBS were concentrated in South America (51.89%) and Europe (24.53%). From the empirical investigations carried out in the Brazilian scenario, the highest concentrations of publications was found in the Southeast (48.78%) and South (36.59%) regions, while the Central-West (2.44%) and Northeast (12.20%) did not have significant production.

As shown in Table 1, excluding theoretical studies and reviews (n=95), the hospital environment was the place where the largest number of investigations occurred, comprising 74.73% of the total. This is followed by studies performed in institutions of nursing education (6.32%).

By only analyzing the studies that contained some kind of correlation with other constructs (f=97), it can be noticed that the construct most related to OBS is stress (17.53%). However, there are a significant number of studies that relate OBS to job satisfaction and the perception of the work environment in Nursing, with 12.37% and 10.31%, respectively (Table 2).

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Table 1 – Sites where studies on Burnout Syndrome were carried out – Fortaleza, Ceará, Brazil, 2017.

| Study Site                          | F  | %      |
|-------------------------------------|----|--------|
| Not specified Hospital              | 29 | 30.53% |
| University Hospital                 | 16 | 16.84% |
| Private Hospitals                   | 01 | 1.05%  |
| Public Hospitals                    | 13 | 13.68% |
| Military Hospital                   | 01 | 1.05%  |
| Philanthropic Hospital              | 01 | 1.05%  |
| General Hospital                    | 07 | 7.37%  |
| Public and Private Hospital         | 02 | 2.11%  |
| Community Hospital                  | 01 | 1.05%  |
| Private University                  | 01 | 1.05%  |
| Public University                   | 02 | 2.11%  |
| Unspecified educational institution | 03 | 3.16%  |
| Psychiatric Ward                    | 01 | 1.05%  |
| Emergency Mobile Care Service       | 02 | 2.11%  |
| Basic Health Units                  | 04 | 4.21%  |
| Primary Care and Public Hospitals   | 02 | 2.11%  |
| Several places                      | 02 | 2.11%  |
| Unspecified location                | 06 | 6.32%  |
| Family Health Strategy              | 01 | 1.05%  |
| Total                               | 95 | 100%   |

Table 2 – Constructs related to Burnout Syndrome in the Nursing context – Fortaleza, Ceará, Brazil, 2017.

| Constructs related to burnout      | Related Frequency (f) | %      |
|------------------------------------|-----------------------|--------|
| Occupational Stress                | 17                    | 17.53% |
| lob Satisfaction                   | 12                    | 12.37% |
| Perception of the Work Environment | 10                    | 10.31% |
| Personality                        | 06                    | 6.19%  |
| Quality of life                    | 03                    | 3.09%  |
| Commitment to Work                 | 03                    | 3.09%  |
| Compassion Fatigue                 | 03                    | 3.09%  |
| Self-efficacy                      | 02                    | 2.06%  |
| Post Traumatic Stress Disorders    | 02                    | 2.06%  |
| Quality in Attending and Care      | 03                    | 3.09%  |
| Leadership                         | 02                    | 2.06%  |
| Somatic Complaints                 | 02                    | 2.06%  |
| Work-Family Conflict               | 02                    | 2.06%  |
| Depression                         | 03                    | 3.09%  |
| Organizational Support             | 02                    | 2.06%  |
| Sleep quality                      | 01                    | 1.03%  |
| Team work                          | 01                    | 1.03%  |
| Work organization                  | 01                    | 1.03%  |
| Emotional intelligence             | 01                    | 1.03%  |
| Work conditions                    | 02                    | 2.06%  |
| Psychological Capital              | 01                    | 1.03%  |
| Workaholic                         | 01                    | 1.03%  |
| Autonomy                           | 01                    | 1.03%  |
| Self-assessment                    | 01                    | 1.03%  |
| Team Satisfaction                  | 01                    | 1.03%  |
| Anxiety                            | 02                    | 2.06%  |
| Moral Suffering                    | 02                    | 2.06%  |
| Social capital                     | 01                    | 1.03%  |
| Engagement                         | 01                    | 1.03%  |
| Resilience                         | 02                    | 2.06%  |
| Coping Strategies                  | 02                    | 2.06%  |
| Common Mental Disorders            | 01                    | 1.03%  |
| Verbal Violence                    | 01                    | 1.03%  |
| Cognitive Evaluation               | 01                    | 1.03%  |
| Violence caused by patients        | 01                    | 1.03%  |
| Total                              | 97                    | 100%   |

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Table 3 presents an overview of the type of methodology used in the investigations<sup>(45)</sup>. Most of the articles are prevalence studies (81.13%), followed by literature review

articles (10.38%). Survey studies (5.66%) and intervention studies (1.89%) appear next. Only one study is characterized as a case-control study (0.94%).

