Environmental health practice and quality of Nursing care: a protocol for systematic review

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ABSTRACT

Objectives: To systematically synthesize studies that analyze the relationship between a healthy practice environment and quality of nursing care in hospital settings; to identify the most commonly used instruments to assess nurses' perceptions of a healthy practice environment; to identify the most commonly used instruments to assess nurses' perceptions of quality of nursing care. **Method:** A systematic literature review will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The literature search will be conducted in the principal databases. Review of international scientific articles published in the last ten years, accessed through the database of the Institute of Biomedical Sciences Abel Salazar (ICBAS), University of Porto, on nurses' perceptions of the influence of the environment on healthy nursing practice and quality of care. Inclusion: Articles published after 2012 in Portuguese, Spanish, and English. The identified, selected and included studies will be highlighted for the selection process using the Preferred Reporting Items for Systematic Review and Meta-Analyses Protocols (PRISMA-P). If possible, quantitative data will be pooled into a meta-analysis using the Joanna Briggs Institute (JBI) Meta-Analysis of Statistics Assessment and Review Instrument (MASTARI).

Descriptors: Workplace; Quality of Health Care; Nursing Care; Professional Practice; Hospitals.

INTRODUCTION

The Order of Portuguese Nurses focuses on the environment of nursing practice, emphasizing that it should be deepened and studied to improve the quality of nursing care and the environments of nursing practice[1]. Pew can mention that healthcare environments are complex and interactive systems, where there is multidimensionality of the environment itself, which can influence the health care to the user; there are also ethical dimensions, management policies of institutions, educational models, psycho-socio-cultural relations of the actors of these systems, the environments of practice, in short, are based on the shared action and knowledge of the different professionals and the teamwork expressed in the complementarity for the benefit of the user and the nursing professionals[2]. We redeliberate it is of paramount importance and interest to understand what positively or negatively influences the environments to make them healthy, on the one hand, to improve the safety of users and the quality of care provided and, on the other hand, to improve and ensure increasingly balanced and healthy environments for nurses to develop their activity and skills. Therefore, in the USA, the "Magnet Designation" concept emerged as a performance-oriented approach, recognizing that health reorganizations present excellence in nursing care[3]. This program recognizes hospitals that present a healthy work environment and promote excellence in the quality of nursing care, which is reflected positively in better outcomes for users and health professionals[2,4].
The American Nurses Credentialing Center codified the 14 "magnet forces"

into a simple design in this context. The Donabedian model, which essentially states that structure drives the processes that produce outcomes, is the basis of the current Magnet model[2,3,5,6].
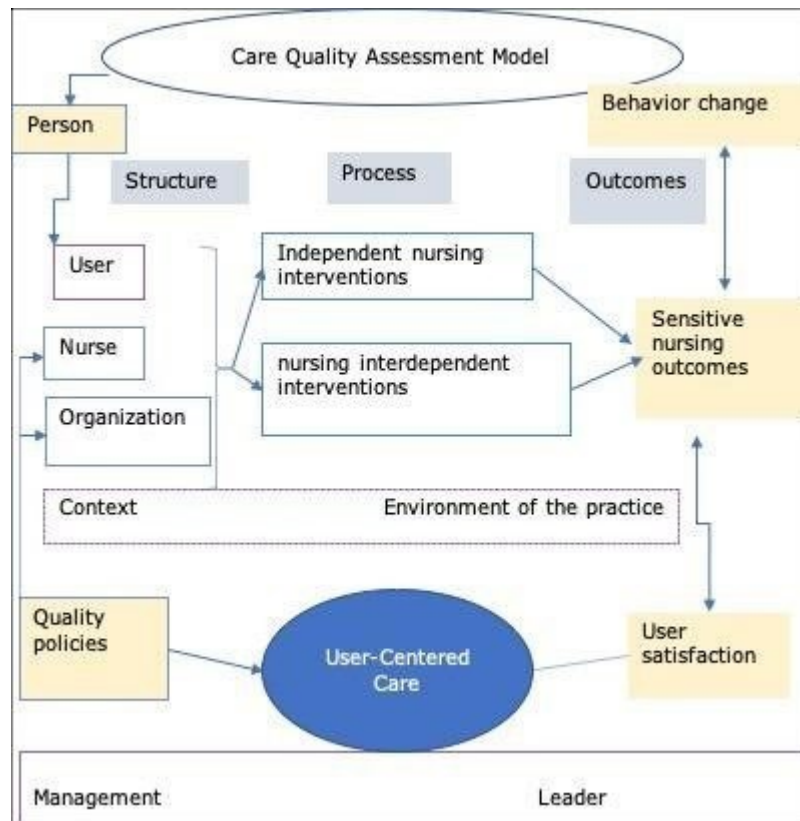

Figure 1- Model for assessing the quality of nursing care. Porto, Portugal, 2023

Several studies have emerged to understand the characteristics that make up nursing practice environments in this increasingly current context. Most of these studies have focused on a group called "Magnet Hospitals"*[7-8]. In an era of nursing shortages, these hospitals have outperformed the other hospitals studied in attracting and retaining nurses. These conditions have an evident positive influence on the nursing practice environment, reflected in the continuous improvement of the quality of care and, consequently, in the increased satisfaction of users and professionals[9-10].

