Mental disorders related to work in nursing...
INTRODUCTION

Occupational diseases acquired by healthcare workers as a result of the work they perform is not a problem that occurs only in this historical period. It is due to inherent contradiction between labor exploitation and greed of the owners of the means of production for the largest source of income. 

This trend was bolstered in the last quarter of the twentieth century, due to the structural crisis of the capitalist system, which was characterized by the increase in productivity associated with long working hours, as well as the intensification of production. This period was marked by a nonsense in the history of mankind. Men subjected themselves to exerting their forces only over the means of production, which resulted in low life expectancy and the suffering of the working class. 

In the seventies and eighties in Brazil, there was the creation of new professional categories in the health sector. Consequently, the demand for labor in the labor market this area expanded. The main factors responsible for the growth of the labor force in this period were the health reform and outsourcing of the public sector. The increase in the number of healthcare professionals and workers caused problems due to the lack of professional qualification, which resulted in the decrease of the quality of service provided. Moreover, workers were subjected to precarious working conditions, reaching a state of physical and mental exhaustion for exceeding 40 hours of work per week. 

It is known that mental and behavioral disorders are the second leading cause of occupational diseases among workers in the health field. A Brazilian study conducted in 2002 in 23 hospitals in the state of Minas Gerais, with a population of 692 nursing workers diagnosed with mental and behavioral disorders, found that: 54.3% of workers had mood disorders, neurotic disorders, and stress disorders; 28.7% had somatic disorders; 5.5% had mental and behavioral disorders due to the use of psychoactive substance. The study also showed that 40.8% of diagnoses are linked to conditions that are legally considered as occupational diseases, especially stress and depression. 

Occupational stress is defined as the result of an imbalance between the demands that a professional practice requires the ability of the worker to cope with them. If the worker is no capable of coping with these demands, consequences of stress may go beyond psychic conflicts and physiological changes and result in the appearance of the Burnout syndrome, whose symptoms are defined by three components: feelings of failure and emotional exhaustion associated with depersonalization; emotional exhaustion and lack of involvement at work. 

The hospital environment is a major cause of professional wear out. It provides job stress and psychological injuries, which result from excessive workload, high mental strain and high occupational risks. Given the fact that studies reveal a high rates of occupational stress, Burnout syndrome, depression, and other mental disorders among nursing workers, the conduction of this integrative review is of fundamental importance. It will help unveil the scientific literature produced on the topic, and identify the organizational and professional factors that cause mental disorders among these professionals. Thus, we will be able to identify whether there is a need for further research in this area or for new measures to face the problems that affect these workers.

The objective of this study is to analyze the scientific knowledge produced about occupational mental disorders that affect the nursing staff.

METHOD

This is an integrative review, a research method that allows the analysis and identification of scientific evidence in clinical practice, as well as the summary of results in a systematic and orderly manner. Therefore, through this method it is possible to identify knowledge gaps that need to be filled, in order to contribute to the conduction of new studies. 

For the conduction of this integrative review we followed methodological rigor using the following steps: identification of the topic and selection of the research question; establishment of criteria for inclusion and exclusion of studies; definition of the information to be extracted from the studies; assessment of studies included in the integrative review; interpretation of the data; and, finally, the presentation of the review, i.e., the synthesis of the knowledge. 

The guiding question of this study was << Which mental disorders are related to the nursing work?>>

The sample for this study consisted of articles published nationally and internationally in Portuguese and English between 2000 and 2001, addressing mental disorders related to the nursing work and indexed in the National Library of Medicine.
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(PubMed), Web of Science (ISI), Scopus, Cumulative Index Nursing Allied Health Literature (CINAHL), Latin American and Caribbean Health Science Literature (LILACS), and SciELO (Scientific Electronic Library Online). The search of the publications was conducted by the five authors of this study during the months of March, April and May, 2012.

For this search, we used the following Descriptors in Health Sciences: Occupational Stress, Mental Health, Worker’s Health, Nursing.

Inclusion criteria were: full-text articles available online in English and Portuguese that addressed occupational mental disorders that affect the nursing staff. Exclusion criteria were: incomplete articles, dissertations, theses, reflection articles, books, booklets, letters, and editorials.

