



Healthcare Providers' Attitudes and Experiences of the Quality Use of Medications Among Culturally and Linguistically Diverse Patients in Australia: A Systematic Review of Qualitative Studies

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Accepted: 26 June 2023 / Published online: 10 July 2023

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Abstract

This review aims to identify healthcare providers' (HCPs) experiences with issues related to the quality use of medicines among culturally and linguistically diverse (CALD) patients, the underlying factors, and the enablers of and barriers to providing culturally safe care to promote quality use of medicines. The searched databases were Scopus, Web of Science, Academic search complete, CINAHL-Plus, Google Scholar and PubMed/Medline. The initial search returned 643 articles, of which 14 papers were included. HCPs reported that CALD patients were more likely to face challenges in accessing treatment and sufficient information about treatment. According to the theoretical domains framework, determinants such as social influences due to cultural and religious factors, lack of appropriate resources about health information and cultural needs, lack of physical and psychological capabilities such as lack of knowledge and skills, and lack of motivation could impede HCPs' abilities to provide culturally safe care. Future interventions should deploy multilevel interventions, such as education, training, and organisation structural reforms.

Keywords Medication-related problems · Quality use of medications · Culturally and linguistically diverse patients · Health professionals' perspectives · Cultural safety · Cultural competency

Introduction

Cultural safety requires healthcare providers (HCPs) to recognise, reflect on, and address the impact of their own cultural perceptions on healthcare service delivery to ensure that equitable and culturally safe care is provided to patients and communities [1]. Culturally safe care is fundamental to the quality use of medications (QUM), a central goal of the National Medicines Policy in Australia [2, 3] which

is recognising that pharmacotherapy is the most common health intervention used globally. Effective collaboration and partnership between patients and healthcare providers are critical to ensuring culturally safer care to optimise medication use and reduce medication-related issues [1, 3, 4]. This is particularly important in culturally diverse countries, such as Australia, the United Kingdom and the United States of America.

Health inequity, comprising differences in access to the healthcare system and the quality of the received care [5, 6], is connected closely with ethnicity [7, 8] and, therefore, may be an adverse outcome of culturally unsafe care for people from culturally and linguistically diverse (CALD) backgrounds. CALD individuals are defined as those who were born in non-English-speaking countries and/or primarily speak a language other than English at home [9]. Research to date highlights that health inequalities exist among patients from CALD communities and that they are more likely to have chronic diseases and poorer health status than the general population [10, 11]. Furthermore, culture has been reported to influence patients' views and perceptions of health, illness and treatment [12].

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Medicines are well-established health interventions for managing acute illness and chronic diseases. It is also well acknowledged that while medicines have significant health benefits, they also carry potential risks due to the medicine itself (adverse drug effects), potentially inappropriate use by patients, and gaps in medication management support within healthcare [13]. QUM should be underpinned by robust medication management, i.e., the complex set of tasks that necessitate applying specific knowledge, skills and attitudes [14] but which may be more complicated among patients from CALD backgrounds [15]. Attempts to frame the factors contributing to suboptimal QUM among CALD patients in the existing literature are primarily driven by cultural and biological differences between CALD patients and those from the major ethnic group and provide a limited understanding of the complexity of medication use among CALD patients [1, 15].

Whilst cultural differences are often viewed as a problem ‘presented’ by the patients themselves, HCPs and organisations are key contributors to suboptimal QUM for patients from CALD backgrounds [1]. HCPs, including general practitioners (GPs) and pharmacists, are on the frontline of providing health care for CALD patients in Australia [16]. Within the patient-healthcare provider relationship, implicit bias may exist [1], reflecting HCPs’ unconscious attitudes and behaviours towards patients’ gender or ethnicity, alongside a lack of consideration of patients’ specific health and social needs [3, 17], which may impact decision-making and compromise treatment goals [17, 18]. This may be complicated by miscommunication, furthering a lack of shared decision-making between patients and HCPs and a lack of trust [15, 19–21]. In addition to implicit bias, the health system may not be structurally organised to adequately support HCPs in delivering culturally-appropriate care for patients from CALD backgrounds [16].

The call to provide culturally appropriate and safe care for patients from CALD communities is being increasingly made by international bodies to address health inequities, including disparities in medication use, among patients from CALD groups [19]. Noting this, this review of the literature aimed to identify HCPs’ perceptions of the quality use of medications among CALD communities (including migrants and refugees) in Australia. The specific objectives were to:

- Describe medication-related challenges and barriers among CALD patients in Australia, as observed by health professionals.
- Identify health professionals’ views on the possible contributing factors for medication-related challenges and barriers among CALD patients in Australia.
- Explore health professionals’ perceptions of the barriers and enablers to delivering culturally appropriate and

safe medication management services to support QUM in CALD patients.

Methods

Review Design

The conduct of, and findings from, this systematic review are reported per the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guideline to explore the perspectives of healthcare providers about QUM, including the barriers and enablers of providing culturally appropriate care among patients from CALD communities in Australia [22].

Search Strategy

A structured literature search was conducted across seven electronic databases: Scopus, Web of Science, Academic search complete, CINHAL Plus, Google Scholar and PubMed/Medline. Medical Subject Headings (MeSH) terms were searched where possible, comprising terms related to medication-related problems (*medication error(s)*, *adverse drug event(s)*, *adverse drug reaction(s)*), Cultural (*competency/competence/competencies/sensitivity/sensitivities*) and *ethnicity*. Additional non-MeSH terms informed by previous literature related to medication-related problems were also searched [23, 24], including: medicine (medication/drug) use, medicine (drug/medication/therapy/treatment) related problem (issue), quality use of medicine (medication/drug), and any issues in medicines use along any steps in the Medicines Management Pathway (MMP) such as medication adherence/decision-making were also searched; Culturally and Linguistically Diverse (CALD)/ethnic/cultural/linguistics/non-English-speaking/migrant/immigrant/refugee; healthcare providers’ or healthcare professionals’ perspective/attitudes/experience/views/opinion/beliefs/facilitator/barrier/challenge; cultural safety/cultural humility/cultural awareness/cultural understanding; Australia. Reference lists of the included articles were also searched to identify articles relevant to the stated objectives.

A comprehensive structured search strategy is illustrated in supplementary table 1. The search was restricted to studies published between 1 January 1999 and June 2022. This review was not registered.

Study Selection and Inclusion Criteria

This systematic review exclusively included qualitative studies focusing on healthcare providers’ experiences to gain a comprehensive understanding of their attitudes and perspectives on the quality use of medications among CALD

patients who have moved to live in Australia. Therefore, studies were eligible if they were qualitative, were peer-reviewed and published in the English language, and:

- Explored any issues related to the quality use of medicines, medication-related issues, possible contributing factors to these issues and culturally appropriate care focusing on the healthcare providers' perspective; and
- Were conducted on healthcare providers caring for CALD patients in Australia.

Studies with irrelevant aims, other types of participants, or published in languages other than English were excluded (Table 1). One reviewer (author 1) initially searched and screened the titles and abstracts to exclude unrelated articles. The three authors independently reviewed the remaining articles according to the inclusion and exclusion criteria (authors 1, 2 and 3). Any disagreements were resolved by discussion and with the consensus of all authors. Figure 1 illustrates the search strategy and study selection.

