ORIGINAL ARTICLE

THE PROFESSIONAL EXHAUST IN NURSING: AN ANALYSIS OF THE SCIENTIFIC PRODUCTION OF THESES AND DISSERTATIONS

O ESGOTAMENTO PROFISSIONAL NA ENFERMAGEM: UMA ANÁLISE DA PRODUÇÃO CIENTÍFICA DE TESES E DISSERTAÇÕES

EL AGOTAMIENTO PROFESIONAL EN LA ENFERMERÍA: UN ANÁLISIS DE LA PRODUCCIÓN CIENTÍFICA DE TESIS Y DISSERTACIONES

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ABSTRACT

Objective: to analyze the scientific production of Brazilian theses and dissertations on the syndrome of professional exhaustion (PE) in nursing. Method: this is an integrative review to answer the guiding question << How is the scientific production of Brazilian theses and dissertations characterized about professional exhaustion in nursing? >>. The sources consulted were the Digital Library of Theses and Dissertations and the Bank of Theses of CAPES. Results: there were eight theses and 22 Brazilian dissertations analyzed. Most of the research on the subject was performed in hospitals, characterized as prevalence studies of a quantitative nature. Overall, low-moderate rates of emotional exhaustion and depersonalization and moderate to high personal accomplishment were found. Conclusion: Nursing is an exhausting activity that deserves to be explored, putting into vogue the close relationship between organization and working conditions and professional exhaustion. Descriptors: Burnout, Professional, Occupational Health; Nursing; Peer Review.

RESUMO

Objetivo: analisar a produção científica de teses e dissertações brasileiras sobre o síndrome do Esgotamento Profissional (EP) na enfermagem. Método: revisão integrativa, com vista a responder à questão norteadora << Como se caracteriza a produção científica das teses e dissertações brasileiras sobre o esgotamento profissional na enfermagem? >>. As fontes consultadas foram a Biblioteca Digital de Teses e Dissertações e o Banco de Teses da CAPES. Resultados: foram analisadas oito teses e 22 dissertações brasileiras. A maioria das pesquisas sobre o tema foi realizada em hospitais, caracterizando-se como sendo estudos de prevalência, de natureza quantitativa. No geral, foram encontrados índices baixo-moderados de exaustão emocional e despersonalização, e uma realização pessoal moderada-alta. Conclusão: a enfermagem é uma atividade desgastante que merece ser mais explorada, pondo em voga a estreita relação entre a organização e condições de trabalho e o esgotamento profissional. Descritores: Esgotamento Profissional; Saúde do Trabalhador; Enfermagem; Revisão por Pares.

RESUMEN

Objetivo: analizar la producción científica de tesis y disertaciones brasileñas sobre el síndrome del Agotamiento Profesional (EP) en la enfermería. Método: revisión integradora, para responder la pregunta guíaora << ¿Cómo se caracteriza la producción científica de las tesis y disertaciones brasileñas sobre el agotamiento profesional en la enfermería? >>. Las fuentes consultadas fueron la Biblioteca Digital de Tesis y Disertaciones y el Banco de Tesis de CAPES. Resultados: fueron analizadas ocho tesis y 22 disertaciones brasileñas. La mayoría de las investigaciones sobre el tema fue realizada en hospitales, caracterizándose como siendo estudios de prevalencia, de naturaleza cuantitativa. En general, fueron encontrados índices bajo-moderados de agotamiento emocional y despersonalización y una realización personal moderada-alta. Conclusión: la enfermería es una actividad desgastante que merece ser más explotada, poniendo en boga la estrecha relación entre la organización y condiciones de trabajo y el agotamiento profesional. Descriptores: Agotamiento Profesional; Salud Laboral; Enfermería; Revisión por Expertos.

