Canadian Medical Education Journal
Revue canadienne de l'éducation médicale

Analysis of authentic assessment in health professions education: A scoping review and concept analysis protocol
Analyse de l'évaluation authentique dans l'éducation aux professions de santé : une revue de portée et un protocole d'analyse conceptuelle

Ethan Bazos, Andrea Quaiattini and Meredith Young

Volume 15, Number 6, 2024

URI: https://id.erudit.org/iderudit/1115948ar
DOI: https://doi.org/10.36834/cmej.79812

See table of contents

Publisher(s)

Canadian Medical Education Journal

ISSN

1923-1202 (digital)

Explore this journal

Cite this article

Bazos, E., Quaiattini, A. & Young, M. (2024). Analysis of authentic assessment in health professions education: A scoping review and concept analysis protocol. *Canadian Medical Education Journal / Revue canadienne de l'éducation médicale*, *15*(6), 100–102. https://doi.org/10.36834/cmej.79812

Canadian Medical Education Journal

Works-in-Progress

Analysis of authentic assessment in health professions education: a scoping review and concept analysis protocol

Analyse de l'évaluation authentique dans l'éducation aux professions de santé : une revue de portée et un protocole d'analyse conceptuelle

Ethan Bazos,[1] Andrea Quaiattini,[1,2] Meredith Young[1]

[1]Institute of Health Sciences Education, McGill University, Quebec, Canada; [2]Assistant Librarian, Schulich Library of Physical Sciences, Life Sciences, and Engineering, McGill University, Quebec, Canada

Correspondence to: Meredith Young, PhD; email: meredith.young@mcgill.ca

Published ahead of issue: Dec 17, 2024; published: Dec 31, 2024. CMEJ 2024, 15(6) Available at https://doi.org/10.36834/cmej.79812

Introduction

Many calls have been made in Health Professions Education (HPE) encouraging the shift from assessment *of* learning to assessment *for* learning, which include the adoption of authentic assessment practices.[1–3] However, HPE currently lacks a comprehensive description of what it means to assess authentically, limiting its current potential for implementation. A clearer understanding and definition of authentic assessment is necessary to support the implementation of authentic assessment practices in HPE. We will map the HPE literature describing authentic assessment in order to: 1) describe the scope and nature of literature describing authentic assessment, 2) describe the concept of authentic assessment in terms of its antecedents, attributes, and consequents, and 3) identify principles and practices associated with authentic assessment.[4,5] By better describing the concept of authentic assessment, we hope to provide a scaffold to support the implementation of authentic assessment practices in HPE.

Method

A preliminary search of the following protocol registries (i.e., PROSPERO, OSF Registries, BioMed Central Protocols, BMJ Open, and MEDLINE) identified no currently registered reviews (i.e., scoping or systematic) on authentic assessment in HPE. Our review will be guided by the six-stage Arksey and O'Malley[6] Scoping Review Framework in conjunction with advancements made by Levac et al[7] and Peters et al,[8] and in combination with the Rodgers[4,5] Evolutionary Approach to Concept Analysis. Scoping review methodology will anchor our review, and concept analysis will be used as an analytic approach to identify the antecedents, attributes, and consequences of authentic assessment.[10,11] Concept Analysis can be used to identify the characteristics of a concept to support its later use in research, teaching, or assessment.[4,5] We report our methods according to the six stages of the Arksey and O'Malley[6] Framework:

Stage 1. Identifying the research question

How is Authentic Assessment used and described in the HPE literature?

Stage 2. Identifying relevant studies

A search strategy was developed and iteratively refined in collaboration with an academic librarian (AQ). The search strategy was executed in five databases (i.e., OVID MEDLINE, OVID Embase, OVID PsycINFO, CINAHL, and ERIC; search strategy adapted for Ovid MEDLINE is in Appendix A, Table 1). Citations were uploaded into COVIDENCE (Covidence Systematic Review Software, Veritas Health Innovation, Melbourne, Australia, 2023) to facilitate full screening and review.

Stage 3. Study selection

Two independent reviewers (EB and MY) will screen titles and abstracts according to our inclusion and exclusion criteria (Appendix A, Table 2). To proceed to full review,

screened articles must use the phrase authentic assessment and include health professions learners. Full-text articles will be screened for inclusion by two reviewers (EB and MY), aiming for a minimum of 90% agreement.[9] Disagreements will be regularly adjudicated by EB and MY with consensus following discussion.

Stage 4. Charting the data

Bibliometric data (i.e., author, title, year of publication), data describing authentic assessment use (i.e., participant health profession, assessment type, assessment purpose), and data required for concept analysis (i.e., antecedents, characteristics, consequents) will be extracted for articles that meet the inclusion criteria (Table 1). Bibliometric data and authentic assessment use will be extracted using COVIDENCE. To better understand the concept of authentic assessment, we will integrate a concept analysis approach into the Arksey and O'Malley[6] Scoping Review Framework. Aligned with a concept analysis approach, we will extract the antecedents (i.e., things that occur before), the attributes (i.e., the defining characteristics), and the consequences (i.e., things that occur following) of authentic assessment as described in our archive. We will use NVivo 12 Software (QSR International Pty Ltd, Doncaster, VIC, Australia) for concept analysis-related data extraction. The principles and practices of authentic assessment will be extracted using COVIDENCE and NVivo 12 Software.