Table 3 - Overview of employed methods in studies on Burnout Syndrome in the Nursing context - Fortaleza, Ceará, Brazil, 2017.

| Type of study  | F   | %      |
|--|-----|--------|
| Case Control   | 01  | 0.94%  |
| Prevalence   | 86  | 81.13% |
| Review   | 11  | 10.38% |
| Intervention   | 02  | 1.89%  |
| Survey   | 06  | 5.66%  |
| Total  | 106 | 100%   |
| Objectives   | F   | %      |
| Exploratory  | 03  | 2.83%  |
| Descriptive  | 70  | 66.04% |
| Descriptive-Exploratory  | 31  | 29.25% |
| Prospective studies  | 02  | 1.89%  |
| Total  | 106 | 100%   |
| Approach   | F   | %      |
| Quantitative   | 93  | 87.74% |
| Mixed  | 02  | 1.89%  |
| Bibliographic searches   | 11  | 10.38% |
| Total  | 106 | 100%   |
| Delineation  | F   | %      |
| Experimental   | 01  | 0.94%  |
| Non-experimental   | 11  | 10.38% |
| Quasi-Experimental approach                                      | 94  | 88.68% |
| Total  | 106 | 100%   |
| Data collection procedure  | F   | %      |
| Case study   | 43  | 40.57% |
| Study in two or more places                                      | 50  | 47.17% |
| Action Research  | 02  | 1.89%  |
| Library and database (books, articles, dissertations and theses) | 11  | 10.38% |
| Total  | 106 | 100%   |
| Data source  | F   | %      |
| Interview and questionnaire                                      | 02  | 1.89%  |
| Questionnaire  | 89  | 83.96% |
| Pre-and post-test  | 03  | 2.83%  |
| Bibliographic research   | 11  | 10.38% |
| Observation and questionnaire                                    | 01  | 0.94%  |
| Total  | 106 | 100%   |

As shown in Table 3, articles that for the most part addressed OBS in Nursing are descriptive (66.04%), and there are descriptive-exploratory studies at a lower frequency (29.25%). Exploratory and prospective investigations are not so frequent, with 2.83% and 1.89%, respectively. Regarding the approaches, quantitative studies comprise a total of 87.74% of the analyzed production, and there are those that combine qualitative-quantitative approaches on a significantly smaller scale (1.89%).

Still regarding the data presented in Table 3, it is verified that the investigations were for the most part quasi-experimental (88.68%), while only one was experimental and performed in the laboratory (0.94%). Regarding data collection procedures, studies performed in two or more places were the most frequent, corresponding to 47.17% of the total. Action research was not carried out frequently, equivalent to 1.89% of the analyzed studies. The application

of questionnaires was the technique most used for data collection (83.96%); Pre-tests and post-tests were performed in 2.83% of the studies; 1.89% used interviews and questionnaires; while observations and questionnaires were used in 0.94% of the studies analyzed.

### **DISCUSSION**

The first publications on OBS occurred between 2005 and 2007 among nursing students<sup>(26,47)</sup>. The scientific production distributed by geographic region of Brazil revealed that no articles were found on the subject in the North region and few studies were carried out in the Central-West region<sup>(13,32,54)</sup>. In contrast, the state of São Paulo had the most studies on OBS in Nursing<sup>(2,10,19,22,41,44,47,64-65,78,87,92)</sup>. With regard to production in other parts of the world, Africa has the lowest number of publications<sup>(35,52-53)</sup>, as the studies are mostly concentrated in Latin America and Europe.

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The articles were mostly published in nursing journals  $^{(2)}$ ,  $_{4-7,11,13-16,18-20,22,24-25,29,31-32,37-38,40-41,48-53,56-59,61-72,76-78,80,82-84,87,91-92,95-98,100-101,103-105,107,110)$ , the health area  $^{(3,8-9,12,17,30,33,35,39,42,44,47,60,79,81,85-86,88-89,93,99,102,106)}$  and psychology  $^{(10,23,26-28,34,36,43,54-55,73-75,90,94,108-109)}$ .

After reading and critical analysis of the 106 analyzed articles, the content was organized into five thematic categories to facilitate understanding, as presented below.

