WYNNE, D. and COOPER, K. 2019. Student led physical rehabilitation groups and clinics in entry level health education: a scoping review protocol. [Protocol]. JBI database of systematic review and implementation reports [online], 17(6), pages 1092-1100. Available from: https://doi.org/10.11124/JBISRIR-2017-003990

Student led physical rehabilitation groups and clinics in entry level health education: a scoping review protocol.

WYNNE, D. and COOPER, K.

2019

Manuscript

Review Title: Student-led Rehabilitation Groups and Clinics in Entry-level Health Education: a scoping review protocol

Introduction

Student led groups and clinics are an emergent phenomenon which are steadily becoming more prevalent in entry-level health education programmes across the world.[1] Student led groups or clinics are modes of health care delivery activity in which healthcare students take primary responsibility for organising and running a healthcare service [2] and these are generally initiated and coordinated by students under the guidance of supervising staff.[3] The terms student led groups and student led clinics are commonly referred to as student led groups and include a variety of student groups in this concept.[4] Service learning is defined as an experiential learning opportunity that combines clear educational goals and service to the community,[5] and therefore, student led groups/clinics are often defined as a type of service learning. For the purposes of this review the term student led groups will be referred to encompass the above concepts, forthwith.

Commonly used and established with the Medical Education curriculum,[2] student led groups typically involve students being responsible for many aspects of the service and can include individual service user interaction as well as organisational duties such as documentation and appointment booking. Student led groups can take many forms and vary considerably ranging from community to hospital based, general diagnostic to intervention, funded or unfunded and scheduled as part of the curriculum or extra-curricular run by volunteers.[6.] Common to all student led groups is the learning opportunity potential for students [6] and the potential benefits to service users.[7] Non-medical health professionals (HPs) are beginning to adopt the model as an integral part of the entry-level curriculum.[1] In addition similar models of student led groups for general physical rehabilitation are used within the health and exercise field of kinesiology and sports therapy, with experiential learning as a key driver for their implementation.[8] HPs for the purposes of this review, can in the widest sense be considered to include nurses, pharmacists, the allied health professions ((AHPs) e.g. physiotherapists, occupational therapists) and exercise professionals such as kinesiologists and sports therapists.

Internationally the drivers for the adoption of student led groups varies. Student led groups are implemented in both uni and interprofessional frameworks. [9] Student led groups are emerging around the world as a means of providing support to underserved populations[4] and many of these are undertaken in an interprofessional format,[10] for example a group exercise and education class for people with neurological conditions with input from a variety of health professionals. Some professional regulators have a requirement for uniprofessional student led groups to take place as an integral part of the curriculum.[1] The Pro Bono model which is prevalent in the United States (US) provides a clinical service run by students to underserved populations at little/no cost.[4] This model where utilised, fulfils local, national and international health polices by providing healthcare and improving overall health and wellbeing at little or no cost.[6] However, little is known about the true cost benefit of the model.[2] More recently, interest has grown with regard to the potential substitution of

clinical placement hours in some parts of the world where clinical placement capacity is challenged.[11,12] The practice of student led groups is a relatively new area within Europe,[11] however anecdotally it is accepted that student led groups and learning have formed a part of entry-level healthcare education as a means of providing contextualised learning[13] alongside high fidelity simulation (HFS) which can further enhance clinical reasoning. [14] HFS is concerned with the use of imitation real world scenarios, often of patient encounters, to allow students to practice their skills, learning and reasoning.[15]

The objectives of student led learning in the rehabilitation context are to target specific skills development and to experience real life healthcare with populations and conditions.[1] This is considered to not only provide benefit to students themselves but also to the service users involved in the rehabilitation process.[15] In spite of some of the perceived benefits, some limitations include time and sustainability as well as access to physical and human resources for the groups.[15]

Although medical and clinic-based student led services, for example those run by medical, nursing or pharmacy students, are prevalent within entry-level curricula internationally,[4] such clinics often follow the medical model and only comprise diagnostic and single interventions for practices such as imaging and prescription of medication.[2] It is recognised that students participating in student led /service led activities learn about the specific context in which the service is provided and the skills required for that service and practice.[16] To that end as this scoping review is concerned with physical rehabilitation, the scope will only consider studies which can evidence elements of physical rehabilitation, either by inclusion of physical rehabilitation professionals and or/inclusion of exercise as an intervention as part of the group or clinic.

