

## REVIEW

# Chinese and Indian interpretations of pain: A qualitative evidence synthesis to facilitate chronic pain management

Gwyn N. Lewis PhD<sup>1</sup>  | Nusratnaaz Shaikh PhD<sup>2</sup> | Grace Wang PhD<sup>3</sup> |  
Shikha Chaudhary PhD<sup>1</sup> | Debbie J. Bean PhD<sup>1,4</sup>  | Gareth Terry PhD<sup>5</sup>

<sup>1</sup>Health and Rehabilitation Research Institute, Auckland University of Technology, Auckland, New Zealand

<sup>2</sup>School of Clinical Sciences, Auckland University of Technology, Auckland, New Zealand

<sup>3</sup>School of Psychology and Wellbeing, University of Southern Queensland, Toowoomba, Queensland, Australia

<sup>4</sup>Waitematā Pain Services, Te Whatu Ora Waitematā, Auckland, New Zealand

<sup>5</sup>Centre for Person Centred Research, Auckland University of Technology, Auckland, New Zealand

## Correspondence

Gwyn N. Lewis, Health and Rehabilitation Research Institute, Auckland University of Technology, Auckland, New Zealand.  
Email: [gwyn.lewis@aut.ac.nz](mailto:gwyn.lewis@aut.ac.nz)

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Auckland University of Technology, New Zealand

## Abstract

**Objective:** People from minority ethnicities often have a greater impact of chronic pain, are underrepresented at pain services, and may not benefit from treatment to the same extent as dominant cultures. The aim of this study was to review Indian and Chinese cultural views of pain and pain management, as a basis for improving management of chronic pain in migrant populations from these ethnicities.

**Methods:** A systematic review of qualitative studies addressing pain beliefs and experiences involving Indian and Chinese participants was conducted. Thematic synthesis was used to identify themes across the studies, and the quality of the articles was appraised.

**Results:** Twenty-six articles were included, most of which were appraised as high quality. Five themes were identified: *Making meaning of pain* described the holistic interpretation of the meaning of pain; *Pain is disabling and distressing* described the marked physical, psychological, and spiritual impact of pain; *Pain should be endured* described the cultural expectation to suppress responses to pain and not be a burden; *Pain brings strength and spiritual growth* described the enrichment and empowerment some people experienced through living with pain, and *Management of pain goes beyond a traditional or Western approach* described the factors that guided people in their use of healthcare.

**Discussion:** The review identified a holistic interpretation and impact of pain in Indian and Chinese populations, with pain management guided by multiple factors that transcended a single cultural framework. Several strength-based management strategies are recommended based on preferences for traditional treatments and respect for Western healthcare.

## KEYWORDS

culture, ethnicity, interpretation, pain, qualitative synthesis

## INTRODUCTION

Chronic pain is one of the most prevalent health conditions worldwide, with estimates of 15%–34% reported across the U.S., U.K., Europe, and Australasia.<sup>1–4</sup> There are fewer studies documenting the prevalence of chronic pain in Eastern countries, but estimates similar to Western countries are reported.<sup>5,6</sup> Pain is traditionally viewed as a multidimensional experience, impacting

physical, psychological, economical, and social aspects of health and wellbeing. It is therefore not surprising that chronic non-cancer pain is thought to be best managed using a multidisciplinary approach. Reviews indicate that such approaches are effective overall<sup>7–9</sup>; however, a lack of equity in access to and outcomes from pain management programs has been documented. For example, it has been reported that minority ethnicities are underrepresented at such services,<sup>10,11</sup> have a greater impact of

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pain at referral,<sup>12–16</sup> and do not benefit to the same extent as the dominant, normally Western population.<sup>17,18</sup>

Some of these inequities may arise through different cultural influences on the interpretation and experience of pain, as well as in treatment seeking in relation to pain. For example, it is known that culture and ethnicity influence the perception of pain,<sup>14</sup> pain coping strategies,<sup>19,20</sup> and relationships with healthcare providers.<sup>21</sup> Poor communication is one of the most common problems reported in pain management involving clinicians from different cultures and contributes to reduced benefits from treatment.<sup>21–24</sup> Additionally, some people from minority ethnicities feel uncomfortable discussing traditional treatments with Western clinicians because of a lack of trust that their beliefs will be accepted.<sup>25,26</sup> This omits the ability to include traditional practices within management plans and compels patients to accept treatments that may not align with their beliefs. Also, some cultures are more private and stoical about pain<sup>27,28</sup> and individuals from these cultures may be less likely to receive treatment, particularly when they are a minority group and the majority (including clinicians) are a culture who expect people to complain and voice their pain readily. A further potentially important contribution to inequities in pain management is that the health framework in many cultures differs from that adopted in most Western countries. In particular, the concept of spiritual health is integral in several cultures, and spiritual beliefs help shape the interpretation of health problems.<sup>29–33</sup> The notion of the importance of self is also diminished in some cultures, with prioritization of the family unit promoted instead.<sup>34–36</sup> These factors may clash with the largely Western-based biopsychosocial models of health and individual autonomy that are typically promoted in pain management programs.

Aotearoa New Zealand is a multicultural country with a mixture of predominantly indigenous Māori, European, south Pacific, and Asian ethnicities. The most prevalent ethnicity is European (70%), while the Asian ethnicity, of which Chinese and Indian are the largest contributors, makes up 15%.<sup>37</sup> The Asian population has doubled in number since 2006, making it the fast growing ethnicity.<sup>37</sup> Previous research in Aotearoa New Zealand<sup>16,38</sup> and in Canada<sup>39</sup> has documented that the Asian ethnicity is markedly underrepresented at chronic pain services, and they are disproportionately represented in several poor

outcomes following treatment. To address these issues, it is important to have a clearer understanding of Indian and Chinese cultural views of pain and pain management. Therefore, the aim of the current study was to synthesize information on Indian and Chinese interpretations of pain and treatment seeking behavior in relation to pain. This will provide clearer understanding of the meaning of pain in people of Indian and Chinese ethnicities, and therefore inform how current chronic pain services could be adapted to provide more culturally appropriate assessment and management.

## MATERIALS AND METHODS

A qualitative synthesis of published material was undertaken. The review was designed and conducted based on ENTREQ and Cochrane guidelines for completing reviews of qualitative literature. The protocol was registered in PROSPERO (CRD42021247961) prior to undertaking the review. The review methodology followed the thematic synthesis guidelines by Thomas and Harden.<sup>40</sup>

The research team constituted a mix of ethnicities, including Pākehā/European (GL, GT, and DB), Indian (NS and SC) and Chinese (GW). Most of the team had clinical backgrounds, including psychology (DB and GW) and physical therapy (NS and SC), while the remaining two members were health researchers (GL and GT). GT is an established qualitative researcher with extensive experience in thematic analysis and qualitative synthesis.

### Search strategy

A systematic search of available literature was undertaken in several databases (Scopus, Medline, CINAHL Complete, Dentistry & Oral Sciences Source, SPORTDiscus, AMED, EBM Reviews, JBI EBP Database, Maternity & Infant Care Database, PsycInfo). The search question was separated into key concepts of pain, Chinese/Indian, experience/management, and qualitative research. The specific keywords for each concept are shown in Table 1. These concepts were combined using AND terms and specific search strings developed, as appropriate for each database.

