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Protocol for "A scoping review of frameworks that address wellness in medical learners"

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A Protocol for: 'A scoping review of frameworks that address wellness in medical learners'

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SH, JD, CM, and AK created the research question and search. SH and CM generated the search terms and will complete the database searches. Title and abstract screening will be performed independently by two reviewers. A third reviewer will resolve conflicts that arise. SH will be the primary author of the peer reviewed article. JD, and AK will co-author the peer reviewed article.

1. BACKGROUND

Although much is known about burnout in medical learners and physicians [4, 5, 6, 7, 9, 14, 15], there are few medical programs, departments, or institutions that have formalized competencies integrated into their curriculum[11] or frameworks specifically designed to enhance learner wellness [2, 8]. Many programs offer wellness activities, typically in an ad hoc fashion, with few that are built upon a clear paradigm or framework [8, 13]. Bourcier et al (2021) indicate that programs are developing curricula, but more must be done on a systems level [2, 10]. They propose that a wellness framework, at the undergraduate level, that supports learner wellness, promotes resilience and self-efficacy, could help ease the transition to residency[2].

Many cite the absence of a clear definition of 'wellness' as an obstacle [2, 12, 13]. Place and Talen (2013) suggest that the major components of wellness include "positive emotion, flow, cognitive flexibility, social connections, and physical health". Their definition is built from a positive psychology framework, the theoretical framework from which they developed a novel wellness program at the inception of their family medicine program[13]. An alternative definition from Moss et al (2021) details five, learner-validated domains – social, mental, physical, intellectual, and occupational wellbeing.

Others have suggested that the foundation of a wellness framework should be Maslow's hierarchy of needs [8, 13]. There is a lack of literature detailing comprehensive frameworks built to enhance medical trainee wellness. There is a void of frameworks evaluated for efficacy.

Our scoping study aims to elucidate what is currently being done with respect to wellness frameworks developed for medical learners. We plan to map what currently exists, which paradigms or theoretical underpinnings are used to develop these frameworks, what components make up the frameworks that do exist, and if there is any primary research that details the outcomes of these programs.

2. OBJECTIVES

To map the literature around wellness frameworks for medical learners, including medical students, clinical clerks, medical residents/interns, and fellows.

3. METHODS

To address the question "what is the extent of the literature on wellness frameworks for medical learners", we will apply the Arksey and O'Malley five stage scoping review framework[1] to map the literature. We will also follow the PRISMA guidelines for scoping reviews.

3.1 SEARCH STRATEGY

We have developed a search strategy that includes the following search terms: wellness and wellbeing, medical learner, clinical clerk, medical student, medical intern, medical resident, medical education, graduate medical education, measure, survey, indication, metric, domain, dimension, monitor, evaluation, framework, model, concept, theory, plan, resilience, and work satisfaction.

The terms were consistently evaluated throughout the process. The search terms and search strategy have been validated and approved by our consultant librarian (CM). The search will be performed under the guidance of the consultant librarian. The following databases will be used: Medline, EMBASE, SCOPUS, and Web of Science. A sample search from Medline is included in Appendix 1.

3.2 INCLUSION/EXCLUSION CRITERIA

We will include publications, from the last ten years, from all databases. We will include any citation that refers to wellness frameworks, including any primary research, regardless of methodology, or prospective studies. We will include any publication that discusses medical learners, as defined in Table 1. We will also include wellness curricula. We will accept only English language articles to avoid the time and financial costs of translation. Given the paucity of relevant articles on our literature pre-scan, as well as an interest in international efforts and diversity in this area, international articles will be included.

Table 1. Inclusion and Exclusion Criteria

Inclusion	Exclusion
• Formalized wellness framework, strategic plans, domain, concept. • Theoretical/recommended frameworks • Wellness curricula - innovation and/or evaluation POPULATION: • Medical students • Clinical clerks • Medical residents/Interns • Medical Fellows • Osteopath trainees REGION • International Research • Any methodology • Primary research ARTICLE • No abstract, but title includes key terms • English only	• Non-clinical learners (eg. health sciences) • Dental students • Nursing students • Studies identifying burnout/distress/etc. • Fully trained physicians • Foreign language articles • Review articles

