

# “Listen to me, learn from me”: a priority setting partnership for shaping interdisciplinary pain training to strengthen chronic pain care

Helen Slater<sup>a,b,\*</sup>, Joanne E. Jordan<sup>c</sup>, Peter B. O’Sullivan<sup>a,b</sup>, Robert Schütze<sup>a,b,d</sup>, Roger Goucke<sup>e</sup>, Jason Chua<sup>f</sup>, Allyson Browne<sup>a,e</sup>, Ben Horgan<sup>a,b</sup>, Simone De Morgan<sup>g</sup>, Andrew M. Briggs<sup>a,b</sup>

## Abstract

What are the care-seeking priorities of people living with chronic pain and carers and how can these shape interdisciplinary workforce training to improve high-value pain care? Phase 1: Australian people living with chronic pain (n = 206; 90% female) and carers (n = 10; 40% female) described their pain care priorities (eDelphi, round 1). A coding framework was inductively derived from 842 pain care priorities (9 categories, 52 priorities), including validation; communication; multidisciplinary approaches; holistic care; partnerships; practitioner knowledge; self-management; medicines; and diagnosis. Phase 2: In eDelphi round 2, panellists (n = 170; valid responses) rated the importance (1 = less important; 9 = more important) of the represented framework. In parallel, cross-discipline health professionals (n = 267; 75% female) rated the importance of these same priorities. Applying the RAND-UCLA method (panel medians: 1-3: “not important,” 4-6: “equivocal,” or 7-9: “important”), “important” items were retained where the panel median score was >7 with panel agreement ≥70%, with 44 items (84.6%) retained. Specific workforce training targets included the following: empathic validation; effective, respectful, safe communication; and ensuring genuine partnerships in coplanning personalised care. Panellists and health professionals agreed or strongly agreed (95.7% and 95.2%, respectively) that this framework meaningfully reflected the importance in care seeking for pain. More than 74% of health professionals were fairly or extremely confident in their ability to support care priorities for 6 of 9 categories (66.7%). Phase 3: An interdisciplinary panel (n = 5) mapped an existing foundation-level workforce training program against the framework, identifying gaps and training targets. Recommendations were determined for framework adoption to genuinely shape, from a partnership perspective, Australian interdisciplinary pain training.

**Keywords:** Chronic pain, Lived experience, Partnership, Priority-setting, Curricula, Pain education

## 1. Introduction

Australia’s National Strategic Action Plan (NSAP) for Pain Management<sup>2</sup> set out 8 key goals to achieve the overarching

goal of improving the quality of life for people living with pain and minimising the pain burden for individuals and the community. One specific goal is to improve access to, and knowledge of, best-practice pain management by strengthening interdisciplinary health workforce pain management training. The NSAP is timely because a nationally consistent approach to pain training of emerging and current health workforces remains a challenge in Australia.<sup>3,12,18</sup>

While interdisciplinary pain training programs are currently conducted in Australia,<sup>30</sup> challenges to implementing and scaling programs include difficult to sustain expensive face-to-face training models,<sup>68</sup> insufficient skilled workforce to deliver training, limited opportunities to receive training,<sup>17</sup> and geographic barriers to accessing training.<sup>68</sup> Such factors rate-limit the reach, scalability, impact, and sustainability of training initiatives with potential downstream barriers to delivering effective clinical care. While not unique to Australia, addressing this challenge is vital given that interdisciplinary training is a key enabler to the implementation and adoption of a biopsychosocial approach to pain care.<sup>15,35,57</sup>

In the global context of interdisciplinary health workforce capacity building, seminal work has been undertaken by Fishman et al.,<sup>35</sup> to develop core competencies that guide the training of prelicensure health professionals in pain care. The International Association for the Study of Pain (IASP) Education Initiatives Working Group has subsequently adopted these core competencies across all curricula for both interprofessional and discipline-

Sponsorships or competing interests that may be relevant to content are disclosed at the end of this article.

<sup>a</sup> Curtin School of Allied Health, Faculty of Health Sciences, Curtin University, Perth, Australia, <sup>b</sup> enAble Institute, Faculty of Health Sciences, Curtin University, Perth, Australia, <sup>c</sup> HealthSense (Aust) Pty Ltd, Melbourne, Australia, <sup>d</sup> The Department of Anaesthesia and Pain Medicine, Multidisciplinary Pain Management Centre, Royal Perth Hospital, Perth, Australia, <sup>e</sup> Emergency Medicine, Anaesthesia and Pain Medicine, Medical School, University of Western Australia, Perth, Australia, <sup>f</sup> Traumatic Brain Injury Network, Faculty of Health and Environmental Sciences, Auckland University of Technology, Auckland, New Zealand, <sup>g</sup> Menzies Centre for Health Policy and Economics, Faculty of Medicine and Health, University of Sydney, Sydney, Australia

\*Corresponding author. Address: Faculty of Health Sciences, Curtin University, GPO Box U1987, Perth 6845, Australia. Tel.: + 61 8 9266 3099. E-mail address: H.Slater@curtin.edu.au (H. Slater).

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal’s Web site ([www.painjournalonline.com](http://www.painjournalonline.com)).