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INTRODUCTION

The first report on the phenomenon of professional exhaustion (PE) happened in the clinic with the findings of the psychologist Herbert J. Freudenberger, who found manifestations of extreme exhaustion and despair in his patients who worked with situations that demanded attention and care from third parties. These manifestations occurred mainly in health professionals who practiced their activities as volunteers in the 1970s.1

Following the description of a similar manifestation, called as a Burnout by the novelist G. Greene, this phenomenon came to be known by this term or as a burnout syndrome and, after, this same terminology was used by Christina Maslach at the Annual Congress of the American Association Of Psychology of 1997.2 The three-dimensional model of PE, advocated by the researcher and her collaborators, was quickly disseminated in the academic setting, and it is still the most widely used for the investigation of the disease.3-5

The three-dimensional model proposed by Maslach is based on psychosociology. According to this theory, PE is triggered by the intensity of interpersonal stressors arising from the work activity and manifested through three dimensions: emotional exhaustion (EE), depersonalization (DP) and low professional achievement (RP).2-5

EE is characterized by the feeling of being exhausted, by the manifestation of tiredness, which can be either psychic or physical, or even a combination of both. DP leads the worker to treat patients, colleagues and other recipients of his work with cynicism and some affective detachment. In this dimension, disengagement with work is evident, being directly associated with the deterioration of relationships. On the other hand, in the patients affected by the syndrome in which the RP dimension stands out, a negative self-evaluation prevails, and they are perceived as being unmotivated with their professional development and performance.4-5

Most PE research takes health and education workers as the targets of study.6 This is due to the nature of the work of these professionals: they are functions that deal with care, involvement, and attention to third parties, characterized as health care activities.7-8 However, in a review of research involving the syndrome, it was verified that health professionals are the largest group surveyed in PE, and, around half of this population surveys focus on samples with nursing professionals.9

Thus, it is observed that the occupational group most susceptible to the syndrome is composed of nursing professionals,10-12 since their work practice demands the constant care of patients, besides the nurses, technicians and nursing assistants, sometimes, cases of suffering, death and mourning, being usually exposed to the emotional tensions of such situations, which can lead to the onset of PE.13-4

With the evidence and the significant growth of studies in recent years on PE in nursing and with the absence of investigations that congregate only theses and dissertations as data source, this study aims to fill this gap and aims to analyze the scientific production of Brazilian theses and dissertations on the syndrome of professional exhaustion (PE) in nursing.

METHOD

This is an integrative review with a bibliometric approach. For its accomplishment, the following steps were followed: formulation of the question of the research; Accomplishment of the search of theses and dissertations in the corresponding database; Inclusion and exclusion criteria; Collection of information to be extracted from selected theses and dissertations; Presentation and interpretation of research results.15

The guiding question of the study was << “How is the scientific production of Brazilian theses and dissertations characterized about professional exhaustion in nursing? >>.”

The keywords employed were designed from the list of Descriptors in Health Sciences (DeCS), being: Burnout, Professional, and Nursing. However, it was preferred not to stipulate the specific period of publication for inclusion/exclusion in the review to gather as many theses and dissertations as possible. The databases consulted were the Brazilian Digital Library of Theses and Dissertations (BDTD) and the Banco de Teses CAPES (BT-CAPES).

During the advanced search, a Boolean search and was used as a connector that allowed access to the theses and dissertations that have intersections between the different descriptors. The first search occurred in January 2015 in the BDTD and on December 29 of the same year, the BDTD was revisited for an update. BT-CAPES was then consulted from 3 to 5 January 2016.

A form was prepared with the following information for the analysis of selected theses:
The professional exhaust in nursing...

The first database consulted was BDTD. In this first phase, 80 records were found, paying attention only to titles, abstracts and descriptors. From the more in-depth reading, 26 BDTD manuscripts remained. The second database was the BT-CAPES, and 89 records were found, which, after the same process, including the removal of the works already selected in the first phase, resulted in 12 manuscripts. In this initial stage of sample composition, an external reviewer was invited to verify the pertinence of the studies and which should compose the sample. After this initial analysis, the records went through another process of identification, selection, and inclusion (Figure 1).

