

BMJ Open Role of occupational therapy in musicians' health: a scoping review protocol

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ABSTRACT

Review question/objective The purpose of this proposed review is twofold: first, to understand the role of occupational therapy presented in the musicians' health literature; and second, to explore the potential for this role.

Introduction The intense movement, awkward postures, concentration and emotional communication required of musicians can place them at increased risk of music-related health conditions, such as musculoskeletal disorders and performance anxiety. The development of music-related health conditions can be emotionally and financially devastating. The role of occupational therapy in musicians' health has been previously discussed; however, no rigorous reviews of the scholarly literature have been published. We will, therefore, undertake a scoping review with the following research questions: (1) what is known about the role of occupational therapy in instrumental musicians' health? and (2) what is the potential role of occupational therapy in musicians' health?

Methods and analysis A preliminary search of Medline, CINAHL, SCOPUS and Web of Science was previously undertaken by the first author to determine the extent of the research on this topic and to confirm that no other reviews have been conducted or are in progress. Study selection and analysis will follow the Joanna Briggs Institute and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews guidelines for conducting a scoping review.

Ethics and dissemination Formal ethics approval is not required at our institution for a review of published literature. The results of this review will be shared through peer-reviewed publications, conference presentations and traditional and social media.

INTRODUCTION

Instrumental musicians are recognised for their skill and dedication to their occupation. In the fields of occupational therapy and occupational science, occupations are defined as activities and tasks in which people engage that are given value or meaning by the person or culture.¹ For musicians, this can include practising, playing, learning and performing. However, the intense movement, awkward postures, concentration and emotional communication required of musicians can

Strengths and limitations of this study

- This scoping review protocol follows the Joanna Briggs Institute and Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for scoping reviews guidelines for conducting scoping reviews.
- This is a novel scoping review that will provide a comprehensive review of what is known about the current and potential role of occupational therapy in the care of instrumental musicians' playing-related health conditions, adding to the potential care available for this vulnerable population.
- Papers of English and non-English language will be considered in selection to reduce language bias.
- This review is limited to evidence from peer-reviewed, published papers, which may result in publication bias.

place them at increased risk of music-related health conditions, including musculoskeletal disorders such as repetitive strain disorders and mental health concerns such as performance anxiety.² Because musicians' identities are often closely tied to their occupation,³ the development of music-related health conditions can be emotionally devastating. In addition, many musicians are self-employed, have very low incomes and lack access to workers' compensation and employer-paid health insurance schemes.^{4 5} As a result, a holistic approach to healthcare that considers a wide range of contextual factors (eg, social insurance schemes, relations with colleagues) and overlapping roles (eg, worker, teacher, musician) has been recommended for this vulnerable population.⁶

The role of occupational therapy in musicians' health has been previously discussed by Guptill⁷ and Goodman and Staz⁸; however, to our knowledge, no peer-reviewed, rigorous reviews exist on this topic. Two research questions will direct this scoping review: (1) What is known about the role of occupational therapy in instrumental musicians' health and

(2) What is the potential role of occupational therapy in musicians' health? This scoping review will help musicians and health practitioners understand the potential benefits of occupational therapy to enable meaningful occupation for those with music-related health conditions.

METHODS

Study design

To answer the research questions, a scoping review will be used. Scoping reviews are used to understand broad questions by collecting available literature related to a question.⁹ A scoping review was chosen to understand the role of occupational therapy in the current literature on musicians' health and to explore future areas where an occupational therapist may be beneficial.

To guide the review and synthesis process, Arksey and O'Malley's¹⁰ scoping review framework, as adapted by Levac *et al*,⁹ will be followed. The review will proceed as follows: (1) identify the research question (2) identify the relevant studies (3) study selection (4) charting the data and (5) collating, summarising, and reporting results. We will not engage in the optional stage 6—consultation with the community—in this current study, although such consultation may form a part of future knowledge translation. The study will follow the Joanna Briggs Institute (JBI) and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension for scoping reviews.^{11 12} This protocol has been registered with the JBI Systematic Review Register.

Step 1: identify the research question

Two research questions, identified above, will direct our review, with the goal of understanding the role of occupational therapy in musicians' health.

Step 2: search strategy

The search strategy was developed with the collaboration of a librarian/expert searcher and then reviewed by a second librarian/expert searcher. A preliminary search of Medline, Cumulative Index to Nursing and Allied Health (CINAHL), SCOPUS, and Web of Science was undertaken to determine the extent of the research on this topic and to confirm that no other reviews have been conducted or are in progress. A search strategy including both text words and controlled vocabulary (eg, MeSH, Emtree, etc) for the concepts 'musicians' and 'occupational therapy' will be conducted in the following databases: PROSPERO, Wiley Cochrane Library, Ovid Embase, Ovid Medline, Ovid PsycINFO, EBSCO CINAHL, EBSCO Répertoire International de Littérature Musicale, Web of Science and SCOPUS. PROSPERO was searched to ensure duplicate research is not already being conducted and to identify any other research groups currently working in the same area. Studies published since the inception year of each database will be considered for inclusion. The Medline search strategy (online supplemental appendix 1) will be adapted for each database by the third author, a

health sciences librarian. In addition, the reference list of papers selected for full review will be searched to ensure the review is comprehensive. Results from the searches will then be imported into RefWorks (ProQuest, 2020) for management and selection.