**TABLE 1** Search terms used.

Domain	Terms used
Indian and Chinese	Chin* or India* or Asia*
Pain	pain
Interpretation/management	concept* OR experience* OR perspective* OR perception* OR attitud* OR interpret* OR view* OR mean* OR understand* OR opinion* OR feeling* OR manage* OR treat* OR therap* OR intervention
Qualitative	qualitative OR “focus group” OR discourse or “content analysis” OR ethnograph* OR ethnolog* or “constant comparative” or observation* or phenomenology* OR interview* OR grounded OR “action research”

The initial searches were undertaken on May 11, 2021, with no date restrictions, by one of the authors (GL). An updated search was performed on January 19, 2023, and any additional articles that met the inclusion criteria were included. The results from each database were combined into a single EndNote file (VX9) and duplicates removed. The references of included articles were also checked for additional articles that may meet the review inclusion and exclusion criteria.

## Inclusion and exclusion criteria

Studies were required to be qualitative research that explored interpretation of pain, treatment-seeking in relation to pain, or experiences of healthcare for pain in people of Indian or Chinese ethnicity. Qualitative research was defined as a primary study that developed categories or themes in relation to the topic of interest. At least 80% of participants were required to be of Indian or Chinese ethnicity, or, in studies with mixed ethnicities, a separate analysis or presentation of results was required for the Indian or Chinese participants. Studies could be situated in India or China, or involve native or migrant populations of Chinese or Indian people. Studies were additionally required to be available in full-text and published in the English language. Studies were excluded if they focused children or adolescents as participants (age < 18 years), the main focus of the study was not pain, or the participants had a terminal illness.

The initial title and abstract screening was performed by one author (GL). The full text of remaining articles was obtained and screened for the inclusion and exclusion criteria by two authors independently (GL and SC). Conflicts or other uncertainties were resolved by discussion or consultation with a third author (GT) if agreement could not be reached. Reasons for exclusion were noted.

## Data extraction

The following information was extracted from all included articles by one author (GL): study authors and title, year of publication, aim or objective, geographical location, participant number, participant characteristics (ethnicity, gender, age), methodology, and data collection method/s. Data were entered into a form developed in Excel and the accuracy of extraction was verified by a second author (DB) for six randomly selected articles.

## Thematic synthesis

A thematic synthesis of the study data was undertaken following the method of Thomas and Harden.<sup>40</sup> Study

findings were defined as all data in the Results/Findings section that pertained to the concept of interest. Other sections of the manuscript (eg, abstract, discussion) were also checked for relevant findings. Line-by-line coding of the study findings was undertaken. In the initial stages, three authors (GL, GW, and NS) independently undertook coding of three articles to check for congruency. After this, one author (GL) coded the remaining studies, with seven coded by a second author (GW or NS). The codes were entered into Miro software (Thought Industries) and used to form descriptive themes by one author (GL). Four authors (GL, GW, NS, and SC) then independently used the descriptive themes to develop analytical themes that directly pertained to the concepts of interest, and then worked collaboratively to finalize these analytical themes. These themes were further developed and refined when written out. Given the similar holistic health belief models of Indian and Chinese cultures, this process was performed in a combined manner. Once the themes were developed, it was determined if they were being generated from data from both or predominantly one of the ethnicities. This enabled us to construct themes that both went across cultures and that were specific to a single culture. Finally, quotes providing [Supporting Information](#) that reflect the themes were located and extracted.

## Quality of evidence

The individual studies were critiqued by two independent authors (GL and SC) using the Critical Appraisal Skills Program (CASP) Checklist for qualitative research. Each article was appraised by 10 questions related to the validity of the study, the study findings, and the value of the research in relation to the review questions. Conflicts were resolved by consensus or consultation with a third author (GT) when consensus could not be achieved.

## RESULTS

The initial searches resulted in the identification of 4574 articles, which was reduced to 2061 once duplications were removed ([Figure 1](#)). Title and abstract screening resulted in the removal of 1942 articles, leaving 119 for full-text screening. Ninety-three articles were removed following full-text screening, with the most common reasons being the focus was not on pain, study methodology was not qualitative, participants had a terminal illness, or the majority of the participants were not of Indian or Chinese ethnicity. An additional five articles were identified after the updated search, which resulted in 31 articles being included in the final review.

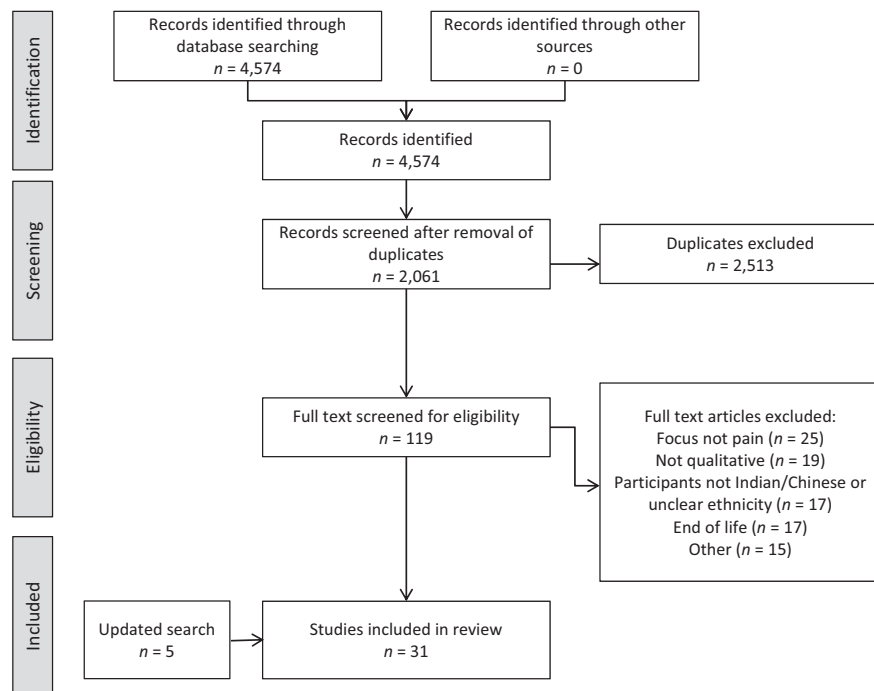


FIGURE 1 Flow diagram showing the flow of information through the review.

## Description of the studies

Summary information of the extracted data is shown in Table 2. Eighteen of the articles involved participants of Chinese ethnicity and the remaining 13 involved participants who were Indian. Of the studies involving Chinese participants, eight were undertaken in mainland China and the remainder in Hong Kong (5), Taiwan (2), Singapore (1), U.S.A. (1), and New Zealand (1). Eight of the studies involving Indian participants were based in India, and the remaining three were from the U.K. (2), Canada (2), and Australia (1). The aims of the studies incorporated the experience, interpretation, causes, and impact of pain, as well as experiences, understanding, and preferences relating to the management of pain.

In total, there were 964 participants, of which approximately 70% were female. The overall range in age was from 14 to 91 years. Most studies encompassed middle- to older-age adults, although four focused on older adults ( $\geq 65$  years) only. The participants within the studies were people with pain, family members, healthcare providers, or general public within the community.