## **OBS** AMONG NURSING PROFESSIONALS IN HEALTH FACILITIES

The large number of studies performed in hospitals is justifiable, since this work context is prone to OBS manifestation<sup>(72)</sup>. These establishments have a diversity of sectors in which nursing professionals can work<sup>(30,111)</sup>. Thus, hospitals are the ideal place to approach nursing staff and obtain a relatively large number of interviews, considering that the majority of studies are quantitative in nature, requiring relatively large samples for statistical analysis<sup>(12,15,33-34,36-37,42-44,52,55,57,59-60,62-63,75,79,83-87,91-92,95-96,98-99,103-106)</sup>.

This seems to be a characteristic of studies on OBS, to the detriment of qualitative research that could provide a deeper understanding of the mechanisms underlying the syndrome<sup>(54)</sup>.

Overall, studies propose generalizations without giving due attention to the specificities of hospital sectors, assuming that the different work contexts present similar risks for the onset of OBS<sup>(71,94)</sup>, which is not always proven. Furthermore, emergency rooms and palliative care units are the least investigated sites probably due to difficulties in research operationalization<sup>(14,41,57,102)</sup>, although a small concentration of studies on OBS in intensive care nurses can be found<sup>(19,22,39-40,92-93)</sup>. Still, the need for further investigations on OBS in professionals from acute care<sup>(59,62)</sup> and psychiatric ward units<sup>(57,86)</sup> is clear, given that these are places which in theory present greater risks in relation to the syndrome due to the type of work performed and the attended patients.

Studies carried out in Primary Care show signs of the syndrome among nurses<sup>(20,24,48-49,101)</sup>, although not at a very high level. Both investigations carried out with the nursing professionals of the Emergency Mobile Care Service found different results. One of them found low-moderate levels for the three dimensions of OBS<sup>(50)</sup>; while DS and EE presented high levels and PA was low in the other investigation<sup>(51)</sup>.

The studies are largely descriptive and/or exploratory, and only use the *Maslach Burnout Inventory – Human Services Survey* (MBI-HSS) to assess  $OBS^{(2-3,6-7,9,11,13-15,17-20,22-23,27-28,30,32-34,36,38-40,42-44,48-53,57,59-60,62-63,73-79,81-84,86-95,101-106,108)$ 

A version of the *Maslach Burnout Inventory – General Survey* (MBI-GS) was also used in two investigations<sup>(12,85,109)</sup>. Two studies investigated OBS using the Burnout Characterization Scale<sup>(54-55)</sup> and one used the *Compassion Satisfaction and Fatigue Test* (CSF)<sup>(37)</sup>. Another study used the *Copenhagen Burnout Inventory*<sup>(96)</sup>.

The use of different instruments makes it difficult to compare the studies. Studies rely on samples ranging from 11 to 11,000 participants, and because there is no standard for measuring the syndrome, it is not possible to conduct a more

categorical assessment of the results. However, by analyzing the mean scores of some studies, in most cases it can be noticed that nursing professionals manifest low-moderate EE, low DS and moderate PA<sup>(2-3,17,19,23,27-28,30,34,36,49-54,57,59-60,62-64,73-79,81-86,91,93-94,101,105)</sup>. Nursing technicians and assistants have higher levels of the syndrome compared to nurses, although this difference is small<sup>(10,13,50,91)</sup>.

# BURNOUT SYNDROME AMONG TEACHERS AND NURSING STUDENTS

Investigations on OBS among students are more frequent than among professors (4-5,8,26,47,65,80,107), again, perhaps due to operational problems. These studies arise from the expansion of the OBS study field and the broadening of the Burnout concept, since the depersonalization factor has come to be denominated disbelief(112). Studies on OBS in students have used the Maslach Burnout Inventory - Student Survey (MBI-SS) as the main data collection instrument (4-5,26,80,107), and only one study made use of the MBI-HSS<sup>(47)</sup> in nursing students. With samples varying from 42 to 255 participants and similar results, students have shown low-moderate EE, low DS (disbelief) and high-moderate PA. When asked about the syndrome, most of the graduates reported not knowing about it<sup>(47)</sup>. It is possible that highmoderate PA, increased in relation to professionals, is due to the fact that students still have high expectations when it comes to the profession.

Studies carried out with professors have samples between 13 and 95 subjects, and are studies employing a quantitative-qualitative approach. Prevalence of OBS in nursing professors in one of the analyzed studies was 94.7%, characterizing them as a vulnerable group to the manifestation of health problems associated with the syndrome<sup>(8)</sup>. In the qualitative analysis, professors classified the relations between students and co-workers as sources of stress. However, in a second study, the professors did not associate the manifestations of tension with the syndrome<sup>(65)</sup>.

