

1. COVER SHEET

Review Title: A BEME scoping review of educational interventions to develop cultural competence in health professionals

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Team expertise (alphabetical)

Dr Elaine Byrne is the Research Director and a senior lecturer in evaluation, measurement and research at the Institute of Leadership, RCSI University of Medicine and Health Sciences. She is programme director for year 2 of the MSc Leadership, MSc in Healthcare Management and MSc in Quality and Safety in Healthcare Management. Elaine has developed online training material in qualitative research methodology for postgraduate students. She has supervised 11 PhD and over 30 MSc students and examined internationally approximately 20 postgraduate students. Dr Byrne has delivered Masters classes for RCSI in mixed methods research and in conducting literature reviews and on public and patient involvement (PPI) in research to The Psychological Society of Ireland (PSI). She is external research proposal reviewer for the National Research Foundation of South Africa and for the Academy of Finland. She reviews regularly for numerous international journals including the International Journal of Qualitative Methods, Action Research and BMC Public Health. She is a collaborator on a number of large multi-country research grants for her qualitative expertise. Dr Byrne has additionally completed a postgraduate diploma in health professions education.

Dr Sally Doherty is a lecturer in undergraduate medical and nursing programs in RCSI University of Medicine and Health Sciences, Bahrain. Her research interests include obesity, diabetes, breast cancer & patient psychosocial needs and medical education, in particular student engagement, cultural aspects of teaching medicine in a global university and threshold concepts. Sally is a supervisor in the Institute of Leadership Master's programme. She is also involved in the development of curriculum, assessment and student wellbeing. Dr Doherty is the Director of assessment and exams in RCSI Bahrain, and the Deputy convener of the RCSI Bahrain Research Ethics Committee.

Dr Andrea Doyle is a Research Officer for the Health Professions Education Centre (HPEC) at University of Medicine and Health Sciences, Dublin. She is a medical physicist with research interests in the areas of medical education and simulation, and the development of medical education training tools and training programs.

Prof Samuel McConkey is Deputy Dean for RCSI for international curriculum development. He has a clinical, research and educational background in tropical medicine, international health and infectious diseases.

Prof Teresa Pawlikowska is the Inaugural Director of the Health Professions Education Centre at RCSI University of Medicine and Health Sciences, Dublin. She is a medical practitioner and educationalist having been awarded her PhD from SHE at The University of Maastricht. Teresa has contributed to the development of BEME and reviewing since she joined RCSI in 2013, and she is currently a member of the BEME Executive Committee. Her particular research interest is student learning and how faculty development can support its development. One aspect of her research role is focused on supporting RCSI as a BICC and underpinning faculty development in reviewing in health professions education as well as encouraging educational research in mixed methods across the RCSI constituent Schools (Medicine, Nursing, Pharmacy and Physiotherapy in Dublin and other global sites). Previously Prof. Pawlikowska was elected to the EGPRN board where she served for 8 years and developed research methods courses for a wide variety of audiences in the EU. She has been invited as a lecturer and as an external evaluator for a number of European educational projects and is visiting professor at Malmo/Lund University. Teresa has held posts in an established medical school (University College London) and the largest new graduate-entry medical school in the UK (The University of Warwick). As Head of the International Unit at UCL she delivered a variety of programmes in diverse environments as part of EU PhARE and World Bank projects. She speaks a number of languages and has been extensively involved in educational development projects in a variety of countries which has required cultural and contextual sensitivity.

Dr Aisling Walsh is a social scientist and lecturer in Qualitative Methods and Health Research Ethics in the Dept of Public Health and Epidemiology, RCSI University of Medicine and Health Sciences, Dublin. She teaches undergraduate and postgraduate courses and coordinates a module on applied methods in population health and health services research. She has completed a postgraduate diploma in health professions education. Aisling has coordinated a blended learning Masters in Technology Enhanced Learning.

She has extensive experience of conducting qualitative and mixed-methods health research in Ireland and internationally, involving researchers and educationalists from different cultural contexts. Aisling has expertise in health services and policy research, particularly in the areas of maternal and child health, disability and health research ethics. She has been involved in a number of different types of literature reviews including narrative, scoping,

and systematic. She regularly reviews for international journals such as International Journal for Equity in Health, BMC Pregnancy and Childbirth and Health Policy and Planning.

