Critical route for leadership competencies in medical students in 35 PAHO members states: A scoping review and thematic analysis

Pablo Rodríguez-Feria[1], Martina Paric[1], Luis Jorge Hernández Flórez[2], Suzanne Babich[3], and Katarzyna Czabanowska[1]

[1]Universiteit Maastricht Department of International Health
[2]Universidad de los Andes
[3]Indiana University Richard M Fairbanks School of Public Health Department of Health Policy and Management

September 28, 2023

Abstract

The 35 member states (MS) of the Pan American Health Organization (PAHO) have been committed to training physicians in leadership competencies since 2008. However, four reviews on teaching leadership using competency-based education (CBE) in undergraduate medical education (UME) identified only two MS: Canada and the USA that worked on identifying gaps in teaching leadership in UME. Previous reviews did not focus on factors influencing leadership education and did not use qualitative methodology to support their findings. Therefore, this review aims to identify facilitating and inhibiting factors in teaching leadership in UME using a scoping review and thematic analysis. Six databases containing grey and indexed literature in English, Spanish, and Portuguese were searched including hand search and authors' consultations. Forty-eight documents out of 7849 were selected based on eligibility criteria. Braun and Clarke's thematic analysis guide was used, resulting in seven themes: curriculum, intended learning outcomes, teaching methods, assessment, addressing barriers, supporting organizational change, and building networks. Considering these themes, the authors propose a critical route for teaching leadership in UME in the Americas. First, institutional design should consider governance gaps, such as having national and international policies for leadership in UME with an inter-professional, trans-professional, and citizen-focused approach. This means that there is a pressing need to equip physicians and other professionals from the government, academia, non-governmental organizations, hospitals, and national and international organizations whose missions are related to health or education with leadership competencies. Networking among actors for leadership education and teacher training is also essential. Second, instructional design reveals knowledge-do gaps in MS when incorporating leadership into the medical curriculum. This includes using leadership frameworks, defining learning outcomes, and employing assessment and monitoring tools for leadership education. Mechanisms to reduce these gaps in MS include the Equator Network and Evidence-Informed Policy Networks which foster knowledge translation and governance.

Hosted file

27 09 2023 Facilitator and inhibitors factors to teach leadership in undergraduate medical education.doc available at https://authorea.com/users/669525/articles/669945-critical-route-for-leadership-competencies-in-medical-students-in-35-paho-members-states-a-scoping-review-and-thematic-analysis
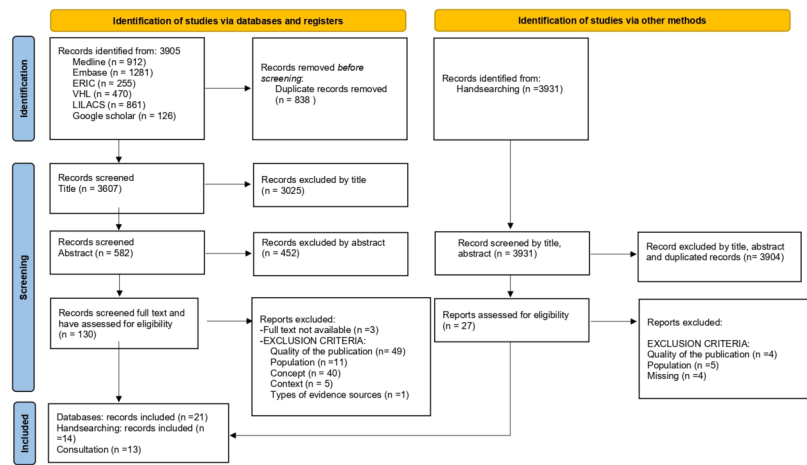
Identification of studies via databases and registers

Identification of studies via other methods

Identification

Records identified from: 3905
    Medline (n = 912)
    Embase (n = 1281)
    ERIC (n = 255)
    VHL (n = 470)
    LILACS (n = 861)
    Google scholar (n = 126)

Records removed *before screening*:
    Duplicate records removed (n = 838)

Records identified from:
    Handsearching (n =3931)

Screening

Records screened
Title (n = 3607)

Records excluded by title
(n = 3025)

Records screened
Abstract (n = 582)

Records excluded by abstract
(n = 452)

Record screened by title, abstract (n = 3931)

Record excluded by title, abstract and duplicated records (n= 3904)

Records screened full text and have assessed for eligibility (n = 130)

Reports excluded:
-Full text not available (n =3)
-EXCLUSION CRITERIA:
    Quality of the publication (n= 49)
    Population (n =11)
    Concept (n = 40)
    Context (n = 5)
    Types of evidence sources (n =1)

Reports assessed for eligibility (n = 27)

Reports excluded:

EXCLUSION CRITERIA:
Quality of the publication (n =4)
Population (n =5)
Missing (n =4)

Included

Databases: records included (n =21)
Handsearching: records included (n =14)
Consultation (n =13)

Figure 1. PRISMA diagram: databases, registries, handsearching, and consultation.