The hierarchical classification of the evidence found in the articles included in the study was based on seven levels of evidence (LE): Level I - Evidence derived from a systematic review or meta-analysis, randomized controlled trials or systematic reviews of randomized controlled trials; Level II - Evidence derived from at least one well-designed randomized controlled trial; Level III - Research with methods from well-designed clinical trials without randomization; Level IV - Evidence from cohort and well delineated case-control studies; Level V - Systematic reviews of descriptive and qualitative studies; Level VI - Evidence from a single descriptive or qualitative study, and Level VII - Evidence from the opinion of authorities and/or reports of expert committees.13

Articles that were repeated in two databases were aggregated to the database that contained the largest number of articles.14

The results are presented in a table and a figure, and the analysis was performed descriptively, which allowed us to identify the evidence on mental disorders related to work in nursing.

### RESULTS

In this integrative review, 31 articles met the inclusion criteria previously established. There were arranged according to the databases where they were found, as seen in Table 1.

<table>
<thead>
<tr>
<th>Databases and Virtual Library</th>
<th>No. of articles found</th>
<th>No. of articles excluded</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISI</td>
<td>270</td>
<td>263</td>
<td>07</td>
</tr>
<tr>
<td>SCOPUS</td>
<td>185</td>
<td>175</td>
<td>10</td>
</tr>
<tr>
<td>LILACS</td>
<td>81</td>
<td>69</td>
<td>12</td>
</tr>
<tr>
<td>CINAHL</td>
<td>50</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>PUBMED</td>
<td>185</td>
<td>183</td>
<td>02</td>
</tr>
<tr>
<td>SCIELO</td>
<td>26</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>797</td>
<td>764</td>
<td>31</td>
</tr>
</tbody>
</table>

Next, we present the articles that were found on the topic of this study (Figure 1).

