Demystifying Cultural Competence in the Physiotherapy Profession: A Scoping Review and Concept Analysis

Research Review

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Declaration

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March 2023

Abstract

Background: The ability to engage with patients from different cultural backgrounds and worldviews is accepted as a fundamental skill in healthcare professions, including physiotherapy. The term cultural competence is a critical principle in numerous international policies on healthcare and training outcomes of students as a mechanism to strengthen healthcare provision towards patient-centred care.

Aim: This study explores defining attributes of cultural competence in physiotherapy practice to better understand the meaning structure and dimensions.

Methods: A scoping review methodology with a concept analytical framework was used to describe the use of the term and its derivatives and the meaning structure in terms of antecedents, defining attributes, consequences, and empirical referents. The methodology included five steps, namely (1) motivation for selecting the concept, (2) identifying the research question and objectives, (3) identifying the relevant papers, (4) study selection, (5) charting the data, collating, summarising, and reporting the results. Five electronic databases were searched for information published from 2007-2021 to achieve this. The last search was done in August 2021.

Results: Ten journal articles were included in the review, mainly from the UK and Australia. The term most frequently used in the literature is cultural competence. Antecedents, defining attributes and consequences of the concept of cultural competence were identified in the concept analysis. Defining attributes were categorised as cognitive or socio-behavioural competency, which can impact intrapersonal, interpersonal, organisational, societal levels or a combination of two or more levels. Eight competencies were respectively identified in both the cognitive and socio-behavioural domains. The competencies of reflection on one's cultural background, values and acknowledgement of different worldviews and the mastery of cultural knowledge, values, beliefs, and behaviour of the 'other' are underlined in the included papers in the cognitive domain. Furthermore, the competencies in the socio-behavioural domain of incorporating individualised culturally competent care based on respect, trust, acceptance, empathy, and accountability in practice are most frequently discussed.

Conclusion and implications: The central findings of this study demystified the concept of cultural competence in physiotherapy practice by highlighting eight cognitive and eight socio-behavioural attributes. Furthermore, these 16 attributes were spread across different levels of manifestations, namely on the intrapersonal, interpersonal, organisational, and societal levels. The findings provide a theoretical grounding for cultural competence by identifying its defining attributes in the physiotherapy literature to date. Physiotherapists need to learn how to develop the cognitive and socio-behavioural competencies of cultural competence. Healthcare environments need to provide them with adequate support to develop the skills and behaviours to provide culturally competent care to clients. Healthcare institutions must incorporate culturally competent care into their philosophy and goals and provide resources, instruments, and training to improve physiotherapists' ability to provide culturally competent care.

Opsomming

Agtergrond: Die vermoë om met pasiënte van verskillende kulturele agtergronde en wêreldbeskouings te werk, word gesien as ‘n fundamentele vaardigheid in meeste gesondheidsberoepe, insluitend fisioterapie. Die term kulturele bevoegdheid word gesien as ‘n sleutelbeginsel in verskeie internasionale beleide in gesondheidsorg, sowel as opleidingsuitkomste van studente en as ‘n meganisme om gesondheidsvoorsiening te versterk in terme van pasiënt-gesentreerde sorg.

Doelwit: Die doelwit van die studie is om die konsep van kulturele bevoegdheid in die konteks van fisioterapie praktyk te verken en om beter die betekenis strukture en dimensies te verstaan.

Metodes: Die metodologie van ‘n omvangsbepalingsresensie en konsep analitiese raamwerk is gebruik om die gebruik van die term en die afgeleides, sowel as die betekenis strukture in terme van die voorgangers, definiërende eienskappe, gevolge en empiriese referente. Die metodologie het vyf stappe ingesluit, naamlik (1) motivering vir die konsepseleksie, (2) identifisering van die ondersoeksvraag en objektiewe, (3) identifisering van die relevante artikels, (4) studie seleksie, (5) versameling, opsomming en verslagdoening van die resultate. Om hierdie te bereik, is vyf elektroniese databasisse deursoek vir bronne van informasie wat gepubliseer is tussen 2007-2021. Die laaste soektog is in Augustus 2021 gedoen.

Resultate: Tien joernaal artikels is ingesluit in die resensie en die artikels het meestal ontstaan van die VK en Australië. Die term wat meestal in die literatuur gebruik is, is kulturele bevoegdheid. Voorgangers, definiërende eienskappe en gevolge van die konsep van kulturele bevoegdheid is geÏdentifiseer in die konsep analise. Definiërende eienskappe kan as kognitiewe of sosio-gedragsbevoegdhede gekategoriseer word, wat op ‘n persoonlike, interpersoonlike, organisiasiële, sosiale of ‘n kombinasie van twee of meer vlakke ‘n impak kan hê. Agt bevoegdhede was afsonderlik in beide die kognitiewe of sosio-gedragsdomein geïdentifiseer. Die bevoegdhede van refleksie op ‘n mens se eie kulturele agtergrond, waardes en erkenning van verskillende wêreldbeskouings en die bemeestering van kulturele kennis, waardes, oortuigings en gedragte van ‘ander’ is beklemtoon in die artikels ingesluit in die kognitiewe domein. Verder, die bevoegdheid in die sosio-gedrag domein van

inkorporering van individualiseerde kulturele bevoegde sorg gebasseer op respek, vertroue, aanvaarding, empatie en aanspreeklikheid in die praktryk is meetal bespreek.

Gevolgtrekking en implikasies: Die sentrale bevindinge van hierdie studie ontsyfer the konsep van kulturele bevoegdheid in die fisioterapie praktyk deur agt kognitiewe en sosio-gedragsbevoegdhede uit te lig. Hierdie 16 bevoegdhede was versprei oor verskillende vlakke van manifestasies, naamlik interpersoonlike, organisiasiële en sosiale vlakke. Die bevindinge verskaf ‘n teoretiese begronding vir die konsep van kulturele bevoegdheid deur die definiërende eienskappe in die fisioterapie literatuur te bestudeer. Om kulturele bevoegde sorg te verskaf aan kliente, moet fisioterapeute leer hoe om die kognitiewe en sosio-gedragsbevoegdhede van kulturele bevoegdheid te verskaf en gesondheidsorganisasies moet hulle met die nodige ondersteuning verskaf om die vaardighede en gedragte te ontwikkel. Gesongheidsorg instellings moet kulturele bevoegde sorg in hulle filosofie inkorporeer en doelwitte, hulpbronne, instrumente en opleiding beskikbaar maak om fisioterapeute se vermoë te verbeter om kulturele bevoegde sorg te veskaf.

Table of Contents

List of Figures

List of Tables

List of Abbreviations

PTs	Physiotherapists
CALD	Culturally and Linguistically Different
HSRT	Health Services Reasoning Test
CCTST	Californian Critical Thinking Skills Test

Glossary

Cultural Competence	"The ability to engage meaningfully across cultural differences in the healthcare setting (Croot, 2021)".
Cultural Humility	"In a multicultural setting where power imbalances exist, it is seen as a process of self-awareness, openness and engaging with self-reflection when interacting with diverse populations. It leads to mutual empowerment and equal partnerships involving respect and optimal care (Foronda et al., 2016)".

1. Introduction

The ability to engage with patients from different cultural backgrounds and worldviews is a fundamental skill in healthcare professions, including physiotherapy. The ability to engage meaningfully across cultural differences is often referred to as cultural competence (Croot, 2021). The term cultural competence and training outcomes of students is a crucial principle in international policies on healthcare (Shaughnessy & Tilki, 2021). The importance of instilling cultural competence in students and health professionals has been prioritised to strengthen healthcare regarding satisfaction and adherence (Shaughnessy & Tilki, 2021). Facilitating cultural competence in educating health professionals, such as physiotherapists, is a priority due to the diversity in socio-demographic factors in South Africa. However, a clear and uniform understanding of cultural competence is required to inform pedagogical interventions to instil associated knowledge, attitudes, and behaviours.

The term cultural competence is constantly evolving but remains poorly understood, although it is increasingly recognised as a required skill (Brady et al., 2016). Efforts are required to unravel the meaning, attributes and constructs that embody cultural competence. Such attempts are specifically needed to train healthcare professionals in culturally diverse settings such as South Africa (Paparella-Pitzel et al., 2016). In various contexts, cultural competence can help improve the quality of care and reduce disparities, particularly in disadvantaged communities (Saha et al., 2021). It is important to practice cultural competence in physiotherapy, considering that factors such as adherence and patient engagement are integral to the rehabilitation process (Fryer et al., 2021). Effective communication between clinicians and clients, an essential attribute of cultural competence, is linked to better client outcomes and satisfaction (Paparella-Pitzel et al., 2016). Similarly, physiotherapists' ability to be culturally responsive is seen as a very effective strategy to improve the quality of care and outcomes of culturally and linguistically different (CALD) communities (Te et al., 2019). Meeting the healthcare needs of diverse communities however extends further than providing language translation. It requires the complex understanding of impact of lifestyle and cultural differences on health access, status, and health-related behaviours (Dibiasio et al., 2023). Therefore, the minimal requirement of

physiotherapists should be to elicit the 'patient's story', avoiding stereotypical biases, utilising information of health disparities, providing care in a non-judgemental manner, acknowledging individual and cultural differences and adapting behaviour in all aspects of patient care (Dibiasio et al., 2023). The teaching of these constructs of cultural competence in the physiotherapy profession currently majority relies on didactic teaching methods (teacher-focused teaching centred on teachers delivering lessons), knowledge-based and implicit assessment methods. There is however variability in the structure, teaching and assessment methods used and the types of resources used to inform this teaching (Te et al., 2019).

Furthermore, the term cultural humility has been used frequently in literature to describe similar attributes and consequences of cultural competence in healthcare settings. Cultural humility in a multicultural environment where power imbalances exist is seen as a process of self-awareness, openness and engaging with self-reflection when interacting with diverse populations. When cultural humility is implemented, it leads to mutual empowerment and equal partnerships involving respect and optimal care (Foronda et al., 2016). Cultural humility is seen as the internal process of self-regulation of cultural competence (Barnes et al., 2020). The highlighted attribute of cultural humility as an internal regulatory process can, therefore, be subsumed by the term cultural competence, which transcends internal and external processes and is discussed in this paper.