Dr Clare Walsh is a senior lecturer in the Institute of Leadership, RCSI University of Medicine and Health Sciences, Bahrain. She teaches a range of modules and supervises dissertations on the Healthcare Management and Quality & Safety in Healthcare Management postgraduate programmes. She has a Doctorate in Education and a research interest in the sociology of education. Research areas include cultural, political economy of education and civilisational analysis.

ABSTRACT

From the patient perspective, evidence shows poor quality healthcare and outcomes among people from minority cultural backgrounds (1). From the health professional's perspective, they are also educated in diverse multi-cultural environments. Therefore, cultural competence (CC) has become a widespread topic of interest amongst health professionals and educators in recent years (2-6). Existing reviews of cultural competence education for health professionals focus primarily on quantitative research, measuring effectiveness of interventions. Qualitative and mixed methods studies have not been comprehensively reviewed. Furthermore, existing reviews are not underpinned by a health professions education theory or framework. The aim of this scoping review is to review evidence relating to interventions for cultural competence education and training for health professionals.

The Presage-process-product (3P) Learning Model (7) will be used as a conceptual framework to underpin the review. This proposed scoping review will map out the evidence available and add to the global evidence base on cultural competence in the context of health professions education, in terms of how cultural competence education is developed and delivered. Through focusing on interventions used in different contexts, we will ensure practical value to educationalists. This scoping review will identify gaps and so lead to research to develop and evaluate feasible and evidence based interventions.

2. BACKGROUND

From the patient perspective, evidence shows poor quality healthcare and outcomes among people from minority cultural backgrounds (1). From the health professional's perspective, they are also educated in diverse multi-cultural environments. Therefore, cultural competence (CC) has become a widespread topic of interest amongst health professionals and educators in recent years (2-6).

The absence of a commonly agreed definition and standardised frameworks (8, 9) particularly in the context of educational interventions (10) has made cultural competence a contested and imprecise concept (3). Sue et al.,(11) identified many problems with the term: "(a) it has various meanings, (b) included inadequate descriptors, (c) is not theoretically grounded, (d) is restricted by a lack of measurements and research designs for evaluating its' impact in treatment." For the purpose of this review cultural competence in healthcare will be defined as:

"understanding the importance of social and cultural influences on patients' health beliefs and behaviours; considering how these factors interact at multiple levels of the health care delivery system (e.g., at the level of structural processes of care or clinical decision-making); and, finally, devising interventions that take these issues

into account to assure quality health care delivery to diverse patient populations.”
(Betancourt et al, 2003).

Other terms for CC include intercultural competence, multi-cultural competence, transnational competence, cultural sensitivity cultural safety and cultural humility. In practice a key aim of CC for health professionals is to enhance their capacity to provide effective and appropriate healthcare to diverse population groups (2).

A number of systematic reviews have been undertaken to study the effects of CC training on patient access, health service utilisation and patient outcomes, as well as health professional and organisational outcomes (2-4). Studies have found varying evidence of effectiveness, though largely positive. Price et al., (12) systematic review examined the methodological rigour of studies using CC training as a strategy to improve minority health care quality. Watt et al., (13) found that CC curriculum frameworks and models vary considerably in scope, content and delivery. Lin et al., (14) examined methods to measure CC. Costs of CC training have not been sufficiently determined (2).

Existing reviews of cultural competence education for health professionals focus primarily on quantitative research, measuring effectiveness of interventions. Qualitative and mixed methods studies have not been comprehensively reviewed. Where qualitative studies have been included, the focus is on one health profession only. In addition, the development and content of interventions has not been reviewed. Furthermore, existing reviews are not underpinned by a health professions education theory or framework. This review aims to fill this gap by analysing approaches to teaching cultural competence in health professions education.

