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Instruments for assessing healthcare professionals' knowledge, attitudes and practices regarding deprescribing: a scoping review protocol

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ABSTRACT

Objective To map instruments for assessing healthcare professionals' knowledge, attitudes and practices regarding deprescribing.

Introduction Deprescribing is essential for improving patient outcomes by managing polypharmacy, reducing fall risks and decreasing medication costs. However, there is a limited exploration of healthcare professionals' perspectives about deprescribing.

Methods and analysis Studies involving healthcare professionals directly involved in the medication use process (nurses, pharmacists and physicians) will be included, while those in which it is not possible to identify the professional will be excluded. Any definition of deprescribing, as well as any stage of the deprescribing process, will be included, and those without a clear definition of deprescribing will be excluded. Studies employing instruments for assessing the knowledge, attitudes and practices of healthcare professionals regarding deprescribing, whether validated or not, will be included. Studies focusing on deprescribing algorithms will be excluded. Studies in any healthcare setting will be included. Data will be presented as absolute and relative frequencies, a world heatmap, heatmaps, bar plots or as a word cloud when appropriate.

Ethics and dissemination The findings from this review will be discussed with stakeholders and healthcare professionals directly involved in deprescribing processes. Additionally, the results will be disseminated through publications and conference presentations.

Protocol registration https://osf.io/tgjyc/

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This scoping review will be conducted in strict accordance with the guidelines provided by the Joanna Briggs Institute.
⇒ This review will employ a comprehensive search strategy across multiple databases, ensuring a thorough and unbiased synthesis of the existing literature on deprescribing.
⇒ Research on deprescribing has only emerged in the last 10 years, which may result in the retrieval of a limited number of studies.

INTRODUCTION

Deprescribing is the process of tapering, stopping, discontinuing or withdrawing drugs to manage polypharmacy and improve outcomes.[1] This necessitates an individualised approach considering the patient's clinical condition, therapeutic goals and individual characteristics. Healthcare professionals need to possess a thorough understanding of clinical data and the ability to make decisions based on patient safety and well-being.[2]

Healthcare professionals can engage in deprescribing through different approaches, which may occur across various contexts. Several decision support algorithms offer necessary assistance for the deprescribing process, such as the STOP-START criteria[3] and the 7-step strategy recommended by the WHO.[3] Additionally, deprescribing tools also exist for opioids,[4] benzodiazepines[5] and medications posing fall risks.[6]

Although the deprescribing process may vary in both context and tool employed, its benefits outweigh its risks. Deprescribing has been shown to decrease the risk of falls in both community and hospital settings.[7] A study conducted in a specialised outpatient clinic in the United States estimated a reduction in medication costs of US$84 030.46 over 3 months with deprescribing.[8] Deprescribing may decrease unnecessary hospitalisation costs due to adverse drug events by US$450 000–750 000 per year.[9] The process is complex as it requires balancing the needs of effective therapy with potential adverse effects.

For the effective implementation of deprescribing and the realisation of its benefits, mutual cooperation among healthcare

professionals, patients, family members and caregivers is essential. Given the need for interdisciplinary cooperation, it is crucial to critically examine the available evidence base regarding the practices, attitudes and knowledge of healthcare professionals concerning this emerging concept. Several studies have explored beliefs, attitudes and perceptions regarding deprescribing from the perspectives of patients,[10–12] caregivers and family members.[13 14] While studies on the knowledge, attitudes and practices of healthcare professionals regarding deprescribing are predominantly focused on the medical perspective,[14–16] with some examining the pharmacist's viewpoint,[17–19] there remains a scarcity of research evaluating deprescribing within a multidisciplinary team context.[20]

With the increasing prevalence of polypharmacy in ageing populations, deprescribing has become a key strategy to mitigate adverse drug events and improve patient safety.[21] Analysing healthcare professionals' knowledge, attitudes and practices on this topic is essential to identify gaps and address barriers. By mapping and categorising existing instruments, this review evaluates the strengths and weaknesses of these instruments, identifies which are suited for specific healthcare professionals, and determines whether any instrument comprehensively addresses all domains: knowledge, attitudes and practices. This approach seeks to fill a critical gap in the literature and provide valuable insights to support the effective implementation of deprescribing as a patient safety strategy.