According to the identification, selection and inclusion process shown in flowchart 1, only 30 papers corresponded to the inclusion criteria. 16-45

Analysis of theses and dissertations

The sample of this review has eight theses (26.67%) and 22 dissertations (73.33%), totaling 30 papers. From the analysis of the material, it was verified that the works about the PE in nursing extend from 2004 to 2015, and in 2012 and 2011 the largest number of works is concentrated, with 26.67% and 23.34%, respectively. Then, there are 2013 (13.33%), 2010 (10%) and 2008 (10%). Figure 2 allows a better visualization of this data.

In the distribution by region, it was found that the southeast region has the highest number of theses and dissertations defended, with a representativity of 63.33% of the sample. Then, they appear to the south (20%), northeast (13.33%) and center-west (3.33%).

Figure 1. Process of identification, selection, and inclusion of theses and dissertations for the study. Fortaleza (CE), Brazil, 2016.

Figure 2. Theses and dissertations on the PE in nursing distributed per year. Fortaleza (CE), Brazil, 2016.
Most manuscripts were defended in nursing graduate programs (56.67%). A much lower percentage corresponds to the theses and dissertations defended in the postgraduate programs in psychology and administration, with 16.67% and 10%, respectively.

It was verified that among the educational institutions, the University of São Paulo (USP) and the State University of Campinas (UNICAMP) are the ones with the largest number of papers defended, with 26.67% and 13.33%. The Program of Psychiatric Nursing (PPGEP) of USP in Ribeirão Preto is the program that concentrates the largest number of theses and dissertations defended on the subject (13.33%), being the teacher Sonia Maria Villela Bueno, the researcher who guided the highest number of jobs (10%).

The hospital environment is the most targeted place in the surveys (76.66%). Among the investigations carried out in these environments, most of them had university hospitals as a study area (26.67%). Then, there are the dissertations and theses carried out their investigations in public or private hospitals (20%). With a lower frequency, there are the surveys conducted only in public hospitals (13.33%). Table 1 shows the locations where all the theses and dissertations of the sample were performed.

Table 1. Locations where research on PE in nursing was carried out. Fortaleza (CE), Brazil, 2016.

<table>
<thead>
<tr>
<th>Places of study</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital not specified</td>
<td>01</td>
<td>3.33%</td>
</tr>
<tr>
<td>University Hospital</td>
<td>08</td>
<td>26.67%</td>
</tr>
<tr>
<td>Private Hospitals</td>
<td>02</td>
<td>6.67%</td>
</tr>
<tr>
<td>Public hospitals</td>
<td>04</td>
<td>13.33%</td>
</tr>
<tr>
<td>Philanthropic Hospital</td>
<td>01</td>
<td>3.33%</td>
</tr>
<tr>
<td>General Hospital</td>
<td>01</td>
<td>3.33%</td>
</tr>
<tr>
<td>Public and Private Hospital</td>
<td>06</td>
<td>20%</td>
</tr>
<tr>
<td>Private University</td>
<td>01</td>
<td>3.33%</td>
</tr>
<tr>
<td>Public University</td>
<td>05</td>
<td>16.67%</td>
</tr>
<tr>
<td>Unspecified educational institution</td>
<td>01</td>
<td>3.33%</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100%</td>
</tr>
</tbody>
</table>

In a smaller number, there are the theses and dissertations that discuss the PE between teachers and nursing students (23.33%), which, in most cases, occurred in public universities (16.67%) (Table 1).

Of the total sample, 22 studies investigated the PE relating it to other constructs. Among them, the most frequently related to the syndrome is occupational stress (22.73%).