The concept of a student led group is a teaching methodology[16] as well as an intervention for service users[17] and a Social Enterprise[4] therefore it is of interest to scope all of these aspects as part of the review. Student led groups are considered to have mutual interest for both students and the service users involved thereby providing benefit for all.[8] This scoping review aims to establish the literature base in these areas.

Data gathered in this scoping review will allow for an understanding of the range and scope of student led groups and clinics within a physical rehabilitation context and establish the evaluation undertaken to date from a student, service user and stakeholder perspective as well as identification of any other important factors in the design, execution and feasibility of the concept. It will also identify gaps in the literature that can be addressed by further research.

A preliminary search was undertaken in the CINAHL, Cochrane Library (Systematic Reviews), Education Search Complete, ERIC, PEDRO, PubMed, Prospero, SCOPUS and Joanna Briggs Institute databases to establish whether systematic or scoping reviews published or underway on this topic already exist and none were found.

Review objective/questions

The objective of this scoping review is to identify, map and describe the characteristics of Student Led Physical Rehabilitation Groups and Clinics in Entry-level Health Education.

More specifically, the objectives are to identify:

- What types of student led groups/clinics with a physical rehabilitation focus exist?
- What are the characteristics of these groups? This may include structure of groups/clinics, how the groups/clinics are run, who runs the group/clinic and types of service users involved.
- How are student led groups/clinics currently evaluated and what outcomes are used?

Who is evaluated and how are these evaluations undertaken? This may include consideration of participants/service users as well as students running the groups and other relevant stakeholders

Keywords

Learning; Outcomes; Rehabilitation; Student-led Clinics; Student-led Groups

Methods

This scoping review will be conducted according to JBI methodology for scoping reviews.[18]

Inclusion criteria

Participants

This review will include entry-level students involved in student led groups in the field of non-medical health professionals and sport. These may be uni or interprofessional groups including AHP entry-level students and/or sport students involved in student led groups e.g. kinesiology or sports therapy students.

This review will consider student led groups with all types of service users/group participants which include a physical rehabilitation component. For example, this will include those with both specific and multiple pathologies who are receiving physical rehabilitation as an element of the group.

Exclusion Criteria

Those studies which operate a medical model with no physical rehabilitation element are outwith the scope of this review.

Concept

The concepts of interest for this scoping review may include but are not limited to:

- Types of student led physical rehabilitation clinics/groups in existence.

- Characteristics of student led physical rehabilitation groups.
  - Purpose of the student led physical rehabilitation clinics/groups.
  - Content and nature of the student led physical rehabilitation clinics/groups.
  - Where in the curriculum student led rehabilitation clinics/groups take place.

- Evaluation of student led physical rehabilitation groups.
  - Reported learning undertaken by students who experience student led physical rehabilitation groups.
  - Reported student assessment practices used for students who experience student led physical rehabilitation groups.
  - Reported measures used to capture student led rehabilitation groups effectiveness and acceptability from group participants' perspectives.
  - Reported measures used to capture tutors and stakeholders perceptions/observations of students during student led rehabilitation groups.
  - Reported measures used to capture feasibility and sustainability of student led rehabilitation groups.

Context

This scoping review will consider literature in the field of AHP or sport entry-level education internationally. Groups or clinics run by students with a focus upon physical rehabilitation will be included and these can be within a public or private healthcare setting to include community and hospital settings as well as third/voluntary sector and other organisations e.g. education facilities. This can include groups where students are volunteering or there as a standard part of their curriculum or clinical education hours. The students may or may not be assessed as part of their involvement. Groups or clinics which undertake medical interventions or screenings alone will not be included.

Study Types

The current scoping review will consider all quantitative and qualitative studies of any design and will include text/opinion pieces and reports. Conference papers/abstracts will also be eligible for inclusion. Government and regulatory body reports, expert opinion, discussion papers and other forms of text will also be considered to inform the review objective.

Search strategy

A three-step search strategy will be utilized in this scoping review. An initial limited search of CINAHL and Medline databases will be undertaken followed by analysis of text words contained in the titles and abstracts and of the index terms used to describe the articles. A second search using all identified key words and index terms will then be undertaken across all databases to be included. Following this the reference list of all papers and text/opinion pieces will be reviewed for additional studies. If required, the reviewers will contact authors for additional information. Only literature written in the English language will be included. Literature published from 1998 onwards will be included as identified from a literature review[7] which previously did not find literature in this area prior to that date. The full search strategy for Medline can be seen in Appendix I.