The majority of the studies used semi-structured interviews to obtain data, with the remainder using focus groups, small group interviews, and written or oral questionnaires. Two studies also interviewed people associated with the participants (clinicians, family, close contacts) and two used observation in addition to interviews to obtain data. One PhD thesis based in Taiwan was included in the analyses. The methodological approach was unclear in over one-third of the studies, while the remainder used grounded theory, phenomenology,

interpretative description, qualitative description, ethnography, and case study approaches.

## Quality of evidence

The overall quality of evidence was high based on the CASP checklist (Table 3). Two-thirds of the studies sufficiently addressed 8 or more of the 10 checklist questions, with only 3 studies addressing 5 or less. Aspects that were not completed or described well were the justification of the research design, a critical examination of the researchers' role and potential bias, and consideration of ethical issues. In terms of the research design, in most cases the design was appropriate but it was not justified well. Few studies described the researchers in sufficient detail to enable the potential bias in data analysis and interpretation to be seen. In relation to ethical issues, in most cases where this was not addressed, an ethical approval process was not available or obtained at the location of the study.

## Thematic synthesis

Five themes were generated from the data that encompassed the interpretation of pain, impact of pain, and the response to pain (Figure 2). These themes were *Making meaning of pain*, *Pain is disabling and distressing*, *Pain should be endured*, *Pain brings strength and spiritual growth*, and *Management of pain goes beyond a traditional or Western approach*. In the remainder of this

TABLE 2 Description of the included studies.

Study	Location	Participant description	Participant demographics (n, % female, age range, ethnicity)	Methodology	Data collection method
Argarwal (2020) <sup>41</sup>	India	Ayurvedic physicians	10, NS, 26–69 years, Indian	Qualitative case study	Semi-structured interviews, observation
Au (2014) <sup>42</sup>	Hong Kong	Older adults with chronic orofacial pain	25, 84%, 65–83, Chinese	Unclear	Semi-structured interviews
Austine (2016) <sup>43</sup>	South India	Orthopedic surgeons	15, NS, NS, Indian	Unclear	Semi-structured interviews
Balasubramanian (2022) <sup>44</sup>	Bangalore, India	People with chronic headache	6, 83%, 29–64 years, Indian	Unclear	Semi-structured interviews
Basu (2007) <sup>45</sup>	Jharkhand, India	Tribals attending rural health clinic	10, 10%, 14–45 years, Indian	Grounded theory	Interviews
Bostiek (2021) <sup>46</sup>	Alberta, Canada	South Asians in community	43, 14%, 28–70 years, South Asian	Interpretive description	Focus groups
Burton (2019) <sup>47</sup>	Birmingham, U.K.	South Asians in community	10, 70%, 19–46 years, South Asian	Critical realism	Semi-structured interviews
Chang (2021) <sup>48</sup>	Taiwan	People with migraine	174, NS, 20–65 years, Chinese	Unclear	Questionnaire
Chang (2005) <sup>49</sup>	Taiwan	Patients and caregivers in inpatient neurological ward	21, NS, NS, Chinese	Ethnography	Interview and observation
Chung (2000) <sup>50</sup>	Hong Kong	People with cancer pain, nurses, physicians	33, NS, NS, Chinese	Unclear	Semi-structured interviews
Holt (2018) <sup>51</sup>	West Midlands, U.K.	Middle-older age Indian women	17, 100%, 41–75 years, Indian	Heideggerian phenomenology	Small group interviews
Kaur (2006) <sup>52</sup>	Hong Kong	Patients in coronary care unit	27, 41%, 41–82 years, Chinese	Qualitative descriptive	Semi-structured interviews
Kodiath (1992) <sup>53</sup>	Southern India	People with chronic non-cancer pain	20, NS, 25–91 years, Indian	Grounded theory	Interviews, observation, field notes
Law (2020) <sup>54</sup>	Hong Kong	Older adults with ≥2 chronic conditions	20, 80%, 65–80 years, Chinese	Grounded theory	Semi-structured interviews
Li (2012) <sup>55</sup>	Northwest China	Burn patients in hospital	8, 13%, 18–55 years, Chinese	Phenomenology	Semi-structured interviews
Li (2013) <sup>56</sup>	Northwest China	Physicians, patients, family/friends in oncology unit	28, NS, 27–62%, Chinese	Phenomenology	Semi-structured interviews
Li (2020) <sup>57</sup>	China	People with chronic LBP	152, NS, NS, Chinese	Unclear	Online survey
Liu (2018a) <sup>58</sup>	China	Older adults with chronic pain, with & without Alzheimer's disease	10, 70%, 71–95 years, Chinese	Unclear	Semi-structured interviews
Liu (2018b) <sup>59</sup>	Northwest China	Patients in oncology ward	9, 44%, 37–76 years, Chinese	Descriptive interpretive	Semi-structured interviews
Liu (2021) <sup>60</sup>	Auckland, NZ	Female table tennis players	5, 100%, 45–58 years, Chinese	Unclear	Semi-structured interviews, observation
Mustafa (2020) <sup>61</sup>	Canada	Women immigrants with musculoskeletal pain	13, 100%, 36–60 years, Indian	Interpretive phenomenology	Interviews

(Continues)

TABLE 2 (Continued)

Study	Location	Participant description	Participant demographics (n, % female, age range, ethnicity)	Methodology	Data collection method
Natapoff (2000) <sup>62</sup>	Shanghai, China	Older adults in hospital, family, clinicians	15, 27%, average 64 years, Chinese	Unclear	Interviews
Pati (2019) <sup>63</sup>	Odisha, India	Women with RA	113, 100%, 30–49 years, Indian	Grounded theory	Semi-structured interviews
Rajan (2022) <sup>64</sup>	Sydney, Australia	Migrants with LBP	26, 54%, 29–75 years, Indian	Constructive interpretive	Focus groups
Song (2020) <sup>65</sup>	China	People in residential care facilities	21, 76%, 65–91 years, Chinese	Unclear	Semi-structured interviews
Sushil (2022) <sup>66</sup>	Dehli, India	Women with lumbopelvic pain	20, 100%, 18–65 years, Indian	NS	Semi-structured interviews
Swardh (2022) <sup>67</sup>	Maharashtra, India	Physiotherapists	19, 47%, 24–40 years, Indian	Qualitative descriptive	Semi-structured interviews
Thumboo (2017) <sup>68</sup>	Singapore	People with hand OA	26, 88%, 52–78 years, Chinese	Grounded theory	Focus groups
Wong (2008) <sup>69</sup>	Hong Kong	Patients who had undergone limb fracture surgery	26, 54%, 20–78 years, Chinese	Qualitative descriptive	Semi-structured interviews
Wong-Kim (2007) <sup>70</sup>	San Francisco, U.S.A.	Chinese women with breast cancer	30, 100%, average 54 years, Chinese	Grounded theory	Semi-structured interviews
Xu (2019) <sup>71</sup>	Hunan, China	Patients receiving cancer treatment	12, 50%, 37–75 years, Chinese	Qualitative descriptive	Semi-structured interviews

Abbreviations: LBP, low back pain; NS, not stated; NZ, New Zealand; OA, osteoarthritis; RA, rheumatoid arthritis; U.K., United Kingdom; U.S.A., United States of America.

section, these themes are presented and integrated with a discussion of the findings.