Given the above, the objective of this scoping review is to map instruments for the assessment of health professionals' knowledge, attitudes and practices regarding deprescribing.

METHODS AND ANALYSIS

Study design and registry

Our scoping review will follow all the guidelines set forth by the Joanna Briggs Institute[22 23] and will be reported in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) extension for scoping reviews.[24] The study protocol was registered on the Open Science Framework.[25] This study will begin in February 2025.

Review question

This scoping review protocol follows the PCC framework: population: healthcare professionals directly involved in the medication process (nurses, pharmacists and physicians); concepts: instruments used to assess knowledge, attitudes and practices regarding deprescribing; context: any level of patient healthcare (primary, secondary or tertiary) to guide the formulation of the research question. The main research question is: what instruments are available for assessing healthcare professionals' knowledge, attitudes and practices regarding deprescribing?

Eligibility criteria

Population

Studies conducted with healthcare professionals directly involved in the medication process (nurses, nurse practitioners, pharmacists, physicians and physician assistants) will be included. Studies involving healthcare professionals, without specifying which type, will be included only if the results are presented separately for those who directly manage patient medication. Studies in which healthcare professionals cannot be identified and with healthcare students will be excluded.

Concept

Deprescribing is the process of tapering, stopping, discontinuing or withdrawing drugs to manage polypharmacy and improve outcomes.[1] This review will encompass studies with any definition of deprescribing, as well as studies where any component of the deprescribing process is present, either individually or in combination (eg, dose reduction, dosage optimisation, etc). The terms 'deprescribing', 'deprescription' or 'deprescriptions' will be considered synonymous.

We will refer to 'instrument' using the MeSH (Medical Subject Headings) definition of 'Surveys or Questionnaires' as collections of data obtained from voluntary subjects, typically in the form of answers to questions or suggestions. This review will consider any research survey or questionnaire, validated or not, as an instrument. Tools that assist in the deprescribing process, such as specific medication deprescribing algorithms or tools like STOPSTART and/or those that do not specifically measure knowledge, attitudes and practices, will be excluded.

The conceptual framework for knowledge, attitudes and practices towards deprescribing has been previously defined.[26] This review will consider the following domains: (1) knowledge, encompassing concepts, processes, tools and outcomes; (2) attitudes, focusing on barriers and facilitators for deprescribing; and (3) practice, including medication characteristics, patient context, environmental context and provider context. Studies that do not directly address these domains of the conceptual framework will be excluded.

Context

This review will consider studies conducted in any healthcare setting, irrespective of whether it is primary, secondary or tertiary care.

Study types

This scoping review will encompass a wide range of study designs, including interventional studies (such as randomised controlled trials, non-randomised controlled trials and before-and-after studies), observational studies (including cross-sectional, cohort and case-control studies), as well as methodological studies about instrument validation. Qualitative studies were excluded from this review as the focus is on mapping quantitative instruments that assess healthcare professionals' knowledge,

attitudes and practices regarding deprescribing, which are more suitable for standardisation, comparison and implementation in diverse healthcare settings.

In addition, sources of grey literature, such as dissertations and theses, will be included, along with the abstracts from the 'International Conference on Deprescribing' to identify unpublished studies. Systematic reviews or other types of reviews will be used for the search of primary studies. A manual search of the reference lists of included studies will be conducted to identify additional relevant works for the review.

Information sources

The peer-reviewed literature search will be conducted through the following sources: (1) Virtual Health Library (www.bvsalud.org); (2) Medline/PubMed (www.pubmed.ncbi.nlm.nih.gov); (3) Cochrane Library (www.cochranelibrary.com); and (4) Scopus, Web of Science, Embase, CINAHL (www.periodicoscapes.com.br). Sources for grey literature will include: (1) Google Scholar: to avoid algorithm bias, the study search will be conducted using the browser's incognito window, and the first 200 studies will be included;[27] (2) ProQuest: a platform containing journal articles, dissertations, theses and other documents; and (3) abstracts from the 'International Conference on Deprescribing' will be searched to identify potential studies.