Data Synthesis and Analysis

The data retrieved from each of the included articles included: author/s, publication year, study design, setting and sites, study population, study sample and key findings in terms of medication-related issues, the possible contributing factors and culturally appropriate care in terms of barriers, facilitators to promoting the provision of culturally competent care from the perspective of the healthcare providers. Data extracted from the qualitative studies were synthesised using a meta-ethnographic approach (i.e., the extracted themes and concepts were used to interpret the findings of each other) [25]. Key themes about medication use issues were deducted and mapped against the steps of the medicines management pathway [4]. The emerging key themes relating to contributing factors for medication-related issues were mapped against one of the four components of the biopsychosocio-systems model: biological factors, psychological factors, social factors, and health system factors [26, 27]. In addition, the barriers and enablers of providing culturally appropriate care as an essential system-related factor contributing to medication-related issues were further analysed

and mapped against the elements of the theoretical domains framework of the Behaviour Change Wheel (BCW) [28]. Subsequently, the final themes of the analysis were confirmed upon discussion and mutual agreement of all authors.

Quality Assessment

The methodological quality of the included studies was assessed using the Critical Appraisal Skills Programme (CASP) for qualitative studies [29]. The CASP checklist consists of 10 questions to evaluate the quality of the qualitative studies in terms of the study results, their validity, and their value for current and future research [29]. Two authors independently assessed the quality of the included studies and resolved any disagreements by discussion and mutual agreement. No studies were excluded based on the quality assessment; most reviewed studies reported at least 9 of the 10 CASP checklist items (see Table 2). Most studies did not adequately report the potential bias and the relationship between the researcher and the study participants. One publication did not seek data saturation and selected only five pharmacists for a pilot study to obtain preliminary feedback and standardise the questionnaire for larger studies [30].

Results

Search Results and Study Characteristics

The initial search retrieved 643 studies; 229 studies remained after removing duplicates. After reviewing the full-text articles and assessing against the inclusion/exclusion criteria, 14 studies remained that recruited healthcare providers from different disciplines, including pharmacists [30–35], physicians [36, 37] and other allied health professions [38–41]. Some studies explored treating particular diseases such as asthma [31, 36], HIV [40], mental illnesses [38, 41], and diabetes [33, 35]. Some studies targeted certain cultural and religious factors, such as stigma [40] and fasting [32, 35], whilst others targeted specific contributing factors, including health literacy [39] and miscommunication [30]. The review summarised the quality use of medications in terms of the encountered problems and the perceived possible

Table 1 Inclusion and exclusion criteria of the systematic review

PICO	Inclusion criteria	Exclusion criteria	
P	Population	Healthcare professionals caring for culturally and linguistically diverse patients in Australia	CALD patients' or community leaders' perspectives
I	Interest	Medication use practices, medication-related problems, possible contributing factors, and culturally appropriate care	Other aspects not related to medicine use or culturally appropriate care for treating CALD patients
Co	Context	Australia	Any country other than Australia

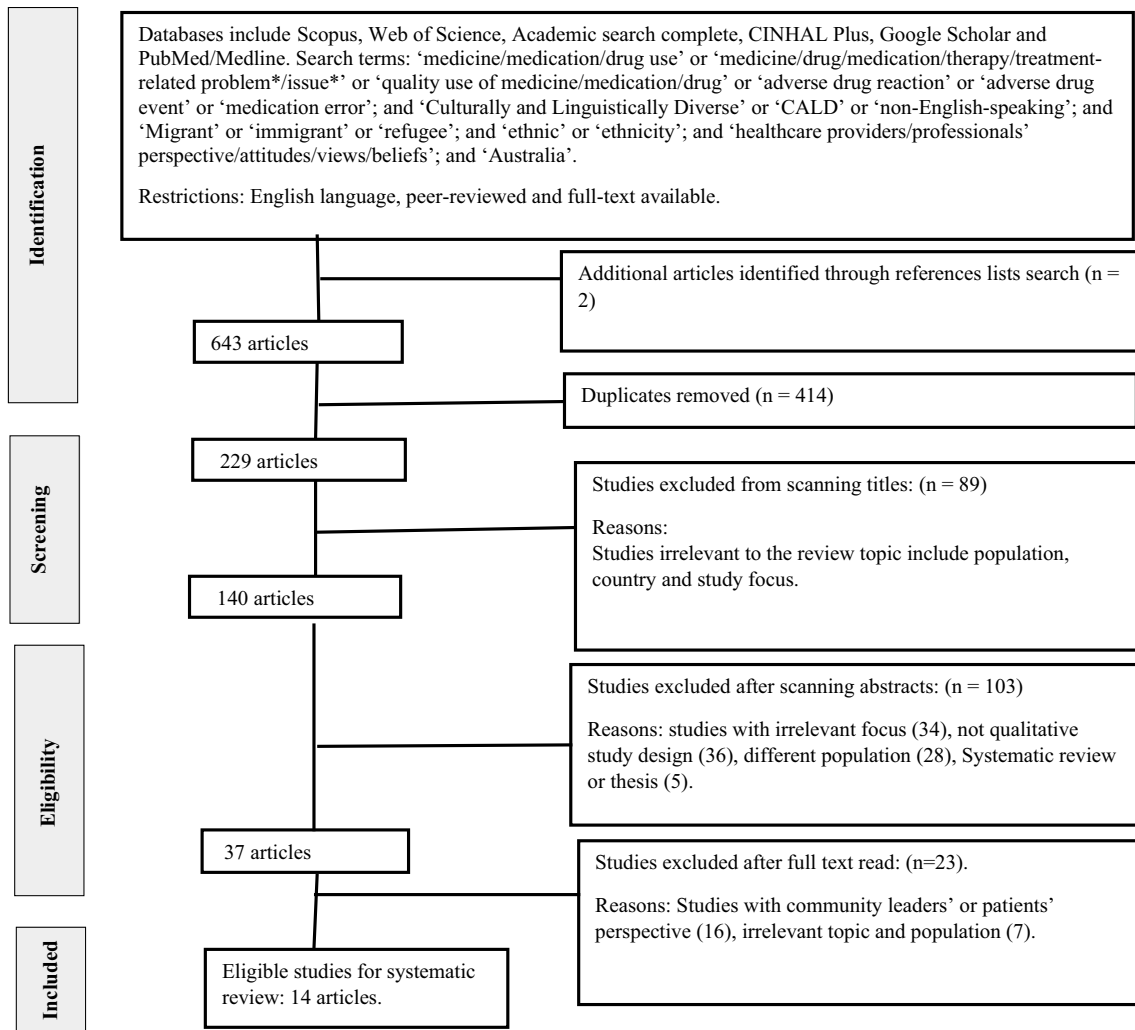


Fig. 1 PRISMA Flowchart for study search and selection for systematic review

contributing factors to these problems among the CALD population in Australia from the perspective of health professionals, as well as the proposed determinants of providing culturally safe care. The characteristics and key findings of the included studies are presented in Table 3.