## Making meaning of pain

This theme encompassed data that discussed people searching for the “meaning of their pain,”<sup>53</sup> questioning why they were experiencing it and what it meant. In most cases, pain was viewed as signifying something was wrong. The origin and meaning of pain were ascribed to multiple causes that were based on a mixture of cultural or spiritual beliefs and personal experience. People also searched for the meaning of their pain by going to other sources, as described by Au et al.<sup>42</sup>:

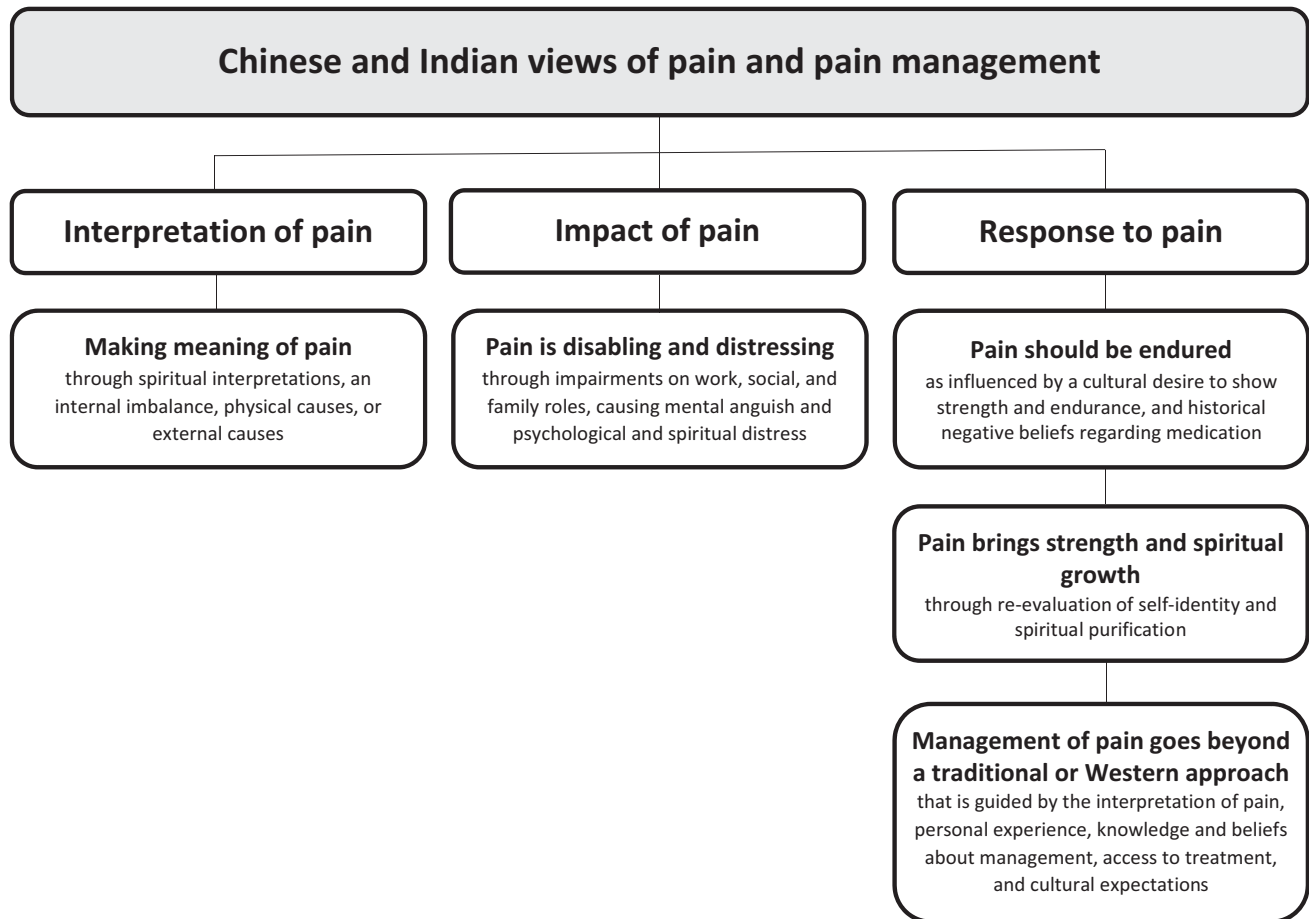
Participants generally reported that they obtained more information about their chronic OFP [orofacial pain] from reading some informative books, magazines, through the internet or advice from their friends and family. Therefore, they had developed their own ideas about different aspects of their chronic OFP, including diagnosis and underlying causes.

The four primary interpretations of pain related to spiritual meanings, an internal imbalance, physical causes, and external causes. Spiritual meanings of pain encompassed thoughts that pain was “punishment for bad deeds”<sup>49</sup> or bad relationships with others. Others believed pain was due to “evil spirits”<sup>50</sup> or that “Problem means someone has ... cast an evil eye on them.”<sup>45</sup> There were also beliefs evident in the data that pain was due to karma or fate. These spiritual meanings were evident across studies involving both Indian and Chinese participants and were generally associated with wrongs the individual had done in past or present, in a previous life, or simply bad luck. The idea of karma is common in Hindu beliefs, tying illness and disease to fate.<sup>72</sup> Similarly, the view of ill-health as a curse due to evil spirits, fate, or payback has previously been described as a feature of Chinese cultures.<sup>73</sup>

In the Chinese studies, pain was commonly ascribed to an internal imbalance, such as an imbalance of hot and cold, blocked meridians, disturbed energy status, or excessive emotions. For example, Li et al.<sup>57</sup> summarized participants' descriptions of their low back pain as a “result of an unbalanced lifestyle,” while Liu and Tong<sup>58</sup> noted that, “Pain perception makes older patients with chronic pain gradually conscious of self-imbalance.” The Taoist philosophy of Yin and Yang is strong in Chinese beliefs and describes two complementary yet bounded forces that are in constant flux.<sup>74,75</sup> In Chinese medicine, good health comes from a balance of Yin and Yang, and an excess or deficiency of either can lead to ill health, such as aches, pains, and illness.<sup>74</sup>

