BMJ Open Stress dynamics between clinical supervisors and allied health students: a scoping review protocol

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ABSTRACT

Introduction The aim of this scoping review is to connect theoretical research related to stress with practical applications to supervision experiences within allied health professions. Understanding the implications of stress between clinical supervisors and allied health students will allow for better insights to improve supervisory methods within clinical training, stronger mentorship and lead to better quality patient care.

Methods and analysis This review is conducted according to Joanna Briggs Institute (JBI) methodology for scoping reviews, which includes defining the research question, developing inclusion criteria and searching for, selecting, extracting and analysing the evidence. A literature search will be conducted in MEDLINE (PubMed). CINAHL (EBSCO), ERIC (EBSCO), PsycINFO (EBSCO) and Embase (Elsevier), as well as various grey literature resources. Studies will be included if they focus on undergraduate or graduate allied health students in a clinical setting and allied health clinical educators, and report on outcomes related to stress dynamics between these two populations. Results will pass through title/ abstract and full-text screening before data are extracted using a tool developed by the reviewers. Data will be analysed and summarised descriptively and presented in both tabular and narrative formats.

Ethics and dissemination Ethical approval is not required for this scoping review. Results will be disseminated in peer-reviewed publications and professional conferences.

Trial registration number The protocol was registered with Open Science Framework on 2 October 2024 (https://doi.org/10.17605/OSF.IO/REK7Z).

INTRODUCTION

The interplay of stress between clinical supervisors and allied health students critically influences educational outcomes and healthcare delivery. This dynamic, which includes the directions of stress perception, types of stress and contributing factors, forms the core of our investigation.¹ Understanding these dimensions is crucial for enhancing clinical training and the professional preparedness of students.²

Stress within these educational relationships can manifest as eustress, which may enhance learning and growth, or as distress,

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ The review is designed to bridge the gap between theoretical research and practical application, thereby enhancing the potential for educational and policy advancements.
- ⇒ The study uses robust, established methodologies Joanna Briggs Institute (JBI) for scoping reviews and Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews for reporting), ensuring comprehensive coverage and structured analysis, which enhances the credibility and reproducibility of the review.
- ⇒ A comprehensive search strategy involving multiple databases and grey literature, coupled with the inclusion of both theoretical and empirical studies, promises a thorough exploration of the topic, likely reducing publication bias and capturing a broad spectrum of insights on stress dynamics in allied health education.
- ⇒ This study, while extensive, may not provide detailed supervisory insights specific to individual allied health fields due to the general nature of scoping reviews.
- ⇒ Limiting the review to English-language studies might exclude relevant research in other languages, introducing a language bias and potentially limiting the comprehensiveness and applicability of the findings globally.

hindering educational progress and professional development.^{3–5} Identifying the primary perceivers of stress, whether students or supervisors, is key for targeted interventions to mitigate negative outcomes and reinforce positive effects. This review aims to elucidate the complex **g**.

This review aims to elucidate the complex **G** patterns of stress dynamics in supervisory relationships within allied health education, providing a foundation for future research and practical applications to optimise educational strategies and healthcare outcomes. Emerging research highlights the significance of relational dynamics, particularly the interactions between clinical supervisors and allied health students, as crucial determinants of educational and professional

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trajectories.^{6–9} The relational perspective on stress points to the bidirectional nature of stress transmission, not only do students experience stress in response to the demands of clinical training, but supervisors also face stress that can influence their teaching efficacy and interactions with students.¹⁰¹¹

Consider the application of Lazarus and Folkman's transactional model of stress and coping, which suggests that stress arises from perceived imbalances between demands and resources, with effective coping dependent on these perceptions.¹² This theoretical framework has been extensively implemented in the development of interventions and studies focused on healthcare professionals, such as nurses and physicians, demonstrating its relevance and effectiveness in clinical environments.^{13 14} For instance, if literature reveals that allied health students are stressed by unclear role expectations and insufficient feedback, implementing structured feedback sessions and clarifying expectations could help rebalance perceived demands and available coping resources. Such targeted interventions would not only reduce perceived threats but also enhance students' abilities to manage stress, thus improving the educational environment and outcomes.

Despite the critical role of these interactions, comprehensive research on how stress is shared, communicated and managed within these relationships is limited, particularly concerning the stress experienced by clinical supervisors.^{15 16} The lack of studies exploring these reciprocal stress interactions has left a substantial void in our understanding of how stress dynamics operate within clinical education environments.^{17–20} Furthermore, existing research has not adequately explored the theoretical frameworks that analyse the bidirectional nature of stress interactions, essential for developing of effective interventions and enhancing educational outcomes.^{21 22}

This review will collect and analyse research on stress dynamics in allied health clinical educational settings to examine how these interactions influence both supervisors and students. Our aim is to uncover insights that not only refine educational methodologies but also enhance clinical supervisory practices, improve student well-being and ultimately optimise overall healthcare delivery.

The scope of this review is confined to empirical research and theoretical analyses specifically addressing stress dynamics between clinical supervisors and allied health students. By concentrating on interactive aspects of stress within these relationships, the review intends to illuminate reciprocal influences on educational outcomes and professional readiness. Studies focusing solely on individual stress responses or broader organisational stress influences will be excluded to maintain clarity on interpersonal dynamics.

Understanding the dynamics of stress between clinical supervisors and allied health students is crucial for advancing educational and clinical training frameworks.²³ This scoping review aims to consolidate current research, highlight critical gaps and provide insights that could enhance supervisory methods, promote

well-being and ultimately elevate patient care quality. By examining stress dynamics in educational settings, the review will offer practical recommendations to refine curricula and teaching approaches, thus creating a more supportive learning environment, reducing stress's negative impacts, and improving educational outcomes. Moreover, by equipping healthcare professionals with effective stress management techniques, the review contributes to better patient care, as well-prepared practitioners are more adept at maintaining effective clinical

This review intends to bridge theoretical research with practical applications, suggesting actionable changes that can be implemented across variate that can be implemented across various aspects of allied Z health programmes. The expected outcomes include copyright, not only enhanced academic discourse but also tangible improvements in how healthcare education is delivered and received.