A Narrative Synthesis of the Results

The reviewed studies identified several features of suboptimal use of medications among CALD patients from the health providers’ lens.

Part One_Medication-Related Issues

Access to Medications and Healthcare Services Healthcare providers revealed that refugee and CALD patients had inadequate access to treatment (in general) and medications, including pharmacy services [33, 38, 40, 42, 43]. Kay and

colleagues showed that medicines for specific health conditions more frequently impacting refugees were not readily available in some community pharmacies [43].

Decision on Treatment Options HCPs had observed inappropriate medication use practices among patients from CALD backgrounds [31, 37, 43]. These include overusing antibiotics and sharing medication with other patients, commonly observed among Arabic-speaking patients [37]. In addition, HCPs noticed that refugee patients often combine prescribed and traditional remedies, increasing the probability of drug interactions [43]. Furthermore, HCPs felt that CALD patients preferred using alternative and complementary medicines for their health conditions, such as asthma; this was apparent by frequently asking pharmacists about these options [31]. Moreover, Alzayer and colleagues revealed that CALD participants, compared to non-CALD, preferred reliever inhalers over

Table 2 Quality assessment of the reviewed studies using CASP checklist for qualitative studies

Study (N = 14)	Validity of the results						The results			Value of the results locally
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Arora et al. [30]	✓	✓	✓	✓	X	?	✓	✓	✓	✓
Daher et al. [32]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bolton et al. [37]	✓	✓	✓	✓	✓	?	?	✓	✓	✓
Alzayer et al. [31]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Alzayer et al. [31]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Almansour et al. [35]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Youssef and Deane [41]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Komaric et al. [38]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Bellamy et al. [42]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Fejzic and Barker [34]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓
Kay et al. [43]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Annim Mohammad et al. [33]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ziersch et al. [40]	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Murray et al. [39]	✓	✓	✓	✓	✓	?	✓	✓	✓	✓

Q1–Q6: Are the results of the study valid

Q7–Q9: What are the results

Q10: Will the results help locally

✓: Yes, X: No, ?: Can't tell

controller inhalers as patients noticed the effect immediately [31].

Provision of Information and Medication Counselling Kay and colleagues' study participants reported that refugees did not understand medication-related information adequately [43]. For example, HCPs noticed that refugees leave the medical consultation with a prescription without understanding their prescribed medication [43]. Physicians mentioned that CALD patients with asthma often could not differentiate between the types of their inhalers (i.e., relievers vs. controller) and did not know the role and purpose of their medicines in managing asthma [36] and had poor inhaler techniques [31, 36]. Additionally, pharmacists reported that CALD patients had limited access to health-related information, especially those with low English proficiency levels [33].

Medication Non-adherence HCPs in four studies observed that migrants and refugees from CALD backgrounds were non-adherent to their medications [37, 40, 42, 43]. For example, Arabic-speaking patients took medications when they felt ill and tended to stop them when they were free of symptoms [37]. Similarly, GPs and pharmacists mentioned that some CALD patients with asthma did not adhere to their medication regimen and duplicated their doses [31, 36]. In addition, pharmacists reported that a higher level of inhalers' non-adherence was observed among children [31].

When asked about medication use during fasting, some pharmacists said that few patients from Muslim communities stopped taking their medication without consulting their GPs [32]. In addition, few pharmacists did not perceive the need to counsel patients about their medication adjustment during fasting, as it is only one month [32].

Monitoring Pharmacists perceived patients from CALD backgrounds were at higher risk of experiencing side effects, as they tended to skip safety instructions when using their medications [31]. For example, CALD patients with asthma taking controller medications (containing corticosteroid) did not rinse their mouth after use and were presented to their pharmacies with side effects [31]. Furthermore, GPs reported that patients from CALD backgrounds did not prefer to engage in their medical practices and tests to manage and monitor their diseases, such as refusing to conduct medical and physical examinations, such as chest examinations, which would affect their treatment [36].

Part Two_Possible Contributing Factors to MRPs

Biologic Factors Some HCPs thought CALD populations had a lower prevalence of chronic diseases than general Australians [38]. In addition, they believed that the prevalence pattern of chronic diseases differs according to ethnicity. For instance, they thought that the population from European backgrounds had similar diseases as Australians.

Table 3 Characteristics and key findings of reviewed studies: perceived medicine-related problems, contributing factors, and barriers and facilitators to culturally appropriate care from the perspective of healthcare providers

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Bolton et al. [37] Exploratory	A qualitative study among Arabic-speaking and Chinese GPs in the community setting in South-Eastern Sydney	Two parallel, iterative series of GP and consumer focus groups were held in Arabic and Chinese communities. The later focus groups engaged GPs and consumers	<p>Chinese GP: Problems related to appropriate treatment options: Chinese patients strongly believed in the benefits of Traditional Chinese Medicine (TCM) Medication non-adherence: - Chinese patients tended to change their medications proactively, including stopping the medication against the physician's advice Arabic-speaking GPs: Problems related to appropriate treatment options: Over-reliance on medication, especially for antibiotics, request to be prescribed medication similar to family members Medication non-adherence: - Medication sharing - Taking the medicine when they feel ill and save the rest for the next time</p>	<p>Chinese GPs: Social factors: - Chinese patients had misconceptions about Western medicine, particularly regarding side effects, and believed Western medication is appropriate for acute and severe, life-threatening conditions - Lack of understanding of the Australian healthcare system and prescription medication - Fear of taking multiple medications - Medication use practices were influenced by their family members Arabic-speaking GPs: Social factors: - Medication misconceptions: patients from Arabic backgrounds believe that medication cures without personal effort in the treatment plan - Over-reliance on physicians: Arabic-speaking patients believe that GP can fix everything - Frequent changing of physicians - The language barrier Pharmacists serving both the Chinese and Arabic communities: Social factors: Language and cost were the barriers to QUM, as patients reject prescribed medication if it is not on the Health Care Card</p>
Youssef & Deane [41]	A qualitative study by semi-structured interviews in the community setting	35 key informants from Arabic-speaking backgrounds, including 8 community workers, one bilingual mental-health worker, 8 religious leaders from different religions, 6 teachers, 11 participants from medical backgrounds, including two psychiatrists and 1 pharmacist, and 2 faith healers from both religions (Muslim and Christian)	<p>Problems related to decisions on treatment options: Limited access to mental health-care services Medication non-adherence: Patients and their families tended to stop medications after an initial improvement in their mental health</p>	<p>Social factors: - Social stigma of mental illnesses - Cultural factors that prohibit disclosing personal and family issues to others - Lack of knowledge about the available services - Language and communication barriers - Preference for receiving counselling from religious leaders - Inadequate understanding of the benefits of anti-depressant medications Psychological factors: - Shame and embarrassment of mental illness led to the denial of illness - Lack of trust in mental healthcare providers. However, they trust their Arabic-speaking GPs - Fear of side effects and addiction to antidepressants</p>