**TABLE 3** Appraisal of quality using the Critical Appraisal Skills Program (CASP) checklist for qualitative studies.

Study	1. Clear statement of aims?	2. Qualitative methodology appropriate?	3. Research design appropriate?	4. Recruitment strategy appropriate?	5. Data collection appropriate?	6. Researcher bias considered?	7. Ethical issues considered?	8. Data analysis rigorous?	9. Clear statement of findings?	10. Research is valuable?
Argarwal (2020) <sup>41</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Au (2014) <sup>42</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Austine (2016) <sup>43</sup>	No	Yes	No	Yes	Yes	No	Yes	No	Yes	No
Balasubramanian (2022) <sup>44</sup>	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No
Basu (2007) <sup>45</sup>	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes
Bostick (2021) <sup>46</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Burton (2019) <sup>47</sup>	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Chang (2021) <sup>48</sup>	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes
Chang (2005) <sup>49</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Chung (2000) <sup>50</sup>	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Holt (2018) <sup>51</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Kaur (2006) <sup>52</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Kodiath (1992) <sup>53</sup>	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes
Law (2020) <sup>54</sup>	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
Li (2012) <sup>55</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Li (2013) <sup>56</sup>	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Li (2020) <sup>57</sup>	Yes	Yes	Yes	No	No	No	No	Yes	Yes	Yes
Liu (2018a) <sup>58</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Liu (2018b) <sup>59</sup>	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Liu (2021) <sup>60</sup>	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Mustafa (2020) <sup>61</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Natapoff (2000) <sup>62</sup>	No	No	Cannot tell	Cannot tell	Cannot tell	No	No	No	Yes	No
Pati (2019) <sup>63</sup>	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Rajan (2022) <sup>64</sup>	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Song (2020) <sup>65</sup>	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes
Sushil (2022) <sup>66</sup>	Yes	Yes	No	Yes	Yes	No	No	No	Yes	Yes
Swardh (2022) <sup>67</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Thumboo (2017) <sup>68</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Wong (2008) <sup>69</sup>	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
Wong-Kim (2007) <sup>70</sup>	Yes	Yes	No	Yes	Yes	No	Cannot tell	Yes	Yes	Yes
Xu (2019) <sup>71</sup>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



**FIGURE 2** The five themes identified following synthesis of the data.

Physical causes of pain were mentioned in studies involving both Indian and Chinese participants. For example, pain was seen as “a natural phenomenon of body aging”<sup>58</sup> or due to “The hard work we are doing, that is why there is pain.”<sup>51</sup> Attributing pain to hard work echoes a previous study of South Asian participants with musculoskeletal pain<sup>76</sup> and may reflect the working class lifestyle or the physical burden of household work in both India and China. Pain was also ascribed to lifestyle or postural habits, particularly due to excessive squatting in both cultural groups. There was also a strong association between cancer and pain, as evidenced by the description from a participant in Liu et al.<sup>59</sup> that “Cancer means pain, how can one get cancer without pain?” Traditionally, in both India and mainland China, a diagnosis of cancer frequently occurs at late stages of the disease, and pain may have been the first presenting symptom.<sup>77,78</sup> Because of this, a cancer diagnosis is often terminal and, therefore, there may be a stronger association between pain and cancer than in other countries where earlier diagnosis and treatment means cancer pain is not experienced to same extent.

The final cause of pain was related to external, particularly environmental elements. Often these elements were not necessarily seen as the cause of pain but influenced

the experience or intensity of pain. Cold, in particular, was associated with pain, including cold water, cold and rainy climates, and cold food. For example, a clinician in Argarwal<sup>41</sup> stated, “it aggravates in cold places, so this person if moves to cold areas also, then also the pain is going to aggravate, so you have to take care of such things,” while Thumboo et al.<sup>68</sup> described that “Many patients reported worsening of pain with weather, particularly on cold and rainy days.” The ecosystem and climate are linked with health in both Indian and Chinese cultures, and it seemed common to refer to them in relation to the experience and treatment of pain. For instance, Ayurveda medicine is a traditional Indian holistic healing system that incorporates beliefs that climate and seasonal change can unbalance life energy and cause ill health.<sup>79</sup> Additionally, the five elements are a key part of traditional Chinese medicine, and it is believed that the wind, cold, wet, or climatic change can cause an imbalance in body energy and influence health.<sup>80</sup>

For some, the concept and meaning of pain was difficult to express. This was evidenced by the description that “Most participants seemed unable to verbalize the meaning of ‘pain’ much beyond the word itself,”<sup>51</sup> while a participant in Bostick<sup>46</sup> stated “I think describing pain, like someone just said earlier, is, is not an easy task for

an Indian.” This seemed especially evident for the sensory component of pain, where describing a specific location of pain or using a numerical scale to rate pain intensity were viewed as challenging.<sup>46</sup> This resonates with previous reports from clinicians of widespread pain in Indian patients that is unable to be localized or expressed clearly,<sup>81</sup> and supports the notion that, for these patients, pain may have meaning within the spiritual or psychological domains.

Overall, the data in this theme described the importance of meaning making of pain and the holistic interpretation of pain in both Chinese and Indian cultures. This encompassed spiritual, psychological, environmental, and physical underpinnings of pain.

### Pain is disabling and distressing

As well as being a source of meaning making, the data described pain's marked impacts on a person's life. These impacts were across multiple dimensions, including both physical and mental spheres. Pain was described as interfering with life roles, such as being able to look after children and grandchildren or undertake household work. Specifically, the inability to do traditional daily activities was mentioned, including using chopsticks for eating, putting on traditional clothes, or kneeling for prayer. This was evidenced by Austine's<sup>43</sup> description:

Participants unanimously concurred that OA [osteoarthritis] is associated with significant disease burden among Indians. This was attributed to the Indian lifestyle which entails sitting cross-legged, squatting to use the commode and various postures assumed during religious activities.

These reports resonate with a previous study describing how the physical restrictions associated with chronic pain impacted the cultural and religious well-being of Indian people.<sup>82</sup> Pain was also reported to affect social activities and led people to avoid social interaction, such as described by a participant in Thumboo et al.<sup>68</sup>: “I used to have a lot of friends, now I don't attend those activities, will more or less lose contact, like lose some friends.” For some, pain caused all activity to cease. Participants described this as, “It is best to do nothing, then there will be no problem”<sup>68</sup> and, “If my body is in too much pain, I would stop all the housework, stop whatever I was doing, then you need to rest.”<sup>51</sup> This intimate association between pain and physical function meant that pain was often not considered a problem until it interfered with these life roles. The marked association of pain with physical function led to the suggestion in one study involving Indian clinicians that assessing pain in terms of the impact on function and work would be more relevant for patients than assessing the intensity of pain.<sup>46</sup> This concurs with a large cross-sectional

study in India that revealed chronic pain has a substantial impact on daily activities, social life, and work, contributing to a reduction in quality of life.<sup>83</sup>

Perhaps more powerful than the effect on physical function was the impact of pain on mental health. Pain clearly influenced mood, lead to apathy and anger, and made life miserable. Liu et al.<sup>59</sup> described participants with cancer-related pain as, “They expressed sorrow over their pain and articulated that their pain episodes made them feel sad and in despair most days,” while a participant with cancer pain in Xu et al.<sup>71</sup> stated “When it hurts, it's hard not to get angry. I can't control my temper and I'm getting more impatient than before.” There was also a social stigma associated with pain and pain-related conditions. For example, Chung et al.<sup>50</sup> wrote:

A physician stressed that cancer pain was a social stigma, especially cancer involving the female reproductive organs or breast cancer...