2.1 Why a scoping review?

Scoping reviews have been widely used to synthesise evidence in health professions education (15). They are useful when a body of literature has not yet been comprehensively reviewed, or *‘exhibits a large, complex or heterogeneous nature, not amenable to a more precise systematic review.’* (16). Scoping reviews also identify gaps in the knowledge base, clarify concepts, and document research that inform and address practice (17). Most of the existing reviews relating to cultural competence focus on outcomes and are quantitative in nature, whereas the scope of the literature is much broader, also encompassing the development & delivery of training, and experiences of cultural competence training, none of which have been explored to date. Further existing reviews have not been underpinned by an educational framework. The Joanna Briggs Institute (JBI) Guidelines approach of Peters et al., (16) will be used to undertake the review.

2.2 Theoretical approach and conceptual framework

This study will follow the pragmatic research approach (18), as both quantitative, qualitative and mixed-methods studies will be included in the review. Pragmatism subscribes to research being both contextual and transferrable (19). Combining qualitative and quantitative methods can provide a more detailed understanding of the processes and outcomes associated with medical education activity (20). The broad theoretical underpinning will be socio-cultural theory, which posits that what can be known and how it is known depends on a person's life experiences, within their specific socio-cultural environment (21).

A number of potential conceptual frameworks were considered to underpin the review: i) the Kirkpatrick classification (22), amended by Barr et al., (23); ii) Dao et al (24) ; and (iii) Presage-process-product (3P) Learning Model (7). Having reviewed these models and their potential application to the topic, it is considered that the 3P model will be the most appropriate. The 3P model postulates that the *product* (learning outcomes and competencies) result from interactions between the *presage* (student and teacher contexts and characteristics) and the *process* (the educational intervention).

The 3P model can help researchers to consider presage issues (eg contexts), how they affect process issues (eg learner interactions) and how these can impact product (eg reported outcomes from an intervention). This model has been used in previous BEME reviews (25, 26). Outputs from the interventions will also be considered (7).

3. REVIEW QUESTIONS, OBJECTIVES AND KEYWORDS

Aim: To review evidence relating to interventions for cultural competence education and training for health professionals.

Objectives:

1. To review the literature regarding interventions to improve cultural competence education and training for health professionals.
2. To formulate recommendations for educational programmes in light of the findings of the literature review.

Primary review question: What interventions for cultural competence education for health professionals are developed and delivered?

Detailed research questions:

1. Which educational interventions are used to *develop* cultural competence in health professions education and training¹?
2. How is cultural competence education and training *delivered to health* professionals?

Keywords: cultural competence, culture, competence, health professions education, cultural sensitivity, multicultural, inter-cultural, culturally competent care.

4. SEARCH SOURCES AND STRATEGIES INCLUDING PILOT SEARCH

A dedicated RCSI information specialist (PM) was consulted and searches were piloted. The following databases will be searched: Pubmed, EMBASE, Web of Science, CINAHL, Psychinfo, as these are deemed the most relevant for literature related to the topic, as advised by the information specialist. Due to language limitations, it will not be possible to carry out searches in non-English language databases. Hand searching of reference lists of studies deemed to be highly relevant to the review question will be checked to identify other relevant studies. The timeframe for the search will be from when the first article was published in a given database to March 2020.

A preliminary pilot review undertaken using Pubmed, EMBASE, Web of Science, CINAHL and Psychinfo identified 6,700 potential articles, which were reduced to 4,594 when duplicates and non-peer reviewed articles such as opinion pieces, book reviews and book chapters were removed (see Appendix 1). The majority of these articles have been published since 2007. A random 50 abstracts were analysed by two team members (AW and EB) and classified according to the Arksey O'Malley framework for scoping reviews (17). Seven of the 50 articles were deemed eligible for inclusion. 133 literature reviews were identified, Of these 28 reviews fitted the inclusion criteria. Of the reviews that were eligible, most are quantitative studies that focus on outcomes only, and are not underpinned by an educational framework. For example Horvat et al., (3) and Chae et al., (27) reviewed trials only. Lie et al., (5) review focused on patient outcomes only. Jongen et al., (28) review focused on Australia, Canada, New Zealand and the United States. A systematic review of reviews (4) analysed patient, provider and health service outcomes. Beach et al., (2) review examines evidence to 2003 only. Many topics covered by both the literature reviews and the individual articles included cross-cultural care, cross-cultural communication and linguistics and global health competencies and therefore were deemed outside the scope of the study. The health professions that feature most in the pilot search are nursing, followed

¹ To encompass both education for cultural competence for students and also faculty who teach students

by medicine and then dentistry. These pilot searches have helped define and refine study inclusion/exclusion criteria.