Curriculum
Spiral Curriculum
Tailor to Student Relevance
Dedicated Course
Identified Curricular Framework
Overcrowded Curriculum
Competition for Teaching Time
Student Time Constraints
Setting Priorities
Integrating Leadership
Explicit Space in Curriculum
Clear Curricular Content

Addressing Barriers
System Change Needed
Challenges Implementing Change
Explaining Importance of Leadership
Challenging Current Leaders
Encouraging Teacher and Student Interest
Addressing Reluctance to Teach
Assigning Designated Leader for Change
Understanding Leadership can be Taught
Understanding Importance of Leadership

Intended Learning Outcomes (ILOs)
Consensus of Teaching Activities & ILOs
Focus on Career Development beyond Medicine
Cultural Competence and Exposure to Diversity
Link to Local Culture, Context and Values
Real-World Integration
Clearly Formulated Leadership ILOs
Identification of Key Competences
Alignment of Teaching with ILOs
Use of Definitions
Alignment with Internationally Recognised Competences

Supporting Organisational Change
Financial Resources
Board Support and Stakeholder Buy-in
Faculty Support
Faculty Time Investment
Teaching Resources
Address Logistical Constraints
Government Support
Student Support

Facilitators & Inhibitors

Teaching Methods
Mentoring and Coaching
Role Play & Simulations Exercises
Examples and Experimental Teaching
Multiple Methods Approach
Active Participations
Leadership Principles, Theories & Approaches
Project and Case Based Learning
Freedom to Choose Projects
Creating Learning Laboratories
Small Group Learning
Student Centered Learning
Tailor Made Exercises
Peer Interaction, Feedback and Reflection
Students in Leadership Roles

Building Networks
Interprofessional Collaboration
Interdisciplinary Collaboration
Social Responsibility and Advocacy
Engaged Learning Community
Building and Maintaining Relationships
Team Collaboration
Collaboration with Schools and Organisations
Community Engagement
Learning Networks
Link to Health System

Assessment
Measuring Impact of Leadership Course
Continuous Evaluation and Revision
Self-Assessment and Reflection
Developing Assessment Tools
Integrating Assessment
Creating Measurable ILOs
Consensus on Assessment

Developing Expertise
Continuous Professional Development for Teachers
Lack of Leadership Expertise
Lack of Leadership Knowledge
Staff Experience
Role Models
Enthusiastic and Engaged Teachers
Different Teaching Perspectives
Hierarchical Relationships Constraints

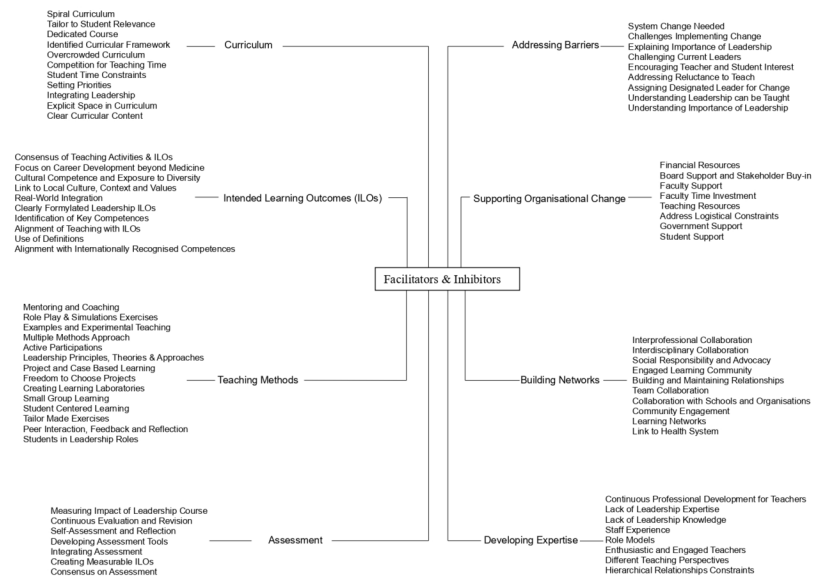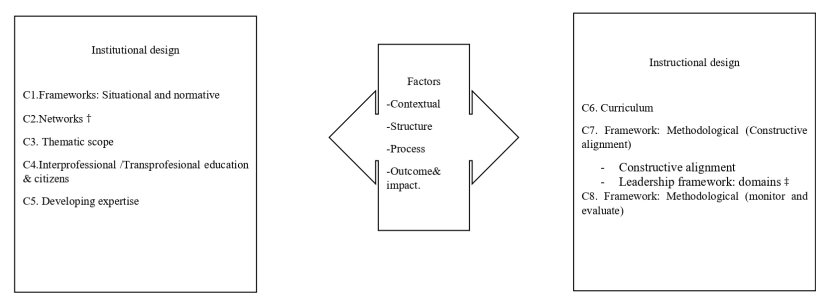**Figure 2. Facilitators and inhibitors: thematic map for undergraduate leadership medical education in the Americas.**

Institutional design

C1.Frameworks: Situational and normative

C2.Networks †

C3. Thematic scope

C4.Interprofessional /Transprofesional education & citizens

C5. Developing expertise

Factors

-Contextual

-Structure

-Process

-Outcome& impact.

Instructional design

C6. Curriculum

C7. Framework: Methodological (Constructive alignment)

- Constructive alignment
- Leadership framework: domains ‡

C8. Framework: Methodological (monitor and evaluate)

Figure 3. The critical route for leadership education in medical students in the Americas.

†Networking: networks of teaching-service agreements, networks among universities, and networks with citizen and community actors.

‡Systems thinking (D1), Political leadership (D2), Collaborative leadership: building and leading interdisciplinary teams (D3), Leadership and communication (D4), Leading change (D5), Emotional intelligence and leadership in team-based organizations (D6), Leadership, organizational learning and development (D7), and Ethics and professionalism (D8).