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Fejzic & Barker [34]	A Qualitative study in the community pharmacy setting	92 community pharmacies in South-East Queensland, Australia	Problems related to the provision of information about medications	Cultural appropriate care: - Social influences: - Language and communication barriers - Cultural attitudes and behaviours - Religion, gender, and age - Prejudiced/perceived racist attitudes and discrimination towards 'other' cultures - Perceived 'sameness' of different cultures
Kay et al. [43]	A qualitative study using semi-structured interviews in the community setting	Twelve people were recruited: nine health providers (two GPs, three practice registered nurses, four pharmacists and three refugee health leaders (from Sudan, Liberia, and Burma)	Problems related to the decision on treatment options: - Inadequate access to medications and healthcare services - Medicines for some refugee health issues were not readily available at some pharmacies - Combining prescribed medications with traditional remedies increases the risk of interaction - Medication non-adherence: Problems related to the provision of information: Lack of comprehending medication-related information	Potential contributing factors: Social factors: - communication and language barriers - cultural issues include medication sharing, inadequate access to gender-specific healthcare providers and culturally concordant care, especially for Muslim females - Financial cost limiting access to medications - limited health literacy System-related factors: - Some refugee health leaders and one pharmacist were unaware that pharmacists had access to the free Translating and Interpreting Service
Bellamy et al. [42]	A qualitative study among resettled refugees in Queensland, Australia, from health care professionals (doctors, practice nurses and pharmacists Community setting	Twenty-four in-depth interviews were conducted: 14 with healthcare professionals caring for African refugees from Somalia, Sudan, the Democratic Republic of Congo, and Liberia	Problems related to the decision on treatment options: - limited access to medicines, pharmacy services and other healthcare services by refugees Medication non-adherence	Potential contributing factors: Social factors: - Communication barriers - Low health literacy - Challenges in navigating the health system and lack of understanding of the Australian healthcare system - Cultural beliefs, including medication beliefs, gender-specific healthcare services, reliance on faith, and social stigma for mental conditions System-related factors: - lack of awareness of the availability of interpreting services by pharmacists - lack of awareness of the African cultural norms, such as avoiding eye contact

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Komarcic et al. [38]	A qualitative study by semi-structured interviews in the community setting	14 health care providers who service CALD populations in southeast Queensland were interviewed by telephone	<p>Problems related to the treatment option:</p> <ul style="list-style-type: none"> - Difficulties in accessing health-care services were reported for CALD and non-CALD communities - Patients prefer the use of alternative treatment methods known in their cultures <p>Problems related to the provision of information:</p> <ul style="list-style-type: none"> - Patients had problems understanding their diseases - Medication non-adherence 	<p>Social factors:</p> <ul style="list-style-type: none"> - Low literacy of the healthcare services <p>System-related factors:</p> <ul style="list-style-type: none"> - Limited availability of doctors and nurses, especially those capable of caring for CALD patients - Refusal of some practices to provide care for CALD patients - Limited access to bulk-billing services - HCPs hold wrong perceptions regarding the prevalence of chronic diseases among CALD patients: <p>HCPs believed that persons from CALD backgrounds had less prevalent chronic diseases and that the increase in the acculturation level increased the probability of having the same chronic diseases as the mainstream population</p> <p>Culturally appropriate care</p> <p>Barriers:</p> <ul style="list-style-type: none"> - Social influences - Language and culture incompatibilities between CALD patients and HCPs - Communication and language barriers <p>Physical opportunity</p> <ul style="list-style-type: none"> - Lack of appropriate mental health services to care for traumatised CALD patients - Low level of representation of CALD populations within the workforce <p>Culturally appropriate care:</p> <p>Barriers:</p> <p>Skills</p> <p>Pharmacists acknowledged the lack of skills in dealing with patients with low English proficiency levels</p> <p>Self-regulation</p> <p>Pharmacists used several strategies to improve communication, including involving carers as interpreters and considering concerns regarding their competencies in delivering health information</p> <p>Knowledge</p> <p>Pharmacists lack knowledge about existing services, such as translating services</p>
Arora et al. [30]	A qualitative study using semi-structured interviews in the community pharmacy setting	five pharmacists employed in pharmacies representing multiple practice settings in Queensland, Australia	<p>Problems related to the provision of information</p> <p>Pharmacists had concerns regarding uncertainty around their abilities to counselling patients and the patient's understanding of medications' instructions</p>	<p>Culturally appropriate care:</p> <p>Barriers:</p> <p>Skills</p> <p>Pharmacists acknowledged the lack of skills in dealing with patients with low English proficiency levels</p> <p>Self-regulation</p> <p>Pharmacists used several strategies to improve communication, including involving carers as interpreters and considering concerns regarding their competencies in delivering health information</p> <p>Knowledge</p> <p>Pharmacists lack knowledge about existing services, such as translating services</p>

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Alzayer et al. [31]	A qualitative study using semi-structured interviews in the community pharmacy setting	32 community pharmacists from suburbs of relative diversity in two Australian cities: Melbourne and Sydney	<p>Problems related to the decision on treatment options:</p> <ul style="list-style-type: none"> - CALD patients with asthma prefer to use reliever inhalers more than non-CALD patients <p>Problems related to the provision of information:</p> <ul style="list-style-type: none"> - Patients with asthma lack understanding of information about their asthma and medications - Patients from CALD backgrounds were noted not to use their inhalers correctly - Preference for alternative and complementary medications to treat asthma <p>Monitoring: experiencing side effects</p> <p>CALD patients with low English proficiency do not follow safety instructions, such as rinsing their mouth after using corticosteroid medication (preventer medication)</p>	<p>Medication-related issues</p> <p>Social factors:</p> <ul style="list-style-type: none"> - Language barriers - Low health literacy levels - over-reliance on physicians to make decisions about their health <p>Psychological factors:</p> <ul style="list-style-type: none"> - Patients' feelings of fear and stress about their disease - Fear of side effects such as steroid phobia - Feeling embarrassed to use inhalers in front of people <p>Culturally appropriate care:</p> <p>Social influences:</p> <ul style="list-style-type: none"> - Language barriers - Patients hesitate to ask questions about diseases and treatment, which was a concern, especially when there was a need to recommend a treatment based on their symptoms - Cultural factors such as preference for same-gender HCP and elderly patients believed that young female pharmacists are not competent - Religious concerns such as the source of medications' excipients - Lack of trust in pharmacists' professional role <p>Physical environment:</p> <ul style="list-style-type: none"> - Concerns regarding the time required to counsel CALD patients - Low access to interpreter services and impracticality of these services in some situations - Pharmacists were worried that their lack of cultural awareness could offend and upset patients <p>Self-regulation behaviour</p> <ul style="list-style-type: none"> - Hired bilingual pharmacists - Using informal translating services - Using counselling aids, including audio and visual aids - Using non-verbal communication techniques, such as demonstration and drawing pictures to illustrate medications' instructions - Using phone applications or speaking at a slow speed <p>Skills and proficiencies</p> <p>Pharmacists reported being confident in handling questions about the source of origin of medications to fulfil patients' religious beliefs</p> <p>Emotion</p> <ul style="list-style-type: none"> - Feeling frustrated and helpless because patients sometimes do not like to listen to pharmacists' advice about asthma management, especially for irregular customers - Frustration regarding miscommunication