Given the significant global changes in human mobility and the progressive increase of culturally diverse settings worldwide, healthcare needs to accommodate and serve global communities (Mcgowan et al., 2021). It is, therefore, important to establish a common language for cultural competence and practice in physiotherapy, which may guide the development of interventions to upskill students and professionals. These educational interventions will equip clinicians to provide quality client-centred care and improve healthcare equity for all communities. This can only manifest in practice when cultural competence is embodied in the philosophy of health care policies, health care organisations, social institutions, and professional identities of physiotherapists, including other health care professionals. Despite the importance of cultural competence in physiotherapy clinical practice, there is no clear guide for the practical application of the concept.

Concept analysis studies can be used to develop guidelines for concept application by identifying the uses, definitions, defining attributes, antecedents, consequences, and empirical referents of the concept (Walter & Avant, 2013). Even though the idea of cultural competence has been discussed in other healthcare professions, and some of the critical aspects may overlap, there may be aspects unique to the physiotherapy profession that need to be addressed in the literature which can translate into practice. This paper aims to bridge the gap. This study explores the defining attributes of cultural competence in physiotherapy practice to better understand the meaning structure and dimensions.

The following research question is answered in this study: What are the definitions, defining attributes, antecedents and consequences of the term cultural competence as reported in published physiotherapy literature?

The objectives are:

1. To scope the physiotherapy literature reporting on cultural competence and its derivative terms.
2. To conduct a concept analysis of the term cultural competence as it relates to physiotherapy.

2. Methodology

A scoping review was conducted to address the study's objectives. Scoping reviews map out the available research about a broader subject and examine the amount, range, and nature of the available research. A scoping review is based on the five-step methodological framework adapted from the guidelines proposed by Arksey and O'Malley (2005) and refined by Peters and colleagues (Munn et al., 2018).

A concept analysis approach was used to analyse the term cultural competence. The results of the scoping review were utilised to conduct the concept analysis. The strengths and weaknesses of both scoping review and concept analysis methodologies (Appendix 1) were consulted and therefore a combination methodology was decided on for this study. The principles of concept analysis framed the data extraction and reporting of the findings. Concept analysis involves the extraction of information on both the concept's structure (definition) and its function (uses). A crucial step of this methodology is the extraction of the concept's defining attributes, which are characteristics commonly encountered in the concept's definitions or are frequently used to describe it (Walter & Avant, 2013). Moreover, antecedents (events occurring or in place before the concept can emerge) and consequences (events that are the results of the concept) are discussed based on the information provided regarding the concept to reframe the attributes (Walter & Avant, 2013). Empirical referents, "observable phenomena by which defining attributes can be recognised in the real world", are also acknowledged (Walter & Avant, 2013). These "observable phenomena" are extracted directly from literature or, if not available, the reviewer hypothesises about them.

Table 2.1: Combining scoping review methodology with concept analysis

Scoping Review Methodology	**Concept Analysis**	**Scoping Review Methodology with Concept Analysis**
Stage 1: Identifying the research question	Step 1: Select a concept Step 2: Determine the aims and purposes of the analysis	Step 1: Motivation for selecting concept (reported in the introduction) Step 2: Identifying the research question and objectives
Stage 2: Identifying relevant papers		Step 3: Identifying relevant papers (information source) based on set criteria
Stage 3: Study selection		Step 4: Study selection (screening)
Stage 4: Charting the data Stage 5: Collating, summarising, and reporting the results • Descriptive numerical analysis • Qualitative thematic analysis	Step 3: Identify all uses of the concept Step 4: Determine the defining attributes Step 5: Identify antecedents and consequences Step 6: Define empirical referents	Step 5: Charting the data (data extraction); collating, summarising, and reporting the results (synthesis of the results) *Concept analytical framework to guide the qualitative thematic synthesis*: definitions and uses of the concept, defining attributes, antecedents and consequences, empirical referents

Identifying relevant papers (information source)

Potentially suitable papers were included using the following eligibility criteria:

1. Conceptual, perspective or review papers (re-)defining or commenting on the meaning, importance and constructs of cultural competence or any key concepts (knowledge, skills, attributes, or behaviour, or both) related to it in physiotherapy education and clinical practice.
2. Descriptive papers reporting on cultural competence as a construct in physiotherapy. Papers including the terms cultural competence, humility, sensitivity, knowledge, awareness, and responsiveness were included, because even though these terms differ, the concepts

(knowledge, skills, attributes, behaviour) encapsulated by the terms overlap and contributes to the complex understanding of the overall concept of cultural competence.

3. Papers (any experimental or non-experimental design) reporting on the implementation of cultural competence strategies in physiotherapy.
4. Qualitative papers on the client or clinician's perception of the critical concepts of cultural competence in the physiotherapy profession.
5. Papers written in English or Afrikaans.
6. Papers published from 2007 onwards were included. Since 2007, the term 'cultural competence' has appeared more consistently in healthcare literature; therefore, the most relevant and up-to-date research was included in this review (Saha et al., 2021).
7. Additional 'grey' publications found in the reference lists of the studies included through the first study selection procedure were also reviewed. Grey literature included any literature that is produced outside traditional publishing and distributing channels in electronic and print formats.

Search strategy

PubMed, Scopus, EBSCOhost, Cochrane, and Web of Science were searched from 2007 to August 2021 with the help of a Stellenbosch University librarian. Each database's search syntax was adjusted, including different or additional search terms. The studies identified using search syntaxes based on the strategy in PubMed that use a combination of MeSH and free-text terms related to cultural competence (or its derivatives) and physiotherapy were included. Examples of MeSH terms included were "culturally competent care", "cultural competency", "physical and rehabilitation medicine", "physical therapy speciality", and "physical therapists". Examples of free-text terms included "cultural* competen*", "cultural* care", "cross-cultural care", physiotherap* and "physical therap*". Appendix 2 contains the detailed search terms used for each database.

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Study selection (screening)

The study selection was conducted by a team of three reviewers (CT, CJ and QL). After screening for duplicates (CT), all the studies were screened for inclusion in the review. Two reviewers (CT and CJ) independently screened the titles and abstracts of the initial hits found in the databases according to the eligibility criteria stated above.

Screened titles and abstracts were grouped into categories "include", "exclude", or "uncertain". The full texts of the studies categorised as "include" or "uncertain" by at least one reviewer were screened according to the eligibility criteria (CJ). Differences between the two reviewers (CT and CJ) were discussed, and a third reviewer (QL) was consulted if an agreement could not be reached. Studies not meeting the inclusion criteria were excluded, and the reasons were recorded.

Charting the data (data extraction)

The review team discussed all the information to be extracted from the included studies, and Microsoft Excel was used to create a pilot data charting form (Appendix 3). The preliminary data extraction form was developed by reviewing previously published scoping reviews and piloted independently by two reviewers (CT, CJ) on four randomly selected studies. The form was repeatedly updated while extracting data from the chosen articles before the final data were included in this review. The final data extraction was done by two reviewers (CT, CJ) separately and then compared. A third reviewer (QL) was consulted if a consensus was not reached on the crucial information to be extracted. The final data charting form included the following: study characteristics (first author, publication year, study design, country, study sample and description); cultural competence (or its derivatives) definitions or uses, key findings and recommendations. Any information regarding the uses, defining attributes, antecedents, consequences, and empirical referents of cultural competence (or its derivatives) were included in the data charting form under either definitions, key findings, or recommendations.

This form was then used to extract recommended data congruent with Walter and Avant's approach to concept analysis, which includes discussing these steps in the following order: the definitions and uses of the concept, defining attributes, antecedents, consequences, and empirical referents to describe cultural competence (Walter & Avant, 2013). A concept is explained as the function(s) when the concept is used in literature, and defining attributes are characteristics commonly encountered in the concept's definitions or frequently used to describe it (Walter & Avant, 2013). Antecedents are defined as events occurring or in place before the concept can emerge. Consequences are the results of the concept (Walter & Avant, 2013). Empirical referents consist of phenomena that can be observed by which defining attributes are recognised (Walter & Avant, 2013). The senior researcher (CJ, QL) reviewed the extracted data to ensure it was consistent with the aim of the concept analysis. The primary author (CT) extracted all the data concerning cultural competence or its derivatives from the included publications, regardless of which section and how much was written in each paper.

Analysis

The extracted data was collated in line with the concept analysis methodology. The data was compared critically to consolidate, summarised (data comprehensively and informatively presented), and reported (data organised and curated so that it is easier to understand) to show the extent of the current literature on the critical components of cultural competence (or its derivatives) in the physiotherapy field. The focus was on how cultural competence (or its derivatives) is identified by its defining attributes, antecedents, consequences, and empirical referents.

An inductive analysis process was used in this study and consisted of three phases: preparation, organisation, and reporting of the results (Elo and Kyngäs, 2007). During the preparation phase, the relevant data was collected for the concept analysis, sense was made of the data, and a unit of analysis was selected. In the organisation phase, open coding of the extracted verbatim texts, creating categories (uses/defining attributes/antecedents/consequences), and abstraction (reduction of the body of data to a simplified representation of the whole) was included. In the reporting phase, the results were described

by the content of the categories using an inductive approach (to derive concepts or themes from interpretations from the raw data). The study's trustworthiness was increased by performing the concept analysis in a systematic approach, taking all the relevant information into account, and following a sequence of steps where the reviewer checks the coding for consistency. The method of analysis was thoroughly documented for all phases of the process.

The primary reviewer, in consultation with both supervisors during several sense-making sessions, used some interpretation from their clinical practice in the analytical process when extracting meaningful units from the verbatim texts, especially regarding the concept's uses. The results finalised the exact reporting format. This included tabulating the verbatim texts and significant units as defining attributes (characteristics commonly encountered in the concept's definitions or frequently used to describe it), antecedents (events occurring or in place before the concept can emerge) and consequences (results of the concept) extracted from the included papers. Every defining attribute was also categorised as having relevance on an intrapersonal, interpersonal, organisational, or societal level or a combination of two or more levels. Key themes emerged in the defining attributes. Every antecedent or consequence relates to the client, clinician, organisation, or a combination of two or more categories.