<table>
<thead>
<tr>
<th>Constructs related to professional exhaustion</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress</td>
<td>05</td>
<td>22.73%</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Organization of work</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Depression</td>
<td>02</td>
<td>9.09%</td>
</tr>
<tr>
<td>Context of work, human cost, pleasure-suffering, and work damages</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td>02</td>
<td>9.09%</td>
</tr>
<tr>
<td>Perception of the work environment in nursing</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Job satisfaction and social support perception</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Social readjustment and working conditions</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Moral suffering</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Stress, coping, depression and hardness</td>
<td>02</td>
<td>9.09%</td>
</tr>
<tr>
<td>Stress and coping</td>
<td>02</td>
<td>9.09%</td>
</tr>
<tr>
<td>Minor psychic disorders</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Psychosocial risk factors at work</td>
<td>01</td>
<td>4.55%</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
</tr>
</tbody>
</table>

There are manuscripts that correlate PE with stress and coping (9.09%) and others, correlate PE with stress, coping, depression and hardness (defined as a personality type) (9.09%). Also, there are studies that sought evidence of a correlation between PE and depression (9.09%), as well as job satisfaction (9.09%). For a better visualization, these data are presented in Table 2.

Table 3 presents an overview of the methods used in the theses and dissertations, classified by sessions to facilitate the understanding of the data. It was verified that all the investigations are of quasi-experimental design. There are 63.33% prevalence studies, 16.67% survey, 10% intervention and 10% that combined prevalence and intervention techniques (1st Session of Table 3).
Most studies are descriptive-exploratory (41.94%), followed by descriptive studies (32.26%). Exploratory research and explanatory research were 19.35% and 6.45%, respectively (2nd Session of Table 3).

The data shown in the 3rd session of Table 3 are the approaches used in the theses and dissertations studied. Most theses and dissertations used the quantitative approach (60%). Then, there are studies of mixed nature, those that combined quantitative and qualitative techniques (33.33%). The exclusively qualitative studies represent 6.67% of the sample.

Half of the research carried out are case studies, focused on the analysis in a specific context of work and 33.33% were carried out in multiple places. With a relatively lower frequency, there are the case studies of an interventionist nature, totaled 16.67% (4th Session of Table 3).

The 5th session of Table 3 summarizes the data sources used in the studies analyzed. It is verified that a great part of the surveys uses only questionnaires as means of obtaining data (56.67%). Next, the ones that used interviews and questionnaires (20%) stand out (6.67%), pre and post-test and interview (6.67%) and interview, questionnaire, participant observation and field diary (6.67%). Only one study used the application of questionnaires and observation (3.33%).

**DISCUSSION**

Among those with free access to the investigated banks, the first Brazilian dissertation on PE in nursing was defended in 2004.16 As for the distribution of research by geographic region in the period studied, the northern region of Brazil did not have any thesis or dissertation on PE in the nursing. The research were concentrated in the Southeast region, with few works being defended in the South and Northeast of Brazil. Only one dissertation was found in the center-west region, with the study site of the city of Cáceres, Mato Grosso.22

The theses and dissertations were mostly presented to postgraduate nursing programs.17-20,23-4,27-9,32,35,38-43 Some were defended in graduate programs in psychology26, 33-4,37,44 and administration, 21,25,30 with two theses presented in public health programs.36,45 The state of São Paulo had the largest number of theses and dissertations defended on the subject, presented to the Program of USP in Ribeirão Preto: two theses and two dissertations.18 9,28,40

The content was read and organized into five categories to facilitate the understanding of the 30 papers, eight theses and 22 dissertations: (1) PE among nursing professionals in the hospital environment; (2)
PE between teachers and nursing students in the educational environment; (3) PE and its relationship with other constructs in nursing; (4) Methods of intervention against PE in nursing; And (5) Consistency of the underlying MBI model.

- PE among nursing professionals in the hospital environment

Most of the studies on PE in nursing take place in the hospital setting. However, these environments are characterized by very diversified work contexts, in which nursing travels through almost all sectors. Among these contexts, those less frequently addressed are urgency and emergency, and intensive care units. The investigations carried out in hospitals aim to investigate PE in nursing in general and take the hospital environment as a potentially facilitating space for the onset of the syndrome and convenient to approach such professionals. After all, most research is quantitative research and requires a sample large enough to be statistically significant. This may lead to some distortions as different contexts present different risks for the syndrome. The three environments cited as the least investigated, for example, by the nature of the task are probably the most stressful for professionals.