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Alzayer et al. [31]	Qualitative study using semi-structured interviews in the primary care setting	21 Participants were recruited from medical practices in Melbourne, Australia	<p>Problems related to decisions on the treatment option:</p> <p>CALD patients prefer to use medications and treatments like those received in their home country</p> <p>CALD patients preferred to depend on their spiritual and cultural beliefs to treat asthma</p> <p>Problems related to the provision of information:</p> <ul style="list-style-type: none"> - Patients from CALD backgrounds had little information-seeking behaviour - Patients from CALD backgrounds do not differentiate between their inhaler types - Did not use their inhalers appropriately - Did not understand the benefit and purpose of their inhalers <p>Medication non-adherence</p> <p>Patients often duplicate doses</p> <p>Problems related to monitoring:</p> <p>CALD patients often did not engage in medical and physical examinations, such as chest examinations</p>	<p>Social factors:</p> <ul style="list-style-type: none"> Over-reliance on physicians to decide on their treatment -Patients tended to not search for information about their disease and medications - Language barrier and miscommunication - Lack of knowledge about pathways to access the healthcare system - Changing GPs frequently - Low health literacy - Cultural beliefs <p>System-related factors:</p> <p>Distrust in the quality of interpreting services</p> <p>Culturally appropriate care:</p> <p>Social influences</p> <p>Physicians who were not native to English struggled to understand their patients' language</p> <p>Environment and resources:</p> <p>The need for extra time to care for CALD patients</p>
Annim Mohammad et al. [33]	A qualitative study using focus groups in the community pharmacy setting	30 community pharmacists participated in 6 focus groups in Sydney, Australia	<p>Decisions on appropriate treatment options:</p> <p>CALD patients had limited access to healthcare services and treatment</p> <p>Problems related to the provision of information:</p> <p>CALD patients had limited access to information about their health and medications</p>	<p>Culturally appropriate care</p> <p>Social influences:</p> <ul style="list-style-type: none"> -Language barriers Skills and proficiencies -Using informal interpreters, such as family members, customers, nearby shop staff and google translate; however, they questioned its reliability - Reluctance to serve CALD patients <p>Emotion</p> <p>Lack of confidence in providing appropriate care for CALD patients</p> <p>Knowledge</p> <p>Unfamiliarity with the available resources to support CALD patients</p>

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Daher et al. [32]	A qualitative using semi-structured interviews in the community pharmacy setting	Twenty-one practicing pharmacists from Western and South-western Sydney, New South Wales	Medication non-adherence Some pharmacists reported that a few patients tended to stop taking their medication during fasting without consulting their physicians	Social influences: Religious beliefs about the appropriateness of medication ingredients to be consumed according to their religious beliefs Environment and resources: Lack of industry transparency Skills and proficiencies -Respected patients' autonomy and provided patients with the available treatment options - Disclosed any information regarding the source of medication ingredients if they noticed that this could interact with patients' religious beliefs and allow the patient to decide on medication use In some cases, participants were competent in correctly identifying the implicated medications' source of origin, for example, to ascertain if these were in concordance with Islamic dietary laws (Halal) - Others change the medication formulation, if available, from gelatine capsule to syrup or prepare a suitable formulation extemporaneously - The majority asked about this information from the industries - Few pharmacists used the internet to obtain information quickly Very few pharmacists proactively ask the patients about their beliefs that might impact the use of certain medications
Almansour et al. [35]	A qualitative study using semi-structured interviews in the community pharmacy setting	Twenty-one community pharmacists in Sydney	- Limited access to pharmacy services: Few patients seek help from pharmacists regarding their medications during fast -Experiencing side effects during fast: Episodes of low and high blood sugar, lethargy, fatigue and drowsiness	Social factors: Barriers: -misconceptions and beliefs about medications and management -Patients adjusted their medications without consulting HCPs, and sometimes inappropriately - lack of trust in pharmacists and relied more on physicians Facilitators: - High self-management skills - received education from other HCPs - receiving social support from family members and friends Psychological factors: - High self-efficacy: some patients with diabetes, especially the elderly, had the ability to self-manage their medications and cope with fasting Culturally appropriate care: Barriers: - Time pressure - Lack of awareness among pharmacists about Ramadan and fasting - Patient-related factors, including age as younger patients, were less accepting of advice, language barriers, cultural beliefs, and priorities about concordance to religious mandates about fasting, the privacy of patients and unwillingness to disclose that they are not fasting

Table 3 (continued)

Author/study design	Study design/setting	Study sample	Key findings- problems identified	Key findings-contributing factors
Ziersch et al. [40]	A qualitative study using interviews and focus groups in the community setting	10 Patients with HIV from CALD backgrounds, 14 CALD community leaders, and 50 service providers	<ul style="list-style-type: none"> - Limited access to healthcare services and treatment - Limited access to subsidised medications - Medication non-adherence: Some patients stop their antiretrovirals (HIV medications) when travelling overseas to avoid disclosing their HIV status - One patient with severe allergy refused to carry the allergy card for fear of being stigmatised 	<p>Social factors:</p> <ul style="list-style-type: none"> - Social stigma and discrimination against HIV were reported more frequently among CALD communities than in non-CALD ones and tended to be more stigmatised among females
Murray et al. [39]	A qualitative study using focus groups	2 Focus groups included 13 service providers (nurses, doctors, pharmacists, and migrant settlement workers) caring for the Bhutanese refugee community members	<ul style="list-style-type: none"> - Problems related to the provision of information - Problems with medication literacy 	<p>Social factors:</p> <ul style="list-style-type: none"> - Limited functional and interactive health literacy levels <p>Enablement:</p> <ul style="list-style-type: none"> - Consistency in consulting pharmacists and GPs to ensure continuity of care - Collaboration between HCPs to provide appropriate care <p>Education:</p> <ul style="list-style-type: none"> - Increase awareness of HCPs about Bhutanese-Nepali culture and health <p>Environment restructure:</p> <ul style="list-style-type: none"> - Involvement of the community to assist patients in navigating the healthcare system - Using a skilled and trained interpreter - Support patients and provide reassurance - Review patients' understanding of medication instructions <p>Using audio-visual aids such as symbols to convey information about medications</p>

In contrast, Burmese have different types of health conditions. Yet, this profile of chronic diseases approximates the Australian chronic diseases profile among those with increased levels of acculturation [38].

Psychological Factors The included studies identified several psychological factors contributing to suboptimal medication use and mismanagement. For example, Chinese patients feared taking multiple medications [37]. In addition, HCPs attributed the low capabilities of CALD patients to comprehend information related to their diseases and medicines due to their mental health status due to their previous experiences of torture and trauma in their home countries [38]. In addition, pharmacists noticed that CALD patients were afraid and concerned about asthma because they could not understand information related to their illness and medications [31], and they were worried about the development of side effects. For example, parents of children with asthma were reported to ask pharmacists about the possibility of a corticosteroid inhaler impacting the growth of their children [31]. Although this concern was observed by both CALD and non-CALD patients, it was observed more frequently among those from CALD backgrounds [31]. In addition, they noticed that they were more likely to be embarrassed to use their inhaler medications in public [31].