3. Results

Search results

Altogether, 268 papers were screened for this review. The full text of twenty potentially eligible articles were screened for eligibility Following the screening of full texts, ten papers were found to match the study's inclusion criteria. Figure 3.1 shows the steps followed in a flow diagram for the paper selection process.

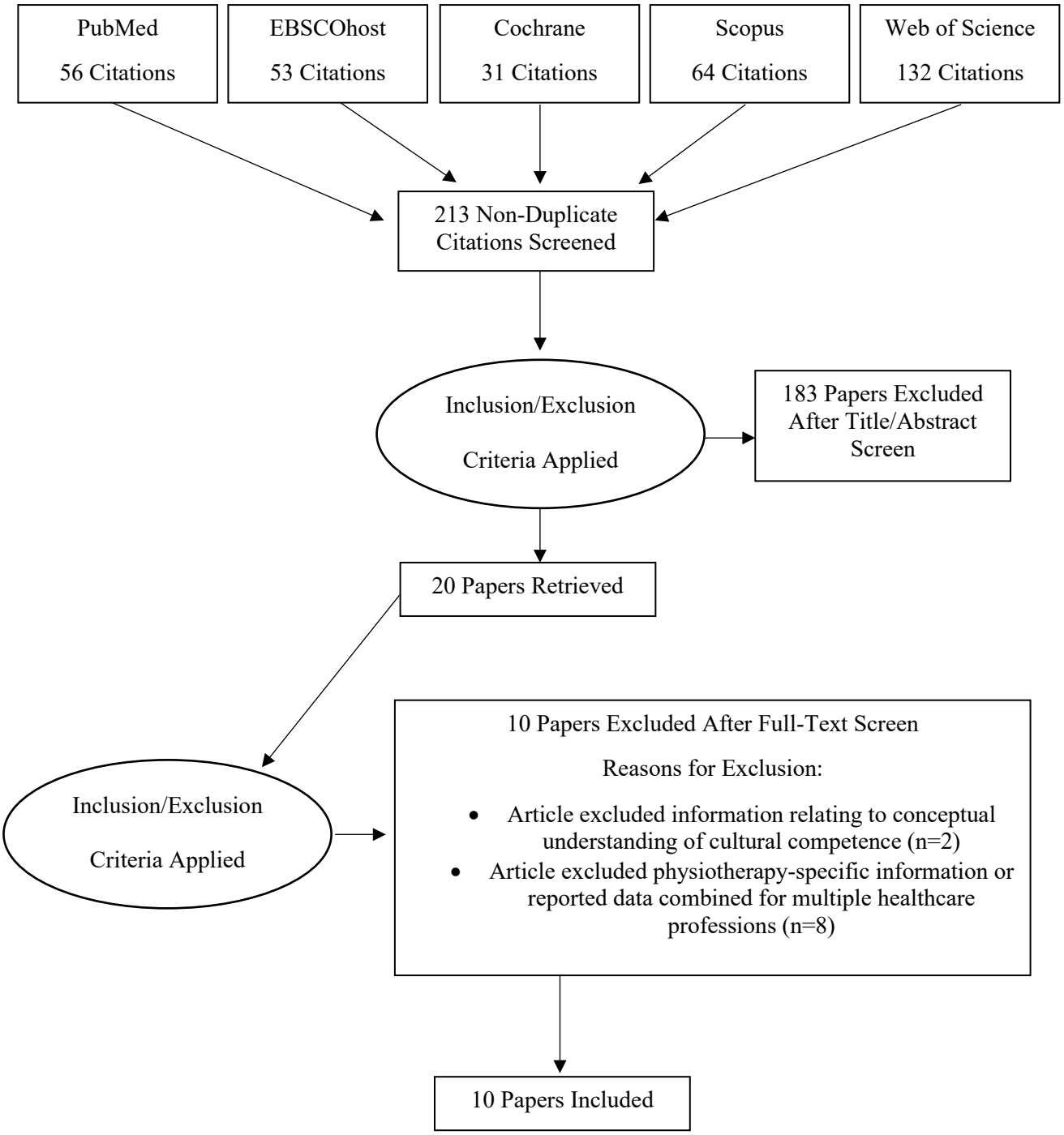

Figure 3.1: Flow diagram for paper selection process

Characteristics of included papers

The general characteristics of the studies included in the review about cultural competence in the physiotherapy profession are outlined in Table 3.1. Most studies were qualitative (n=4), followed by scoping reviews (n=2), review (n=1), perspective (n=1), mixed method (n=1), and cross-sectional (n=1). The four qualitative studies used ethnographic, descriptive, constructivist and phenomenological methodologies.

Most articles included were conducted in high-income countries (UK and Australia, followed by Canada, the US, New Zealand, India, Turkey, and Bangladesh), and were published between 2007 and 2021. Four publications did not involve a sample due to the study design used. They mainly discussed the conceptual or theoretical understanding of cultural competence in the physiotherapy profession, followed by using physiotherapy patients or students as the target populations for the studies (Barnes et al., 2020; Grandpierre et al., 2018; Mcgowan et al., 2021; Shaughnessy & Tilki, 2021). Qualified physiotherapists and caregivers for physiotherapy patients were only included in one study respectively (Croot, 2021; Te et al., 2020). Most of the papers discussed a definition of cultural competence (n=7; Barnes et al., 2020; Croot, 2021; Grandpierre et al., 2018; May and Potia, 2013; Mcgowan et al., 2021; Shaughnessy & Tilki, 2021; Yeowell, 2021), followed by cultural humility (n=2; Barnes et al., 2020; Norman et al., 2021) or responsiveness (n=2; Te et al., 2020; Te et al., 2019). The concepts of cultural awareness (n=1; Shaughnessy & Tilki, 2021), sensitivity (n=1; Shaughnessy & Tilki, 2021) and knowledge (n=1; Shaughnessy & Tilki, 2021) were seldom discussed but always explicitly mentioned as an attribute of cultural competence.

Table 3.1: Basic characteristics of included papers

Author and year published	***Aim***	***Design***	***Country***	***Sample***	***Key finding(s)***	***Recommendation(s)***
Shaughnessy and Tilki, 2021	Explains the approach; outlines training and modifiable framework for local needs.	Review	Britain	N/A	Reflection and addressing discrimination *(defining attributes)* can improve care for all users and increase job satisfaction for practitioners *(consequences)*. Client-centred care is highlighted by emphasising respect, trust, and empathy in the therapeutic relationship *(defining attributes)*. (Shaughnessy & Tilki, 2021)	There is a need for training in cultural competence for healthcare professionals. (Shaughnessy & Tilki, 2021)
Yeowell, 2021	To gain an insight into the physiotherapy needs of female Pakistani service users.	A qualitative study (ethnography approach)	England	Six Pakistani Muslim females	The elements of gender and language *(antecedents)* and their impact on trust and communication in the therapeutic relationship *(defining attributes)* are highlighted. (Yeowell, 2021)	An understanding of the culture of their local community to incorporate it into their management. (Yeowell, 2021)
Croot, 2021	To identify factors that Pakistani caregivers for children with disabilities felt were important components of their care.	A qualitative study (constructivist approach)	England	Twelve caregivers for children with disabilities.	To actively seek understanding (instead of prejudice) of the client that is relevant to practice *(defining attribute)* is emphasised. Health service providers must develop and operate systems *(antecedent)* that ensure access, use and quality of care are the same at the point of delivery, regardless of patient ethnicity *(consequences)*. (Croot, 2021)	Physiotherapy education must incorporate groups with diverse social backgrounds. Client-centred care includes understanding lifestyle, beliefs, attitudes and family and social relationships of the patients. (Croot, 2021)
Mcgowan et al., 2021	To summarise the existing knowledge that can inform the	Scoping review (qualitative studies,	Multiple (Europe)	N/A	Cultural competence is rooted in client-centred care, and cultural sensitivity, communication, reflecting on preconceived ideas/biases and acknowledging cultural	A need for research to examine the physiotherapy competencies necessary to provide client-

Author and year published	***Aim***	***Design***	***Country***	***Sample***	***Key finding(s)***	***Recommendation(s)***
	development of a competency profile for physiotherapists to deliver rehabilitation services to refugees.	descriptive, Delphi method, cohort)			differences *(defining attributes)* are highlighted. (Mcgowan et al., 2021)	centred care for diverse populations. (Mcgowan et al., 2021)
Grandpierre et al., 2018	What are the barriers and facilitators to cultural competence in rehabilitation services?	Scoping review	Turkey, Bangladesh, Australia, Canada, England	N/A	The effect of language barriers, the influence of cultural differences on service delivery, and limited resources to facilitate culturally competent care is highlighted as barriers in the therapeutic relationship. Increasing cultural awareness, fostering a culturally competent work environment, and explaining healthcare to minority culture patients is highlighted as facilitators *(antecedents, defining attributes)*. (Grandpierre et al., 2018)	It is crucial to explore both patient/caregiver and practitioner perspectives. (Grandpierre et al., 2018)
May and Potia, 2013	To measure the impact of a cultural competence training programme on the ability of Indian physiotherapy students to engage in culturally	Mixed methods study	India	14 Final year PT students.	The importance of adherence to improve patient outcomes and cultural and language differences *(antecedents; consequences)* that are barriers to treatment adherence is highlighted. The influence of culture and how it needs to be incorporated into the treatment, collaboration with patients, the importance of client-centred care, the value of cultural competency training and its impact on therapist efficacy are emphasised *(defining attributes)*. (May and Potia, 2013)	There is a need to incorporate cultural competency training in physiotherapy education to provide patient-centred care. (May and Potia, 2013)