These findings reflect earlier work on cultural perceptions of cancer pain that indicated non-Western cultures, including Asian, have a strong stigma associated with cancer.<sup>84</sup>

Beyond this impact on mood, in the Chinese studies pain was commonly experienced as deeply threatening, uncontrollable, and lead to suicidal ideation. This was captured well by statements from participants with pain that “the pain tortures me so much”<sup>59</sup> and “that pain is truly terrible.”<sup>55</sup> Pain gave rise to feelings of helplessness, fear, and lack of control: “As a patient, I lost my control especially when the pain was severe.”<sup>69</sup> Numerous studies expressed reports that people would rather die than have pain, or that dying was the only way to escape from pain. For example:

All I want to do is to die. It hurts so much that no self-suggestions are helpful. I've collapsed...the pain is killing me, I want to give up...<sup>71</sup>

Now, the pain restricts me to bed. I hope to die in a rapid way ...<sup>56</sup>

In the first few years, I really want to jump down the building, it was very miserable.<sup>68</sup>

The frequency of these catastrophizing thoughts regarding pain follows other studies showing that the psychological and emotional components of pain are greater in non-Western populations.<sup>16,85,86</sup> Most of this previous research has been with indigenous minority and migrant populations, where the psychological influences may arise through compounding socio-political factors such as racism, colonization, and inequity. However, in the current review, such thoughts

were also evident in studies with Chinese participants based in countries where they are the dominant culture. This perhaps reflects a marked psychological impact of pain due to cultural norms that discourage people from expressing feelings and discussing mental health.<sup>87</sup>

Overall, the data in this theme clearly evidenced the multidimensional impact of pain on the body through impairments on work, social, and family roles, causing mental anguish and psychological and spiritual distress.

## Pain should be endured

The theme that pain should be endured was almost exclusively located in the Chinese studies, but was also evident in relation to Indian women. Following Confucian beliefs, Chinese are raised to be brave and strong, deferential to authority, prioritize family, and live in harmony.<sup>73</sup> These beliefs were reflected in the response to pain. As one participant with cancer pain stated, “I will endure and all will be well.”<sup>59</sup> There was a common belief evident that when faced with pain, people should be courageous and pain should be tolerated and accepted without complaint. For example, one participant said, “My family taught me that I ought to be strong...so I won't tell others about my pain as long as I could bear it,”<sup>55</sup> while another commented, “... I have to it bear it, right, because other patients also tolerating [pain].”<sup>58</sup> There was a particular avoidance of expressing emotions related to pain. Li et al.<sup>55</sup> stated, “Clinical observation indicated that Chinese patients tend to endure pain, perhaps because of expressing one's feelings is not encouraged in Chinese culture...,” while Chang<sup>49</sup> commented that, “[Participant] felt the pain and was fully aware that an emotional outburst, particularly in desperation, was not encouraged.” This aligns with Confucian beliefs in that the desire for harmony and showing self-restraint is put above the need to express discomfort or unhelpful emotions.<sup>73,88</sup>

It was also evident that people with pain did not want to burden others. This was primarily in relation to family. For example:

I live with my daughter but I did not want to bother her as she has to earn money and life is already very difficult for her. I do not want to increase her burden.<sup>52</sup>

However, this concern for burdening others was not restricted to family members, with some participants also concerned about burdening healthcare providers:

I did not press the buzzer when I was in pain. I didn't want to disturb the nurses as they were busy in other things. I was taught from

mother that to be a good person and not to disturb the others if I could manage things myself.<sup>69</sup>

Although residents complained about the quality of care by frontline workers, they did not think to ask for more help was a good idea. As R26 said, ‘I don't want to increase others' burdens.’<sup>65</sup>

The desire to not burden follows the philosophy of not disrupting peace and being respectful of others within Chinese cultures. Patients receiving healthcare did not want to be seen as a complainer and wanted to be a “good patient” who was respectful of the workload of healthcare providers. This was also evident in several studies in the commitment to family shown by people with pain. Family was reported to be prioritized ahead of individual needs in both Indian and Chinese studies, such as “Sometimes, even if I am in pain, I will carry on because someone needs to finish the work, obviously house work.”<sup>51</sup> Kaur et al.<sup>52</sup> commented that “They [people with pain] continued to play their family roles and fulfil their everyday responsibilities, putting their family's interests first.” In both Indian and Chinese cultures, family supersedes the individual,<sup>89,90</sup> and it was evident that attending to family responsibilities was viewed as more important than expressing or seeking help for pain. This was particularly prominent for Indian women, where it was clearly expressed that the responsibility of housework and looking after children and older family members fell to them. While one study indicated that women accepted this as their cultural responsibility,<sup>61</sup> women reported that they do not have time to seek healthcare or prioritize their wellbeing.

The endurance of pain was also associated with strong beliefs about medication, particularly opioids. The distrust of opioids was common across studies involving Chinese participants and they were frequently viewed very negatively by both people with pain and healthcare providers. For example, participants commented, “To use narcotics? That is to ruining a man rather than saving him. From very young I knew that one is drug-poison, you know,”<sup>55</sup> and “My physician prescribed me some analgesics, he told me to take them if the pain was severe. But I believe that the analgesics have more cons than pros, so I would rather bear the pain instead of taking them.” It was viewed as “a sign of weakness to take pain medication,”<sup>59</sup> medication was commonly associated with side effects (“shan”), and it was only taken by some as a last resort. Healthcare providers were seen to overtly portray the negative side effects of opioids and the risks of addiction to patients. For example, an oncology physician stated, “Before administration of painkiller, we often remind patient the addiction to opioid analgesics and the risk

of respiration inhibition, so some patients choose to endure pain.”<sup>56</sup> A family member of a cancer patient in the same study said:

The surgeon said the substance (opioid analgesic) was easy to cause addiction and should be withheld until the pain was so bad that he really needed it. Of course, we know, he (the surgeon) is correct.<sup>56</sup>

These strong views on opioids are likely linked to the opium trade and wars of early-mid 1800s.<sup>91</sup> A large influx of opium into China at this time caused widespread addiction that had a substantial negative social and economic impact. In the mid-1900s, a large anti-opium movement was launched to reduce opioid abuse. The stigma associated with opioid use appears to persist in modern times, as evidenced by the reluctance of both medical practitioners within mainland China to prescribe opioids and patients to take them. The cultural desire to show strength and endurance combined with the historical negative beliefs regarding medication likely fuels the persistence of these views. Guidelines clearly indicate there is no benefit of opioids for the management of chronic non-cancer pain,<sup>92</sup> yet they are safe and effective for treating acute nociceptive pain when indicated and when used appropriately. However, given the tragic multigenerational consequences of opioid abuse in the past and the very real risks of addiction, overdose, and mortality when used inappropriately, some caution toward opioid use is understandable and perhaps even prudent.

### Pain brings strength and spiritual growth

This theme describes the evidence that pain was not always interpreted negatively or had a negative impact on a person's life. In both Indian and Chinese studies, aspects of the experience of pain were often looked upon in a favorable light. Enduring pain showed strength and led to respect from others. Kodiath and Kodiath<sup>53</sup> explained, “The Indian patients ... saw pain as a natural part of life and viewed it as an ebb and flow in life's experiences. Pain was both a process of purification and a stage of maturity and growth.” Pain was accepted as part of life or aging, and suffering through pain led to personal growth and transformation. In some cases, experiencing pain changed people's attitudes and views of themselves and others and made them more empathetic. For example:

“Rose's reflections on her pain experiences underpinned her eventual self-transformation so that she conscientiously changed her previously ‘arrogant and proud’ self to become more understanding and willing to share and help others. Thus,

her experiences of pain worked to produce harmony...”<sup>60</sup>

Pain seemed to provide an opportunity to reflect on individual values and brought strength, understanding, and compassion. Some patients described a spiritual view and felt that the experience of pain brought them closer to God and led to spiritual purification. This was summarized by Kodiath and Kodiath<sup>53</sup>:

The Indian patients were able to receive increased family support. Their social and interpersonal lives became more enriched because of their beliefs about pain and the wisdom that was added to their lives. Indians valued the purification process in their spiritual lives throughout this suffering.