Furthermore, some HCPs observed that CALD patients with asthma had low self-efficacy and tended to rely on their healthcare providers to make decisions regarding their asthma management [31, 36], which was evident through having limited information-seeking behaviours, inclined not to adapt to treatment and unwillingness to learn self-management skills [36]. On the other hand, CALD patients tended to have a lack of trust in pharmacists [31]. In addition, GPs perceived CALD patients to have doubtful beliefs, be worried about changing their medication regimen, and expect to receive the same treatment they received in their home countries [36].

Social Factors Cultural factors have been recognised by many physicians to impact CALD patients' treatment. For instance, cultural differences between the patients and HCPs led to misunderstanding and medication non-adherence [38]. CALD patients were observed to rely more on their cultural beliefs regarding their disease management instead of using evidence-based information [36], which was evident through using alternative treatment strategies [38] or even missing medical consultation appointments [38]. According to Bellamy and colleagues, HCPs reported that refugees rely on religious beliefs to treat their illnesses [42]. In addition, the social stigmatisation of certain conditions, such as mental illnesses [41, 42] and HIV [40], have contributed to patients' inclination to avoid visiting healthcare services concerned with treating these conditions [40, 41].

In addition, HIV patients were found to be non-adherent to their medications for fear of disclosing their diagnosis to their family members and peers in their communities [40]. Some HCPs reported that their patients hide their medicines at home, did not dispense their medications from pharmacists known to provide subsidised cost for HIV medications or, in cases where patients had an allergy to one of their antiretroviral medications (medications for HIV), they refused to carry their allergy card [40]. They also refused to take their medications when travelling overseas, fearing being stigmatised and labelled in their country [40].

Moreover, HCPs encountered some religious beliefs and practices which impacted the treatment choice, such as asking to check if the medicines were halal (permitted to be consumed in Islamic religion) or kosher (allowed to be consumed by Jewish religion) or if they contained pork or alcohol [31, 32]. Some pharmacists felt that fulfilling these cultural and religious beliefs could deleteriously affect their patients' health [32].

HCPs mentioned that patients from CALD backgrounds held misconceptions about medications [37, 42]. Chinese physicians believe that their Chinese patients hold negative beliefs about using Western medicines, particularly concerning the probability of experiencing side effects [37]. In addition, they had strong beliefs regarding the use of Traditional Chinese Medicines, and they prefer to reserve Western medications for severe and acute, life-threatening diseases [37]. In contrast, physicians reported that Arabic-speaking patients prefer pharmacologic agents as first-line medical interventions to manage their conditions. They believed medicines would address their needs without exerting individual efforts [37]. In addition, Arabic-speaking patients hold misconceptions about medications, especially antibiotics, as they prefer to use them to treat any infection [37].

According to the GPs' perceptions, medication use practices among Chinese patients were influenced by their families and peers [37]. Similarly, Arabic-speaking patients often requested to be prescribed medications similar to those used by their families [37]. Despite this, Arabic-speaking GPs noted that patients from their backgrounds consistently rely on their GPs to treat their conditions and believed their physicians could fix anything [37]. However, they noticed that Arabic-speaking patients tended to consult different GPs, which could impact the continuity of care [36, 37].

Other social factors have been proposed by HCPs, including low socioeconomic levels [38] as well as limited health literacy [39, 43], which could impact patients' abilities to comprehend the mechanism of action of their medications and administration instructions and could lead to confusion with their medicines, especially when changing brands with different packaging [43]. Moreover, CALD patients and refugees do not adequately understand the Western healthcare system and prescribed

medications, which have been perceived to exert a profound negative impact on the treatment of CALD patients [36–38, 42].

Language and communication barriers were also reported by HCPs caring for refugees [42, 43] and CALD patients [31, 33, 37, 38], which have been perceived as the prominent factor impeding patients' adherence to treatment and understanding of their diseases [38]. Pharmacists mentioned that CALD patients with asthma were often hesitant to ask about their illness and treatment, which could adversely impact the outcome of their treatment, especially in situations where there was a need to provide treatment based on symptoms, as it would be hard for pharmacists to understand their symptoms appropriately [31].

System-Related Factors In addition, pharmacists reported that medication cost was a barrier for QUM and access to medications among Arabic, Chinese and refugee patients [37, 43]. They tended to refuse to buy the prescribed medicines if it was not subsidised on the Health Care Card [37]. In addition, GPs reported limited access to culturally concordant healthcare services, including gender-specific HCPs, particularly for Muslim females [38, 42, 43]. Some HCPs caring for refugees were unaware of the availability of standard translation services in the community pharmacy setting [42, 43]. Moreover, HCPs who used these translation services noted that interpreters were not always helpful in communicating with CALD patients, and GPs were dissatisfied with the available translation services due to a lack of trust in the skills of the interpreters and concerns of conveying wrong information to the patients and back to the GPs [36]. Other factors related to the healthcare system included limited availability of resources about diseases and health information in languages other than English [31]. Some HCPs raised concerns regarding the inadequate staffing of HCPs capable of providing care to CALD patients [38]. For example, pharmacists felt that patients preferred to attend pharmacies if they hired staff who were fluent in their language [31]. In addition, CALD patients had restricted access to bulk billing services [38].

Although it was believed that better coordination between HCPs would improve the quality and safety of medication use and emphasises pharmacists' role in providing patients counselling about their medications [43], pharmacists reported ineffective communication with CALD patients due to their perceived lack of skills in providing pharmaceutical care to patients from CALD communities [30]. The ability to provide culturally appropriate and safe care to CALD patients as a contributing factor to suboptimal QUM will be further analysed in the following section.

Part Three_Barriers and Enablers of Providing Culturally Safe Care

Several barriers and enablers to providing culturally safe care for patients from CALD backgrounds were drawn against the theoretical domains framework, including a lack of opportunities due to environmental context and lack of resources, and social influences which impede their potential to provide culturally appropriate care. In addition, some barriers were related to a lack of physical and psychological capabilities. Other hindering factors were related to motivation (See Fig. 2).

Social Opportunity

Social Influences HCPs frequently reported language barriers and miscommunication as the primary factors that impede their ability to provide culturally safe care for CALD patients [31, 36]. Patients and HCPs incongruent in terms of language and culture has been argued by some HCPs to impact the provision of care and treatment provided to CALD patients [38]. For instance, physicians who were not native English speakers had problems understanding their patients' language [36]. Cultural factors were also perceived to interfere with optimum care. An example was the preference for same-gender HCPs among certain ethnic minorities, which was apparent among males and females [31]. This practice was evident through occurrences of second-hand counselling. For example, a pharmacist mentioned that some female patients were always absent from consultations about their asthma management. Instead, their husbands received these instructions and information on their behalf [31]. Furthermore, social norms and patients' social factors, including their age, sometimes appeared to impact providing pharmaceutical care to CALD patients. For example, elderly CALD patients did not prefer to consult young female pharmacists because they perceived them as not competent [31].