3.3 SCREENING AND SELECTION

3.3.1 Database Search

All citations, with the exception of grey literature, will be populated into Covidence. This software automatically excludes duplicate citations. Grey literature will be populated into a prepared Google Document spreadsheet. We will run a calibration screen whereby two reviewers will screen fifty articles to ensure agreement. We will calculate the Kappa Statistic (Cohen's Kappa) to ensure appropriate interrater reliability. If a Kappa of 0.80 or greater is achieved, we will proceed to full title and abstract review. If the Kappa is 0.79 or less, we will review inclusion and exclusion criteria as well as discuss the outcome as a team. Following this, we will attempt another calibration screen. This will be performed until a Kappa of 0.80 or greater is achieved.

3.3.2 Hand Searching of Key Journals

We will hand search selected journals to ensure there are no articles missed from key journals. We will examine five years of electronic table of contents from: Academic Medicine, Medical Education, and Advances in Health Professions Education. Articles that meet criteria will be included. Two reviewers must agree that an article should be included. Reference lists from all citations selected through hand searching will also be evaluated to identify other potential articles for inclusion.

3.3.3 Grey Literature

We will include grey literature. We will perform a Google search using the search terms as noted above. Given that systematic searching is an obstacle when acquiring grey literature, the details of the search will not be included here. When appropriate articles are found, authors will save the articles in a folder on the team Google Drive and itemize the contents of the article in a "Data Charting Sheet", a shared Google Document. This sheet follows the Arksey and O'Malley framework[1] and includes the following headings:

1. Authors
2. Year of Publication
3. Study Location
4. Intervention Type (if any)
5. Comparison Type (if any)
6. Duration of Intervention
7. Study Population
8. Study Aim(s)
9. Methodology
10. Outcome Measures
11. Important Results

It should be noted, however, that these headings may evolve as many citations are unlikely to include interventions.

4. DATA EXTRACTION, ANALYSIS, AND PRESENTATION

Teams of two reviewers will evaluate titles and abstracts resulting from screening independently and in duplicate using Covidence systematic review software (Veritas Health Innovation, Melbourne, Australia) to select articles that meet inclusion criteria. Next, we will retrieve manuscripts and supplemental files for full text screening by groups of two reviewers. Disagreements will be resolved by discussion or with a third reviewer, until consensus is reached. Per the Arksey and O'Malley framework, selected citations will be presented in the narrative format, without weight being given to the results[1]. The objective is not to evaluate the literature, but rather to chart what currently exists[1]. Findings will be charted geographically, thematically, based on theoretical framework, if stated, and any primary research will be documented according to intervention type.

5. CONSULTATION

For completeness, we will be contacting key stakeholders/subject matter experts, to elucidate any areas of omission.

6. FUNDING

This project is being funded through both the Resident Education Scholars Program (RESP) at the University of Calgary Cumming School of Medicine and the Resident Physician Wellness grant from the Professional Associated of Resident Physicians of Alberta (PARA).

Appendix 1. Medline Search March 16, 2023

Ovid MEDLINE(R) ALL <1946 to March 15, 2023>

1. medical student.tw,kf.
2. medical learn*.tw,kf.
3. (medic* adj2 learn*).tw,kf.
4. (medic* adj2 student*).tw,kf.
5. (medic* adj2 residen*).tw,kf.
6. (medic* adj2 intern*).tw,kf.
7. (medic* adj2 clerk*).tw,kf.
8. (clinic* adj2 clerk*).tw,kf.
9. graduate medical education.tw,kf.
10. PGME.tw,kf.
11. undergraduate medical education.tw,kf.
12. UME.tw,kf.
13. wellbeing.tw,kf.
14. wellness.tw,kf.
15. intern*.tw,kf.
16. residen*.tw,kf.
17. 1 or 2 or 3 or 4 or 5 or 6 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 15 [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word]
18. 13 or 14
19. model.tw,kf.
20. concept*.tw,kf.
21. theor*.tw,kf.
22. plan.tw,kf.
23. resilien*.tw,kf.
24. work satisfac*.tw,kf.
25. (Measur* or survey or indicat* or metric* or domain* or dimension or monitor* or evaluat* or fram* or model* or concept* or theor* or plan* or resilien* or work satisfac*).tw,kf. 14593990
26. 17 and 18 and 25 3799

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