Objectives

including The purpose of this scoping review is to systematically explore and synthesise existing literature on the dynamics ð of stress experienced by allied health students and clinical supervisors within clinical supervision settings. This review aims to identify and analyse the theoretical frameworks employed, the specific stress factors and conditions reported and the various types of stress investigated. Additionally, it seeks to understand how these frameworks are applied to explain the identified stress factors and types, and to assess the impacts of such stress on the academic relationships between students and supervisors. Specifically, the review questions include:

- 1. What theoretical frameworks have been employed in the literature to analyse the dynamics of stress between allied health students and clinical supervisors?
- 2. What specific factors or conditions have been identified as contributing to stress for both allied health students and clinical supervisors in clinical supervision settings?
- 3. What types of stress have been investigated in previous studies concerning allied health students and clinical supervisors?
- 4. How do the authors of the studies apply the theoretical frameworks identified in Question 1 to explain the factors and types of stress described in Questions 2 and 3?
- 5. What are the reported impacts of stress on the academic relationship between clinical supervisors and students?

METHODS AND ANALYSIS

The planned scoping review will be conducted according to Joanna Briggs Institute (JBI) methodology for scoping reviews,²⁴ and reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension for Scoping Reviews.²⁵ This protocol has been registered in Open Science Framework, and is reported according to the PRISMA extension

for protocols, with adjustments for a review following a scoping rather than systematic methodology.

Information sources and search strategy

Search strategies will be developed by the Belmont University health sciences librarian (AO) in collaboration with the research team for the following electronic databases: MEDLINE (PubMed), CINAHL (EBSCO), PsycINFO (EBSCO), ERIC Education Index (EBSCO) and EMBASE (Elsevier). An initial search strategy has been developed for MEDLINE and is available in online supplemental appendix 1. This initial strategy will be adapted to match the correct syntax and controlled vocabulary of each database. Search terms will include subject headings and text words and phrases related to allied health students, clinical learning experiences, and stress dynamics.

Grey literature will be searched for in Dissertations & Theses (ProQuest), Embase and Google Scholar. Reference lists of included studies, relevant systematic reviews and relevant journals will be manually searched to screen for additional studies. The databases will originally be searched from inception to October 2024 and will be searched again before the final data extraction to capture any additional studies that have been added.

The review will include only studies published in English or those that have a published English translation because of language limitations on the review team.

Study selection

Identified citations from the initial searches will be exported into EndNote 21, and duplicates will be removed. The de-duplicated citations will be uploaded into Covidence for initial title and abstract screening. The titles and abstracts of each citation will be screened against the eligibility criteria by two independent reviewers, with conflicts resolved through discussion and consensus of the review team. Citations that meet eligibility criteria will be retrieved and assessed through fulltext screening. Data will be extracted from citations that meet eligibility criteria. In accordance with the PRISMA statement extension for scoping reviews, a flow chart will be created detailing reasons for exclusion for citations at the full-text stage.

Eligibility criteria

Both theoretical and empirical studies will be included in this review. In addition to studies published in peerreviewed journals, unpublished dissertations, conference papers and presentations and other grey literature sources will be considered for inclusion. Grey literature searching and, if relevant, inclusion can help mitigate publication bias and provide a more balanced picture of the different perspectives and outcomes to be analysed.²⁶

In order to merit consideration for inclusion, research located through searching must focus on allied health students and allied health clinical educators, and report on outcomes related to stress dynamics between these two

populations. Stress dynamics can include stress reported on or perceived as positive or negative.

While 'allied health' is a broad term that has shifting definitions, this review follows the Public Health Services Act which defines an 'allied health professional' as a health professional (other than a registered nurse or physician assistant) who has received a certificate, an associate's degree, bachelor's degree, master's degree, doctoral degree or postbaccalaureate training, in a science relating to healthcare".27 Research related to u science relating to healthcare"." Research related to protected by copyright, macy or other clinical education outside of allied health will be excluded.
Data extraction
After full-text review, data will be extracted from citations meeting eligibility criteria using a tool developed by the reviewers. Two reviewers will independently extract.

the data, and discrepancies will be resolved by a third reviewer. Data relating to the population, clinical setting, stress levels, factors and dynamics will be extracted. The Bul planned data extraction tool is available in online supplefor uses related mental appendix II.

Data synthesis

Once the data have been extracted and organised using the data extract tool, it will be analysed and summarised descriptively, with an emphasis on identifying patterns, 5 trends and gaps in the literature on clinical supervision and stress. The data will be presented in a tabular format and summarised narratively in the results. This narration will highlight what approaches are taken in the literature to identify, mitigate or exacerbate stress dynamics and discuss which health professions actively engage in research on stress dynamics in the clinical supervision setting.

Patient and public involvement

Patients and/or the public were not involved in this research.

Ethics and dissemination

sim Ethical approval is not required for this scoping review. The review team has no conflicts of interest to report. Results will be disseminated in peer-reviewed publica-tions and professional conferences. If this protocol plan is amended, the updates and rationale for amending will be added to the registration and detailed in the final review.

Contributors PW developed the idea for this study and registered the scoping review. AO developed the method for the study protocol and search strategies. PW and LP drafted and edited the manuscript. PW, AO, LP, XL and YW approved the final manuscript. PW is the guarantor of this work, accepting full responsibility for the accuracy and integrity of the data and analysis presented.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

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