This resonates with the notion that the suffering experienced through living with pain provides an opportunity for psychological and spiritual growth.<sup>73,74</sup> Those who choose to accept their pain are more at peace with their pain experience and seem to be able to separate pain from suffering.<sup>93</sup> Pain, instead, provides an opportunity for demonstrating independence through self-management, to re-evaluate self-identity, and to enrich their lives.

### Management of pain goes beyond a traditional or Western approach

This theme covers the multiple avenues people described to manage their pain and the factors that guided them in the approach to management. There was no one element that directed if treatment was sought for pain or where treatment was sought from. Instead, management of pain was seen to be based on a number of factors, including the interpretation of pain, personal experience, knowledge and beliefs about management, access to treatment, and cultural expectations. People navigated Western and traditional models of health and healthcare, which sometimes led to exclusive use of one form and at other times a mixture of Western and traditional approaches was used.

Transcending both Western and traditional healthcare models and Indian and Chinese studies was the view that family was an integral support system. Family was described as a great source of strength and support,<sup>53</sup> while Xu et al.<sup>71</sup> reported that, “Most of the participants desired to be with their family members. Social support, mainly from their families, was their greatest support.” The presence of family provided comfort, the ability to obtain and provide treatments, and enabled the sharing of workload and household responsibilities. A lack of family support, such as immigrants or older adults whose children were working or had moved away, was viewed as detrimental to

how people coped with pain. This was evidenced by a woman living with rheumatoid arthritis in rural India, who stated “I am a widow; no one is here to look after me (sobbing). I have two sons; they are doing jobs and staying away from me.”<sup>63</sup> The integral importance of family in pain management strategies in South Asian populations has been noted previously<sup>76</sup> and likely reflects the prioritized values associated with family and community over individual autonomy in these cultures.

Traditional healthcare was reported to provide hope and was used by those who had belief and faith in its use. A participant in Basu and Dutta<sup>45</sup> stated simply “we believe in it because it has come down through generations.” As well as their own knowledge, advice on traditional treatments was provided by family and friends, or was sometimes sought out by visiting traditional practitioners. Traditional medicine and practices provided a connection to family and to culture and were targeted to the believed cause of pain, such as the use of specific herbs for different ailments. Massage was commonly mentioned in studies involving both Indian and Chinese participants. For example:

During the interviews, the participants indicated that *gua sha* [massage] was usually used during acute pain episodes. Some of the participants indicated that they were given *gua sha* massages by their friends or relatives, and some reported that they were given *gua sha* massages by masseurs.<sup>48</sup>

Massages were applied by a variety of people connected to the person with pain and provided a physical connection to others as well as a means of providing care and comfort. Importantly, spiritual and traditional pain management strategies were seen as providing hope or peace when other treatments were not effective. For example, Song et al.<sup>65</sup> stated that, “religious beliefs helped them live with pain when other methods did not work,” while Chang<sup>49</sup> wrote, “On the other hand, spiritual healing offered some hope.” These thoughts support previous inferences that religious beliefs help Asian patients through pain.<sup>84</sup> It was often acknowledged or accepted that traditional treatment may provide minimal or short-term pain relief only. For example, a participant in Chung et al.<sup>50</sup> stated “I am used to meridian stimulation, but it does not help much. .. I still think it can help me, and it is better than nothing.” Therefore, while traditional treatments may not alleviate pain, they were viewed as providing a viable option that may provide spiritual comfort or a sense of empowerment.

The use of Western healthcare emphasized trust in healthcare professionals, perceived benefits of medication, and skepticism of traditional treatments. Respect for clinicians was present both in Indian and Chinese studies and was evidenced by statements such as:

Some patients obtained incorrect information about the effect of analgesia from doctors, nurses and relatives, but they expressed the high compliance and respect for the doctor's prescribed treatment.<sup>55</sup>

In general, patients showed trust in doctors and a willingness to comply with their advice. These views reflect Chinese and Indian philosophies of respecting authority, being deferential, and not questioning those in a higher position. Belief and confidence in Western medicine was also apparent. For example, Chung et al.<sup>50</sup> reported that, “analgesics were the only thing that kept them free from pain.” Others expressed a preference for taking medication rather than enduring pain, such as a patient who stated, “I expect doctors or nurses to come actively to ask me if I am in pain and give me pain-killer accordingly, at least once a day, rather than ‘endure.’”<sup>55</sup> This contrasts with the notion of enduring pain and negative views of opioids presented earlier, and shows, for some, the acceptance of Western medication and a willingness to take it despite cultural expectations to show strength and endurance. Others turned to Western-based healthcare because they felt that traditional treatments did not work. The strict requirements and rules associated with some traditional treatments were also evident, with Chang<sup>49</sup> describing one patient's view of traditional medicine as “impractical,” while others believed that traditional healers could be dangerous. Thus, the choice of Western healthcare was informed by not only belief and respect for Western-based healthcare and healthcare providers, but also skepticism of or limitations associated with traditional healthcare options.

Clearly demonstrating that decisions regarding pain management were not dictated by a single cultural framework were reports that patients engaged in a mixture of traditional and Western approaches for pain management. For example, a participant with migraine in Chang et al.<sup>48</sup> stated, “I take Western medicine in the morning and evening and take Chinese medicine after meals three times a day. If the pain persists, I take OTC [over the counter] medicine.” The consequences of this mixed approach were both positive and negative. Dualism provided more options for different types or intensities of pain and afforded multiple treatments that were able to address the multiple perceived causes and impacts of pain. For example, Chang<sup>49</sup> concluded:

Therefore, a straightforward and absolute biomedical treatment of high-oxygen density treatment and rehabilitation and medication would not have helped with all these causes. It required more interventions that specifically addressed the causes. It asked for cleansing rituals to rid of evil spirits, acupuncture and nutritious food to improve Chu's *qi*-flow and constitution.

There was no clear preference for whether people sought traditional or Western healthcare first. Instead, it appeared that access to treatment may be a stronger determinant of use rather than preference, as noted by Pati et al.<sup>63</sup>

It was found that preference for practitioners from their own cultural background is less important to patients than their availability, accessibility, and quality of care provided by different systems. When they lack easy and adequate access to modern care, people rely on traditional healers in primary care.

Thus, some people sought and used both Western and traditional healthcare practices, often simultaneously, because of the perceived benefits of both systems and views of how treatment should be tailored to cause or impact. In contrast, the decision where to seek treatment by others appeared to be dictated by access issues, such as travel, cost, and language barriers.

On a more negative note, the use of both traditional and Western care raised concerns for some patients and clinicians that drug interactions may occur. For example, Chang<sup>49</sup> wrote:

However, when it came to the patients' use of herbal medication, their attitudes were skeptical. They believed that because there was still very limited knowledge how herbal medication might interact with Western medication, it was best for patients to try only Western medication on the unit.