![Table 1. Selected articles found in the databases searched 2000/2011. Londrina-PR, Brazil, 2012](image-url)
<table>
<thead>
<tr>
<th>Journal</th>
<th>Year</th>
<th>Country</th>
<th>Research Question</th>
<th>Sample</th>
<th>Design</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lilacs 2010 Brazil</td>
<td>Nursing images and representations concerning stress and influence on work activity.</td>
<td>20</td>
<td>Hanzelmann RS, Passos JP.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td>Triggers of stress: lack of working conditions, lack of material and human resources, dissatisfaction, and untrained personnel.</td>
</tr>
<tr>
<td>Lilacs 2010 Brazil</td>
<td>Mental workloads and exhaustion of nursing workers at a teaching hospital in Paraná, Brasil.</td>
<td>21</td>
<td>Secco IAO, Robazzi MLCC, Souza FEA, Shimizu DS.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td>Mental workloads: working activity, constantly experiencing pain and death, life history, and socioeconomic history of nurses.</td>
</tr>
<tr>
<td>Lilacs 2008 Brazil</td>
<td>Stress and coping strategies among the nursing staff at an Emergency Care Unit.</td>
<td>22</td>
<td>Calderero ARL, Miasso AI, Corradi-Webster CM.</td>
<td></td>
<td>Descriptive Cross-sectional</td>
<td></td>
<td>Factors related to job stress are: organizational functioning, work overload, and relationships with staff and clientele.</td>
</tr>
<tr>
<td>Lilacs 2008 Brazil</td>
<td>Stressing factors and coping strategies used by oncology nurses.</td>
<td>23</td>
<td>Rodrigues AB, Chaves EC</td>
<td></td>
<td>Descriptive Exploratory</td>
<td></td>
<td>Stressors are: death of patients, emergency, relationship problems and situations related to the work process.</td>
</tr>
<tr>
<td>Lilacs 2007 Brazil</td>
<td>Stress and Nursing - the Nursing’s Auxiliaries Perception of a Public Institution.</td>
<td>24</td>
<td>Spindola T, Martins, ERC.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td>Stress is perceived as an emotional disorder that causes mental health imbalance, generating irritation, ill-mood and inability.</td>
</tr>
<tr>
<td>Lilacs 2002 Brazil</td>
<td>Reasons of stress and well-being promotion of nursing staff in neonatal unit.</td>
<td>26</td>
<td>Hoga LAK.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td>Mental health is influenced by psychological and interpersonal factors; work overload; work in ICU, Surgical Center and pediatrics; female gender; and family income.</td>
</tr>
<tr>
<td>Pubmed 2001 Wales</td>
<td>A stepwise multivariate analysis of factors that contribute to stress for mental health nurses working in the community.</td>
<td>27</td>
<td>Edwards D, Burnard P, Coyle D, Fothergill A, Hannigan B.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td>The sources of stress at work are: coping with unpredictable situations, having to pay attention to several factors concomitantly: interpersonal relationships with family and team members, socioeconomic and personal aspects. The study revealed a high level of stress due to: maintaining good quality service, long waiting list, few resources and many interruptions at work.</td>
</tr>
<tr>
<td>Pubmed 2011 Jordan</td>
<td>Mental health nursing in Jordan: an investigation into experience, work stress and organizational support.</td>
<td>28</td>
<td>HamdanWansour AM, Al-Gamal E, PuskarK, Yacoub M, Mariní A.</td>
<td></td>
<td>Descriptive Correlational</td>
<td></td>
<td>The study revealed that there is lack of information for the intervention of occupational stress at organizational level.</td>
</tr>
<tr>
<td>ISI 2011 Jordan</td>
<td>Finnish Occupational Physicians’ and Nurses’ Experience of Work Related Stress Management: A Qualitative Study.</td>
<td>29</td>
<td>Kinnunen-Amoroso M.</td>
<td></td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISI 2010 Spain</td>
<td>Incidence of burnout in Spanish nursing professionals: A longitudinal study.</td>
<td>30</td>
<td>Grau-Alberola E, Gil-Monte PR, Garcia-Juas JA, Figueiredo-Ferraz H.</td>
<td></td>
<td>Descriptive Longitudinal</td>
<td></td>
<td>Reduction in the incidence of Burnout between the first and second times of application of the instrument, showing that the phenomenon is relatively stable over time.</td>
</tr>
<tr>
<td>Source</td>
<td>Year</td>
<td>Country</td>
<td>Title</td>
<td>Authors</td>
<td>Type of Study</td>
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</tr>
<tr>
<td>ISI</td>
<td>2009</td>
<td>Japan</td>
<td>Relationship between stress coping and burnout in Japanese hospital nurses</td>
<td>Sasaki M, Kitaoka-Higashiguchi K, Morikawa Y, Nakagawa H</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISI</td>
<td>2009</td>
<td>Iran</td>
<td>Relationship between job burnout and work performance in a sample of Iranian mental health staff</td>
<td>Ashtari Z, Farhady Y, Khodaeef MR</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISI</td>
<td>2001</td>
<td>France</td>
<td>Stress levels in nursing staff working in oncology</td>
<td>Escot C, Artero S, Boulerbet C, Boullert J, Ritchie1 K</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISI</td>
<td>2000</td>
<td>England</td>
<td>Stress amongst district nurses: a preliminary investigation</td>
<td>Rout UR</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopus</td>
<td>2010</td>
<td>Ireland</td>
<td>Perceived occupational stress in nurses working in Ireland</td>
<td>Mc Carthy VJ, Power S, Greiner BA</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopus</td>
<td>2010</td>
<td>Germany</td>
<td>The relation of goal incongruence and self-control demands to indicators of job strain among elderly care nursing staff: a cross-sectional survey study combined with longitudinally assessed absence measures</td>
<td>Kirchhof ALC, Magnago TSBS, Camponogara S, Griep RH, Tavares JP, Prestes FC et al</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopus</td>
<td>2009</td>
<td>Brazil</td>
<td>Working conditions and social-demographic characteristics related to the presence of minor psychic disorders in nursing workers</td>
<td>Panizzon C, Luz AM, Fensterseifer LM</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopus</td>
<td>2008</td>
<td>Brazil</td>
<td>Stress in the nursing team of an emergency medical service</td>
<td>Muntaner C, Li Y, Xue Y, Thompson T, Chung H, O'Campo P</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scopus</td>
<td>2006</td>
<td>United States</td>
<td>County and organizational predictors of depressive symptoms among low-income nursing assistants in the USA</td>
<td>Jenkins R, Elliott P</td>
<td>Descriptive</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Gender differences in coping with stress and Burnout. Women seek emotional support. Men seek the resolution of problems more often.

Results show high level of Burnout, emotional exhaustion and depersonalization.

One-third of the ICU nursing staff had had severe Burnout.

Oncology nursing staff members show great psychological distress, high rates of Burnout, emotional exhaustion and depersonalization.

Sources of stress: lack of resources, overload, pressure, administrative responsibility, and uncontrolled factors, interruptions, critical patients and their families. High levels of stress in: emergency care unit, ICU and pediatrics. The interaction of the two instruments showed a significant amount of incremental variance for: exhaustion, depersonalization, psychosomatic complaints and absenteeism rates.

Nursing workers simultaneously exposed to high psychological demands and low job control (high psychological strain) showed a twice higher prevalence of psychic disorders than those not exposed to these situations (low psychological strain). Stress level of the population is high and the main stressor is the workload. The factors related to depression among nursing assistants are: emotional strain related to the care of elderly and disabled.