Most surveys are descriptive-exploratory prevalence studies. They have samples ranging from 13 to 538 subjects and use the Maslach Burnout Inventory (MBI) as the only means of investigating the presence of the syndrome among professionals. The Maslach Burnout Inventory - Human Services Survey (MBI-HSS) is the most widely adopted, with only one study that applied the Maslach Burnout Inventory - General Survey (MBI-GS) and another that used the Burnout Characterization Scale to verify the incidence and prevalence of the syndrome.

Because there is no standard for PE measurement, it is not possible to perform a more precise analysis of the results, but when verifying the average scores of some of the studies, it is possible to notice that, in most cases, nursing professionals have low EE and DP and moderate to high RP. Also, there were no significant difference in comparing the levels of PE among nurses and nursing assistants/technicians.

- PE between teachers and nursing students in the educational environment

The studies about PE among nursing teachers are quantitative-qualitative investigations, with samples varying from 13 to 108 teachers, and MBI-HSS25 was more commonly used to investigate the syndrome. Only one of these studies applied the Maslach Burnout Inventory - Educators Survey (MBI-E). The mean scores obtained in MBI among teachers are low EE and DP and low-to-moderate RP. Thus, it seems that teachers feel more accomplished than professionals who act directly in nursing practice.

In the qualitative analysis, the teachers list the relationships (teacher-student and teacher-teacher) as possible stressors. In one of the analyzed studies, teachers recognize the presence of exhaustion and physical fatigue, but do not identify them as an element of the PE because, according to the author, they are unaware of the syndrome.

The papers focused on nursing students are also characterized as quantitative-qualitative research, with samples ranging from 29 to 168 students. The Maslach Burnout Inventory - Student Survey (MBI-SS) version is used for verification of the PE. Nursing undergraduates had low EE and DP and moderate RP, indicating that the members of this group feel relatively dissatisfied about the achievement professional.

The results of the qualitative analysis were different. The analysis of the speeches of 24 students showed that EE seems to be related to the high working hours. Disbelief, comparable to PD in other versions of MBI, seems to be associated with absence in class, distance from studies, and decreased contact with colleagues. In another qualitative study, it was concluded that students do not know about PE, worn out and tired of academic life.

One of the studies analyzed showed an association between the type of hardiness personality and the presence of PE among students. Hardiness is defined as a set of personality traits that function as a source of resistance in the face of stressful events. Subsequently, these same constructs (PE and personality type) were studied in a population of teachers and the hardiness personality type showed negative correlation with the presence of PE.

Thus, the studies analyzed show that both teachers and nursing students do not have in-depth knowledge about PE. Although it is regulated as a psychopathology of work by Social Security, PE is still unknown by most professionals, including those who act in the prevention, diagnosis, and referral of patients affected since patients are often diagnosed with depression or stress due to the unpreparedness of the caregiver.
PE and its relationship with other constructs in nursing

There is a tendency among the analyzed studies to seek an association between stress and PE.17,30,21,25,27 This practice is supposed to occur because PE is defined as the result of the chronification of interpersonal stressors at work. Almost all of the results obtained in the analyzed studies indicated that the exposure to stress factors correlates positively with the presence of PE,29 and they may predispose the professionals to present the syndrome.23 However, this positive association was not found in all of these cases.40 Perhaps this divergent outcome is linked to the limitations and difficulties of the research carried out, since this is almost an obvious relationship, since PE is the stage after exposure to stressors.

Besides the association between PE and stress factors, other dimensions, such as minor psychiatric disorders,41 depressive symptoms,26,39,42 and satisfaction at work,30,32,33 also show positive correlations with the presence of PE. These results corroborate the idea that depression, anxiety, and psychic disorders are the main psychological consequences of PE.47

Regarding the psychosocial aspects of the work, a set of interdependent constructs shows positive correlations with PE. The “recognition” aspect was a protective factor against the development of the syndrome, and the “work overload” factor is the element that most contributes to the triggering of PE.29

Methods of intervention for the PE in nursing

Interventional studies in nursing involving PE are still incipient. The techniques employed do not necessarily aim at changes in the organization or context of the work (avoiding the onset or coping with the syndrome). They seek, first and foremost, to make professionals aware of the existence of the syndrome through courses (aimed at the dissemination of information) and training aimed at the reduction and/or coping with stressors, as well as the engagement in support groups (focus groups).