Search strategy

The search strategy aims to locate both published and unpublished studies. An initial search was conducted in Medline to identify terms used in titles, abstracts, MeSH terms, keywords and synonyms used in key articles. Based on this preliminary search, a comprehensive search strategy was developed (available in online supplemental appendix I). This search strategy will be adapted for each database. The reference list of relevant studies will be searched for potentially eligible studies. Studies published in any language and on any date will be included.

Study selection

Following the search, all identified citations will be collated and uploaded into Rayyan, and duplicates will be removed. Following a pilot test, titles and abstracts will be screened by two independent reviewers for assessment against the inclusion criteria (see online supplemental appendix II). The next step will include the retrieval of studies eligible in full for full-text screening, and their citation details will be imported into Rayyan. The full text of selected citations will be assessed in detail against the eligibility criteria. Reasons for the exclusion of studies at full-text review that do not meet the eligibility criteria will be recorded. Any disagreements that arise between the reviewers at any stage of the study selection process will be resolved through discussion between the two reviewers or with a third reviewer as a tiebreaker when needed. The results of the search will be reported in full in the final report and presented in a PRISMA flow diagram.

Data extraction

Data will be extracted from papers included in the scoping review by two independent reviewers using a data extraction form developed by the research team. A draft extraction form is provided (see online supplemental appendix III). The included articles will be characterised by the following variables: author, year of publication, place of publication, type of publication, type of study, study setting and instrument used. The draft data extraction form will be modified and revised as necessary during the process of extracting data. Modifications will be detailed in the scoping review. Any disagreements that arise between the reviewers will be resolved through discussion or with an additional reviewer. If appropriate, authors of papers will be contacted to request missing or additional data, where required.

Data synthesis

Data will be presented as absolute and relative frequencies. Information regarding the year of the study and place of publication will be presented as a world heatmap. The other variables will be displayed as heatmaps or bar plots when appropriate. The results regarding knowledge, attitudes and practices will be presented as a word cloud. The analyses will be performed using the RStudio software. A narrative summary will accompany the tabulated and/or charted results and will describe how the results relate to the review objective and question.

DISCUSSION

To the best of our knowledge, our scoping review is the first to map instruments for evaluating healthcare professionals in relation to deprescribing. A preliminary search was conducted, and no current or underway systematic reviews or scoping reviews on the topic were identified. Given the complexity of deprescribing interventions and their potential benefits for patient care,[7–9] it is essential to understand the available instruments for evaluating how healthcare professionals perceive and engage in deprescribing practices. This comprehension is vital for tailoring interventions, enhancing patient care and promoting collaboration across healthcare environments. Another important point is that our review does not aim to assess the psychometric quality of the instruments but rather to compile a set of available instruments to evaluate the knowledge, skills and attitudes of professionals regarding deprescribing.

By following the step-by-step guidelines suggested by the Joanna Briggs Institute for conducting scoping reviews,[23 24] we believe that potential biases will be minimised, significantly contributing to the advancement of knowledge in the field of deprescribing. A possible limitation of our findings is the fact that research regarding deprescribing has only emerged in the last 10 years,[28] which may result in the retrieval of a limited number of studies. However, despite this limitation, the results of our scoping review remain valid and provide a valuable foundation for future research and practice in deprescribing.

Deprescribing has been included in the global health agenda since 2022,[29] when the WHO recognised it as an activity that promotes patient safety. We believe that our findings will significantly contribute to this field. The findings from this review will be shared through academic publications and presentations at both national and international conferences, ensuring they reach a broad audience of researchers, clinicians and policymakers. Ultimately, we aim to improve patient care and aid the promotion of the effective implementation of deprescribing practices across various healthcare settings.

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Contributors All authors (ACFM, LPNL, LLNP, MDGM, JCO and LCL) made substantial intellectual contributions to the development of this protocol. LCL is the guarantor of the study. ACFM is the principal investigator, responsible for writing the draft protocol. The review question was developed by ACFM and refined by LCL. ACFM and LPNL tested the search strategy. All authors (ACFM, LPNL, LLNP, MDGM, JCO and LCL) participated in writing the manuscript, critically reviewed the content, approved the final manuscript and agreed to be responsible for the manuscript, ensuring the accuracy and integrity of the work.

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