The JBI Guidelines approach of Peters et al., (16) includes the following steps: defining and aligning the objective/s and question/s; developing and aligning the inclusion criteria with the objective/s and question/s; describing the planned approach to evidence searching, selection, extraction, and charting; searching, selecting, charting and summarising the evidence.

5. STUDY SELECTION CRITERIA

Health professions will include: medicine, nursing and midwifery, pharmacy, physiotherapy, dentistry, veterinary, occupational therapy, operating department practitioners. Health professions education will include education at all levels: undergraduate, postgraduate, membership, continuous personal development and on-the job training/workshops.

Quantitative studies will include both experimental (e.g., randomised trials, non-randomised trials) and observational (e.g., cohort, cross-sectional) study designs. Qualitative studies will include designs such as qualitative descriptive studies, grounded theory, ethnography, phenomenology, and action research. Mixed methods studies will be included. In addition, all types of reviews (e.g., systematic reviews, narrative reviews) will be included

5.1 Inclusion criteria

Essential criteria: Research articles that are peer reviewed and:

- i) describe educational interventions to develop cultural competence in health professions education and training;
- ii) focus on how cultural competence is taught (to include formal and informal curricula).

Additional criteria: Research articles that:

- iii) have evaluated the cultural competence intervention;
- iv) focus on experiences and perceptions of cultural competence education and training.

5.2 Exclusion criteria

- i) Articles which focus on cultural competence in clinical practice/care (ie: doctor-patient relationship communication) without an education/training component;
- ii) Articles that evaluate the *needs* of health professionals in relation to CC training (including *baseline assessments* of CC);
- iii) Articles that describe/evaluate the tools used to *measure* cultural competence;
- iv) Articles that focus on interventions that are specific to linguistics/communication;

- v) Articles that describe a current curriculum, where a specific intervention is not described (i.e. it could not be enacted);
- vi) Articles that focus on experiences and perceptions of cultural competence education and training without describing the actual intervention;
- vii) Opinion pieces, theses, book reviews and book chapters;
- viii) Articles that focus on global health competencies broadly, with cultural competence being just one of those competencies;
- ix) Non-English language studies.

6. PROCEDURE FOR EXTRACTING DATA

The five stage approach of Arksey and O'Malley (17) and progressed by Levac et al., (15) will be followed: i) identifying the research question; ii) identifying relevant studies; iii) study selection; iv) charting the data; v) collating, summarising and reporting results. Two teams of two people (AW and SD; EB and CW) will each independently screen 50% of titles and abstracts. A kappa statistic will be used to check inter-rater reliability within the teams. Disagreement between coders will be resolved through the involvement of a moderator (TP). Each team will review 50% of full text articles.

Data will be extracted initially following the Arksey & O'Malley framework for 'charting the data', with an additional column to indicate if the article is to be included or not. Duplicates will be removed. Data will be coded and entered independently by the two teams (each team extracting data from 50% of articles each) using Microsoft Excel. If there are cases where consensus between coders is not reached, this will be resolved through discussion with a third experienced educational reviewer (TP). The data extraction form will contain: author(s); year of publication; study title; journal; study location; study type, intervention; study population; study aims; methodology; outputs/outcome measures; whether article is to be included – yes/no, clarification needed. Full text articles of remaining studies will be reviewed by both teams, using an adapted version of the BEME coding sheet customised to the emergent data.

Once the studies for inclusion are included in the Excel file, this information will be organised into tables to map the characteristics of the identified studies, including geographical setting, study population and research methods. Reviewers' data extraction will be validated for accuracy by providing 20% of coded papers to the moderator to assess for inter-rater reliability.