Interventions aimed at raising awareness about PE were made in groups of teachers and nursing students. The aim of these studies was to investigate the social representations of professionals about PE and then to intervene through awareness using texts and explanatory booklets about PE and other manifestations.18,28

Two pre/post-test studies used courses/training with one form of intervention. In one, the goal was to reduce stress and PE by taking training as a strategy. The 12-hour training served to explore the concepts of PE, stress, coping strategies and interpersonal communication.17 The second was characterized as a continuous training aimed at contributing to the coping of the death situation in nursing teams.35 After the intervention, in both the studies, the levels of PE among nursing professionals decreased.

Finally, two studies report focal group type interventions. In the first study, the intervention aimed to explore three themes: learning to deal with children with severe heart disease; The issue of professional recognition; And rethinking human resources.41 Rethinking human resources used the group not only as an intervention but mainly as a way of investigating work factors that may be linked to the onset of PE. In his conclusions, the author emphasizes that the vulnerability to PE is not in the profession, but in the organization of work. Also, it points out that the traditional model of PE investigation is not enough to explain its genesis.35 These data lead us to the reflection that the three-dimensional model underlying MBI does not explain the “totality of the PE,” since the onset of the syndrome is related to inadequacies of working conditions in nursing, including work organization. It is noteworthy that this becomes clear only in the scope of qualitative investigations.

Consistency of the underlying MBI model

Most investigations only use the questionnaire as the data source and, among the analyzed studies, 96.43% used MBI. This result is consistent with the data obtained in the review already carried out,4 in which the authors verified that, in the late 1990s, MBI had been used in 93% of the scientific investigations analyzed by them.

Initially, the MBI contained 45 items and remained 25 after the original instrument was submitted to statistical validation. The factorial analysis of the original validation study divided the 25 items into four factors. After a new validation study, the fourth factor, composed of only three items, called Personal Involvement, was excluded (because it contains an eigenvalue less than 1.0), which led the MBI to measure the PE as a three-dimensional structure. Currently, MBI has four versions: MBI-HSS (for health professionals); MBI-ES (for teachers); MBI-GS (general); And MBI-SS (for students).48

The MBI-HSS was the first version of the instrument, intended for professionals in 心理学的な観点からの観察
used the MBI, we sought to evaluate the internal consistency of the instrument by calculating the Cronbach alphas of the three factors. The results showed, as the calculation is done here that the EE factor is the most consistent, with reliability in the range of $\alpha = 0.80$ or above. PR and DP were less consistent. For this reason, the authors recommend greater attention when interpreting results obtained through MBI.53

Calculating the Cronbach alphas means of each version of MBI in the 12 studies of our sample, it was evidenced that the MBI-HSS presented good internal consistency in the EE factor ($\alpha = 0.86$), different from the other factors, DP ($\alpha = 0.66$) and RP ($\alpha = 0.68$).17,20

In the MBI-ES version, the RP factor was more consistent ($\alpha = 0.92$), then factor EE ($\alpha = 0.84$) and factor DP ($\alpha = 0.60$).19

In the MBI-SS version, reliability was uniformly presented. Even though, the EE factor was still the one with the highest alpha ($\alpha = 0.75$). Then the factor DP ($\alpha = 0.71$) and RP ($\alpha = 0.70$) comes.15,39 From this analysis, it can be concluded that the DP factor is what presents the most fragile reliability of MBI, evidence also corroborated by other studies.53-4 These results are interesting because they indicate that the factor considered more specific of the instrument, that is, the factor that is related to the so-called burnout is, at the same time, the one that has less reliability.