PAIN 163 (2022) e1145–e1163

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<http://dx.doi.org/10.1097/j.pain.0000000000002647>

specific training (<https://www.iasp-pain.org/Education/CurriculaList.aspx?navItemNumber=647>). One area that needs to be more explicitly addressed in curricula is understanding what people living with chronic pain consider as their priorities when seeking care from health professionals and how that understanding might help to meaningfully shape training. This matters because identifying specific priorities for pain care is an important step toward genuine partnership in supporting better health care.<sup>62</sup> Emerging pain literature points to the importance and value of people's lived experience of pain in guiding goals for treatment,<sup>37</sup> care expectations,<sup>19</sup> and preferences.<sup>16,20,41,67,70,71,73</sup> Furthermore, the importance of addressing people's treatment goals,<sup>37</sup> needs, and preferences for health information and services for musculoskeletal conditions<sup>4,25,50,55,63,74</sup> is also highlighted as research priorities for musculoskeletal and paediatric pain.<sup>5,7</sup>

Beyond research priorities, codesigning pain training through in partnership creates an opportunity to jointly agree what competencies need to be targeted to strengthen interdisciplinary health workforce capabilities to deliver effective clinical pain care.<sup>66</sup> Here, primary research is required to firstly identify the care priorities of Australian people living with chronic pain and carers, and secondly, to consider health professional perspectives on these priorities in building interdisciplinary workforce capabilities to support effective person-centred pain care.<sup>17</sup> The overarching aim of this partnership research was to empirically derive a meaningful framework of pain care priorities that could be adopted as a blueprint to shape and strengthen Australian contemporary interdisciplinary health workforce pain training. This study forms part of a broader Australian Government-funded consortium of work designed to support implementation of the NSAP for Pain Management.<sup>2</sup>

## 2. Methods

### 2.1. Context for the study

The broader consortium program of work is focused on enhancing and expanding training opportunities for Australian health practitioners in pain management in response to the NSAP for Pain Management.<sup>2</sup> The project consortium is led by the Pain Management Research Institute (Sydney University) with members, including the Menzies Centre for Health Policy and Economics, (Sydney University), Curtin University (Faculty of Health Sciences), the Australian Pain Society in partnership with the National Ageing Research Institute, and the University of South Australia (Pain Revolution). A 3-tiered approach to training is proposed, moving from foundation level (tier 1), to building skills (tier 2) and skills consolidation (tier 3).

The team involved in this specific project was composed of people with lived chronic pain experience; cross-disciplinary clinician–researchers and health workforce pain educators (from pain medicine, medicine, clinical psychology, and physiotherapy disciplines); health services and systems researchers; and knowledge translation and implementation researchers from across Australia (Curtin University, the Menzies Centre for Health Policy and Economics, Sydney University) and New Zealand (Auckland University of Technology).

### 2.2. Design

Two Australian cohorts were involved in this study: (1) people living with chronic pain, and carers and (2) health professionals involved in the clinical care of people living with chronic pain.

A priority setting partnership (PSP) approach aligned to the James Lind Alliance Guidebook priority setting process<sup>47</sup> was adopted. This PSP represents a collective of key Australian stakeholders (here, people living with chronic pain, carers, and health professionals) as equal partners to identify specific priorities in a given area. The scope of priorities focused on any aspect of chronic pain management (prevention, assessment, treatment, self-care, and co-care) when seeking care from a health professional. A similar partnership approach has been used for identifying patient-oriented research priorities for paediatric chronic pain.<sup>5</sup>

The specific objectives were:

- (1) To identify the pain care priorities of people living with chronic pain and carers;
- (2) To rate the level of importance of these derived pain care priorities (by the same people who derived these priorities) and identify the concordance in ratings between people living with chronic pain and carers and health professionals;
- (3) To quantify health professionals' level of confidence in their ability to deliver care aligned to the derived pain care priorities; and
- (4) To translate the derived pain care priorities into a framework to guide foundation-level interdisciplinary pain training.

The 3-phased design included the following phases:

- (1) Phase 1, an eDelphi (2 rounds) undertaken in Australia between March 2021 and July 2021, using Qualtrics (Provo, UT) software (objectives 1 and 2).
- (2) Phase 2, a priority rating survey that was conducted in parallel with the eDelphi (round 2), to identify health professionals' ratings of the level importance of the pain care priorities derived from the eDelphi (round 1) and their confidence in their ability to support these care priorities (objectives 2-3).
- (3) Phase 3, translation of pain care priorities into a framework for use as a blueprint to interdisciplinary pain training (objective 4).

Approval to undertake the study was granted by the Human Research Ethics Committee of Curtin University, Australia, and it was in accordance with the Declaration of Helsinki. All participants provided informed consent. The reporting guideline for priority setting of health research (REPRISE) was adapted and used as a framework to guide the development and reporting of the study to ensure transparency and to strengthen legitimacy and credibility,<sup>72</sup> along with The Recommendations for the Conducting and REporting of DELphi Studies (CREDES),<sup>48</sup> and the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement<sup>75</sup> (for the parallel priority rating study with health professionals) (Supplementary file 1, supplemental digital content, available at <http://links.lww.com/PAIN/B619>).

### 2.3. Participants and setting

The partnership involved Australian people aged 16 years and older living with chronic pain (defined as pain persisting for >3 months including cancer and noncancer pain) and carers (defined as “supporting someone living with chronic pain”). Exclusion criteria were required an English language interpreter, homeless, not an Australian resident, or the absence of chronic pain. The parallel priority rating study for health care workers included health (including medical) professionals who were registered at the time of the study with the Australian Health Practitioner Regulation Agency (AHPRA) at any career stage, in any care setting, and across any Australian geographic area and who were involved in caring for people with chronic pain.

## 2.4. Sampling and recruitment

### 2.4.1. Sample size and sampling approach

Sample sizes were established a priori in line with a recent study focused on paediatric pain research priorities using the PSP James Lind approach.<sup>5</sup> The minimum sample sizes were set as follows: phases 1 (eDelphi),  $n = 200$  for people with lived chronic pain experience and carers, and phase 2 (priority rating study),  $n = 200$  for health professionals.