Author and year published	***Aim***	***Design***	***Country***	***Sample***	***Key finding(s)***	***Recommendation(s)***
	competent care practices.					
Barnes et al., 2020	Provides an overview of the role of PTs and suggests evidence-based best practices for cultural humility in hospice and palliative care PTs.	Perspective paper	US	N/A	Barriers to culturally competent care include the unavailability of culturally/linguistically appropriate health resources, cultural beliefs about illness and distrust in the healthcare system *(antecedents)*. Client factors of racial/ethnic group, religion, socioeconomic status, gender, age, disability, and geographic location can influence culturally competent care *(antecedents)*. Elements of effective communication, reflection, culturally adapted interventions, and awareness of cultural differences *(defining attributes)* are highlighted. (Barnes et al., 2020)	Cultural humility content should be added to PT curricula, and cultural humility training for all PT faculty members is crucial. (Barnes et al., 2020)
Te et al., 2019	To evaluate the level of self-perceived cultural responsiveness of entry-level physiotherapy students during their training.	Cross-sectional study	Australia, New Zealand	817 entry-level physiotherapy students.	Fewer number of weeks of clinical placement attended, lower levels of dogmatism (closed-minded cognitive thinking style) and greater social desirability *(antecedents)* were related to greater self-perceived cultural responsiveness. Predictors of cultural responsiveness of students include gender, age, ethnicity, exposure to CALD communities, academic level, socioeconomic status, and prior training *(antecedents)*. Elements of self-awareness of biases, reflection and understanding the health beliefs of clients *(defining attributes)* are emphasised.	Developing and validating observational measures is essential to assess cultural responsiveness. (Te et al., 2019)

Author and year published	***Aim***	***Design***	***Country***	***Sample***	***Key finding(s)***	***Recommendation(s)***
					(Te et al., 2019)	
Norman et al., 2021	To improve cultural humility by enhancing cultural knowledge about pain management.	Descriptive qualitative study	Canada	14 individuals	Engaging with CALD people living with pain can lead to improved cultural knowledge, awareness and humility that can form the basis for adapting interventions *(consequences)*. A meaningful and client-centred evidence-based management plan can be developed by this process*(consequences)*. Barriers to culturally competent care include lack of cultural sensitivity, language barriers and patient's socioeconomic status *(antecedents)*. (Norman et al., 2021)	It is essential to adapt interventions to meet the needs of CALD groups better. More research is needed to understand the resources required to effectively implement interventions, analyse their effect, and determine which elements influence outcomes most. (Norman et al., 2021)
Te et al., 2020	To explore new graduate physiotherapists' perceptions and experiences when working with people from CALD communities.	A qualitative study (phenome-nological approach)	Australia	Seventeen new graduate PTs.	Physiotherapists should make changes to language for their clients with a focus on patient-centred care and self-reflection to continually grow in their practice is highlighted *(defining attributes)*. Reasons for healthcare disparities include cultural differences, health beliefs and expectations, language barriers, providers' attitudes, and bias *(antecedents)*. Adapting interventions to increase compliance and satisfaction of care, policies, and organisational practices encouraging a culturally responsive workforce leads to improved patient engagement *(defining attributes; consequences)*. (Te et al., 2020)	Research to understand how current evidence-based interventions can be adapted to integrate patients' cultural perspectives into care is highlighted, and its impact on patient outcomes should be examined. (Te et al., 2020)

Definitions of the concept of cultural competence

Multiple papers included a variety of definitions to describe cultural competence and its derivatives. The final ten papers discuss cultural awareness, competence, humility, responsiveness, sensitivity, and knowledge and are displayed in Table 3.2. The paper by Shaughnessy and Tilki (2021) included four different terms and definitions, whereas the other papers only referred to one (or two at most). While different derivatives of cultural competence were used in the papers most of the competencies refferred to in the definitions overlap and are included in the definitions of cultural competence spesifically.

Table 3.2: Definition(s) included in papers

Reference	***Definition(s) included in paper***
Shaughnessy and Tilki, 2021	**Cultural Competence** "It is the culmination of cultural awareness, knowledge, and sensitivity, informs patient management, and is integrated into clinical work. Draws the earlier stages together to identify and plan improvements in care, access, and provision, and to address discrimination so that the needs of all patients are addressed." **Cultural Sensitivity** "Relates to therapeutic interactions and the importance of respect, trust, acceptance, and empathy in forming true therapeutic partnerships. Focuses on interpersonal interactions in different cultural situations and enhances opportunities for trusting therapeutic relationships." **Cultural Knowledge** "Embraces a number of dimensions, including ethnohistory, health beliefs, stereotypes, barriers and sociological issues. Facilitates information about different ethnic minority groups, asylum seekers and refugees. It explores perceptions of health and illness and the social factors that influence them." **Cultural Awareness** "Focuses on personal attitudes and behaviours, professional ethnocentricity, and the exploration of differing views and ways of living."
Yeowell, 2021	**Cultural Competence** "It is related to cultural awareness, knowledge, understanding and sensitivity."
Croots, 2021	**Cultural competence** "A set of congruent behaviours, attitudes and policies that come together in a system, agency or among professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations."

Mcgowan et al., 2021	**Cultural Competence** "A set of skills or processes that enable health professionals to provide services that are (culturally) appropriate for the diverse populations they serve."
Grandpierre et al., 2018	**Cultural Competence** "… 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; and, finally, devising interventions that take these issues into account to assure quality health care delivery to diverse patient populations."
May and Potia, 2013	**Cultural Competence** "A set of behaviours, attitudes and policies that enable healthcare systems, agencies, or individual practitioners to be effective in trans-cultural interactions. It includes cultural awareness, knowledge, and sensitivity, which informs patient management and is integrated into clinical care."
Barnes et al., 2020	**Cultural Competence** "Effective work in cross-cultural situations," with mastery of cultural knowledge as its goal; cultural identity is divided into categories, with indicated culturally competent practices for each." **Cultural Humility** "Demonstrates unconditional positive regard and affirmation of every person's cultural perspective. This approach emphasises the self-reflexive process of examining thoughts, feelings, and actions, rather than the mastery of cultural knowledge."
Te et al., 2019	**Cultural Responsiveness** "The capacity of healthcare professionals or organisations to deliver care that is safe, respectful, and relevant to the health beliefs, practices and cultural and linguistic needs of culturally diverse patient populations; is a learning process that is ongoing and dynamic."
Norman et al., 2021	**Cultural Humility** "With respect to pain management requires reflecting on one's biases, values, and cultural assumptions and being willing to relinquish the role of expert to learn from people living with pain, thereby creating a health care environment that is built on open and respectful communication and acknowledges disparities within the health care system."
Te et al., 2020	**Cultural responsiveness** "The ability to provide healthcare that is safe, respectful, and relevant to the health beliefs, practices, and needs of all people; also includes the capacity to culturally adapt interventions (modification of evidence-based interventions to incorporate the patient's cultural perspectives, values, and norms)."

Uses of the concept of cultural competence

A dual-use (or function of the concept when used in literature) of the term cultural competence in the physiotherapy profession was found and interpreted from the included papers. The first use focuses on

the intrinsic and extrinsic factors (similarly discussed as antecedents of the concept) that can influence the level of cultural competence displayed in clinical practice. It, therefore, requires the intrinsic factors of the clinician and the client and the extrinsic factors of the policies and processes of the specific healthcare environment or organisation to deliver culturally competent care. The second use focuses on how the display of cultural competence would influence the clinician, client, and healthcare environment, which is again similarly discussed as a consequence of the concept. Both functions were not explicitly discussed as uses in the literature but concluded from interpretation from the reviewers' clinical experience.

The findings pertaining to defining attributes were classified as a competency in the cognitive or socio-behavioural domain of practice. The attribute or competency extracted from the included literature has been categorised as relevant and manifest on the interpersonal (client and clinician), organisational, societal level or a combination of two or three levels.

Defining attributes in the cognitive domain

Eight defining attributes in the cognitive domain were identified from the included papers. The defining characteristics of awareness of one's attitudes and behaviours, reflection on one's cultural background and values, acknowledging different worldviews, and professional ethnocentricity awareness is highlighted (Grandpierre et al., 2018; Norman et al., 2021; Shaughnessy & Tilki, 2021). Awareness and affirmation of the client's perspective, cultural and linguistic needs, knowledge of traditional treatment approaches, mastery of cultural knowledge, values, beliefs and behaviour of the 'other', knowledge of conducting a culturally adapted assessment and provision of culturally adapted intervention and linguistic knowledge to aid communication is also underlined in the cognitive domain (Barnes et al., 2020; Grandpierre et al., 2018; May and Potia, 2013; Norman et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2019, 2020). In Table 3.3 colour-shaded areas were used to indicate the dimension of practice and the level of relevance or manifestation.