Stage 5. Collating, summarizing, and reporting the results

Our review process and findings will be reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) reporting guidelines.[10] Descriptive statistics (i.e., central tendencies; frequency distribution) will be used to analyze bibliometric and descriptive data, while the Miles, Huberman, and Saldana Approach to Thematic Analysis[11] will be used for our concept analysis and the synthesis of practices and principles aligned with authentic assessment.

Stage 6. Consultation with knowledge users

This optional stage will be omitted from this scoping review framework, as stakeholder engagement will be an important avenue for future research.[6] Ethics approval was not required because scoping reviews analyze published literature and do not require data collection or generation using human participants.

Summary

Authentic assessment has the potential to be an important development in health professions education, including as a tool to support the integration of clinical and basic sciences education.[12,13] Our work aims to provide clarity regarding the concept of authentic assessment to better ground its implementation in HPE and provide guideposts for those who wish to assess more authentically.

Conflicts of Interest: All authors report no conflict of interest.

Funding: This research was supported by a 2023-2026 Social Sciences and Humanities Research Council Doctoral Award (SSHRC) awarded to the first author, a student Bursary by the Research Group in Pursuit of Validity (Supported by the Fonds de Recherche de Quebec – Societé et Culture), a Social Sciences and Humanities Research Council (SSHRC) Insight Grant (435-2021-0651), and a Fonds de Recherche de Quebec – Santé Chercheur Boursier Junior 1 (253008) and Junior 2 (313176) Salary award to M. Young.

Edited by: Marco Zaccagnini (senior section editor), Marcel D'Eon (editor-in-chief)

References

1. Marceau M, Gallagher F, Young M, St-Onge C. Validity as a social imperative for assessment in health professions education: a concept analysis. *Med Educ*. 2018 Jun 1;52(6):641–53 https://doi.org/10.1111/medu.13574.
2. Norcini J, Anderson B, Bollela V, et al. Criteria for good assessment: consensus statement and recommendations from the Ottawa 2010 Conference. *Med Teach*. 2011;33(3):206–14 https://doi.org/10.3109/0142159X.2011.551559.
3. Ajjawi R, Tai J, Dollinger M, Dawson P, Boud D, Bearman M. From authentic assessment to authenticity in assessment: broadening perspectives. *Assess Eval High Educ*. 2023;1–12 https://doi.org/10.1080/02602938.2023.2271193.
4. Rodgers BL. Concepts, analysis and the development of nursing knowledge: the evolutionary cycle. *J Adv Nurs*. 1989;14(4):330–5 https://doi.org/10.1111/j.1365-2648.1989.tb03420.x.
5. Rodgers BL, Knafl KA. *Concept development in nursing : foundations, techniques, and applications*. 2nd ed. Philadelphia: W.B. Saunders; 2000.
6. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. *Int J Soc Res Methodol*. 2005 Feb;8(1):19–32 https://doi.org/10.1080/1364557032000119616.
7. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. *Implement Sci IS*. 2010;5:69 https://doi.org/10.1186/1748-5908-5-69.
8. Peters MDJ, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. *JBI Evid Synth*. 2020;18(10). https://doi.org/10.11124/JBIES-20-00167
9. Thomas A, Lubarsky S, Durning SJ, Young ME. Knowledge syntheses in medical education: demystifying scoping reviews. *Acad Med.* 2017;92(2). https://doi.org/10.1097/ACM.0000000000001452
10. Tricco AC, Lillie E, Zarin W, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): checklist and explanation. *Ann Intern Med.* 2018 Oct 2;169(7):467–73 https://doi.org/10.7326/M18-0850.
11. Miles MB, Huberman AM, Saldaña J. *Qualitative data analysis: a methods sourcebook*. Third edition. Thousand Oaks, California: SAGE Publications, Inc.; 2014.
12. Bandiera G, Boucher A, Neville A, Kuper A, Hodges B. Integration and timing of basic and clinical sciences education. *Med Teach*. 2013;35(5):381–7 https://doi.org/10.3109/0142159X.2013.769674.
13. Bandiera G, Kuper A, Mylopoulos M, et al. Back from basics: integration of science and practice in medical education. *Med Educ.* 2018;52(1):78–85 https://doi.org/10.1111/medu.13386.

Appendix A. Tables

Table 1. Complete search strategy as operationalized for Ovid MEDLINE

Number	Search statement
1	((authentic or authenticity or authentically) adj5 (assess* or learn* or test* or quiz* or evaluat* or rating* or rate* or measure* or perform* or scor* or exam* or grade* or grading or judg*)).ti,ab,kf.
2	1 not (exp animals/ not humans.sh.)

Table 2. List of Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
An included paper must include: Health Professions Learners (e.g., Medicine, Physical Therapy). Authentic Assessment or Authenticity in Assessment. Health Professions Education context (e.g., in the process of learning or being assessed in a HPE program).	Any paper that contains the following will be excluded: Authentic Learning in the absence of assessment. Authenticity not in relation to assessment (e.g., authentic leadership). Healthcare practitioner in practice.