7. SYNTHESIS OF EXTRACTED EVIDENCE

A 'descriptive-analytical' method will be used. This includes applying an analytical framework to all the included core studies and presenting standard descriptive information

on each study (17). Thematic narrative analysis and synthesis will be undertaken, determined by the study conceptual framework. As this is a scoping review, it is not anticipated that aggregation and synthesis of data will be undertaken. Data will be presented according to Brigg’s 3-P framework (see Section 2.2) and conclusions will be presented.

8. IMPLICATIONS FOR EDUCATIONAL RESEARCH AND PRACTICE

This proposed scoping review will map out the evidence available and add to the global evidence base on cultural competence in the context of health professions education, in terms of how cultural competence education is developed and delivered. Through focusing on interventions that could potentially be used in different contexts, this will ensure practical value to educationalists. It is also hoped that it will lead to research to develop and evaluate feasible and evidence based interventions based on review findings. Through publishing this study as part of the BEME collaboration, the review will be widely disseminated, which it is hoped will inform future research and training and enable health professions educators to make informed decisions to promote learning and teaching cultural competence in healthcare. This review will also formulate recommendations for educational programmes in health professions education institutions in light of the findings.

9. PROJECT TIMETABLE

Activity	Timeline
Protocol development	September 2019- February 2020
BICC review and revision	March-April 2020
Final/updated search	May-June 2020
Screening papers to determine inclusion and exclusion	July-Sept 2020
Review of full-text articles	October 2020-February 2021
Synthesis of findings	March-April 2021
Evaluation, review and dissemination	May 2021

10. CONFLICT OF INTEREST STATEMENT

The review team members declare that they have no conflict of interest.

11. PLANS FOR UPDATING THE REVIEW

The review team would be happy to update this review in future if it is deemed appropriate.

12. CHANGES TO THE PROTOCOL

Minor amendments to review topic and protocol will be recorded with a rationale for the changes. Any significant proposed changes will be submitted to BEME for approval.

Appendix 1: Initial search undertaken by RCSI Librarian (June 2019)

PubMed	All years, no limits: MeSH and keyword	
1 Cultural	"Cultural Competency"[Mesh] OR "cultural competency"[Title/Abstract] OR "cultural competence"[Title/Abstract] OR "cultural competencies"[Title/Abstract] OR "Cultural Characteristics"[Mesh] OR "Culturally Competent Care"[Mesh] OR intercultural[Title/Abstract] OR multicultural[Title/Abstract]	26131
2 Education	student[Title/Abstract] OR students[Title/Abstract] OR "Students, Premedical"[Mesh] OR "Students, Pharmacy"[Mesh] OR "Students, Nursing"[Mesh] OR "Students, Medical"[Mesh] OR "Students, Health Occupations"[Mesh] OR education[Title/Abstract] OR educational[Title/Abstract] OR "Education, Pharmacy, Graduate"[Mesh] OR "Education, Pharmacy"[Mesh] OR "Education, Nursing, Graduate"[Mesh] OR "Education, Nursing, Diploma Programs"[Mesh] OR "Education, Nursing, Continuing"[Mesh] OR "Education, Nursing, Baccalaureate"[Mesh] OR "Education, Nursing, Associate"[Mesh] OR "Education, Nursing"[Mesh] OR "Education, Medical, Undergraduate"[Mesh] OR "Education, Medical, Graduate"[Mesh] OR "Education, Medical, Continuing"[Mesh] OR "Education, Medical"[Mesh]	822148
3 Setting	medical[Title/Abstract] OR medicine[Title/Abstract] OR nursing[Title/Abstract] OR midwifery[Title/Abstract] OR midwives[Title/Abstract] OR pharmacy[Title/Abstract] OR pharmacist[Title/Abstract] OR physiotherapist[Title/Abstract] OR physiotherapists[Title/Abstract] OR dental[Title/Abstract]	1935193
4 Combine	1 AND 2 AND 3	2678