Table 3.3: Defining attributes (competencies in the cognitive domain) of cultural competence in the physiotherapy profession

	The context in which the factor is described in the paper	*Meaningful unit*	*Defining attributes*
Cognitive domain	Focuses on personal attitudes and behaviours… the capacity to reflect on one's cultural background and recognise biases and assumptions (Shaughnessy & Tilki, 2021)	Being aware of one's personal attitudes, behaviours	Awareness of one's personal attitudes and behaviours
	Capacity to reflect on one's cultural background and recognise biases and assumptions (Shaughnessy & Tilki, 2021)	Demonstrate the ability to reflect on one's cultural background, prejudices, values, biases, assumptions	Reflection on one's cultural background, values, and acknowledgement of different worldviews
	Requires reflecting on one's biases, values, and cultural assumptions (Norman et al., 2021)		
	Being reflective (examining their own cultural identity, values, prejudices, biases, and assumptions and the influence they can have on service delivery) (Grandpierre et al., 2018)		
	Focuses on personal attitudes, behaviours, and professional ethnocentricity (Shaughnessy & Tilki, 2021)	Being aware of the likelihood of seeing one's culture as superior in the therapeutic relationship	Professional ethnocentricity awareness
	To relinquish the role of the expert (Norman et al., 2021)		
	Affirmation of every person's cultural perspective (Barnes et al., 2020)	Being aware and affirming the client's perspective, cultural and linguistic needs	Awareness and affirmation of the client's perspective, cultural and linguistic needs
	Culturally and linguistic needs of culturally diverse patients (Te et al., 2019)		
	Learn about traditional approaches to managing pain (Norman et al., 2021)	Know traditional approaches to managing pain	Knowledge of traditional treatment approaches
	Effective work in cross-cultural situations with the mastery of cultural knowledge as its goal (Barnes et al., 2020)	Know cultural values, identity, values, health-seeking behaviours, and beliefs of clients	Mastery of cultural knowledge, values, beliefs, and behaviour of the 'other'
	Model for transcultural skills development includes health beliefs and behaviour, stereotyping, self-awareness, cultural identity, heritage adherence, ethnocentricity (Shaughnessy & Tilki, 2021)		
	Understanding the patient's values (May and Potia, 2013)		

	Assessment, diagnostic and clinical skills (Shaughnessy & Tilki, 2021)	Know assessment and clinical skills and culturally adapt interventions	Knowledge of conducting a culturally adapted assessment and provision of culturally adapted interventions
	To culturally adapt interventions (Te et al., 2020)		
	Learning certain keywords and phrases in the patients' primary language (Grandpierre et al., 2018)	To have the linguistic knowledge to aid communication	Linguistic knowledge to help with communication

Level(s) related to defining attribute identified

Intrapersonal	
Intrapersonal and organisational	

Defining attributes in the socio-behavioural domain

Eight defining attributes in the socio-behavioural domain were identified from the included papers. These are competency in mindful, open, and clear communication, collaboration with other people in the therapeutic relationship, engagement with the role that culture plays, retaining professional ethnocentricity, acknowledging disparities in healthcare and addressing prejudices, inequalities, and discrimination based on cultural differences (Barnes et al., 2020; Grandpierre et al., 2018; Norman et al., 2021; Shaughnessy & Tilki, 2021). Promotion of healthcare equity, awareness of cultural differences and consideration of associated power imbalances when engaging with clients, understanding how social and cultural factors are intricately interwoven, and incorporating individualised culturally competent care based on respect, trust, acceptance, empathy, and accountability in practice are further emphasised in the socio-behavioural domain (Barnes et al., 2020; Croot, 2021; Grandpierre et al., 2018; Norman et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2019). Colour-shaded areas were used in Table 3.4 to indicate the dimension of practice and level of influence.

Table 3.4: Defining attributes (competencies in the socio-behavioural domain) of cultural competence in the physiotherapy profession

	The context in which the factor is described in the paper	*Meaningful unit*	*Defining attributes*
Socio-behavioural domain	Health care environment built on open and respectful communication (Norman et al., 2021)	Demonstrate mindful, open, and clear communication	Demonstration of mindful, open, and clear communication (verbal and non-verbal)
	Being mindful of verbal and non-verbal communication (Grandpierre et al., 2018)		
	To relinquish the role of the expert (Norman et al., 2021)	Collaborate with another person in a therapeutic relationship	Collaboration with another person in a therapeutic relationship
	This (cultural competence) is achieved by persistent engagement, openness, and appreciation of the role of culture in our professional and personal lives (Barnes et al., 2020)	Demonstrate the capacity to engage with the role that culture plays in one's life	Engagement with the role that culture plays in one's life to remain one's professional ethnocentricity
	Challenging and addressing prejudice, discrimination, inequalities (Shaughnessy & Tilki, 2021)	To acknowledge disparities in healthcare, challenge and address prejudices, inequalities, discrimination	Acknowledge disparities in healthcare and address prejudices, inequalities, and discrimination based on cultural differences
	Acknowledges disparities within the healthcare system (Norman et al., 2021)		
	The needs of all people are addressed Challenging and addressing prejudice, discrimination, inequalities (Shaughnessy & Tilki, 2021)	Promote healthcare equity	Promotion of healthcare equity

	Develop humble awareness of cultural differences and associated power imbalances (Barnes et al., 2020)	Being aware of cultural differences and associated power imbalances when engaging with clients	Awareness of cultural differences and consideration of associated power imbalances when engaging with clients
	Includes consideration of power, such as professional power, when considering interactions with patients (Croot, 2021)		
	Understanding that social factors (for example, socioeconomic status and environmental factors such as supports, stressors, and hazards) are intricately woven into cultural factors (Grandpierre et al., 2018)	Understanding how social and cultural factors are intricately interwoven	Demonstrate awareness and understanding of social and cultural factors
	Deliver care that is safe, respectful, and relevant to the health beliefs, practices and cultural and linguistic needs of culturally diverse patient populations (Te et al., 2019)	Demonstrate incorporating individualised culturally competent care based on respect, trust, acceptance, empathy, and accountability in practice	Incorporation of individualised culturally competent care based on respect, trust, acceptance, empathy, and accountability in practice
	The importance of respect, trust, acceptance, and empathy in forming true therapeutic partnerships (Shaughnessy & Tilki, 2021)		
	Trust, acceptance, appropriateness, respect. A shift from competence to accountability (Norman et al., 2021)		

Level(s) related to defining attribute identified

Interpersonal	
Interpersonal and organisational	
Interpersonal, organisational, and societal	

The overall depiction of defining attributes of the concept of cultural competence

A total of 16 defining attributes and an equal amount of eight competencies in the cognitive and socio-behavioural domains were identified in the papers. In the cognitive domain, four competencies influence the intrapersonal level, and the remaining four affect the intrapersonal and organisational levels. In the socio-behavioural domain, two competencies impact only the interpersonal level. In contrast, three competencies impact the interpersonal and organisational levels while the remainder transcends all three levels, including the interpersonal, organisational, and societal. Figure 3.2 illustrates the defining attributes (competencies in the cognitive or socio-behavioural domains) of cultural competence in the physiotherapy profession and how it impacts intrapersonal, interpersonal, healthcare, societal level, or a combination.

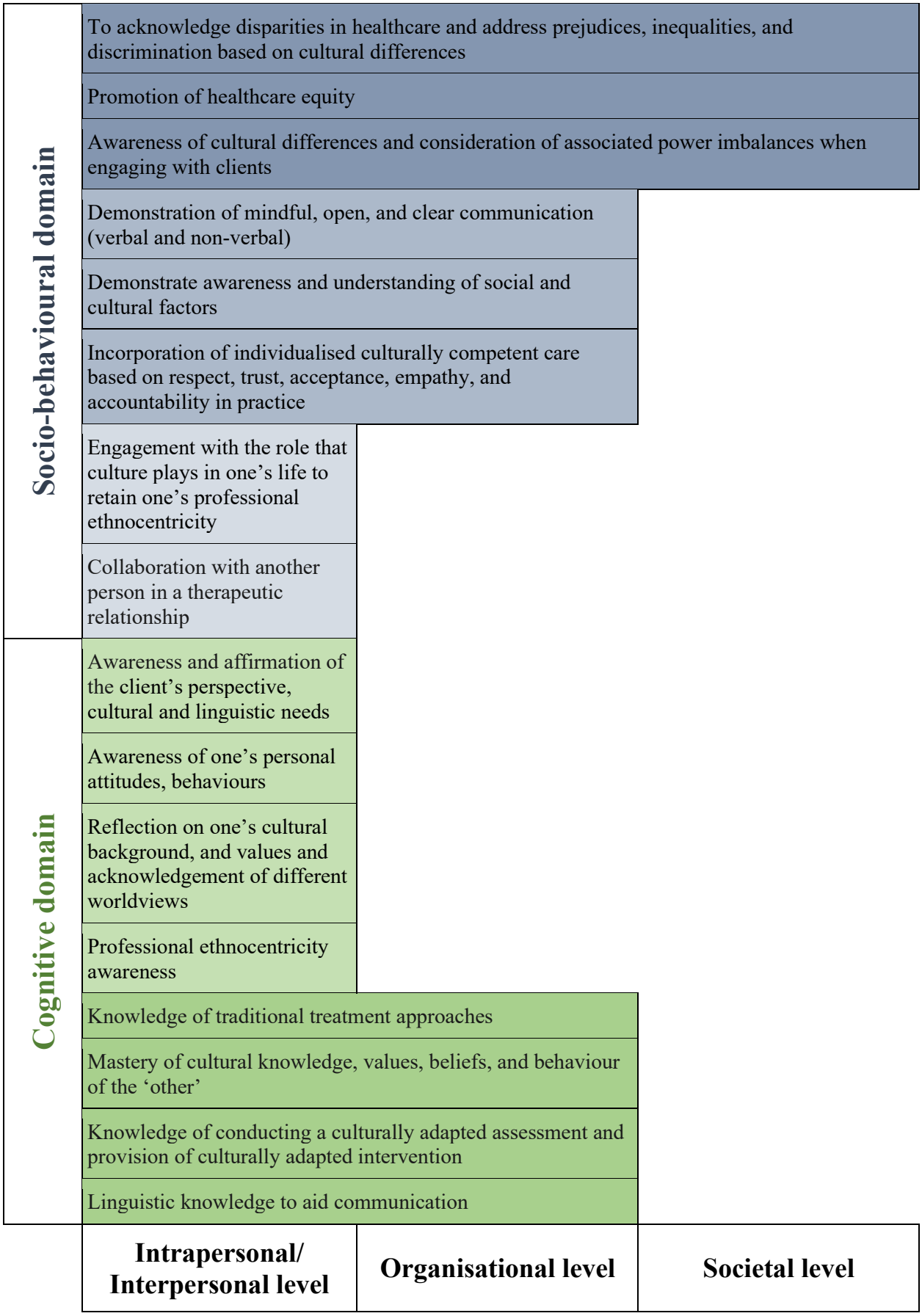

Figure 3.2: Illustration of the defining attributes (competencies in the cognitive or socio-behavioural domains) of cultural competence in the physiotherapy profession and how it impacts intrapersonal, interpersonal, organisational, societal level, or a combination.