Some reluctance of patients to discuss traditional treatments with Western-based practitioners was reported, as they thought their use may not be supported. This led to an absence of discussion around traditional treatments and potential drug interactions:

Pursuit of herbal medication is an important occupation for many patients and caregivers. However, they had to deal with the censure of its use by their rehabilitation health professionals. Use of herbal medication was turned into an underground activity on the unit.<sup>49</sup>

Therefore, there were clear benefits of using a mixture of traditional and Western treatments that enabled flexibility, choice, and multiplicity of treatment. However, the lack of communication around the use and acceptance of traditional treatments or a lack of awareness of traditional views by Western-trained clinicians had a negative impact in some cases that resulted in non-disclosure of its use and left patients uncertain about how to manage both approaches. This supports other cross-cultural studies of pain management that have shown communication

barriers impede rapport with clinicians and impair patient outcomes.<sup>21</sup> The traditional Indian and Chinese cultural expectations of respect and being deferential mean that patients are often less assertive and questioning in their medical encounters,<sup>94</sup> and therefore may leave with a feeling of being unheard.

## STRENGTHS AND LIMITATIONS

There were several strengths to the review, including pre-registration and strictly following published guidelines and protocols for undertaking systematic syntheses. The author team also includes people of Indian and Chinese ethnicities. There were also some limitations. The exclusion of articles published in languages other than English was required for pragmatic reasons but may have meant that relevant studies published in other languages were omitted. The authors were not contacted when descriptive information was missing from the published article, and there may have been some instances where such information could have been provided. We performed the thematic synthesis using data from all the included studies, and thus combined data from studies involving the two ethnicities. It is possible that a separate thematic synthesis for each ethnicity may have identified additional themes specific to each ethnicity.

## CLINICAL IMPLICATIONS AND CONCLUSIONS

An overarching synthesis of the data across the five themes presented above generated three distinct orientations to pain management for Indian and Chinese people with chronic pain. These were centered around suffering in silence, successful self-management, and a need for nurturing care. For Chinese people with pain, while the cultural desire to endure pain was present, it was evident that this may clash with individual needs.<sup>49,59</sup> Despite the significant, often distressing impact of pain on the person, the cultural expectations to not express this impact meant that the endurance of pain may not necessarily be a personal choice. For example, this led to some patients to take medication in secret.<sup>59</sup> Even though the person may be experiencing intense pain and/or have psychological and spiritual anguish, acknowledging or requesting help for pain may feel like failure of cultural and societal expectations for many Chinese. In an effort to not lose face, these people seem to be left to suffer in silence with their pain. Overtly acknowledging the physical, psychological, and spiritual distress that pain is likely to bring, proffering analgesics, and presenting medication as a way to facilitate their ability to fulfill their social roles may help these individuals to accept the use of medication in a way that saves face. This may be

particularly relevant in inpatient, aged care, or cancer settings where medication is the predominant treatment for pain and there may be other barriers to communication already present. Healthcare providers could also help these patients focus on the personal strengths and growth associated with their pain experience, such as their resilience, and encourage them to appreciate the positives in their life and past achievements.

The second orientation centered around self-management and control over pain. It was again more prominent in studies involving Chinese participants. In this strategy, patients had a need for knowledge, they wanted pain to be assessed, and they wanted to discuss their pain and pain management options. They were accepting of lifestyle changes, such as engaging in exercise and making healthy changes to diet, and were able to determine themselves what brought on and relieved their pain. These self-management strategies often incorporated both traditional and Western practices. Traditional exercise, such as Tai Chi and Yoga, and relaxation or meditation were common, and patients were happy to self-medicate with traditional and/or Western medicine. In effect, they took personal responsibility for their own pain management. This strategy appeared to result in successful self-management of pain in a way that fitted with traditional values but enabled the use of Western-based healthcare and practitioners when needed. It resonates with the Body–Mind–Spirit approach to management described by Chan et al.<sup>73,74</sup> that emphasizes growth and transformation through pain, encouragement of emotional expression, and empowerment. This strategy fits closely with the approach taught in chronic pain management programs but may be more challenging to incorporate in other settings.

The final orientation involved a preference for a more nurturing style of care and was more evident across studies involving Indian participants. This form of care centered around receipt of passive treatments, particularly massage, and incorporated a need for physical comfort. There was a desire for immediate pain relief and a reluctance to do exercise or lifestyle modification, similar to what has been reported in other studies involving South Asian populations.<sup>76,82,95</sup> This preference for nurturing care and short-term pain relief may reflect that provision of such care recognizes or acknowledges the suffering the person is experiencing, and this may be particularly important when suffering is associated with respect and spiritual growth. However, the lack of individual coping strategies with this approach appeared to make it less successful, which may be in part because of the tension between the traditional goals of Western pain management (relieving pain, reducing suffering, improving function) and the cultural view that there may be spiritual value in suffering with pain. Patients with a preference for nurturing care may find Western healthcare provider

expectations unsupportive while providers may feel frustrated if individuals do not engage in a more active approach. Interestingly, Singh et al.<sup>82</sup> reported that Punjabi participants with chronic low back pain initially showed a preference for passive care and quick-fix strategies but then eventually transitioned to active coping. For these people, it may be that, initially, their suffering needs to be acknowledged through nurturing care while strategies to encourage personal growth are implemented, such as promoting a spiritual approach to pain interpretation and management. When ready, culturally appropriate active management practices, such as yoga, meditation, or tai chi may then be introduced more successfully.

The findings of the study demonstrate that Chinese and Indian people may hold a diverse range of personal, holistic beliefs regarding the meaning of pain and how it should be managed. There may be barriers to discussing these views openly in a healthcare setting so clinicians should allow adequate time to build rapport and actively explore a person's views on their pain and their preferences for management in a supportive, non-judgmental manner. Acceptance and support of a patient's view, even when it may be highly divergent from the clinician's own understanding, is likely to foster greater engagement in treatment and a willingness to discuss additional views and treatment approaches. Further, non-judgmental discussion, or even promotion of traditional treatments and medicine where it is likely to be beneficial or not harmful, will minimize any potential complications of mixed treatment and drug interactions. It may be useful to have traditional medicine specialists as part of a multidisciplinary team, or to establish relationships with traditional medicine practitioners in the community. Additionally, clinicians should provide a mechanism for patients to ask questions in a way that does not feel disrespectful, such as offering examples of common questions or providing an opportunity to direct questions to other staff that may be viewed as less reverential.

Finally, family was identified in this review as a crucial source of information, emotional and practical support, and viewed as integral to being able to manage pain. Utilizing family strengths and involving family in patient care are likely to be highly valued. Where pain may have interfered with relationships or family systems, clinicians should assist patients and their families to improve relationships and family functioning. When patients (especially migrants) are isolated from family, providing connections to cultural support or traditional practices within the local community may provide some substitute for the physical presence of family.

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## ORCID

Gwyn N. Lewis  <https://orcid.org/0000-0001-9324-0940>

Debbie J. Bean  <https://orcid.org/0000-0002-0606-8749>

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## SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

**Table S1.** Descriptive themes.

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