Studies that focused on nursing students and professors show that both groups have little knowledge regarding OBS<sup>(47,65)</sup>. This result shows that although OBS is recognized as an occupational pathology by the Social Security Agency, it is unknown to those involved in the prevention and diagnosis of patients. People who have the syndrome are often diagnosed with depression or another mental disorder, without proper connection to the occupation<sup>(113)</sup>.

### **REVIEWS ON OBS IN NURSING**

Still incipient, reviews on OBS in Nursing continue without in depth analysis of the theme and its origin or triggering mechanism<sup>(100)</sup>. They are studies that investigated the "state of the art", analyzing between 4 and 70 manuscripts. For the most part, these studies only describe the syndrome and its impacts on the life of the nursing professional<sup>(29,68,71-72)</sup>. These investigations explore stress and OBS, and mainly their relationships and peculiarities<sup>(29,35,67,70,97)</sup>. However, little is said about the methods or intervention cases on preventing and reducing the syndrome in the nursing context<sup>(29)</sup>.

The review articles analyzed here are only focused on national scientific production<sup>(67-68,70-72,97,100)</sup>. However, a bibliographic investigation selected 70 articles, of which 26 were European, 25 American, 12 Asian, 4 Australian and 3 African, but no South American studies were included<sup>(35)</sup>. Of the bibliographic studies, four are narrative reviews<sup>(25,29,67-68)</sup>, followed by integrative reviews<sup>(69-71,97,100)</sup>, and one systematic review<sup>(35)</sup>. One analytical bibliographic review was found based on secondary studies between 1996 and 2011<sup>(72)</sup>.

### **OBS** AND ITS RELATIONSHIP WITH OTHER CONSTRUCTS

In the three-dimensional OBS model, Burnout appears as a reaction to chronic stress<sup>(1)</sup>. Thus, the large number of studies aimed at exploring this relationship is sustainable<sup>(2,5,22,29-30,35,37,41,53,63,67,89,91-93,96,108)</sup>. Other studies investigate the mediating role of OBS and its relation with other mental changes<sup>(15,33,35,37-38,41,52,54,82,84,93,108)</sup>.

Some studies have investigated the relationship between personality traits and OBS. Two studies in which multivariate analyzes were performed showed that personality traits can significantly explain OBS in nurses<sup>(34,36,95)</sup>. However, a third study showed that the variable "personality" had a weak potential predictor for the syndrome<sup>(30)</sup>.

Some studies have explored the relation between work environment perception and OBS. The first studies of this type were carried out by researchers involved in the *Registered Nurse Forecasting* Project. These researchers conducted several survey studies in North American, European and Asian countries. The studies applied the MBI and the Practice Environment Scale of the Nursing Work Index (PES-NWI). The latter measures the presence of variables related to the nurses' work environment (56-63). The PES-NWI and the MBI have already been revalidated into the Portuguese language and applied in Brazilian investigations (19,49,87).

Studies in recent years have explored the occurrence of OBS, measured their levels and correlated them with sociodemographic and occupational variables, psychosocial risks and other constructs in order to understand its genesis<sup>(29)</sup>. However, further studies seem necessary to analyze the relationship between the occurrence of OBS and occupational conditions and work organization<sup>(23,52,57,68,101)</sup>, and to investigate the mediation that teamwork and organizational support may play in the onset of the syndrome<sup>(37,49,83,86)</sup>.

### Intervention and prevention of OBS in Nursing

Interventional studies are scarce in the case of OBS in nursing and developing an action plan for its prevention seems to be a challenge. Studies of this type propose to carry out individual interventions focusing on the nursing professional, aiming at behavioral changes and not modifications in the work, which is the origin of the syndrome. Cognitive-behavioral approaches accompanied by relaxation techniques are one of the most applied in these cases. However, the major disadvantage of these interventions is in enabling participants to cope with stress, rather than fighting it<sup>(29,89)</sup>.

Another way of describing interventions is through longitudinal, pre/post-test studies(41). It is possible to analyze the levels and manifestation of the syndrome within the studied period through these methods<sup>(64)</sup>. This is the case of a controlled study carried out in the laboratory. In this research, a Reiki session was performed in nurses diagnosed with OBS, and later reverberation of the session on salivary immunoglobulin A (IgAs), α-amylase activity and blood pressure was verified. A significant relationship was found between intervention and diastolic blood pressure and IgAs concentration. The authors point out that Reiki sessions can improve the response of IgAs and blood pressure in nursing professionals affected by OBS(32). Another prospective case study was carried out with 16 nursing residents measuring the levels of the syndrome in different periods of time. It was verified that only one participant presented the syndrome out of the 16 residents(64).