The databases to be searched include:

Medline, CINAHL, Scopus, ERIC, Embase. AMED and PEDro.

The search for unpublished studies will include:

OpenGrey, Google+, Electronic Thesis Databases, Relevant Professional Body websites in developed nations. A full list of professional and regulatory bodies in 51 countries of interest will be compiled prior to commencing the research.

Study Selection

All identified citations will be uploaded to Refworks© following the search. Duplicates will be identified and removed. Titles and abstracts will be screened by two independent reviewers for relevance to the review objectives and concept. For titles/literature in doubt, the full article will be retrieved. Studies which are deemed relevant for inclusion in the review will be assessed against the inclusion criteria. Full text literature which does not meet the criteria will be excluded and accounted for in the report. The results of the search strategy will be presented in a PRISMA flow diagram indicating the number of articles found by each search method and articles/sources excluded. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer.

Data Extraction

Data will be extracted from studies included in the scoping review by two independent reviewers using methods recommended by Peters et al.[18] The draft data extraction tool developed for this review is in Appendix II. Data extracted will include; authors/date of publication, type of publication, country of

origin, aims of group/clinic, type/characteristics of group/clinic, evaluation methods and subjects, and feasibility/outcomes. If more than one paper is found for one study/project then they will be treated as one for the purposes of data extraction. The draft data extraction tool will be modified and revised as required during the process of extracting data from each included study. All modifications will be fully outlined in the full report.

Presentation of Results

The extracted data will be presented in tabular form and presented in a way in which fulfils the objectives of this review. Each table will include author, date of publication, country of origin, as well as data relevant to the review questions such as the types and characteristics of student led physical rehabilitation groups as well as data relating to the evaluation of these groups. Appendix III details draft results tables; as with the data extraction tool, this will be piloted and may be subject to modification. A narrative summary will accompany the results presented to aid the context and provide further commentary how the results link to the original review objectives. The representation of the results will depend on the studies/sources included. Conclusions will be made and suggestions for possible systematic review questions and further primary research which arise as a result of the conclusions will be proposed.

Funding

This scoping protocol was not funded.

Conflicts of interest

The authors declare no conflict of interest.

References

1. Black J, Palombaro K, Dole R. Student Experiences in Creating and Launching a Student-Led Physical Therapy Pro Bono Clinic: A Qualitative Investigation. Physical Therapy 2013; 93(5):637-648.

2. Simpson S, Long J. Medical Student-Run Health Clinics: Important Contributors to Patient Care and Medical Education. Journal of General Internal Medicine 2007; 22:352-356.

3. Lie DA, Forest CP, Kysh L, Sinclair L. Interprofessional education and practice guide No. 5: Interprofessional teaching for prequalification students in clinical settings. Journal of Interprofessional Care 2016; 30(3):324-330.

4. Schutte T, Tichelaar J, Dekker RS, van Agtmael MA, de Vries,Theo P G M., Richir MC. Learning in student-run clinics: a systematic review. Medical education. 2015; 49(3):249-263.

5. Sheu L, O'Brien B, O'Sullivan P, Kwong A, Lai C. Systems Based practice learning opportunities in student-run cliics: a qualitative analysis of student experiences. Acad Med 2014; 89(4):831-836.

6. Stuhlmiller C, Tolchard B. Developing a student-led health and wellbeing clinic in an underserved community: collaborative learning, health outcomes and cost savings. BMC Nursing 2015;14:32.

7 Forbes R, Nolan, D. Factors associated with patient satisfaction in student-led physiotherapy clinics: A qualitative study. Physiotherapy Theory and Practice 2018; 34(9): 1-9.

8. de Groot M, Alexander K, Culp B, Keith N. Experiential Learning in Kinesiology: A Student Perspective. Pedagogy Health Promotion 2015; 1(3):123-133.

9. Stewart T, Wubbena Z. A Systematic Review of Service-Learning in Medical Education: 1998-2012. Teaching and Learning in Medicine 2015; 27(2):115-122.

10. Gustafsson L, Hutchinson L, Theodoros D, Williams K, Copley A, Fagan A, et al. Healthcare students' experiences of an interprofessional, student-led neuro-rehabilitation community-based clinic. Journal of Interprofessional Care 2016; 30(2):259-261.

