INPLASY

Corresponding author:
Sophia Ratcliff

sophia.ratcliff@orygen.org.au

Author Affiliation:
Orygen.

Scoping review of self-directed learning in continued professional development of health care practitioners

Ratcliff, S; Zbukvic, I; Nikakis, Z; McDowell, C; De Rozario, M; Randell, A; Bailey, A.

ADMINISTRATIVE INFORMATION

Support - Government funded deliverable.

Review Stage at time of this submission - Formal screening of search results against eligibility criteria.

Conflicts of interest - Researchers in the project are also involved in the design, development and evaluation of workforce development initiatives for the youth mental health workforce, employed through Orygen and the University of Melbourne.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 September 2024 and was last updated on 24 September 2024.

INTRODUCTION

*R*eview question / Objective The primary objective of this review is to report on the research evidence for self-directed learning as part of continued professional development (CPD) for health professionals. The review seeks to describe:
- the characteristics of self-directed learning activities and any associated tools and resources;
- the outcomes of self-directed learning.

The secondary objectives of this review, which may not be addressed by all included articles, are to explore:
- whether there is specific evidence for self-directed learning for mental health professionals or health professionals working in mental health settings;
- whether any research has investigated the relationship between self-directed learning and with workforce retention and/or burnout;
- barriers and enablers to engaging in self-directed learning;
- which (if any) theories, frameworks or models were used to conceptualize self-directed learning.

Background The Australian health system faces growing demands, at the same time as shortage of health practitioners appropriately trained in evidence-based-practices, significant and increasing issues with burnout and turnover of the workforce. There are significant gaps between the evidence-based treatment and what clients receive through the healthcare system (Blanchard, 2023). Addressing these issues requires change on multiple levels, including attracting and training new members of the workforce, defining the knowledge, skills and attributes of the diverse

health workforce, as well as strategies to manage the physical and psychological safety of the workforce (Royal Commission into Victoria's Mental Health System, summary recommendations, 2021). Maintaining and improving the knowledge and skills of the current workforce also plays an important role in building the capacity of health services to manage demands and provide evidence-based care.

Rationale Continued Professional Development (CPD) is understood as a key mechanism of maintaining and improving the knowledge and skills of the existing health workforce, with flow on impacts for the safety and quality of care provided (Mlambo et al. 2021). Engagement with CPD has been found to build health professionals' knowledge of evidence-based interventions (Main & Anderson, 2023). Self-directed learning is a widely used strategy for continued professional development for health professionals broadly. Self-directed learning is an effective method for health professionals to improve knowledge, skills and attitudes (Murad et al. 2010).

To our knowledge there are no reviews of self-directed learning for health practitioners in the last decade. With the last review published in 2010 by Murad and colleagues:

Murad MH, Coto-Yglesias F, Varkey P, Prokop LJ, Murad AL. The effectiveness of self-directed learning in health professions education: a systematic review. Medical education. 2010 Nov;44(11):1057-68.

More recent reviews of self-directed learning have been with physicians and health profession students, as well as a recent review of digital tools in self-directed learning across all information literate adults:

- Jeong, D., Presseau, J., ElChamaa, R., Naumann, D. N., Mascaro, C., Luconi, F., ... & Kitto, S. (2018). Barriers and facilitators to self-directed learning in continuing professional development for physicians in Canada: a scoping review. Academic Medicine, 93(8), 1245.
- Taylor TA, Kemp K, Mi M, Lerchenfeldt S. Self-directed learning assessment practices in undergraduate health professions education: a systematic review. Medical Education Online. 2023 Dec 31;28(1):2189553.
- Morris TH, Rohs M. Digitization bolstering self-directed learning for information literate adults–A systematic review. Computers and Education Open. 2021 Dec 1;2:100048.

METHODS

Strategy of data synthesis The scoping review will be guided by six-staged scoping review methodology framework described in Arksey and O'Malley (2005): (1) identifying the research question, (2) identifying relevant studies, (3) selecting studies, (4) charting the data, (5) collating, summarising, and reporting the results, and (6) consultation, which is an optional stage. The reporting of the scoping review will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).

The search strategy was developed by clinical educator and research fellow in knowledge translation and were refined in consultation with experts in evidence mapping, graduate education and specialist librarian at the University of Melbourne. The PRESS Checklist (2015) was used to assist in developing the search strategy.

Electronic databases (Medline, PsycINFO, ERIC, CINAHL and Scopus), reference list of included articles and scoping or systematic reviews identified from the search and grey literature.

Eligibility criteria Type of studies

All research designs (e.g. action research, experimental, quasi-experimental studies) will be included. Previous systematic and scoping reviews will be excluded from the scoping review. Previous research has found a consistent upward trend in publications on self-directed learning from 2015 (Taylor et al. 2023), so to ensure that the most current evidence is considered article published from January 2015 to April 2024 will be considered in the review.