No interventions aimed at raising the awareness of professionals, students or nursing professors regarding OBS were found. A study with nursing professors sought to ascertain social representations of the professionals about OBS and to later intervene by using texts as an educational proposal to raise awareness about OBS $^{(65)}$ .

Despite the small number of intervention studies, a large part of the analyzed publications affirm the need to carry out in-depth studies that will allow for formulating and implementing policies to support prevention and intervention in the case of this syndrome in the nursing area<sup>(5,8,14,20,22-23,26,28,30,33,36,47,50,52-53,56-57,63,65,71,73-75,79,81,84-85,93)</sup>.

### **CONCLUSION**

We found that the majority of studies on OBS in the Nursing context were published in 2015, where most of the research took place in the South America, and mainly in Brazil. However, this data should be noted with caution, since the choice for the consulted databases may have contributed to this result.

The largest number of publications are concentrated in Southeast and Southern regions of Brazil, and the majority of investigations were conducted in hospitals. As for the employed methods, the majority of the studies are prevalent, descriptive, quantitative, and using a quasi-experimental design, with multiple case studies in which MBI was applied. In addition, stress is the most closely related construct to OBS.

Thus, new case-control and cohort studies are suggested. Qualitative-exploratory and longitudinal studies are necessary to better understand OBS among nursing professionals, as well as comparative causal research and focus groups with the purpose of exploring OBS manifestations.

New instruments that measure OBS must be tested and revalidated, and different theoretical models than three-dimensional ones must be studied and verified. If OBS is indeed a lingering stress, interventions focused on conditions, organization and social relations at work are necessary.

### **RESUMO**

Objetivo: Caracterizar a produção científica sobre a Síndrome do Esgotamento Profissional no contexto da enfermagem, sistematizando os locais onde as pesquisas foram realizadas, os construtos relacionados, os métodos empregados e seus principais resultados. Método: Revisão integrativa da literatura, com abordagem bibliométrica, em artigos na língua portuguesa, espanhola e inglesa publicados entre 2005 e 2016. Resultados: Foram selecionados 106 artigos. A maioria estudos de prevalência, descritivos, quantitativos e realizados em hospitais. Nas regiões Sudeste e Sul do Brasil encontram-se o maior número de publicações, sendo o estresse o construto mais relacionado com o esgotamento profissional. A maior parte dos estudos utilizou o *Maslach Burnout Inventory* como meio de averiguação da presença da síndrome. Conclusão: Novos estudos de caso controle e coorte devem ser realizados. Pesquisas de cunho qualitativo-exploratório são necessárias para poder compreender melhor a Síndrome do Esgotamento Profissional entre os profissionais de enfermagem com grupos focais ou entrevistas, como também pesquisas causais comparativas, com o intuito de explorar as manifestações da síndrome.

### **DESCRITORES**

Enfermagem; Esgotamento Profissional; Saúde do Trabalhador; Revisão.

### **RESUMEN**

Objetivo: Caracterizar la producción científica acerca del Síndrome del Agotamiento Profesional en el marco de la enfermería, sistematizando los sitios en donde las investigaciones fueron realizadas, los constructos relacionados, los métodos empleados y sus principales resultados. Método: Revisión integrativa de la literatura, con abordaje bibliométrico, en artículos en lengua portuguesa, española e inglesa publicados entre 2005 y 2016. Resultados: Fueron seleccionados 106 artículos. La mayoría se compuso de estudios de prevalencia, descriptivos, cuantitativos y realizados en hospitales. En las regiones Sureste y Sur de Brasil se halla el mayor número de publicaciones, siendo el estrés el constructo más relacionado con el agotamiento profesional. La mayor parte de los estudios utilizó el Maslach Burnout Inventory como medio de la averiguación de la presencia del síndrome. Conclusión: Nuevos estudios de caso control y cohorte deben llevarse a cabo. Investigaciones de cuño cualitativo-exploratorio son necesarias para poder comprender mejor el Síndrome del Agotamiento Profesional entre los profesionales de enfermería con grupos focales o entrevistas, como también investigaciones causales comparativas, a fin de explorar las manifestaciones del síndrome.

### **DESCRIPTORES**

Enfermería; Agotamiento Profesional; Salud Laboral; Revisión.

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