The three-dimensional model of the EP is well accepted by most authors of this review, and there is no work that proposes to investigate more critically the basis of this model. The three-dimensional model of PE, underlying the instrument proposed by Maslach and co-workers “became a practically unquestionable concept”.3-5 However, the model together with the MBI are reason for criticism even being the most used in EP investigations.3,5-9

One of the inconsistencies pointed out is related to the inter-independence of the three factors of PE in the three-dimensional model, since Maslach and Jackson49 emphasize their independence. In fact, associations were found, mainly between the EE and DP dimensions.54 In another meta-analysis,53 the authors investigated the factorial structure of the MBI-HSS and MBI-ES versions and also found relationships between the factors of the instrument. In this review, two studies showed significant positive correlations between EE and PD and the RP factor correlated negatively with the other factors.37,43

The criticism also falls on the actual number of factors of the instrument and, consequently, of the model. Schaufeli and

health services and care (doctors, nurses, psychologists, social workers, among others). Subsequently, some of the MBI-HSS items were modified, replacing the word patient or client per student, giving rise to the version for educators - MBI-ES. These two versions have 22 items divided into three factors. The EE factor consists of nine items, the DP factor for five items and the RP factor for eight items.49

The idea that the PE was initially manifested only between health and care workers was expanded. Thus, the PE began to be investigated in other work contexts and to meet this demand, MBI-GS was designed with the aim of investigating the syndrome in the general population. In this version, the instrument has only 16 items, divided into the same three factors: EE and RP with six items each and the DP factor (depersonalization), now called cynicism, with four items.4

The last version of the instrument to be created was the MBI-SS to measure the PE in students. As in the MBI-GS, the instrument initially contained 16 items, but when passing through the validation process among students from European countries, one of the items was deleted and the inventory now containing 15 questions. The EE factor is composed of five items, RP of six and the DP factor (depersonalization), formerly called depersonalization and cynicism, was called disbelief in this version (4 items).50

The MBI-HSS is the most used instrument among the theses and dissertations analyzed here,16-7,20-3,25,7-29,32,34,36,38,40-5 reaching a representativity of 81.48%, once the nursing context was reviewed. In the background, there are the dissertations that applied MBI-SS35,39 and MBI-GS, 24,37 with 7.41% each. Only one thesis used MBI-ES in a sample of teachers.19

The MBI-HSS version was validated in Brazilian samples.51-2 However, the translated and validated instrument uses five-point Likert scales16-7,20-3,27,30,34,36,40-45 for the responses to the items, differing from the version elaborated by Maslach et al., in which the MBI is answered in seven-point Likert scales.49

From the Brazilian theses and dissertations analyzed here, 12 reassessed the alphabets of Cronbach ($\alpha$) in samples of nursing professionals - four theses17,19,38,45 and eight dissertations.20-1,23,31-2,35,39,41 Analyzing the values of this parameter in the 12 studies, it was found that the EE factor is the factor with the highest reliability ($\alpha$ between 0.72 and 0.90), when compared to the RP factors ($\alpha$ between 0.58 - 0.92) and DP ($\alpha$ between 0.55 - 0.80). In a meta-analysis of research that
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Studies on PE in nursing need to be resumed/expanded, since, in recent years, the number of theses and dissertations defended has been decreasing considerably. Also, the contributions of research that aims to describe the phenomena are highlighted. However, the work on the subject analyzed here seems to suffer from a “scientific accommodation,” since the instrument employed is practically the same in all prevalence investigations.

On the other hand, it is coherent to affirm that nursing work has a great human cost, since, for its concretization, it involves the care of patients and third parties, characterizing as occupancy quite susceptible to the syndrome. Also, problems related to management, lack of organizational support and lack of autonomy in decision making (frequent complaints among these professionals), intensify the psychopathological process. Thus, it should be emphasized that investigations cannot leave aside these variables, but rather intensify discussions about nursing practice and its relationship with PE, exploring more intensely the possible risks or variables of exposure that may lead to or predispose to the syndrome, linking to variables that express the practice of care.

It is suggested to conduct research with an experimental design, and qualitative and interventional studies. On the other hand, other theoretical models must be tested and new instruments validated.

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