Antecedents of the concept of cultural competence

The precondition of the client and the clinician, which differs on different aspects of cultural competence, is required for the concept of cultural competence to emerge. Another antecedent is the local healthcare environment or organisation where culturally competent care is part of its philosophy and reflective of its vision, mission, and goals. Antecedents emerging from the client's perspective were frequently discussed in the studies, followed by those arising from the organisation and the clinician's perspective.

The clinician-related antecedents highlighted in the literature are exposure to diverse communities, academic level, prior training, professional expertise, knowledge of critical aspects of culturally competent care, skills to implement them in practice and previous experience or exposure to cross-cultural healthcare settings (Grandpierre et al., 2018; May and Potia, 2013; Norman et al., 2021; Te et al., 2020; Te et al., 2019; Yeowell, 2021). The organisation-related antecedents highlighted are the availability of culturally competent care and congruent processes and policies to improve access and provision of safe, respectful, dignified, and appropriate quality healthcare (Croot, 2021; Grandpierre et al., 2018; May and Potia, 2013; Mcgowan et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2020). The client-related antecedent is gender roles and their preferences (Yeowell, 2021). Antecedents related to both the client and clinician are cultural and social differences and differing health beliefs, perceptions, values, norms, and worldviews (Barnes et al., 2020; Grandpierre et al., 2018; Shaughnessy & Tilki, 2021; Te et al., 2020; Te et al., 2019; Yeowell, 2021). Furthermore, the antecedent related to the client, clinician and the organisation are language difficulties, availability of treatment in the client's primary language, translation services, translated materials and transcultural healthcare workers (Barnes et al., 2020; Grandpierre et al., 2018; Norman et al., 2021; Te et al., 2020; Yeowell, 2021). Table 3.5

illustrates the antecedents identified in the literature and the level (client, clinician, organisation, or a combination of two or three) indicated by colour-shaded areas that the antecedent is related to.

Table 3.5: Antecedents of cultural competence in the physiotherapy profession

The context in which the factor was described in the paper	***Factor/ Antecedent label***
Offering service users, the choice of gender of therapist and, where appropriate, the provision of single-sex exercise group sessions (Yeowell, 2021)	Gender roles and their preferences
Learning specific keywords and phrases in the patients' primary language (Yeowell, 2021)	Language difficulties/ availability of treatment in the client's primary language, translation services, translated materials and transcultural healthcare workers
The effect of language barriers (Grandpierre et al., 2018)	
Making changes to the language (Barnes et al., 2020)	
Making changes to the language (Te et al., 2020)	
Recruiting bilingual therapists (Yeowell, 2021)	
Learning certain keywords and phrases in the patients' primary language (Grandpierre et al., 2018)	
Fluency in a language other than English (Barnes et al., 2020)	
Providing translated materials; involving multicultural health workers (Norman et al., 2021)	

Understanding the importance of social and cultural influences on patient's health beliefs (Grandpierre et al., 2018)	Cultural and social differences
Develop humble awareness of cultural differences and associated power imbalances (Barnes et al., 2020)	
Influence of cultural differences on service delivery (Grandpierre et al., 2018)	
Explores perceptions of health and illness and the social factors that influence them (Shaughnessy & Tilki, 2021)	
Understanding that social factors (for example, socioeconomic status and environmental factors such as supports, stressors, and hazards) are intricately woven into cultural factors (Grandpierre et al., 2018)	
Based on racial or ethnic group, religion, age, disability, geographic location (Barnes et al., 2020)	
Embraces health beliefs (Shaughnessy & Tilki, 2021)	Differing health beliefs, perceptions, values, norms, and worldviews
Deliver care relevant to health beliefs (Te et al., 2019)	
Provide healthcare relevant to health beliefs (Te et al., 2020)	
Explores perceptions of health and illness (Shaughnessy & Tilki, 2021)	
Integrate the core values, beliefs, norms, and worldviews held by ethnocultural communities into interventions (Te et al., 2020)	

Predictors have mostly been limited to gender, age, ethnicity, exposure to culturally and linguistically different communities, academic level, socioeconomic status, and prior training (Te et al., 2019)	Exposure to diverse communities, academic levels, and prior training
Services that are (culturally) appropriate (Shaughnessy & Tilki, 2021)	Availability of culturally competent care
Devising interventions that take these issues into account (Grandpierre et al., 2018)	
A set of processes that enable health professionals (Mcgowan et al., 2021)	Congruent procedures and policies to improve access and provision of quality healthcare that is safe, respectful, dignified, and appropriate
A set of congruent policies that enable healthcare systems (Croot, 2021)	
emphasise the importance of a culturally responsive healthcare workforce through policies (May and Potia, 2013)	
Organisational practices known to facilitate or inhibit patient-centred care (Te et al., 2020)	
Devising interventions that take these issues into account (Grandpierre et al., 2018)	Professional expertise and knowledge of crucial aspects of culturally competent care and skills to implement it in practice
To relinquish the role of the expert (Norman et al., 2021)	
To adapt interventions culturally (Te et al., 2020)	
Setting goals and undertaking individualised rehabilitation within the patient's explanatory model of health (Norman et al., 2021)	

Reflecting their biases and prejudices (May and Potia, 2013)	
Open and respectful communication (Norman et al., 2021)	
Taking time to discuss the assessments and treatments (Yeowell, 2021)	
The number of weeks of clinical placement attended was related to greater self-perceived cultural responsiveness (Te et al., 2019)	Previous experience or exposure in cross-cultural healthcare settings

Level(s) related to each antecedent identified:

Clinician	
Client and clinician	
Organisation	
Client, clinician, and organisation	
Client	

Consequences of the concept of cultural competence

Consequences emerging from the client's perspective are frequently discussed, followed by the consequences arising from the local healthcare environment or organisation and the clinician's perspective. The clinician-related consequences highlighted in the literature are improved work satisfaction and increased therapist efficacy (May & Potia, 2013; Shaughnessy & Tilki, 2021). The client-related outcomes are improved satisfaction with healthcare, improved access and provision, more appropriate interventions for patients whose priority needs are addressed, and improved healthcare equality (Mcgowan et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2020). The consequences to the client, clinician and organisation are improved client-centred care (Grandpierre et al., 2018; May & Potia, 2013; Shaughnessy & Tilki, 2021; Te et al., 2020). The client and the clinician-related consequence is increased engagement in care, leading to improved compliance (Grandpierre et al., 2018; Te et al., 2020). The result for the client and organisation is decreased cost of healthcare (Croot, 2021). Table 3.6 illustrates the consequences identified in the literature and the level (client, clinician, organisation, or a combination of two or three) indicated by colour-shaded areas that the consequence is related to.

Table 3.6: Consequences of cultural competence in the physiotherapy profession

The context in which the factor was described in the paper	***Factor/ Consequence label***
Can improve care for all users and increase job satisfaction for practitioners (Shaughnessy and Tilki, 2021)	Improved work satisfaction
You could do what you wanted to do more simply and easily without wasting time (May and Potia, 2013)	Increased therapist efficacy
Can improve care for all users and increase job satisfaction for practitioners (Shaughnessy and Tilki, 2021)	Improved satisfaction with healthcare
Assure quality healthcare delivery (Grandpierre et al., 2018)	Improved client-centred care
Informs patient management (May and Potia, 2013; Shaughnessy and Tilki, 2021)	
Provide healthcare relevant to the needs of people (Te et al., 2020)	
Plan improvements in access and provision (Shaughnessy and Tilki, 2021)	Improved access and provision
Culturally appropriate services (McGowan et al., 2021)	More appropriate interventions for the patient where all their needs are addressed
The needs of all people are addressed (Shaughnessy and Tilki, 2021)	
To culturally adapt interventions (Te et al., 2020)	

Primary facilitators were cultural awareness among practitioners, cultural awareness in services (Grandpierre et al., 2018)	Increased engagement in care leads to increased compliance
The approach has been shown to enhance patient engagement (attendance and adherence) (Te et al., 2020)	
Set of congruent policies that come together in a system or among professionals and enable that system or those professionals to work effectively in cross-cultural situations (Croot, 2021)	Decreased cost of healthcare
The needs of all people are addressed (Shaughnessy and Tilki, 2021)	Improved healthcare equality

Level(s) related to each consequence identified:

Clinician	
Client and clinician	
Client, clinician, and organisation	
Client	
Client and organisation	

Identifying empirical referents of the concept of cultural competence

Empirical referents help develop tools and identify the defining attributes (Walter & Avant, 2013). In terms of tool development, no standardised tool was found in the sourced literature that specifically assesses cultural competence in the physiotherapy profession or suggestions on what and how it should be assessed. Identifying empirical referents for cultural competence is difficult because the concepts are not directly observable or measured but came about through the clinician's thought processes and understanding of cultural competence. Critical thinking, defined as the process of solving problems of clients and approaching the decision-making process with creativity to enhance the effect, can be understood as a prerequisite for the concept of cultural competence to emerge (Papathanasiou et al., 2014). Instruments used in previous literature to measure critical thinking for health professionals, such as the Health Services Reasoning Test (HSRT) and Californian Critical Thinking Skills Test (CCTST), can be adjusted and modified to measure some of the defining attributes of cultural competence in the physiotherapy profession (Pitt et al., 2020).

A practical illustration of the concept of cultural competence in literature

A practical illustration of cultural competence in the physiotherapy profession is explored in the paper by Yeowell (2021), where issues relating to gender emerged from the interviewees. The interviewees expressed their preference for group exercise in same-sex groups. The failure to meet this need led to non-attendance at subsequent appointments. Therefore, to provide culturally competent care, offering clients the choice of gender of the clinician (and same-sex group exercise classes, where applicable) can affect the compliance and attendance of appointments. This also shows how a particular antecedent (such as gender roles and preferences) can have a crucial impact on consequences such as compliance and attendance at appointments. From an organisational or societal level, the precondition or antecedent is the lack of choice in deciding the clients' preference of being seen by a clinician of a particular gender.