For both phases 1 and 2, a maximum heterogeneity sampling approach was adopted to facilitate a balance across age bands, sex or gender, and geography (Australian states and territories). The sample was assessed at regular intervals over the recruitment period to monitor representation across sampling criteria determined “a priori,” to be of importance. For phase 2, to facilitate broad cross-disciplinary representation and to reflect a balance of core disciplines involved in interdisciplinary pain care, target quotas were set. Disciplines, with respective target quotas included, general practitioners ( $n = 30$ ); medical specialists ( $n = 30$ ); nurses and midwives ( $n = 50$ ); occupational therapists ( $n = 20$ ); pharmacists ( $n = 40$ ); physiotherapists ( $n = 40$ ); psychologists ( $n = 40$ ); and others (dentists, chiropractors, osteopaths) ( $n = 20$ ). Monitoring of sampling quotas was undertaken over the course of the data collection period. Some movement over target quotas was possible because monitoring was undertaken over a 24- to 48-hours period. When quotas were achieved, further attempts to enrol triggered a notification thanking potential participants and indicating that quotas had been met for their discipline, disallowing their participation.

### 2.4.2. Recruitment

#### 2.4.2.1. People with lived pain experience and carer eDelphi panel (phase 1)

Recruitment of people living with chronic pain and carers was approached in partnership with key nongovernment consumer organisations (eg, PainAustralia, Chronic Pain Australia), government and nongovernment health services, and leveraging social media (Twitter and Facebook). Members of an External Expert Advisory Group for the broader consortium program of research were also invited to assist with dissemination of the study via their organisations and clinical networks.

#### 2.4.2.2. Health professional priority rating study (phase 2)

Recruitment of health professionals was facilitated via the Australian Pain Society, the Australian and New Zealand College of Anaesthetists (Faculty of Pain Medicine), the National Prescribing Service (NPS MedicineWise), and via peak medical and health professional organisations (eg, Australian Physiotherapy Association, Australian Clinical Psychology Association, The Pharmacy Guild of Australia, The Royal Australian College of General Practitioners, The Australian College of Nursing, etc [see acknowledgements], and individual members of the External Expert Advisory Group).

## 2.5. Study protocols

### 2.5.1. People with lived pain experience and carer eDelphi survey (phase 1)

#### 2.5.1.1. Pilot survey tool

The round 1 eDelphi survey tool included demographic and clinical profile items and was designed with open, text-capped fields to

allow respondents to describe pain care priorities from their perspective, without constraining responses to predefined categories or options. The tool was developed and piloted to ensure that the guidance was clear and comprehensible, that the tool elicited desired responses, and that the definition of a “pain care priority” resonated with people living with pain and carers. A “pain care priority” was defined as “*what you think is the most important thing your health professional needs to be able to do to help you manage your chronic pain.*” Participants involved in the pilot were identified via clinical networks and excluded people in any current clinical relationship with research team members. The convenience sample for the pilot was composed of 11 Australian people {age ranging from 32 to 84 years; mean [standard deviation]: 58.1 [19.1] years} living with chronic pain (duration range 2–48 years; mean [standard deviation]: 17.7 [17.5] years). Pain conditions included low back pain, osteoarthritis, fibromyalgia, postsurgical pain, inflammatory arthritis, whiplash-related neck pain, and complex regional pain syndrome. Based on feedback from the pilot, the survey pilot tool was revised and finalised (Supplementary file 2, supplemental digital content, available at <http://links.lww.com/PAIN/B619>).

#### 2.5.1.2. eDelphi round 1 (phase 1)

For round 1 of the eDelphi, consenting participants were provided with the following guidance: “*In your own words, please tell us what your pain care priorities are: that is, what you think are the most important things your health professional needs to be able to do to help you manage your chronic pain. These might include aspects that cover assessment, treatments, management, planning and specific care for your pain condition. You may list up to 5 pain care priorities.*” For carers, the question was modified to: “*A pain care priority means what you think is the most important thing a health professional(s) needs to be able to do to help support a person with chronic pain.*” Free text was limited to a 200-word count per pain care priority.

Demographic variables included age, gender, geographic location, country of birth, and highest level of education completed. For people with lived chronic pain experience, validated clinical profile variables were aligned to the standard pain measures collected by Australasian electronic Persistent Pain Outcome Collaboration<sup>58</sup> (round 1 survey tool is shown in Supplementary file 2, supplemental digital content, available at <http://links.lww.com/PAIN/B619>). Carers were asked the duration they had supported a person with chronic pain.

#### 2.5.1.3. eDelphi round 2 (phase 2)

Participants from round 1 were asked to rate the level of importance of each of the pain care priorities derived from round 1 (9-point numeric rating scale [1 = less important to 9 = more important]; see Data Analysis). For round 2, priorities derived from round 1 were block randomised (by category) to mitigate against response order bias (Supplementary file 3, supplemental digital content, available at <http://links.lww.com/PAIN/B619>). Participants were also asked to provide a rating of their overall level of agreement of the framework of priorities presented with the statement “*Do you feel that the priorities listed here are a meaningful reflection of the most important things that health professionals need to be able to do to help individuals with chronic pain?*” (Likert scale 1 [strongly disagree] to 5 [strongly agree]).

#### 2.5.2. Health professional priority rating study (phase 2)

Health professionals were asked to rate the level of importance (9-point numeric rating scale [1 = less important to 9 = more



important]) of the pain care priorities derived from the eDelphi round 1, presented across 9 categories. Additionally, health professionals were asked to rate their confidence in their ability (knowledge and skills) to support the care priorities within a category using a 5-point Likert scale (1 = not at all confident to 5 = extremely confident), using a previously developed confidence rating tool, for which adequate measurement properties have been established.<sup>34</sup> Health professionals were asked to provide a rating of their overall level of agreement with the statement, “*Do you feel that the priorities listed here are a meaningful reflection of the most important things that health professionals need to be able to do to help individuals with chronic pain?*” (Likert scale from 1 = strongly disagree to 5 = strongly agree). Free-text responses were invited in response to the question, “*What pain education would you like to see included in any training modules for health professionals?*”

A short battery of questions to help characterise the health professional cohort included demographic (age, gender, post-code) and professional data (highest qualification including any specific postqualification pain training qualification; years of practice; main clinical care setting; percentage chronic pain case-mix per week) (Supplemental file 4, supplemental digital content, available at <http://links.lww.com/PAIN/B619>).