Step 3: study selection

Selection process

Screening of abstracts will be conducted independently by four reviewers for assessment against the inclusion criteria. Two of the reviewers are occupational therapists, and one of these two will review each abstract. Each abstract will be screened in duplicate. Reviewers will screen each potentially useful abstract identified in the literature search by reading the title and abstract and applying the inclusion/exclusion criteria as reported below and then determining whether to include the study in the review. Every decision, with the reasons for inclusion/exclusion, will be recorded in the study screening spreadsheet. Once each reviewer has completed their screening process, the group will compare their results. Abstracts that are determined to be not relevant to the study will be excluded from the full-text review.

Full texts of remaining studies will be retrieved and independently assessed against the inclusion criteria by the four reviewers, and the process described for abstracts will be repeated. The results of the search, screening and selection will be reported in full, and presented in a PRISMA flow diagram in the final report as guided by Levac *et al* scoping review framework.^{9 13} During the abstract and full-text screening, any disagreements that arise between the reviewers will be resolved through discussion or with input from a third reviewer.

Eligibility criteria

Selection of the literature will be based on the following inclusion and exclusion criteria.

Inclusion criteria

All studies that focus, evaluate, comment on or explore the following will be included:

- ▶ Occupational therapy/therapist explicit involvement.
- ▶ Instrumental musician population.
- ▶ Health related.

Exclusion criteria

- ▶ Papers focusing solely on vocal musicians and/or non-instrumental musician performers.
- ▶ Interventions solely based on music therapy and not occupational therapy.

This scoping review will consider all settings in any geographic area/country. No date or language limit will be applied, enabling us to capture the full range of relevant studies for this review. No publication format limitations have been set; thus, database results may include different formats of publication to be considered (eg, abstracts). We will include primary research studies, including quantitative, qualitative and mixed-method study designs, and secondary research studies, including

all forms of literature reviews. Grey literature will not be included in this review as the focus of this study is on published, peer-reviewed literature, which would guide and be the basis of education and clinical reasoning as occupational therapists.

Data management

All results from the database and hand searches will be imported into RefWorks (ProQuest, 2020). Duplicates and publications that do not directly relate to the research question will be excluded. The remaining citations will be imported into a spreadsheet for screening. Data will be extracted from the included studies using a structured data extraction form based on the research questions (online supplemental appendix 2).

Step 4: data collection

Data will be extracted from the included studies using a proposed structured data collection form, based on the research questions (online supplemental appendix 2). Information pertinent to the review questions will be recorded in the data extraction form. An iterative thematic analysis process and the Canadian Model of Occupational Performance and Engagement¹⁴ will be applied to each document so that themes related to the research question and the scope of practice of occupational therapy emerge. Charting the results will also be iterative, such that the data collection form may be calibrated to reflect new information and decisions by the reviewers.^{9 10}

Study selection

The review team will trial the data collection form with five studies to ensure consistency, to gain familiarity with the search results, and to ensure that all relevant results are extracted. If modifications occur, they will be detailed in the final report. Authors of papers will be contacted to request missing or additional data, where required.

Data items

The variables currently identified for data collection are publication type, health-related content, participant type, healthcare providers involved and whether the article focuses on music therapy (as an exclusion data item).

Outcomes and prioritisation

The outcomes of interest will be the current and potential role of occupational therapy in instrumental musicians' health.

Step 5: data synthesis

The extracted data will be presented as a summary of the retrieved data in tabular form, categorised as follows: (1) authors and year of publication, (2) professional designation, (3) study purpose, (4) musician population, (5) type of study/methods, (6) treatment provided, (7) key points and (8) suggested occupational therapy role and scopes. Finally, the results will be presented in a narrative description that aligns with the research questions of this scoping review,

which are to explore what is known about the current and potential role of occupational therapy in instrumental musicians' health.

Patient and public involvement

No patient or public involvement was sought for this scoping review protocol.

LIMITATIONS

A limitation of this scoping review is that the databases we will be searching contain only bibliographic information and abstracts, rather than full texts of articles, so articles containing only in-text references to our search terms cannot be retrieved. As such, studies relevant to our review may be missed. To decrease this limitation, the reference lists of, and citations in, the selected studies will be screened for relevance to our study.

ETHICS AND DISSEMINATION

Formal ethics approval is not required at our institution for a review of published literature. The results of this review will be shared through peer-reviewed publications, conference presentations and traditional and social media.

Twitter Christine Guptill @healthmusicper

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Contributors CG is the corresponding author, and conceived of the idea for this project. BV developed the research question and conducted a preliminary review to determine the feasibility of the research questions. BV, LS, UDW and CG participated in the development of the draft data extraction form. BV, CG, SC and UDW wrote the initial manuscript. UDW, AM and MH managed the process of manuscript revisions. All authors read and provided feedback on the revisions and final manuscript.