Therefore, this study has significant relevance for several reasons. First, there needs to be more knowledge in institutions about the specific area under scrutiny. Addressing this gap is crucial given the increasing importance of healthy nursing practice environments and quality of care in recent years. Secondly, there is great interest in evaluating healthy nursing practice environments and the quality of nursing care. Thirdly, a comprehensive review of this subject must be addressed to identify and synthesize existing scientific evidence related to healthy practice environments and quality of care. This synthesis is essential for understanding a healthy environment for nursing practice. Finally, this study explores the impact of such environments on the quality of nursing care and investigates the evaluation instruments commonly used.

Objectives
The main objective of the proposed systematic review will be to systematically search for and synthesize studies that analyze the relationship between the healthy practice environment and the quality of nursing care in a hospital setting. Secondary objectives are as follows: 1) to identify the instruments most used to assess nurses' perceptions of the healthy practice environment; 2) to identify the instruments most used to assess nurses' perceptions of the quality of nursing care.

Review question
What is the state-of-the-art regarding the healthy environments of nursing practice in hospital settings and the quality of care?

METHOD

The protocol was developed in February 2023 following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and registered in March 2023 in the International Register of Prospective Systematic Reviews (PROSPERO) under the registry code CRD42023410089. Considering the objectives of the present review, we opted to include all the different types of quantitative studies (e.g., transversal, longitudinal, observational, experimental, and methodological studies) and secondary studies (e.g., systematic reviews)[11].

Eligibility criteria

Population

This will be a review of studies published in the last ten years, accessed through the database of the Institute of Biomedical Sciences Abel Salazar (ICBAS), University of Porto. Studies analyzing nurses' perceptions of the influence of the environment on healthy nursing practice and quality of care will be included. Only articles published after 2012 in Portuguese, Spanish, and English will be considered. Articles published before 2012 and all those without an abstract or full article will be excluded. The studies identified, selected, and included will be highlighted for the article selection process using the PRISMA flowchart[12].

Intervention

The search strategy defined the last ten years and articles written in Portuguese, Spanish, or English as inclusion criteria. All studies outside the context of extra-hospital care and those without an abstract or full article will be excluded. The article selection process will follow the PRISMA flowchart to highlight the studies identified, selected, and included[11].

Comparison

Once the studies have been selected, a methodological assessment will describe their characteristics. Then, the discussion and conclusion of the review will be developed. Two reviewers will work independently on selection, quality assessment, and data extraction. Third parties will resolve any disagreements.

Context

Context of the hospital nursing care practice environment.

Primary result

To identify the characteristics that make up the healthy practice environment perceived by nurses working in hospital environments and the continuous improvement of the quality of nursing care.

Additional result

Instruments to assess nurses' perception of the healthy environment in their clinical practice.

Study design

Quantitative, exploratory, descriptive, and methodological studies will comprise this systematic review, which aims to identify healthy nursing practice environments and quality of care in hospital settings. This phase is considered the foundation of the entire study, as it is through this phase that all relevant scientific evidence is identified that can support and guide future research.

Data extraction

Two independent reviewers will extract evidence using the Joanna Briggs Institute (JBI) qualitative data extraction tool[11]. The extracted data will provide specific details about interventions, populations, study designs, and outcomes relevant to the research question and objectives. Should any doubts or questions arise during this process that require clarification, the authors of the primary studies should be contacted. Any disagreements between the two reviewers will be resolved through dialogue or using a third reviewer. Ryyan software will be used for data extraction. Data extraction will take place between May and July[11-12].

Searches

At least two individuals will be involved in the data collection process: one will extract the information, and the other will cross-check the extracted data using the international literature search platform for scientific articles on the EBSCOhost platform. This platform incorporates several databases, including the Complete Cumulative Index Nursing Allied Health Literature (CINAHL), Medical Literature Analysis and Retrieval System Online (MEDLINE), Nursing & Allied Health Collection, PubMed, Cochrane Central Register of Controlled Trials, PROSPERO, Cochrane Database of Systematic Reviews, and MedicLatina. Access to EBSCOhost is provided by ICBAS, University of Porto.