### 2.5.3. Deriving a framework to facilitate the translation and embedding of pain care priorities into interdisciplinary pain training programs (phase 3)

To ensure a genuine partnership approach was adopted to explicitly position the empirically derived pain care priorities within and across the consortium’s pain training programs, a translation framework was required. A cross-disciplinary panel (P.B.O.S., A.M.B., H.S., R.S., R.G.) composed of clinician–researchers and pain educators met, discussed, and devised an appropriate methodology for this purpose. To avoid retrospectively forcing the care priorities onto established pain training programs, a prospective approach was adopted whereby the final list of pain care priorities formed a framework for extant programs to map content against. For this mapping, each panel member was tasked with identifying which of the framework’s 44 care priorities were deemed critical and feasible to incorporate into foundation-level pain training (ie, pain fundamentals). The identification of individual pain care priority items (vs categories) was considered a strategy to maximise sensitivity. This task involved 7 sequential steps:

- (1) All aggregated pain priorities were listed in a Microsoft Excel sheet, by row, under their respective parent categories. The top 20 priorities (by frequency count) were highlighted (no ranking of these 20 was provided).
- (2) As a preliminary validation step, pain care priorities were mapped against the International Association of Pain’s (IASP) interprofessional curriculum (<https://www.iasp-pain.org/education/curricula/iasp-interprofessional-pain-curriculum-outline/>) by one of the research team with IASP curriculum development expertise (H.S.).
- (3) Panel members independently identified the pain priorities they considered critical for foundation-level (novice) pain training, and panel data were then collated.
- (4) Panel members met to discuss the collated findings and to reach consensus on the critical pain priorities to include in foundation-level training (using thresholds defined in Data Analysis).
- (5) To road test the operationalisation of the framework, using outcomes from step 4 re-presented in the same Excel sheet,

panel members were tasked with independently mapping an existing Australian foundation-level pain training program (essential pain management (EPM); <https://www.anzca.edu.au/safety-advocacy/global-health/essential-pain-management>), against the agreed critical care priorities.

- (6) Data were collated and re-presented to panel members for discussion on where the extant foundation-level training content was aligned to the critical pain care priorities and where gaps were evident.
- (7) Panel members discussed how gaps could be explicitly addressed to meet the critical pain care priorities in foundation-level training. The panel formulated recommendations for how the framework of care priorities should be incorporated across the consortium’s pain training programs.

## 2.6. Data analysis

### 2.6.1. Quantitative demographic data (phases 1 and 2)

Data were analysed descriptively. Continuous data were summarized using mean and 95% confidence intervals. Categorical data were summarized using frequency distributions and compared with  $\chi^2$  statistics. Data were analysed with IBM SPSS Statistics Version 26 (Armonk, NY), with people with lived chronic pain experience and carer and HCP data analysed separately.

### 2.6.2. Coding analysis of free-text content

#### 2.6.2.1. eDelphi round 1 (phase 1)

For round 1 (phase 1), free-text data were analysed using a summative content analysis approach,<sup>44</sup> adopting the analytic framework published by Cunningham and Wells.<sup>28</sup> Free-text data were content analysed using a multistep approach incorporating validation, with codes inductively derived to describe the content of the free-text responses and then counted to provide an indication of relative prominence of the code, consistent with established methods.<sup>13,28</sup>

First, for round 1 data, a primary senior analyst (J.E.J.) read 300 pain care priorities from 216 respondents and inductively derived a “base” coding framework describing overarching categories and related unique care priorities captured within each category. Second, using 2 randomly selected independent samples of 100 pain care priorities taken from the initial 300 coded by the primary analyst but without the primary analysts coding visible, 2 analysts (H.S., A.M.B.) independently coded these subsets. We identified <5% overall discordance for each analyst, demonstrating representative and reliable base coding framework. Third, to ensure the revisions undertaken after step 2 were still robust, an additional random sample of 50 of pain care priorities was externally verified (S.D.M.), by reviewing each pain priority and seeing if an appropriate code could be found to allocate. Fourth, coding was undertaken against the revised base framework and another 50 random independent sample of coded data was reverified by 2 researchers (J.E.J., H.S.). Fifth, the final base framework was then deductively applied to the residual responses ( $n = 792$ ) for coding (J.E.J., H.S.). For this step, where a code was identified as missing, a new code was inductively created and applied to the framework. Sixth, as a final verification step, a random sample of 200 (50% of each coder) was performed (J.C.) to verify that all relevant codes for each pain priority were identified. Seventh, summary statements for each derived category in the coding framework were developed (J.E.J.)

and wording of categories and priorities reviewed with minor iteration (H.S., A.M.B.). Through the comprehensive 7-step validation process, we were able to identify discrete concepts, ensuring that the final categories represented discrete and largely independent pain priority items. Code frequencies provided an indication of weighting of priorities and informed the hierarchy of priorities across and within each category. As far as possible, the wording used by participants to describe their pain care priorities was faithfully retained, with minor syntax revision. The coding framework was then presented in round 2 of the eDelphi. The framework consisted of categories and items within each category. The categories represented intuitive groupings for discrete pain care priority items.

### 2.6.2.2. Parallel priority rating study with health professionals, free-text analysis (phase 2)

In phase 2, for the parallel priority rating study, a similar free-text content analysis was undertaken (J.E.J.) for health professional responses to the question, “*From your perspective, what pain education would you like to see included in any training modules for health professionals?*” with independent validation of  $n = 50$  randomly selected responses (H.S.).