Pharmacists reported some behaviours from CALD patients' perspectives that could affect their abilities to provide culturally appropriate care to this subgroup of patients, such as frequently changing GPs in search of better treatment, undermining the importance of regular continued care and making it difficult for GPs to provide care for CALD patients with asthma compared with their non-CALD counterparts [36]. In addition, patients tended to prioritise their religious and spiritual beliefs over medical advice, even if this could significantly adversely impact their health [32].

Social Role and Identity Pharmacists reported ineffective communication and relationship with CALD patients due to the inability to provide culturally appropriate pharmaceutical care to this group of patients, raising concerns regarding

their professionalism [30]. However, the impact on patients' perceptions regarding the competency of HCPs could not be determined [38]. In addition, pharmacists reported that they sometimes relied on GPs to facilitate communication, as they viewed that those patients often consult physicians who speak their languages [33]; however, they perceived it as insufficient to provide their duties toward the patients [33].

Physical Opportunity

Environment Context and Resources Although pharmacists reported that they were aware of the available resources to facilitate providing culturally appropriate care for CALD patients, they did not use them because they perceived that there were few suitable and practical resources available [33]. For example, HCPs recognised the importance of using formal interpreting services in improving care delivery and CALD patients' satisfaction with the provided care; however, they viewed it as a simple solution to a highly complex situation of providing care to CALD patients [38]. In the community pharmacy setting, some pharmacists were aware of the availability of interpreting services in the community pharmacies. Yet, they raised concerns regarding its practicality, especially in busy pharmacies [30, 33]. In addition, some pharmacists raised concerns regarding phone-based interpreting services, mainly when counselling CALD patients about the inhaler techniques or other methods that require visual and physical demonstrations and the long waiting time to obtain phone translating services [31].

Another example was the lack of culturally appropriate mental health services, which impedes HCPs' capabilities to provide a suitable treatment for CALD patients [38]. In addition, HCPs raised concerns regarding the limited availability of healthcare workers from CALD backgrounds who would be more capable of fulfilling the needs of these communities and, consequently, failing to provide culturally competent care [38]. Some HCPs noted the perceived reluctance of some practices to provide care for members of CALD communities [38] as these practices perceived that this could impact the demographics in their settings and the government payments, as they did not have bulk bills [38]. Furthermore, HCPs often required a longer time to consult patients from CALD backgrounds and sometimes reached around twice the time needed for non-CALD patients [31, 36]. Pharmacists mentioned the lack of resources about health and medical information in languages other than English, resulting in difficulty providing pharmaceutical care for CALD patients [31]. In addition, lack of transparency from pharmaceutical manufacturers was viewed as a limiting factor for providing culturally appropriate care for CALD patients [32]. According to Daher et al., pharmaceutical industries were

perceived to be ambiguous in disclosing information about the source of ingredients which could impede patients' abilities to select appropriate therapy concordant with their spiritual and religious beliefs [32].

Capability_Psychological Capabilities

Knowledge Some HCPs reported a lack of awareness regarding African refugees' culture, such as avoiding eye contact [42]. In addition, Alzayer and colleagues revealed that not all pharmacists were aware of the availability of the approved interpreting services and were curious to have more information about accessing such services in terms of cost, reliability and waiting time to access these services [30, 31, 33].

Capability_Physical Capabilities

Skills, Abilities or Proficiencies Acquired Through Practice Pharmacists reported a lack of skills in providing pharmaceutical care to patients from CALD communities, which had been perceived as contributing to ineffective communication between pharmacists and CALD patients [30]. Therefore, patients' understanding of health and medical information was rarely confirmed [33]. However, pharmacists reported their experiences and proficiencies acquired in receiving questions from CALD patients from some religious backgrounds regarding the origin of the ingredients of their medications [32]. Some pharmacists considered themselves competent to identify the source of origin of the implicated medication [32]. Pharmacists' strategies to deal with these queries included respecting patients' autonomy by providing all the available treatment options even when limited options exist [32]. In addition, pharmacists mentioned that they usually disclose any ingredient suspected to be of concern for the patients regarding religion and cultural beliefs to assist patients in making an informed decision regarding medication use [32]. While others reported that if the medication in question was available in multiple dosage forms, they suggested changing the formulation from gelatine to another form free from an animal source such as syrup [32]. Others use the internet to find information about the origin of medication ingredients [32]. However, very few pharmacists proactively ask patients about any beliefs that could prevent them from using certain medicines [32].

HCPs have utilised various strategies to improve communication with CALD patients with low English proficiency levels, yet they reported that many of these methods were ineffective [30, 31, 33]. These strategies included using unaccredited and informal translation services despite considering them unreliable [33], such as carers who could convey information from pharmacists to patients, a strategy that most pharmacists preferred due to less time-consuming than organising official

translators [30, 31, 36]. However, due to carers being minors or other family members who also could have low levels of English proficiency, pharmacists questioned their reliability and competency in understanding complex instructions and delivering medication-related information [30]. In contrast, other pharmacists were not interested as they hired bilingual pharmacists [31]. Other pharmacists reported using audio-visual counselling aids [31] and non-verbal communication, such as demonstration devices, to counsel patients about correct inhaler techniques. Others used the teach-back method by asking the patients to repeat the inhaler technique to make sure that the patients understood the instructions appropriately [31]. Others used techniques such as drawing pictures and showing them to patients to explain the role of the controller inhaler and instructions on how to change their medications according to their action plans and physicians' advice [31]. Some used videos and online graphics as counselling aids [31]. Other strategies included speaking at a slower speed and using a more straightforward language [31]. Some pharmacists mentioned that some of their CALD patients used phone applications to communicate with pharmacists [31].

Motivation_Reflective Motivation

Beliefs About Capabilities and Consequences Some HCPs had low confidence in providing culturally competent services [30, 33]. Pharmacists acknowledged their lack of skills in providing pharmaceutical care to CALD patients with low English proficiency levels [30], which have been believed to influence their ability to obtain patients' information and negatively affect patients' ability to comprehend instructions and counselling advice [30]. Additionally, pharmacists perceived themselves to have inadequate cultural awareness, which could negatively impact the patients' emotional status by offending and upsetting them [31]. For example, pharmacists expressed their concerns about communicating with CALD patients. This was evident by refusing to serve patients from CALD backgrounds for fear of jeopardising patients' safety due to miscommunication [33].

Motivation_Automotive Motivation

Emotion Pharmacists reported frustration about the risk of miscommunication when interacting with CALD patients [31]. In addition, pharmacists felt helpless as they perceived patients from CALD communities as unwilling to listen to pharmacists' instructions, particularly non-regular customers [31].

Discussion

This systematic review presents a synthesis of evidence on the suboptimal quality use of medicines practices among CALD patients and the possible causing factors from the providers' lens. In addition, this review summarises the barriers and facilitators of providing culturally appropriate care informed by the theoretical domain framework of the behavioural change wheel model. To our knowledge, this is the first review to synthesise the available evidence on the quality use of medication among CALD patients from the perspective of healthcare providers using well-established theoretical frameworks.