EMBASE	All years, Emtree and keywords, LIMITED to exclude Medline	
1 Cultural	'cultural competence'/exp OR 'cultural competence':ti,ab OR 'cultural competency':ti,ab OR 'cultural competence' OR 'cultural competencies':ti,ab OR multicultural:ti,ab,de OR intercultural:ti,ab,de	11395
2 Education	'health student'/exp OR 'allied health student'/exp OR 'dental student'/exp OR 'pharmacy student'/exp OR 'physical therapy student'/exp OR 'physician assistant student'/exp OR 'nursing student'/exp OR 'medical student'/exp OR student:ti,ab OR students:ti,ab OR 'education'/exp OR education:ti,ab OR educational:ti,ab,de	1818045
3 Setting	medical:ti,ab,de OR medicine:ti,ab,de OR nursing:ti,ab,de OR nurses:ti,ab,de OR midwives:ti,ab,de OR midwifery:ti,ab,de OR pharmacy:ti,ab,de OR pharmacist*:ti,ab,de OR physiotherapist*:ti,ab,de OR OR dental:ti,ab,de OR dentists:ti,ab,de OR dentistry:ti,ab,de	1872465
4 Combine	1 AND 2 AND 3	3684
5 Limit	Exclude Medline records	698

Web of Science	All years, no limits: Science & Social Science Citation Indexes	
1	TS=('cultural competence' OR 'cultural competency' OR 'cultural competencies' OR multicultural OR intercultural)	21911
2 Education	TS=(student OR students OR education OR educational)	1818045
3 Setting	TS=(medical OR medicine OR nursing OR nurses OR midwives OR midwifery OR pharmacy OR pharmacists OR physiotherapist* OR dental OR dentist*)	1685405
4 Combine	1 AND 2 AND 3	1966

CINAHL	All years, limited to exclude Medline records	
1 Cultural	(MH "Cultural Competence") OR TI ('cultural competence' OR 'cultural competency' OR 'cultural competencies' OR multicultural OR intercultural) OR AB ('cultural competence' OR 'cultural competency' OR 'cultural competencies' OR multicultural OR intercultural)	12202
2 Education	TI student* OR AB student* OR (MH "Students, Physician Assistant") OR (MH "Students, Physical Therapy") OR (MH "Students, Midwifery") OR (MH "Students, Nurse Midwifery") OR (MH "Students") OR TI education OR AB education OR (MH "Education") OR (MH "Education, Pharmacy") OR (MH "Education, Nursing, Diploma Programs") OR (MH "Education, Nursing, Associate")	348992
3 Setting	TI medical OR AB medical OR TI medicine OR AB medicine OR TI nursing OR AB nursing OR TI midwifery OR AB midwifery OR TI pharmacy OR AB pharmacy OR TI pharmacist* OR AB pharmacist* OR TI physiotherapist* OR AB physiotherapist* OR TI dental OR AB dental OR TI dentist* OR AB dentist*	750969
4 Combine	1 AND 2 AND 3	1568
5 Limit	Exclude Medline records	757

PsychInfo	All years, limited to academic journals	
1 Cultural	MM "Cultural Sensitivity" OR TI ('cultural competence' OR 'cultural competency' OR 'cultural competencies' OR multicultural OR intercultural) OR AB ('cultural competence' OR 'cultural competency' OR 'cultural competencies' OR multicultural OR intercultural)	23029
2 Education	TI student* OR AB student* OR DE "Dental Students" OR DE "Medical Students" OR TI education OR AB education OR DE "Medical Education"	700578
3 Setting	TI medical OR AB medical OR TI medicine OR AB medicine OR TI nursing OR AB nursing OR TI midwifery OR AB midwifery OR TI pharmacy OR AB pharmacy OR TI pharmacist* OR AB pharmacist* OR TI physiotherapist* OR AB physiotherapist* OR TI dental OR AB dental OR TI dentist* OR AB dentist*	276531
4 Combine	1 AND 2 AND 3	795
5 Limit	Limit to academic journals	601

	Databases			
	Pubmed	2678		
	EMBASE	698		
	Web of Science	1966		
	CINAHL	757		
	PsychInfo	601		
				6700
	Duplicates			
6th June	Endnote removal	1577		
13th June	Manual removal	273		
			1850	
13th June	Not English	96		
			96	
3rd July	Not peer-reviewed articles			
	Thesis	127		
	Generic	4		

	Book sections	6		
	Conference Proceedings	3		
	Misc (opinion pieces, statements, position pieces etc)	20		
			160	
				2106
	Total remaining for review			4594

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