### 2.6.3. Quantitative analysis for eDelphi and parallel health professional priority rating study

In phase 2, for both the eDelphi panel and parallel priority rating study, quantitative responses were analysed using the RAND-UCLA method.<sup>36</sup> Across the items in round 2, the eDelphi panel median was categorised as 1 to 3: “not important,” 4 to 6: “equivocal,” or 7 to 9: “important.” An item was defined as “important” and retained where the overall panel median score was  $\geq 7$  with level of agreement of  $\geq 70\%$  by panellists within the band 7 to 9. An item with a panel median of 4 to 6, or another median band with a consensus of  $< 70\%$  within the same band, was defined as “uncertain.” An item with a panel median of 1 to 3 and a level of agreement of  $\geq 70\%$  by panellists within the band 1 to 3 was defined as “unimportant” and removed. In round 2, items were analysed in the same way, with frequencies used to analyse selections for essential items to be retained and for overall ratings for the framework. An item was retained where  $\geq 70\%$  of the panel ranked it as “important,” in line with established thresholds.<sup>10,14</sup>

### 2.6.4. Translation framework (phase 3)

#### 2.6.4.1. Identification of critical pain care priorities for foundation-level training

In phase 3, a traffic light system was adopted to illustrate concordance and discordance in panel members’ ratings of what were deemed critical pain care priorities. Where all 5 panel members had rated a pain care priority as critical, the cell for that priority was highlighted in green and required no discussion; where 4 panel members agreed, the cell was highlighted as orange, and where 3 panel members agreed, the cell was highlighted in red. Where 2 or less panel members had nominated a care priority, cells were not highlighted. Pain care priorities identified as critical by  $\geq 80\%$  of the panel (orange and green) were included in the final framework for foundation-level training. Priorities identified by  $\geq 60\%$  but  $< 80\%$  (red) of the panel were further discussed to reach consensus on either inclusion or exclusion.

### 2.6.4.2. Road testing the framework

For the final road testing of the framework task, for the pain care priorities where all 5 panel members (100%) agreed that the extant training content was explicitly aligned to a pain care priority deemed critical, the cell for that care priority was highlighted in green; where  $\geq 60\%$  but  $< 80\%$  panel members agreed, the cell was highlighted as orange; where  $< 60\%$  panel members agreed, the cell was highlighted in red. A count was then made of critical pain care priorities where all 5 panel members agreed that the foundation-level training content was explicitly aligned (green). The panel drafted recommendations for how this framework of empirically derived pain care priorities should be positioned as a blueprint to ensure coherence in training programs and to guide the embedding of care priorities within and across the consortium’s interdisciplinary pain training programs.

## 3. Results

### 3.1. Study recruitment flow and sample characteristics (phases 1 and 2)

#### 3.1.1. Study flow

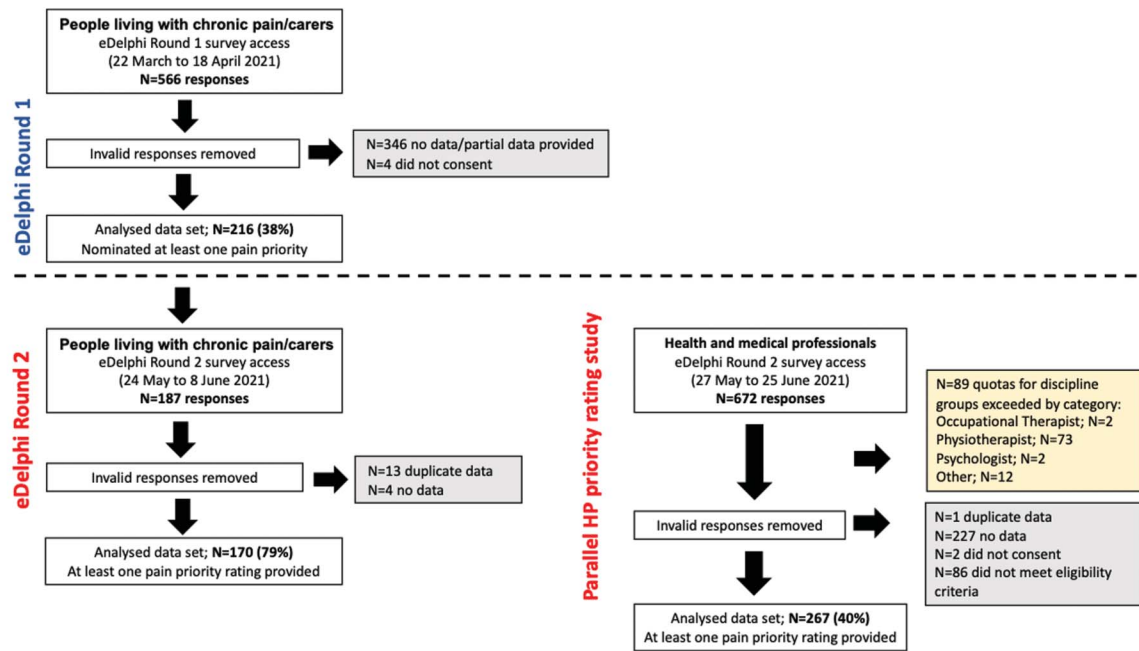
**Figure 1** captures the recruitment and analysis flow for the eDelphi (phases 1 and 2, rounds 1 and 2) and for the parallel priority rating study undertaken with health professionals (phase 2). For round 1 of the eDelphi, 216 valid responses were recorded, and at the beginning of round 2, 187 (87%) of round 1 respondents participated, with 170 (79%) valid responses recorded. For the parallel priority rating study (health professionals), 267 valid responses were recorded.