Information on whether the study designs are qualitative, quantitative or mixed methods will be recorded; as well as information on data collection methods (e.g. interviews, questionnaires, and observations). This will help understand the range of methods employed within these research designs.

Types of participants
Health practitioner will be defined as any professional with a certificate IV or higher currently employed in a health role, including medical practitioners
 such as doctors and psychiatrists. This will also include practitioners such as physiotherapists, nurses, psychologists and occupational therapists.
The review will exclude those who are health practitioners that are still in training, including

medical registrars, and tertiary education students on placements

as we are interested in learning about self-directed learning as part of continued professional development rather than during initial training to gain competence as a health practitioner.

Types of interventions
All studies in which the intervention is described/defined by the author as self-directed learning will be considered for this review. We have chosen to use the authors definition and not look at synonyms of self-directed learning such as self-guided learning as we want to understand how the terminology is currently being used in research.
Per Murad and colleagues (2010), we will compare these interventions against Knowles' definition as part of the synthesis process:
A
process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies,
and evaluating learning outcomes (Knowles, 1975).

Types of outcome measures
Outcome measures will be extracted and coded according to Barr and colleagues' (2005) extended version of Kirkpatrick's classic educational outcomes model,
which has six levels as shown below.
Level 1 – Reaction.
Level 2a - Modification of attitudes/perceptions.
Level 2b - Acquisition of knowledge/skills.
Level 3 - Behavioural change.
Level 4a - Change in organisational practice.
Level 4b - Benefits to patients/clients.

Where relevant, the primary outcomes as specified by study authors will be recorded. In addition, secondary outcomes such as burnout and retention, barriers
and facilitators will also be included. To manage ambiguous information the research team will meet weekly to discuss and reach a consensus.

Source of evidence screening and selection
The titles and abstracts will screen by members of the project team to check for eligibility against the criteria of including a self-directed learning intervention (as defined by the author) by health professionals in any setting and the paper must include some kind of outcome. If an article's relevance is unclear from the title or abstract, it will be retained for further review in the next stage. The

full texts of the selected studies will be retrieved and imported to Covidence. The same reviewers will independently assess the full text using the eligibility criteria for final inclusion.
Discrepancies found in stages 2 and 3 will be resolved through discussion between the reviewers and involve a third reviewer if needed. In each stage, the articles excluded and the reasons for their exclusion will be reported.

Data management
Data will be extracted from papers by independent reviewers using a data extraction form. The data extraction form will be developed for this review based on the objectives of the scoping review and the expert consultation. The data extracted will include:
- study details: authors, title, country, year of publication, and journal.
- participant characteristics: profession, a primary focus on mental health care, and working with young people
- study design and method: research paradigm/study design, sampling method, and sample size.
- the characteristic of self-directed learning activity (coded against Knowles five-point definition, as per Murad et al 2010),
- the setting,
- the topic of self-directed learning (if relevant);
- which (if any) theories, frameworks or models were used to conceptualize self-directed learning,
- the self-directed learning outcomes (coded using Barr and colleagues' (2005) extended version of Kirkpatrick's classic educational outcomes model);
- validated scale to measure outcomes (if relevant);
- Outcomes related to secondary objectives including: burnout and/or retention, barriers and enablers, any limitations, conclusions, and future directions as defined by the authors.

A codebook was developed to aid in data extraction; it contains definitions and examples for the concepts in each major data-coding category. Two reviewers A codebook was developed to aid in data extraction; it contains definitions and examples for the concepts in each major data-coding category. Two reviewers will conduct data extraction.
Any disagreements will be resolved through discussion. The authors will be contacted to clarify the results or obtain additional information if needed.

Presentation of the results
We will provide a description of the search results. A flowchart adapted from the PRISMA flowchart will be used to illustrate inclusion decisions. The data will be summarised based on the review objectives. Finally, the review results will be presented through

a narrative summary accompanied by tables and charts describing how the results relate to the review objectives and research questions.

Language restriction English.

Country(ies) involved Australia.

Keywords self-directed learning; health professional.

Dissemination plans Ethics approval will not be required, as only publicly available data will be analysed. Findings from the scoping review will be disseminated through conference presentations, reporting to government as well as publication in a peer-reviewed journal.

Contributions of each author
Author 1 - Sophia Ratcliff.
Email: sophia.ratcliff@orygen.org.au
Author 2 - Isabel Zbukvic.
Author 3 - Zoe Nikakis.
Author 4 - Caitlin McDowell.
Author 5 - Magdalene De Rozario.
Author 6 - Alicia Randell.
Author 7 - Alan Bailey.