11. Bostick G, Hall M, Miciak M. Novel clinical learning from a student-led clinic. The Clinical Teacher 2014; 11(7):512-515.

12. Nicole N, Fairbrother M, Nagarajan S, Blackford J, Sheepway L, Penman M, et al. Student-led services in a hospital aged care temporary stay unit: Sustaining student placement capacity and physiotherapy service provisions. Asia- Pacific Journal of Cooperative Education 2015; 16(4):327-342.

13. HEA. Engaged student learning: High impact strategies to enhance student achievement. York: Higher Education Academy; 2016.

14. Coon E, Khoramshahi C, Popoff M. Simulated learning for occupational therapy and physiotherapy students. Waterloo: Knowledge Impact Strategies Consulting Ltd; 2014.

15. Kavanagh J, Kearns A, McGarry T. The benefits and challenges of student-led clinics within an Irish context. Journal of Practice Teaching and Learning 2015; 13(2-3):58-72.

16. Beling J. Impact of service learning on physical therapist students' knowledge of and attitudes toward older adults and on their critical thinking ability. Journal of Physical Therapy Education 2004; 18(1):13-21.

17 Lawrence D, Bryant TK, Nobel TB, Dolansky MA, Singh MK. A comparative evaluation of patient satisfaction outcomes in an interprofessional student-run free clinic. Journal of Interprofessional Care 2015; 29(5):445-450.

18. Peters M, Godfrey C, Khali H, McInerney P, Parker D, Soares C. Guidance for conducting systematic scoping reviews. International Journal of Evidence-based Healthcare 2015; 13(3):141-146.

Appendix I: Search Strategy for Medline

Table 1: Search Strategy for Medline via OVID

#1	"student led" (mh) OR "student run" OR "Student Group*" (kw) OR "Student Clinic*" (kw) OR "Service learning"	Boolean/Phrase
#2	" Health occupation" (mh} OR health Professional*"(kw)} OR "physiotherapist" (kw) OR "Occupational Therapist" (kw) OR "Sports Therapy" OR "Physical Therapist*" OR "interprofessional"	Boolean/Phrase
#3	"learning" (mh) OR "outcomes" (kw) OR "perception (mh)"	Boolean/Phrase
#4	#1 AND #2 AND #3	Boolean/Phrase

Keyword=(kw) MeSH heading= (mh)

Dates from 1998- Present

Planned Limits: English Language only

Appendix II: Data Extraction Tool

Title: Student-led Rehabilitation Groups and Clinics in Entry-level Health Education: a scoping review protocol.

Reviewer: _____ **Date:**_____

Author(s):_____ **Year:**_____

Journal/Paper:_____

Country of Origin:_____

Aims/Purpose _____

Study Type/Design

□ **Quantitative** _____

□ **Qualitative**_____

□ **Mixed Methods**_____

□ **Systematic Review**_____

□ **Other**_____

Participants

Description of all participants in the study: (e.g. students, group participants, and any stakeholders e.g. faculty). Sample size of each group.

Students:_____

_____

Group Participants:

_____

_____

Stakeholders/other:

Characteristics of Group

Describe Aims and objectives of group: _____

_____

Describe content and design of group (e.g. setting, structure, content, duration, duties students undertake)

_____

Describe the stage where the group is placed in the curriculum (e.g. stage of student, voluntary/compulsory, assessed/not assessed)

Describe level/type of supervision and student ratios

Evaluation of Group

Describe reported learning undertaken by students

Describe any assessment practices of students

Describe reported measures used to capture student led rehabilitation groups effectiveness and acceptability from group participants perspectives

Describe reported measures to capture tutors and stakeholders perceptions of students during student led rehabilitation groups

Describe any reported measures to capture feasibility and sustainability of student led rehabilitation groups.

1 **Appendix III: Draft Results Tables**

2 **Characteristics of Student led Rehabilitation Groups**

Author/Date	Participants	Aims/Outcomes of group	Content	Place in Curriculum	Level/type of supervision.

3

4 **Evaluation of Student led Rehabilitation Groups**

Author/Date	Participants	Reported learning by students	Reported assessment of students	Reported measures of acceptability/effectiveness from group participant perspective	Reported measures of tutors and stakeholders perceptions of students	Feasibilty

5

6