#### 3.1.2. Demographic characteristics for the eDelphi panel

**Table 1** provides a summary of demographic characteristics of the eDelphi panel for valid survey responses for both rounds, for both people living with chronic pain (round 1,  $n = 206$ ; round 2,  $n = 160$ ) and for carers ( $n = 10$  both rounds). Across both rounds, the majority of respondents with chronic pain were female (90.3%–90.6%), whereas carers were predominantly male (60.0%). The mean age of round 1 respondents with chronic pain was 42 years (range, 16–93 years) and for carers, 51 years (range, 27–81 years). A majority of people living with chronic pain and carer respondents were Australian born, spoke English as a first language, and had graduated year 12 high school, with more than half having completed university degrees. All Australian states and territories were represented with the highest proportion of respondents living in the most populous states (Victoria, New South Wales and Queensland). Aboriginal or Torres Strait Islander representation was low across both rounds (3.4%–3.8%) in approximate line with representation in the Australian population (3.3%).

#### 3.1.3. Clinical data for the eDelphi respondents living with chronic pain

Data ( $n = 206$  unless otherwise stated) are presented below, with a comprehensive summary of all clinical data provided in Supplemental file 5 (supplemental digital content, available at <http://links.lww.com/PAIN/B619>). Mean pain duration across the rounds was 12.9 years to 13.3 years, with multiple pain sites reported as being affected, including the low back (74.8%), hips (54.9%), shoulders (48.1%), neck (43.7%), and other (60.2%) (eg, gut), and 33.5% indicated pain all over (joints and muscles). A majority (64.1%) indicated a comorbid mental health condition,



**Figure 1.** Flow chart for the eDelphi study (phases 1 and 2) and the parallel priority rating study with health professionals (HP) (phase 2) showing sampling, data processing, and timelines.

**Table 1**  
**Demographics of people living with chronic pain and carers participating in eDelphi round 1 and round 2.**

Characteristic	Round 1		Round 2	
	People with chronic pain	Carers	People with chronic pain	Carers
Representation, n (%)	206 (95.4)	10 (4.6)	160 (94.1)	10 (5.9)
Female, n (%)	186 (90.3)	4 (40.0)	145 (90.6)	4 (40.0)
Age, mean (95% CI), range (y)	42.1 (40.0–44.2), 16–93	51 (38.8–63.2), 27–81	43.1 (40.8–45.4), 16–81	51 (38.8–63.2), 27–81
Aboriginal or Torres Strait Islander descent, n (%)	7 (3.4)	0 (0.0)	6 (3.8)	0 (0.0)
Australian born, n (%)	170 (82.5)	9 (90.0)	131 (81.9)	9 (90.0)
English spoken as first language at home	200 (97.1)	9 (90.0)	158 (98.8)	9 (90.0)
Highest level of education, n (%)				
High school (year 7–9)	5 (2.4)	0 (0.0)	4 (2.5)	0 (0.0)
High school (year 10)	10 (4.9)	1 (10.0)	7 (4.4)	1 (10.0)
High school (year 12)	26 (12.6)	0 (0.0)	17 (10.6)	0 (0.0)
TAFE	56 (27.2)	0 (0.0)	47 (29.4)	0 (0.0)
University (bachelor degree)	66 (32.0)	3 (30.0)	48 (30.0)	3 (30.0)
University (postgraduate)	43 (20.9)	6 (60.0)	37 (23.1)	6 (60.0)
Place of residence, n (%)				
ACT	7 (3.4)	0 (0.0)	5 (3.1)	0 (0.0)
NSW	42 (20.4)	3 (30.0)	34 (21.3)	3 (30.0)
NT	2 (1.0)	0 (0.0)	2 (1.3)	0 (0.0)
QLD	43 (20.9)	0 (0.0)	34 (21.3)	0 (0.0)
SA	13 (6.3)	0 (0.0)	10 (6.3)	0 (0.0)
TAS	5 (2.4)	0 (0.0)	4 (2.5)	0 (0.0)
WA	35 (17.0)	5 (50.0)	31 (19.4)	5 (50.0)
VIC	59 (28.6)	2 (20.0)	40 (25.0)	2 (20.0)
Mean years living with chronic pain (95% CI)	12.9 (11.4–14.4)	NA	13.3 (11.7–15.0)	NA
Mean years as a carer (95% CI)	NA	13.1 (3.5–22.7)	NA	13.1 (3.5–22.7)

Data are presented as mean (95% CI) for continuous data and frequency count (%) for categorical data.

ACT, Australian Capital Territory; CI, confidence interval; NA, not applicable; NSW, New South Wales; NT, Northern Territory; QLD, Queensland; SA, South Australia; TAFE, technical and further education; TAS, Tasmania; VIC, Victoria; WA, Western Australia.

and various other comorbidities (eg, arthritis, digestive problems, high blood pressure [hypertension]). Mean pain intensity levels over the past week were rated as moderate ( $n = 205$ ; 5.6, 0-10 visual analogue scale) and similarly, pain interference ( $n = 201$ ; 5.4-6.5; 0-10 visual analogue scale) across a range of daily activities. Respondents ( $n = 201$ ) sought health professional care most frequently from their GP (87.6%), medical specialist (66.2%), physiotherapist (53.7%), psychologist (37.3%), and pharmacist (35.8%). For medicine use in the past ( $n = 200$ ), 73.0% had used opioids, 66.0% antidepressants, 89.5% paracetamol, 80.0% anti-inflammatories, and 44.5% anticonvulsants. For those responding ( $n = 200$ ), a proportion were unemployed because of pain (13.5%) or working reduced hours because of pain (6.5%).