Search strategy

The strategy consisted of conducting an extensive bibliographic search in the appropriate databases: PubMed and EBSCOhost Research Databases CINAHL (Plus with Full Text), MEDLINE (Plus with Full Text), and Psychology and Behavioral Sciences Collection.

PubMed - MeSH: 1 # (working environment) AND ((work practice) AND (Nursing care) AND (Quality of care); 2# ("Healthy Work Environ-ment*") AND ("Quality of Health Care*")) AND ("Nursing Care*") OR ("Professional Prac-tice*"); 3# ("Healthy Work Environment*") AND ("Quality of Health Care*")) AND ("Nur-sing Care*") OR ("Professional Practice*") AND ("Hospital*").

Base de dados: (BVS), LILACS, MEDLINE - DeSC: 1# ("Workplace*") AND ("Quality of He-alth Care*") AND ("Nursing Care*") AND ("Pro-fessional Practice*") AND ("Hospitals*"); 2# ("Workplace*") AND ("Quality of Health Care*") AND ("Nursing Care*") OR ("Professional Prac-tice*") AND ("Hospitals*"); 3#("Healthy Work Environment *"); AND ("Professional Practice*") AND ("Quality of Health Care*") AND ("Nursing Care*"); 4# ("Healthy Work Environment *"); AND ("Professional Practice*") AND ("Quality of Health Care*") AND ("Nursing Care*") AND ("Hospital*"); 5# ("Healthy Work Environment *"); OR ("Professional Practice*") AND ("Quality of Health Care*") AND ("Nursing Care*") AND ("Hospital*"). The strategy was adjusted accor-ding to the database and restricted to studies published between January 2012 and November 2022 in Portuguese, Spanish, or English.

Risk of bias assessment

Quantitative studies should be pooled into me-ta-analyses whenever possible using the JBI Meta-Analysis of Statistics Assessment and Review Instrument. Statistical analyses will be performed using Review Manager 5.4 (RevMan 5.4) or similar software[13].

Strategy for data synthesis

Whenever possible, quantitative studies should be pooled into meta-analyses using the JBI Me-ta-Analysis of Statistics Assessment and Review Instrument[14]. The meta-analysis allows for the synthesis of the analysis of the included studies, providing not only a textual but also a graphical presentation of the results and allowing for the calculation of the effect size and the weighted mean difference for each study. If meta-analy-sis is not feasible, the data will be presented in narrative form using tables. Consensus will be reached through discussions between the two reviewers, who will consider the specific crite-ria for evaluating the studies. A third party will resolve any disagreements. Statistical analyses will be performed using Review Manager 5.4 (RevMan 5.4) or similar software[12-13].

Analysis of subgroups or subsets

There is no planned analysis of subgroups.

Quality assessment

Quantitative studies should be pooled in me-ta-analyses using the JBI Meta-Analysis of Statistics Assessment and Review Instrument when feasible. Statistical analyses are perfor-med using Review Manager 5.4 (RevMan 5.4) or equivalent software[14]. If a meta-analysis is not feasible, the studies' reliability, relevance, and results will be assessed using the JBI qua-lity assessment tools. This review is conducted independently by two reviewers, and any disa-greements are resolved by consulting a third reviewer[12-13].

Synthesis

The systematic review is the first stage of a stu-dy to be conducted and implemented in three phases: the first stage consists of a systematic review to understand the state-of-the-art and determine the characteristics of the healthy en-vironment of nursing practice and the quality of care, as well as which instruments are used to evaluate it. This phase is considered the basis of the research study because it identifies all the relevant scientific evidence to provide the necessary basis and guidance for future rese-arch. The aim is to obtain clear evidence to in-form the concept of a healthy nursing practice environment using studies already developed in this context in various countries, the diversity of which can contribute to enriching knowledge and perception of the characteristics that make up a healthy environment for nurses and the quality of care. The second phase will aim to translate/reproduce a scale identified by the systematic review and validate it for the Por-tuguese nursing population. The third phase will consist of a qualitative, correlational study using two scales: the healthy nursing environ-ment assessment scale and the quality of care scale. With the development of the study, it is expected that the results will contribute to the increase of scientific knowledge on the subject as well as to contribute to the implementation

of the evaluation of the healthy environment of nursing practice and thus guarantee a continuous improvement in nursing care, improvement of the well-being of nurses and gains in the health of the Portuguese population.

CONFLICT OF INTERESTS

The authors have declared that there is no conflict of interests.

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Final approval of the version to be published: Teixeira DAPR, Nogueira MJC, Martins JJPA, Martins MMFP da S
Responsibility for the text in ensuring the accuracy and completeness of any part of the paper: Teixeira DAPR, Nogueira MJC, Martins MMFP da S