A contrary case which also highlights the importance of cultural competence in physiotherapy practice is discussed in Grandpierre et al. (2018), where consideration with regards to appointment duration is not considered for second-language English speaking patients and service provision is conducted in the English language. The patient in this case highlighted the fact that he must understand and translate what is communicated to him into his native language and respond translated again back into the English language during the therapeutic conversation and this process requires more time. The patient suggests that when time is not given to confirm that he understands what is communicated, information with regards to his care is lost. The patient therefore suggests that longer appointment duration and the physiotherapist confirming that the information relayed is understood correctly is recommended, which would inform culturally competent care. When the antecedent of the client (cultural differences which includes language barriers) is ignored, poor culturally competent care is displayed in practice which can negatively impact the client and his rehabilitation outcomes (consequences).

4. Discussion

This study aimed to explore defining attributes of cultural competence in physiotherapy practice in physiotherapy practice to better understand the meaning structure and dimensions. The literature emphasises that cultural competence is crucial in improving patient outcomes in all healthcare professions, including physiotherapy. There is, however, no clear understanding and implementation of the attributes encompassed in the concept of cultural competence specifically for the physiotherapy profession and terms discussing this phenomenon are used interchangeably.

To my knowledge, this is the first scoping review and concept analysis of cultural competence in physiotherapy. The findings in this paper emphasise that the defining attributes (characteristics commonly encountered in the concept's definitions or frequently used to describe it) of cultural competence are beyond knowledge and skills and translate to behaviour (Walter & Avant, 2013). In this study, the defining attributes were described as a competency in the cognitive or socio-behavioural domain. Cultural competence transcends various levels of behaviour, including intrapersonal, interpersonal (client and clinician), organisational and societal levels. All the levels the concept transcends are essential for physiotherapy practice and must be fully recognised to help strengthen efforts geared towards equitable healthcare.

It is essential to highlight that the concept can be understood by looking at two dimensions. The competency in the cognitive or socio-behavioural domain and at what level(s) the concept is addressed. The competencies of reflection on one's cultural background, values and acknowledgement of different worldviews and the mastery of cultural knowledge, values, beliefs, and behaviour of the 'other' is underlined in the cognitive domain (Barnes et al., 2020; Grandpierre et al., 2018; May and Portia, 2013; Norman et al., 2021; Shaughnessy & Tilki, 2021). Furthermore, the competency in the socio-behavioural domain of incorporation of individualised culturally competent care based on respect, trust, acceptance, empathy, and accountability in practice is most frequently discussed (Norman et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2019)

All the highlighted defining attributes in the cognitive and socio-behavioural domains can be seen as not exclusive to physiotherapy but applicable to all healthcare professions (Barnes et al., 2020; Croot, 2021; Grandpierre et al., 2018; May and Potia, 2013; Norman et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2020; Te et al., 2019). The manifestation of the defining attributes (in both the cognitive and socio-behavioural domains) in each healthcare profession may differ, however applicable to each profession. The manifestations specifically in the physiotherapy profession has not been explicitly discussed in the included literature and is difficult to comment on. The defining attributes most underdeveloped in the physiotherapy profession are those in the socio-behavioural domain because it is more difficult to teach than the competencies in the cognitive domain (Barnes et al., 2020; Croot, 2021; Grandpierre et al., 2018; Norman et al., 2021; Shaughnessy & Tilki, 2021; Te et al., 2019). Critical thinking must be engaged to facilitate the clinical skills of physiotherapy students and clinicians beyond knowledge to behaviour which is encapsulated in the socio-behavioural domain. These attributes must be developed into learning outcomes and educational interventions for physiotherapy students and clinicians. Most defining attributes impact intrapersonal, interpersonal and organisational levels. This is because most existing literature only explores the concept of cultural competence on the interpersonal and organisational levels. This is the first paper to discuss the idea of cultural competence in the physiotherapy profession as a concept with a function and purpose on all levels, including the societal level.

The only similar concept analysis of cultural competence in other healthcare professions was conducted for the nursing profession. The defining attributes identified in the nursing profession were cultural awareness, knowledge, sensitivity, skill, proficiency, and dynamicity (Sharifi et al., 2019). Comparing these defining attributes in the nursing profession with those identified in this paper for the physiotherapy profession lacks clarity as to precisely what each attribute means. The defining attributes are more one-dimensional and cannot be directly translated into a learning outcome to form part of an educational intervention, which is one of the primary outcomes for conducting a concept analysis. The attributes identified are only relevant on a primarily intrapersonal or interpersonal level (client and clinician) and seldom on an organisational one. This differs from the physiotherapy profession but

includes competencies emerging from cognitive and socio-behavioural domains, similar to physiotherapy.

However, it would be impossible to develop a standardised assessment tool that encompasses all the defining attributes because of how multifaceted the concept of cultural competence is. The tool(s) need to consider the type of patient and the characteristics of the local healthcare environment or organisation (antecedents) to indicate clearly how cultural competence is displayed in practice. These antecedents must be clearly identified, given their influence on the clinician's interpretations. However, exploring different measurement tools to evaluate the defining attributes in either the cognitive or socio-behavioural domain would be more feasible. Different interventions can then be developed to teach each defining characteristic. It is also vital to conduct further research on exploring stories and scenarios to teach physiotherapy students and clinicians the defining attributes (especially in the socio-behavioural domain) using tools and pedagogies such as cases or problem-based teaching and learning approaches or simulation. These teaching strategies would contrast to the didactic teaching methods in most physiotherapy curriculums currently (Te et al., 2019). Complex clinical skills in healthcare can be taught in multiple ways according to literature which includes the use of simulated patients, videos, virtual reality, and computers. This gives students the opportunity to practice, receive immediate feedback and refine their skills before performing them in a patient interaction in the clinical setting (Burgess et al., 2020).

The term cultural competence is rooted in patient satisfaction on an interpersonal level, as is evident in the provision of culturally sound management. Patient satisfaction is an indicator of the quality of healthcare (Saha et al., 2022). Typically, patient satisfaction is measured using self-administered questionnaires among patients, but this produces highly subjective results (Saha et al., 2022). Different questionnaires have been developed, some of which measure aspects of cultural competence, but not necessarily all of them as found in the concept analysis. It can also be argued that although not explicitly identified in literature, clinician work satisfaction (identified as a consequence of cultural competence) can also be used to measure the quality of culturally competent service-provision. Cultural competence

can equip clinicians in poorly resourced healthcare environments (like South Africa) to improve work satisfaction and retention rates of staff.

Empirical referents for the concept of cultural competence on an organisational level could be rooted in the policies and processes on the facility level. Policies and procedures could be measured by assessing whether they include and promote the critical concepts embodied by cultural competence, not only for physiotherapy but for all healthcare professions. In previous literature, the analysis of documents and semi-structured interviews with the people engaging with the policies were used to measure if the concepts are implemented in practice (Hanney et al., 2003). Empirical referents on a societal level can emerge by investigating healthcare equity and expenses on a provincial and national level. Healthcare equity is measured by evaluating the health goals on different levels and how the healthcare expenses are distributed to protect the high-need and vulnerable populations (Wenzl et al., 2017). Better adherence to treatment, fewer hospitalisations and secondary complications and a better state of overall health on a provincial or national level can also be used as monitoring and evaluation indicators of culturally sound and client-centred care (Sanson-Fisher, 2015).

Strengths and limitations

A strength of this study was that cultural competence was discussed in various contexts and from different perspectives. The research team conducting this study comprised qualified physiotherapists in academia. Another strength was conducting a concept compared to a thematic analysis. This resulted in a comprehensive assessment of the concept's utility, which is needed to create change on all relevant levels. A limitation was that only papers written specifically for physiotherapy were included, although papers written for other healthcare professions might have been applicable. Only studies written in English were included, and the reviewers lacked hospital management experience. Although diverse in gender, age, and cultural backgrounds, the team was limited in diversity in other ways.

Recommendations

Physiotherapists need to learn how to develop the defining attributes of cultural competence. In-service cultural competence training for physiotherapists in institutions is suggested, and physiotherapy students should be exposed to training in culturally diverse settings to practice the skills and behaviours associated with culturally competent care. Healthcare environments need to provide adequate support to develop the skills and behaviours to provide culturally competent care to clients. Institutions must incorporate culturally competent care into their philosophy and goals and provide resources, instruments, and training to improve physiotherapists' ability to provide culturally competent care. The manifestations of the defining attributes, especially in the physiotherapy profession (focusing on the socio-behavioural domain), must be explored to teach students using pedagogies such as case studies and simulation. Studies that examine the effect of culturally competent care of physiotherapists on patient outcomes should be conducted. Moreover, because of how multifaceted the defining attributes encompass cultural competence, measurement tools for physiotherapy should be developed to measure the cognitive and socio-behavioural domains. Training interventions and outcomes can be further developed from these tools. There is therefore a need to understand the contextual manifestations of cultural competence in physiotherapy practice in the local context, to educate students, raise awareness and propose mitigation strategies in practice.

Conclusion

The central findings of this study demystified the concept of cultural competence in physiotherapy practice by highlighting eight cognitive and eight socio-behavioural attributes. Furthermore, these 16 attributes were spread across different levels of manifestations, namely on the intrapersonal, interpersonal, organisational, and societal levels. These form the basis to explore how exactly these attributes pertain to physiotherapy practice. Understanding the concept and fully observing its impact is seen as equally crucial. The definitions, antecedents, defining attributes, consequences, and empirical referents presented in this study, can be used to evaluate how cultural competence is implemented in practice (on an intrapersonal, interpersonal, organisational, and societal level). They can inform theory-

based cultural competence development training for physiotherapy students and qualified physiotherapists to help assistance with the transition towards culturally competent physiotherapy care.