### 3.1.4. Demographic data for parallel priority rating study participants (phase 2)

**Table 2** shows the demographic characteristics for health professional participants ( $n = 267$ ). The majority of respondents were female (75.3%) consistent with AHPRA workforce representation, Australian born (65.9%), with a representation (1.9%) from Aboriginal or Torres Strait Islander descent, higher than relative AHPRA-registered health workforce representation (0.1%). Disciplines included GPs, medical specialists, nurses, occupational therapists, physiotherapists, psychologists, pharmacists, chiropractors, and “others,” with discipline representation reflective of quotas set to facilitate a balanced health professional sample. Respondents had practised clinically for a mean duration of 19 years, mostly in primary care (54.7%) or tertiary care (22.5%) with a chronic pain case-mix of 52.2%. For those responding ( $n = 226$ ), a majority (94%) identified as “working with other health professionals, sometimes” to “most of the time” in their clinical care of people with chronic pain.

### 3.2. eDelphi round 1 pain care priorities (phase 1)

From round 1 of the eDelphi, a total of 842 pain care priorities were recorded from survey respondents, and these were thematically analysed to derive a “base” coding framework. The coding framework comprised 9 categories to organise 52 pain care priorities. Summative descriptions of the 9 categories are presented in **Table 3** (the pain care priorities are reported in phase 2 and incorporated into **Table 4**).

### 3.3. Rating level of importance of pain care priorities (phase 2)

#### 3.3.1. eDelphi panel ratings

For the eDelphi panel, high overall panel median scores (7-9 band) for level of importance ratings of pain care priorities and levels of panel agreement (>70%) were demonstrated. There were 48 of 52 items (92.3%) meeting the threshold for retaining, 4 (7.7%) were classified as “uncertain” and none were excluded (**Table 4**).

#### 3.3.2. Parallel priority rating study participant ratings

Similar high overall panel median scores (7-9 band) and levels of agreement (>70%) were demonstrated from health professionals with 47 of 52 items (90.4%) meeting the threshold for retention, 5 (8.6%) classified as “uncertain,” and none were excluded (**Table 4**). Discipline-specific disaggregation is shown in Supplemental file 6 (supplemental digital content, available at <http://links.lww.com/PAIN/B619>).

### 3.3.3. Concordance in ratings of level of importance of pain priorities across studies

High overall levels of concordance were demonstrated between the eDelphi panel and parallel priority rating cohort of health professionals, with an overall inclusion of 44 of 52 pain care priorities (84.6%) (**Table 4**), with one pain care priority (4.3) identified by both cohorts as not meeting the threshold for retention.

### 3.4. Framework as a meaningful reflection of pain care priorities (phase 2)

#### 3.4.1. eDelphi panel (phase 2)

A majority of panellists (95.7% [ $n = 162$ ]), “strongly agreed” (75.3%) or “agreed” (20.4%) that the overall framework was a

**Table 2**

**Health professional demographics,  $n = 267$  (unless specified otherwise) for the parallel priority rating study.**

Characteristic	
Female, $n$ (%)	201 (75.3)
Age, mean (95% CI), range (y)	46.7 (45.3-48.2), 24-77
Aboriginal or Torres Strait Islander descent, $n$ (%)	5 (1.9)
Australian born, $n$ (%)	176 (65.9)
Highest level of education, $n$ (%)	
High school (year 12)	1 (0.4)
TAFE	2 (0.7)
University (bachelor degree)	77 (28.8)
University (postgraduate)	187 (70.0)
Discipline, $n$ (%)	
Chiropractor	3 (1.1)
General practitioner	32 (12.0)
Medical specialist	28 (10.5)
Nurse	38 (14.2)
Occupational therapist	31 (11.6)
Pharmacist	32 (12.0)
Physiotherapist	42 (15.7)
Psychologists	46 (17.2)
Other	15 (5.6)
No. of y registered to practice, mean (95% CI)	18.9 (17.5-20.4)
Primary site of clinical practice, $n$ (%)	
Private practice	146 (54.7)
Public community health centre	22 (8.2)
Residential aged care facility	3 (1.1)
Tertiary hospital	60 (22.5)
Nontertiary setting	17 (6.4)
Other setting	19 (7.1)
No. of y practicing at primary clinical site, mean (95% CI)	18.9 (17.5-20.4)
No. of clinical hours worked per week, mean (95% CI)*	27.6 (26.0-29.2)
% Caseload associated with chronic pain, mean (95% CI)*	52.2 (48.0-56.3)
Frequency of engaging with other HPs to support patients with chronic pain (eg, referrals, communication) in past 12 mo, $n$ (%)*	
Never	2 (0.9)
Rarely	12 (5.3)
Sometimes	57 (25.2)
Often	77 (34.1)
Most of the time	78 (34.5)

\*  $n = 226$  participants who answered the question.

CI, confidence interval; HPs, health professionals; TAFE, technical and further education.



