Preoperative education in patients undergoing foot and ankle surgery: A scoping review protocol

Authors

Laura Vergara-Merino, MD

Orthopedic Surgery Department, Pontificia Universidad Católica de Chile, Santiago, Chile

María Jesús Lira, MSc

Orthopedic Surgery Department, Pontificia Universidad Católica de Chile, Santiago, Chile

Camila Micaela Escobar Liquitay

Centro Cochrane Asociado, Instituto Universitario Hospital Italiano, Buenos Aires, Argentina

Nicolás Gonzales

Orthopedic Surgery Department, Pontificia Universidad Católica de Chile, Santiago, Chile

Sergio Morales (Corresponding author), MD

Orthopedic Surgery Department, Pontificia Universidad Católica de Chile, Santiago, Chile

Contact:

Diagonal Paraguay 362, Santiago, Chile. E-mail address: serg.morales.d@gmail.com

Phone: +569-223543512. Postal address: 8330077

Medical Education and Sciences of Health Center, Pontificia Universidad Católica de Chile, Santiago, Chile

Abstract

Objective: We aim to identify and to describe all the available evidence addressing preoperative education on patients undergoing any foot and ankle surgery.

Design: This is the protocol for a scoping review of the literature.

Data sources: We will perform electronic searches on Pubmed/MEDLINE, EMBASE, CINAHL, LILACS, ERIC, Scopus, The Cochrane library, clinicaltrials.gov and the International Clinical Trials Registry Platform. We will broad this search by conducting a cross-citation search in Google Scholar of all included studies and by checking their references.

Eligibility criteria and methods: We will include any study addressing preoperative education on patients undergoing a foot and ankle surgery, without regard to their design or language. Two independent authors will select the studies and extract the data. We will extract data concerning the characteristics of each study, their participants, and data about the preoperative education they evaluated.

Ethics: No ethics committee approval is required.

Keywords:

Preoperative Care, Patient education as topic, Foot and ankle surgery, Scoping Review, Review Literature as Topic

Introduction

Preoperative education refers to any educational process that health-care professionals deliver to patients before they undergo a surgery with the aim of improving their knowledge of the procedure, their health behaviours, and their clinical outcomes (1,2). It may have several benefits such as reducing patients' anxiety, lowering postoperative pain, improving patients' satisfaction and improving other outcomes depending on the performed surgery (3–8). There are many ways to deliver education to patients: perform face-to-face education, yield written or pictorial information, establish surgery schools, produce digital information (eg: DVDs or online videos), among others (3). The education content may vary among health centers and by the patient's illness. The Enhanced Recovery After Surgery (ERAS) society suggests that in orthopaedics surgery the education should be carried out with a multidisciplinary approach: with physiotherapists, occupational therapists and nurses. It should consider "joint schools" and be undertaken by small groups, and should focus on patient expectations and postoperative recovery (3).

Most of the evidence supporting these guidelines comes from preoperative education for total hip and knee arthroplasty studies. In particular, for these procedures, a Cochrane systematic review including 18 studies was performed in 2014 (9) and more studies were published later (10–13). Conversely, there are no references on those guidelines concerning preoperative education on foot and ankle surgeries.

Foot and ankle orthopedic surgeries' are very varied, with a high rate of elective procedures (14). Patients undergoing elective foot and ankle procedure may be exposed to preoperative education, but there is no publicly known study or guideline that addresses the benefits of preoperative education in this group of patients. The aim of this scoping review is to identify and to describe all the available evidence addressing preoperative education in patients undergoing a foot and ankle surgery.

Methods

This manuscript is a protocol for a Scoping Review addressing the studies about preoperative education on patients undergoing a foot and ankle surgery. It complies with the PRISMA-P guidelines for reporting systematic review's protocol adapted to the purposes of a Scoping review (15).

We will adhere to the PRISMA-ScR extension for reporting scoping reviews (16).

Eligibility criteria

We will include all published and ongoing available studies addressing preoperative education on patients undergoing any foot and ankle surgery.

We will consider as preoperative education any intervention aimed to improve patients knowledge about his surgery or patients outcomes. But we will exclude studies addressing how to deliver a proper informed consent to the patient.

If a study evaluates preoperative education for a foot and ankle surgery and a surgery of other specialty, we will include the study, but we will extract only the data addressing foot and ankle.

We will include studies written in any language, those in a different language than English, Spanish or French will be translated with the aid of Google translator.