Evidence from this review reveals that HCPs felt that patients from CALD backgrounds had mainly limited access to medicines and healthcare services [33, 38, 40, 42, 43]. In addition, they tended to be non-adherent to their medications [37, 40, 42, 43] and were observed to be less likely to comprehend information regarding their medications and diseases [31, 33, 36, 43]. In addition, they were viewed to be less willing to monitor their treatment [31, 36]. These, in turn, have attributed to CALD patients being vulnerable to side effects, drug interaction and duplication [31, 36]. Consistent with previous reviews across ethnic minorities in high-income countries, this review also identified several determinants that may potentially lead to these medicine-related issues and practices. These determinants include patients' social and cultural attributes, as well as the limited availability of resources capable of providing care for this group of patients, such as bilingual HCPs. As a result, these determinants can complicate the provision of culturally safe healthcare services [23, 24, 44].

The findings of this review showed gaps exist in the current practice of delivering culturally safe care, which highlighted the need to design multilevel interventions targeting the patients, healthcare providers, organisations and stakeholders, including pharmaceutical industries, to collaborate to address the modifiable determinants of delivering culturally safe care [1, 15, 19, 45]. Several essential intervention components have been proposed in the literature to improve the provision of culturally safe care, including providing education and training for HCPs, including pharmacists, regarding cultural and religious competency [31, 32, 38, 43]. However, these strategies have been argued to be insufficient to address implicit bias and ensure culturally safe care [15]. Future research should also consider employing interventions targeting elements at the policy level, such as the enforcement of laws and regulations on pharmaceutical manufacturers to increase their transparency in disclosing

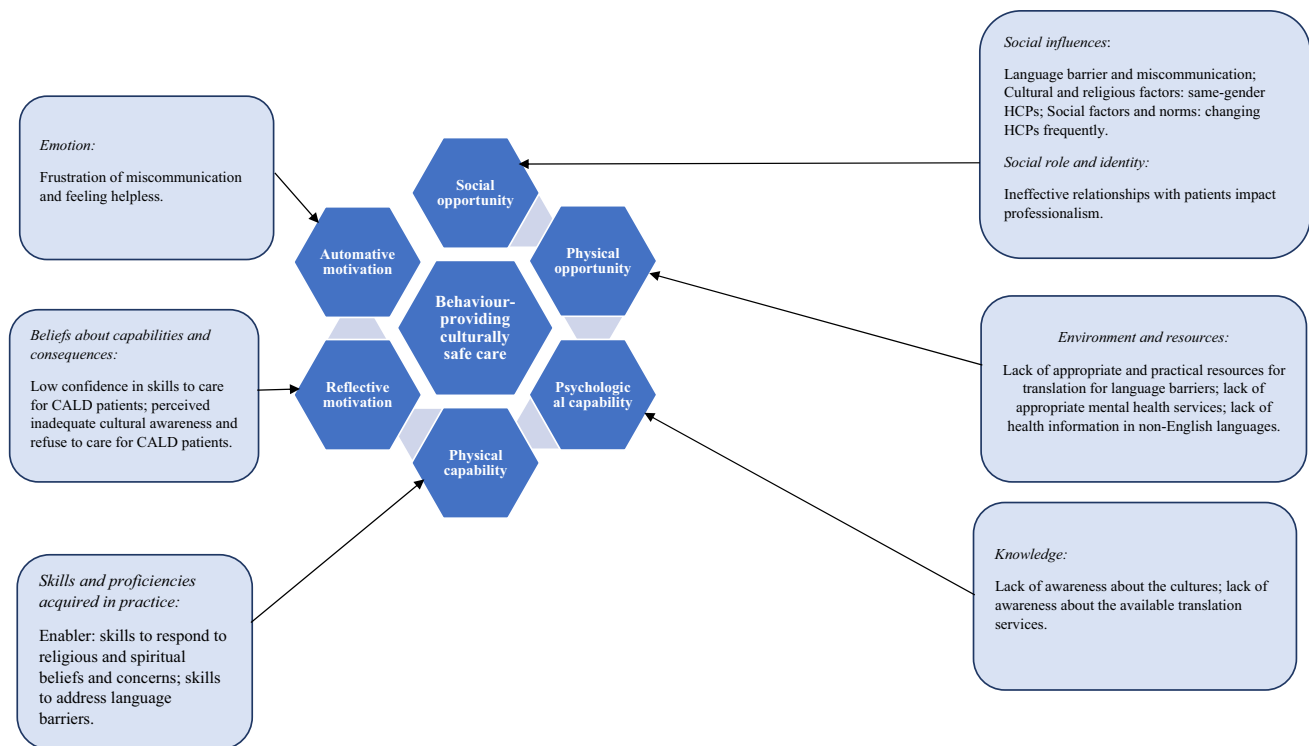


Fig. 2 Barriers and enablers against the theoretical domains framework of the behavioural change wheel

information regarding the source of origin of the ingredients, which will help both patients and pharmacists to make an informed decision regarding the choice of the most appropriate dosage formulation [46]. Other strategies should also be targeted at the system and organisation levels such as ensuring the diversity and multiculturalism of the health workforce, which also extend to the level of policy decision-makers, not only healthcare providers. In line with previous evidence, diversifying the leadership and policy governance could impact the physicians' behaviours and create an inclusive environment in healthcare organisations for CALD patients [15].

The miscommunication issue was apparent across HCPs from various domains, who questioned the practicality and reliability of the already available resources [30, 31, 33, 34, 37, 38, 42, 43]. Although using standard translation services was deemed appropriate to enhance communication to some extent, it is not without limitations [30, 31, 34]. Many HCPs viewed this service as an overly simple solution for a complex issue that requires further research and investigation [30, 31]. The extensive research on developing interventions to address miscommunication in providing care for CALD patients is acknowledged [47]. However, future interventions and tools should benefit from using more advanced technological tools that could detect the different dialects of CALD patients and be practical in the era of a technological

revolution, which could provide an instant translation and be tailored to the medical and health field [47].

Limitation

There are some limitations of this review. One study recruited a small sample size which could provide a limited picture of the determinants and barriers to providing culturally appropriate care for CALD patients. In addition, the included studies varied in terms of purpose and definition of culturally appropriate care. Some studies focused on one aspect of determinants to appropriate care, such as communication or stigma. Furthermore, despite the comprehensive search strategy applied to retrieve literature, there is a probability of missing some related studies due to challenges in defining search terms.

Conclusion

Although improving healthcare providers' awareness regarding the culture of other ethnic groups is paramount, future interventions should be targeted to address other factors of improper care as biases in the therapeutic relationship with

HCPs and among the healthcare institutions. In addition, interventions should be expanded to include institutional policies and broader systemic and structural reforms. Future studies should recruit healthcare providers from urban and rural areas to provide holistic information regarding the specific resources required to improve the provision of culturally safe care.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10903-023-01522-0>.

Author Contributions Conceptualisation (the idea of the review): RS, BB, HH; Literature search (initial): RS; Literature search (disagreements): RS, BB, HH; Data analysis: RS, BB, HH; Writing—original draft preparation: RS; Writing—review and editing: BB, HH.

Funding No funds, grants, or other support was received.

Declarations

Conflict of interest All authors declare no financial or non-financial conflict of interest.

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