Qualified nurses reported significantly greater stress due to workload than unqualified nurses.
From the 31 articles identified in our search, three (9.7%) are from year 2000; two (6.4%) are from 2001; two (6.4%) are from 2002; two (6.4%) are from 2004; one (3.2%) is from 2006; three (9.7%) are from 2007; three (9.7%) re from 2008; three (9.7%) are from 2009; six (19.4%) are from 2010; and six (19.4%) are from 2011.

Regarding the type of journal in which the articles were published, twenty-one (68%) were published in general nursing journals, five (16%) in psychiatry and mental health journals, three (9.6%) in medical journals, and two (6.4%) were published in journals of other health professions.

Concerning the type of research design of the articles in our sample, we found: one cohort study, one systematic review and 29 descriptive studies. Thus, the strength of the evidence obtained from the articles was low. We found one article of evidence level four, one of evidence level 5 and 29 of evidence level six.

**DISCUSSION**

According to the results obtained in the six selected databases, there was an increase in the number of publications related to the topic of mental health of the nursing worker in year 2009. It is believed that stress triggering factors contribute to the decrease in the quality of life of workers in different segments of their professional and private lives. Disturbances caused by occupational stress may have serious implications for the nursing worker and trigger a variety of diseases. Depending on the genetic background of the individual, he/she may develop, apart from psychic disorders, organic manifestations such as ulcers, herpes, cancer and hypertension. The latter, of left untreated, increases the risk of the workers developing cardiovascular diseases, such as cerebrovascular accident, and myocardial infarction. It is important to note that stress alone does not cause these diseases. Stress favors the onset of such diseases if the worker has a predisposition for their development.

It is found that units such as Emergency Room, Intensive Care Unit and Surgical Center are sites that may influence the wear and tear of nurses, due to the clinical picture of the patient and the complexity of the care provided. These units have particular and intrinsic features, such as fast-paced, accelerated work routine, an “atmosphere” of constant concern and the situation of imminent death, which ultimately increase the stress levels of these workers.

Working at a hospital means that the nursing staff should show great dedication in the performance of their duties, which causes emotional wear and tear, and high stress levels. If they are not treated in time, they may lead to chronicity and Burnout syndrome. This syndrome can be easily observed in professionals who have direct contact with people and are exposed to excessive workload. Such professionals show great exhaustion, lack of professional achievement, as well as feelings of failure and impotence. Thus, this syndrome may be understood from the perspective of a multidimensional concept that includes three components: emotional exhaustion, depersonalization and lack of job involvement.

A very common consequence of job dissatisfaction is absenteeism, experienced mainly by the hospital nursing staff. This is due to their work environment, which causes...
many health problems related to the situations to which workers are exposed. As a result, there are personal, social and economic damages.\textsuperscript{50}

The exposure to mental burden related to the nursing work, the psychosocially wear and tear suffered due to the very nature of work, the direct contact with the human beings (who are usually ill, in pain and dying), as well as the feeling of being responsible for the life of others, are situations that often have a lower impact on the quality of life of these workers than the organizational functioning of work (hierarchy, supervision, administrative issues, standards and rules of institutions and lack of autonomy).\textsuperscript{51}

Concerning the measures to cope with stress, a study showed as main coping strategies of nurses: religiosity, physical activity and distancing from patients and their families.\textsuperscript{52} Strategies should be used by nurses as a way of combating stress and suffering. However, if used collectively, coping strategies may strengthen the bond between workers. Work should not be seen only as tasks that must be performed, but rather as an experience of living together with others, facing reality and constructing the meanings of work, situation and suffering.\textsuperscript{52,53}

We emphasized that there are many associated factors that may cause depression, such as neurotransmission changes, personality traits, genetic vulnerability and situational events. In Nursing, triggering internal factors of depression related to the environment and the work process are: sites of professional activity, work shift, interpersonal relationships, work overload, work schedule problems, autonomy in performing tasks, caring for customers, wear and tear, social support, insecurity, conflict of interests and the coping strategies developed. Factos external to work are: gender, age, domestic workload, family support and income, worker’s general health condition and individual traits.\textsuperscript{54}

### CONCLUSION

Upon analysis of the studies, we found a predominance of descriptive articles, and most of them focused on the description of mental problems that affect nursing workers.

With regard to the proposals of intervention to minimize or eliminate stress-related problems, burnout syndrome and depression, some articles have shown that workers try to protect themselves through strategies conducted outside of the work environment and individually. However, since the studies used a descriptive approach, it was found that their levels of evidence do not effectively collaborate to change the practice of these professionals.

### FINANCING

This study was conducted with support from the Araucaria Foundation and the Program for Scientific Initiation Scholarships (PROIC) 2012. Londrina (PR), Brazil.

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