We will exclude narrative reviews, opinion articles and letters to the editor, we will include every study addressing our question with another methodological design. We will not exclude studies because of the way of delivering education, nor the agent that delivered it, nor the content of the preoperative education addressed in the study.

Data sources and search strategies

We will conduct electronic searches in databases to identify studies. Studies will not be excluded based on their language of publication or publication status.

The searches will be conducted in the databases below:

- MEDLINE (Ovid) (1946 to present);
- Embase (Elsevier.com) (1974 to present);
- Latin American and Caribbean Literature in Health Sciences (LILACS) , From 1982 to present);
- Education Resources Information Center (ERIC vía Ebsco) (From 1966 to present);
- Cochrane Central Register of Controlled Trials (CENTRAL) (From inception to present);
- ClinicalTrials.gov trials registry at the USA National Institutes of Health (ClinicalTrials.gov);
- World Health Organization International Clinical Trials Registry Platform (ICTRP) (trialsearch.who.int).
- ISI Web Of Science (Clarivate, WoS) (From inception to present)

The strategies were peer reviewed by another senior information specialist prior to execution using the PRESS Checklist (17). For detailed search strategies, see [Appendix 1](#).

We will manage search results and remove duplicates in EndNote X9 (Clarivate)(18).

We will also perform a cross-citation search in Google Scholar and we will check the list of references of each included study.

Selection of studies

Two independent reviewers will screen the titles and abstracts of studies retrieved from the search with the aid of Rayyan (19). Two independent reviewers will, then, select the studies by reading the full text of potentially eligible studies. If there is a discrepancy in any step of the selection process a third reviewer will decide the inclusion of the study. The reasons for exclusion will be registered along all this process.

We will present the selection process in a PRISMA flow diagram.

Data extraction and presentation

Two authors will independently extract all the relevant data from included studies in a previously piloted chart. In case of disagreement, the two reviewers will revise the study together and amend the data.

We will extract general information from all the included studies: authors, year of publication, type of publication, journal, language, country, number of participants, inclusion and exclusion criteria, and measured outcomes in each study (if applicable). We will also extract data about preoperative education in each study: diagnosis of included participants, which surgery were the patients undergoing, the surgeon profession (eg: Orthopaedic surgeon, podiatrist, general surgeon, etc.), method of delivery, used materials, who delivered the education, when it was delivered (eg: a week before surgery, a month before surgery, etc), where it was delivered, the number of sessions received by the participants, the modifications across the study of the delivered education, . We will also extract the main conclusions of each included study. All the data will be presented in descriptive tables.

We followed the template for intervention description and replication (TIDieR) checklist and guide for selecting the data we will extract about preoperative education in each study (20), however we did not extract all the items because of the specificities and scope of our study.

We will not combine any results of included studies, and we will not assess the risk of bias of each included study, nor the certainty of evidence.

Notes

Roles and contributions:

LVM conceptualized and wrote the main of this protocol, SM conceptualized the idea of this project, and contributed with the search strategy, CEL built the search strategy. All the authors contributed to the writing of this protocol.

Competing interests:

The authors declare that they have no competing interests.

Funding:

This project did not receive any funding.

References

1. Oshodi TO. The impact of preoperative education on postoperative pain. Part 1. Br J Nurs [Internet]. 2007;16(12):706–10. Available from: <http://dx.doi.org/10.12968/bjon.2007.16.12.23719>
2. Lorig K. Patient Education: A Practical Approach [Internet]. SAGE; 2001. 246 p.