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Appendix I. Search Strategy

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily <1946 to July 12, 2019> Results =12

#	Search Statement	Results
1	(((music or musical or harp or harps or recorder or recorders or synthesizer* or tuba or tubas) adj3 (performer* or artist* or player* or student* or teacher* or instructor*))).mp. or ((Musician* or instrumentalist* or accordionist* or bagpiper* or bassist* or bassoonist or cellist* or conguera* or conguero* or drummer* or fiddler* or Flautist* or flutist or harpist* or guitarist* or keyboardist* or keytarist* or organist or organists or percussionist* or pipers or saxaphonist* or trumpeter or trumpeters or tubaist or tubist or vibraphonist* or vibraharpist* or violinist* or (Accordion* or alphorn* or alpenhorn* or alpine horn* or Bagpipe* or Balalaika or (Bandura* not (Bandura* adj4 (self efficacy or theor*))) or Banjo* or Bariton* or Bass guitar* or Bassoon* or Berimbau or Bongo or Bongos or Boom whacker* or boomwhacker* or Bouzouki* or Bugle* or Cello or Cellos or Chapman Stick* or Cimbalom or Clarinet* or Clavichord or Concertina* or (Conga not glyceci*) or Contrabass* or Cor anglais* or Cornet* or Cymbal or Cymbals or Didgeridoo* or Djembe or Double bass* or Drum or Drums or Dulcimer* or Euphoni* or Fiddle or Fiddles or Fifes or Flute or Flutes or Flugelhorn* or French horn* or Fujara or Glockenspiel* or (Guira not cuckoo*) or Guitar or Guitars or Hand Bell* or Harmonica* or Harmonium* or Harpsichord* or Hurdy gurd* or Jew's harp* or Kalimba* or Lute or Lutes or Lyre* or Mandolin* or Maraca or Maracas or Marimba* or Melodica* or Melodion or Oboe or Oboes or Ocarina* or Octobass* or ((organ or organs) adj2 (pipe or pipes or reed or pump)) or ((Pan or Parlour or Uilleann) adj2 Pipe*) or Pennywhistle* or Piano or Pianos or Piccolo* or Pungi* or Saxophone* or Sitar* or Sousaphone* or Spinet or Svirol or Tabla or Tambourine* or Thoramin* or Thoramins or Timbale* or Timpani* or Tin Whistle* or Tinwhistle* or Trombon* or Trumpet* or Theremin* or Tubas or Tubular Bells or Tumbadora or Ukulele* or Vibraphone or ((Viola or Violas) not (oil or oils or oderata or violet*)) or (Violin* not plot*) or Whamola* or Woodwind* or Wood wind or Wood Winds or Xylophone* or Zeusaphone or Zither*))).mp. or (exp Music/ and (performer* or artist* or player* or student* or teacher* or instructor*))).mp.)) not (fish* or poultry or chicken* or bird or birds or laboratory animals).mp. [mp=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]	14694
2	Occupational Therapy.mp. or exp Occupational Therapy/	16697
3	Occupational therapist*.mp.	5386
4	2 or 3	18814
5	1 and 4	17
6	(Alzheimer* or "nursing home*" or "music* therap*").mp. [mp=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]	194983

7	5 not 6	12
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Appendix II. Proposed data extraction tool

Study ID:	Date form completed:	
First author:	Year of study:	Reviewer:

1. General Information

Publication type:	Journal Article <input type="checkbox"/> Abstract <input type="checkbox"/> Other (specify e.g. book chapter) _____
Country of study:	

2. Study Eligibility

Study Characteristics			
Type of study	Is the study health related?	Yes <input type="checkbox"/> No <input type="checkbox"/> Exclude <input type="checkbox"/> Unclear <input type="checkbox"/> Details:	
Participants	Are participants defined as instrumental musicians?	Yes <input type="checkbox"/> No <input type="checkbox"/> Exclude <input type="checkbox"/> Unclear <input type="checkbox"/> Details:	
Health care provider	Do occupational therapists have explicit involvement?	Yes <input type="checkbox"/> No <input type="checkbox"/> Exclude <input type="checkbox"/> Unclear <input type="checkbox"/> Details:	
	Is there potential for occupational therapist involvement?	Yes <input type="checkbox"/> No <input type="checkbox"/> Exclude <input type="checkbox"/> Unclear <input type="checkbox"/> Details:	
Music Therapy	Does it explicitly include music therapy	No <input type="checkbox"/> Yes <input type="checkbox"/> Exclude <input type="checkbox"/> Unclear <input type="checkbox"/> Details:	

SUMMARY OF ASSESSMENT FOR INCLUSION

Include in review <input type="checkbox"/> Exclude from review <input type="checkbox"/>	
Independently assessed, and then compared? Yes <input type="checkbox"/> No <input type="checkbox"/>	Differences resolved Yes <input type="checkbox"/> No <input type="checkbox"/>
Request further details? Yes <input type="checkbox"/> No <input type="checkbox"/>	Contact details of authors:
Notes:	