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6. Review appendices

Appendix 1: Strengths and weaknesses of scoping review and concept analysis methodologies

	Scoping Review Methodology	**Concept Analysis Methodology**
Strengths	• Map out all the research about broader subject • Methodical procedure to identify and include papers in the review to prevent bias • Data extraction guidelines given and how to identify variables • Numerical and qualitative data is extracted and analysed for review	• Investigate the current knowledge of a concept • Clear instructions on how and which data to extract from included papers • Information of concept's structure, function, defining attributes, antecedents, consequences, and empirical referents is extracted and included
Weaknesses	• No recommendations on how to perform data extraction for concept clarification • Little guidance is given how to qualitatively analyse the included data	• Lacks the structure to give guidance of selection of publications included for the concept analysis

Appendix 2: Search strategies

Pubmed

Limits applied to database:

Type of search:	Advanced search
Publication dates:	January 2007 till August 2021
Publication types:	Clinical trials, randomised controlled trials, review, systematic review, meta-analysis
Populations:	Humans
Language:	English, Afrikaans
MeSH terms:	"Culturally Competent Care"[Mesh], "Cultural Competency"[Mesh], "Physical and Rehabilitation Medicine"[Mesh], "Physical Therapy Specialty"[Mesh], "Physical Therapists"[Mesh], "Physical Therapy Modalities"[Mesh], "Health Knowledge, Attitudes, Practice"[Mesh], "Curriculum"[Mesh], "Education"[Mesh], "Competency-based Education"[Mesh], "Teaching"[Mesh]

Search terms:

1. "Cultural* competen*" OR "cultural* care" OR "cross-cultural care" OR "cultural* humility" OR "cultural* responsiveness" OR "cultural* sensitivity" OR "cultural* awareness" OR "cultural* congruen*" OR "Culturally Competent Care"[Mesh] OR "Cultural Competency"[Mesh]
2. Physiotherap* OR "Physical therap*" OR PT* OR "Physical Medicine" OR "allied health" OR "allied professional*" OR rehab* OR "Physical and Rehabilitation Medicine"[Mesh] OR "Physical Therapy Specialty"[Mesh] OR "Physical Therapists"[Mesh] OR "Physical Therapy Modalities"[Mesh]
3. knowledge OR skill* OR attitude* OR behaviour* OR curricul* OR "teaching strateg*" OR education OR teaching OR training OR understanding OR workshop* OR "training program*" OR "teaching method*" OR "training technique*" OR "Educational activit*" OR "Competency-based education*" OR "Health Knowledge, Attitudes, Practice"[Mesh]

OR “Curriculum”[Mesh] OR “Education”[Mesh] OR “Competency-based Education”[Mesh] OR “Teaching”[Mesh]
4. #1 AND #2
5. #1 AND #2 AND #3

EBSCOhost (CINAHL and pre-CINAHL)

Limits applied to database:

Type of search:	Advanced search
Publication dates:	January 2007 till August 2021
Publication types:	Reports, journals, academic journals
Age groups:	All adults
Language:	English, Afrikaans

Search terms:

1. “Cultural competence” OR “cultural care” OR “cross-cultural care” OR “cultural humility” OR “cultural responsiveness” OR “cultural sensitivity” OR “cultural awareness” OR “cultural congruence”
2. Physiotherapy OR “Physical therapy” OR PT OR “Physical Medicine” OR “allied health” OR “allied professional” OR rehabilitation
3. knowledge OR skill OR attitude OR behaviour OR curriculum OR “teaching strategy” OR education OR teaching OR training OR understanding OR workshop OR “training program” OR “teaching method” OR “training technique” OR “Educational activity” OR “Competency-based education”
4. #1 AND #2
5. #1 AND #2 AND #3

Cochrane library

Limits applied to database:

Type of search:	Advanced search
Publication dates:	January 2007 till August 2021
Publication types:	Reviews, protocols, editorials, trials
Population:	Humans
Language:	English, Afrikaans

MeSH terms:	[mh "Culturally Competent Care"], [mh "Cultural Competency"], [mh "Physical and Rehabilitation Medicine"], [mh "Physical Therapy Specialty"], [mh "Physical Therapists"], [mh "Physical Therapy Modalities"], [mh "Health Knowledge, Attitudes, Practice"], [mh "Curriculum"], [mh "Education"], [mh "Competency-based Education"], [mh "Teaching"]

Search terms:

1. "Cultural* NEXT competen*" OR "cultural* NEXT care" OR "cross-cultural care" OR "cultural* NEXT humility" OR "cultural* NEXT responsiveness" OR "cultural* NEXT sensitivity" OR "cultural* NEXT awareness" OR "cultural* NEXT congruen*" OR [mh "Culturally Competent Care"] OR [mh "Cultural Competency"]
2. Physiotherap* OR "Physical NEXT therap*" OR PT* OR "Physical Medicine" OR "allied health" OR "allied NEXT professional*" OR rehab* OR [mh "Physical and Rehabilitation Medicine"] OR [mh "Physical Therapy Specialty"] OR [mh "Physical Therapists"] OR [mh "Physical Therapy Modalities"]
3. knowledge OR skill* OR attitude* OR behaviour* OR curricul* OR "teaching NEXT strateg*" OR education OR teaching OR training OR understanding OR workshop* OR "training NEXT program*" OR "teaching NEXT method*" OR "training NEXT technique*" OR "Educational NEXT activit*" OR "Competency-based NEXT education*" OR [mh "Health Knowledge, Attitudes, Practice"] OR [mh "Curriculum"] OR [mh "Education"] OR [mh "Competency-based Education"] OR [mh "Teaching"]
4. #1 AND #2
5. #1 AND #2 AND #3

Scopus

Type of search:	Advanced search
Publication dates:	January 2007 till August 2021
Publication types:	Review, article, editorial
Subject type:	Social sciences, health professions
Keyword:	Physiotherapy
Population:	Humans
Language:	English, Afrikaans

Search terms:

1. "Cultural* competen*" OR "cultural* care" OR "cross-cultural care" OR "cultural* humility" OR "cultural* responsiveness" OR "cultural* sensitivity" OR "cultural* awareness" OR "cultural* congruen*"
2. Physiotherap* OR "Physical therap*" OR PT* OR "Physical Medicine" OR "allied health" OR "allied professional*" OR rehab*
3. knowledge OR skill* OR attitude* OR behaviour* OR curricul* OR "teaching strateg*" OR education OR teaching OR training OR understanding OR workshop* OR "training program*" OR "teaching method*" OR "training technique*" OR "Educational activit*" OR "Competency-based education*"
4. #1 AND #2
5. #1 AND #2 AND #3

Web of Science

Type of search:	Advanced search (topic)
Publication dates:	January 2007 till August 2021
Publication types:	Review articles, articles, early access
Language:	English

Search terms:

1. "Cultural competence" OR "cultural care" OR "cross-cultural care" OR "cultural humility" OR "cultural responsiveness" OR "cultural sensitivity" OR "cultural awareness" OR "cultural congruence"
2. Physiotherapy OR "Physical therapy" OR PT OR "Physical Medicine" OR "allied health" OR "allied professional" OR rehabilitation
3. knowledge OR skill OR attitude OR behaviour OR curriculum OR "teaching strategy" OR education OR teaching OR training OR understanding OR workshop OR "training program" OR "teaching method" OR "training technique" OR "Educational activity" OR "Competency-based education"
4. #1 AND #2
5. #1 AND #2 AND #3

Appendix 3: Pilot data charting form

Title	***Author and year published***	***Aim***	***Design***	***Country***	***Sample***	***Definition (s) included***	***Key finding(s)***	***Recommendation(s)***
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

Appendix 4: PRISMA-ScR-Checklist

Section	Item	PRISMA-ScR checklist item	Reported on page #
Title			
Title	1	Identify the report as a scoping review	Cover page
Abstract			
Structured summary	2	Provide a structured summary including, as applicable: background, objectives, eligibility criteria, sources of evidence, charting methods, results and conclusions that relate to the review question(s) and objective(s).	iii-iv
Introduction			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review question(s)/objective(s) lend themselves to a scoping review approach.	1-2
Objectives	4	Provide an explicit statement of the question(s) and objective(s) being addressed with reference to their key elements (for example, population or participants, concepts and context), or other relevant key elements used to conceptualise the review question(s) and/or objective(s)).	2-3
Methods			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (for example, web address), and, if available, provide registration information including registration number.	-
Eligibility criteria	6	Specify the characteristics of the sources of evidence (for example, years considered, language, publication status) used as criteria for eligibility, and provide a rationale.	5-6
Information sources	7	Describe all information sources (for example, databases with dates of coverage, contact with authors to identify additional sources) in the search, as well as the date the most recent search was executed.	5-6
Search	8	Present the full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	46-49
Selection of sources of evidence	9	State the process for selecting sources of evidence (ie, screening, eligibility) included in the scoping review.	6-7
Data charting process	10	Describe the methods of charting data from the included sources of evidence (for example, piloted forms; forms that have been tested by the team before their use, whether data charting was done independently, in duplicate) and any processes for obtaining and confirming data from investigators.	7-8

Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	-
Critical appraisal of individual sources of evidence	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	-
Summary measures	13	Not applicable for scoping reviews.	
Synthesis of results	14	Describe the methods of handling and summarising the data that were charted.	8-9
Risk of biases across studies	15	Not applicable for scoping reviews.	
Additional analyses	16	Not applicable for scoping reviews.	
Results			
Selection of sources of evidence	17	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	10-11
Characteristics of sources of evidence	18	For each source of evidence, present characteristics for which data were charted and provide the citations.	12
Critical appraisal within sources of evidence	19	If done, present data on critical appraisal of included sources of evidence (see item 12).	-
Results of individual sources of evidence	20	For each included source of evidence, present the relevant data that were charted that relate to the review question(s) and objective(s).	13-16
Synthesis of results	21	Summarise and/or present the charting results as they relate to the review question(s) and objective(s).	17-36
Risk of biases across studies	22	Not applicable for scoping reviews.	
Additional analyses	23	Not applicable for scoping reviews.	
Discussion			
Summary of evidence	24	Summarise the main results (including an overview of concepts, themes, and types of evidence available), explain how they relate to the review question(s) and objectives, and consider the relevance to key groups.	37-39
Limitations	25	Discuss the limitations of the scoping review process.	40
Conclusions	26	Provide a general interpretation of the results with respect to the review question(s) and objective(s), as well as potential implications and/or next steps.	41
Funding			
Funding	27	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	-