Available from: <https://play.google.com/store/books/details?id=MzhBND1bTgYC>

3. Ljungqvist O, Francis NK, Urman RD. Enhanced Recovery After Surgery: A Complete Guide to Optimizing Outcomes [Internet]. Springer Nature; 2020. 654 p. Available from: <https://play.google.com/store/books/details?id=xwXaDwAAQBAJ>
4. Guo P, East L, Arthur A. A preoperative education intervention to reduce anxiety and improve recovery among Chinese cardiac patients: a randomized controlled trial. *Int J Nurs Stud* [Internet]. 2012 Feb;49(2):129–37. Available from: <http://dx.doi.org/10.1016/j.ijnurstu.2011.08.008>
5. Sjöling M, Nordahl G, Olofsson N, Asplund K. The impact of preoperative information on state anxiety, postoperative pain and satisfaction with pain management. *Patient Educ Couns* [Internet]. 2003 Oct;51(2):169–76. Available from: [http://dx.doi.org/10.1016/s0738-3991\(02\)00191-x](http://dx.doi.org/10.1016/s0738-3991(02)00191-x)
6. Forsmo HM, Erichsen C, Rasdal A, Tvinnereim JM, Körner H, Pfeffer F. Randomized Controlled Trial of Extended Perioperative Counseling in Enhanced Recovery After Colorectal Surgery. *Dis Colon Rectum* [Internet]. 2018 Jun;61(6):724–32. Available from: <http://dx.doi.org/10.1097/DCR.0000000000001007>
7. Gardner TF, Nnadozie MU Sr, Davis BA, Kirk S. Patient anxiety and patient satisfaction in hospital-based and freestanding ambulatory surgery centers. *J Nurs Care Qual* [Internet]. 2005 Jul;20(3):238–43. Available from: <http://dx.doi.org/10.1097/00001786-200507000-00008>
8. Iqbal U, Green JB, Patel S, Tong Y, Zebrower M, Kaye AD, et al. Preoperative patient preparation in enhanced recovery pathways. *J Anaesthesiol Clin Pharmacol* [Internet]. 2019 Apr;35(Suppl 1):S14–23. Available from: http://dx.doi.org/10.4103/joacp.JOACP_54_18
9. McDonald S, Page MJ, Beringer K, Wasiak J, Sprowson A. Preoperative education for hip or knee replacement. *Cochrane Database Syst Rev* [Internet]. 2014 May 13;(5):CD003526. Available from: <http://dx.doi.org/10.1002/14651858.CD003526.pub3>
10. Causey-Upton R, Howell DM, Kitzman PH, Custer MG, Dressler EV. Preoperative Education for Total Knee Replacement: A National Survey of Orthopaedic Nurses. *Orthop Nurs* [Internet]. 2020;39(1):23–34. Available from: <http://dx.doi.org/10.1097/NOR.0000000000000623>
11. Dayucos A, French LA, Kelemen A, Liang Y, Sik Lanyi C. Creation and Evaluation of a Preoperative Education Website for Hip and Knee Replacement Patients-A Pilot Study. *Medicina* [Internet]. 2019 Jan 30;55(2). Available from: <http://dx.doi.org/10.3390/medicina55020032>
12. Edwards PK, Levine M, Cullinan K, Newbern G, Barnes CL. Avoiding readmissions-support systems required after discharge to continue rapid recovery? *J Arthroplasty* [Internet]. 2015 Apr;30(4):527–30. Available from: <http://dx.doi.org/10.1016/j.arth.2014.12.029>
13. Edwards PK, Mears SC, Lowry Barnes C. Preoperative Education for Hip and Knee Replacement: Never Stop Learning. *Curr Rev Musculoskelet Med* [Internet]. 2017 Sep;10(3):356–64. Available from: <http://dx.doi.org/10.1007/s12178-017-9417-4>
14. Burton A, Aynardi MC, Aydogan U. Demographic Distribution of Foot and Ankle Surgeries Among Orthopaedic Surgeons and Podiatrists: A 10-Year Database

Retrospective Study. Foot Ankle Spec [Internet]. 2021 Jun;14(3):206–12. Available from: <http://dx.doi.org/10.1177/1938640020910951>

15. Moher D, Shamseer L, Clarke M, Ghersi D, Liberati A, Petticrew M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. Syst Rev [Internet]. 2015 Jan 1;4:1. Available from: <http://dx.doi.org/10.1186/2046-4053-4-1>
16. Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. Ann Intern Med [Internet]. 2018 Oct 2;169(7):467–73. Available from: <http://dx.doi.org/10.7326/M18-0850>
17. McGowan J, Sampson M, Salzwedel DM, Cogo E, Foerster V, Lefebvre C. PRESS Peer Review of Electronic Search Strategies: 2015 Guideline Statement. J Clin Epidemiol [Internet]. 2016 Jul;75:40–6. Available from: <http://dx.doi.org/10.1016/j.jclinepi.2016.01.021>
18. Endnote.com [Internet]. Available from: <https://endnote.com/>
19. Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan-a web and mobile app for systematic reviews. Syst Rev [Internet]. 2016 Dec 5;5(1):210. Available from: <http://dx.doi.org/10.1186/s13643-016-0384-4>
20. Hoffmann TC, Glasziou PP, Boutron I, Milne R, Perera R, Moher D, et al. Better reporting of interventions: template for intervention description and replication (TIDieR) checklist and guide. BMJ [Internet]. 2014 Mar 7;348:g1687. Available from: <http://dx.doi.org/10.1136/bmj.g1687>