**Table 3**  
**Coding framework with summative descriptions for each of the 9 pain care priority categories.**

Category	Summative description
Category 1: Validating, acknowledging, and respecting each individual person's pain experience	Pain priorities reflect the need for health professionals to validate people's individual pain experiences, most notably acknowledging and believing what a person is telling them about their pain (including their symptoms, history, impact, and experiences); respecting their knowledge and lived experience and showing empathy.
Category 2: Communication styles and consultation spaces to ensure safe, respectful, and effective communication between health professionals and people living with chronic pain	Priorities focus on communication interactions between health professionals and people living with pain. Communication styles: People living with chronic pain and carers placed importance on health professionals: (1) Actively listening to hear their concerns; (2) learning from those living with chronic pain; and (3) responding appropriately to indicate their understanding of the impact of pain on the person. In discussing their chronic pain, people wanted health professionals to provide encouragement and hope where possible, give meaningful answers specific to their situation (using simple language), and to be honest with them if they don't have an answer or cannot provide a diagnosis or reason for the pain. Communication environments: People living with pain highlighted the importance of health professionals creating a safe consultation space for them to share opinions, ask questions, and discuss relevant information without judgement.
Category 3: Multidisciplinary team approach to pain care	Health professionals working together to effectively coordinate care and ensure people living with chronic pain receive the right treatment at the right time is the key priority within this category. This includes timely referrals to medical specialists and allied health professionals to support pain management and functional ability, as well as receiving appropriate support services for mental health.
Category 4: Holistic approach to pain care	People emphasised the importance of health professionals adopting a holistic and tailored care approach that incorporates physical, mental, occupational, social, spiritual, and intellectual needs, as well as other health issues when managing chronic pain. It was also highlighted that health professionals need to demonstrate greater understanding of the complex nature of chronic pain.
Category 5: Ensuring genuine partnership approaches in pain care	A genuine partnership approach between health professionals and people living with chronic pain when discussing available treatment options, developing an appropriate management plan, and subsequent monitoring was the overarching priority for this category. People stressed the need to consider contextual factors such as financial circumstances, geographic barriers, and individual experiences and preferences when discussing pain management options. People living with pain also emphasised the importance of management strategies that supported their independence and focused on their quality of life. Explanations of risks and benefits for both pharmacologic and nonpharmacologic treatments and flexibility with treatment and care plans, rather than a "one size fits all" approach were also considered important.
Category 6: Knowledge and experience of health professionals to support pain care	People highlighted the critical need for health professionals to be knowledgeable about different types of pain and to able to demonstrate an understanding of why pain can persist. Furthermore, people living with chronic pain advocated for health professionals to be willing to undertake research or consult more broadly across other health disciplines to better understand specific pain conditions, where required/appropriate.
Category 7: Supportive self-management	Key priorities focus on people with chronic pain being supported to self-manage their overall health. Support includes being directed to relevant evidence-based pain management resources (digital and nondigital); being provided with practical strategies applicable to day-to-day living; and being able to access patient support and advocacy groups.
Category 8: Safe use of medicines in pain care	Accessing medications without stigma; supporting people living with pain in their choice of medication based on their preferences and experience; and prescribing safe medications to assist active participation in day-to-day living were key priorities. Several people with chronic pain also advocated for autonomy to adjust medication dosages based on pain levels.
Category 9: Diagnosis/looking for a cause of pain	The priorities here focus on health professionals providing a clear outline of how a person's chronic pain will be investigated, as well as continuing to seek a diagnosis or reason for pain when tests or scans are inconclusive. People with chronic pain also highlighted the importance of health professionals looking for causes of pain without stigmatising people or being dismissive.

meaningful reflection of what is most important when seeking pain care from health professionals.

**3.4.2. Priority rating study**

A majority of health professionals (95.2% [n = 228]), “strongly agreed” (47.4%) or “agreed” (47.8%) that the framework was a meaningful reflection of the most important things that “*health professionals need to be able to do to help individuals with chronic pain.*”

**3.5. Health professionals’ level of confidence in their ability to support pain care priorities and training needs (phase 2)**

**3.5.1. Health professionals’ levels of confidence to support pain care priorities**

Health professionals’ (pooled) ratings of confidence in their ability to provide pain care across each of 9 pain care priority categories are shown in **Figure 2** (discipline-specific disaggregation of data is shown in Supplemental file 7, supplemental digital content, available at <http://links.lww.com/PAIN/B619>).



**Table 4**

**Delphi round 2, level of importance of pain care priorities as rated by people living with chronic pain and carers and health professionals expressed as median (IQR) and proportion of panel responses in the corresponding median band.**

**Category 1: Validating, acknowledging, and respecting each individual's pain experience (5 priorities)**

	People with chronic pain and carers (n = 167)		Health professionals (n = 267)	
	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band
1.1. Acknowledge and believe that my pain is real—do not be dismissive about my pain story or tell me it is all in my head	9 (0)	156 (93.4)	9 (0)	264 (98.9)
1.2. Acknowledge my feelings and my experiences, particularly how my pain impacts my physical, social, and mental well-being	9 (1)	151 (90.4)	9 (1)	262 (98.1)
1.3. Show empathy about my pain and situation	9 (2)	138 (82.6)	9 (1)	255 (95.5)
1.4. Trust or believe what I am telling you about my pain, current pain levels or ratings, my symptoms, my history, and my experiences	9 (0)	156 (93.4)	9 (1)	258 (96.6)
1.5. Respect my knowledge of my own body and experiences	9 (1)	153 (91.6)	9 (1)	245 (91.8)

**Category 2: Communication styles to ensure safe, respectful, and effective communication between health professionals and individuals (13 priorities)**

	People with chronic pain and carers (n = 165)*		Health professionals (n = 249)*	
	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band
2.1. Ask me questions to understand my history and relationship with pain prior to the onset of chronic pain	8 (2)	137 (83.0)	8 (2)	210 (84.3)
2.2. Ask me questions about my pain to understand how it impacts my life	9 (1)	151 (91.5)	9 (1)	240 (96.4)
2.3. Be encouraging and provide hope where possible about managing my pain	8 (2)	133 (80.6)	9 (1)	237 (95.2)
2.4. Be honest with me if you don't have an answer or if you can't provide a diagnosis or find a specific reason for my pain	9 (1)	155 (93.9)	9 (1)	241 (96.8)
2.5. Be open minded to potential causes of my pain rather than trying to categorise me or attribute it to my weight or gender	9 (1)	147 (89.1)	9 (1)	237 (95.2)
2.6. Create a consultation space where I feel safe and respected to share details about my pain and not feel judged or dismissed	9 (1)	146 (88.5)	9 (1)	237 (95.2)
2.7. Listen to me, learn from me, and hear what I am telling you, so it makes me feel that my concerns have been understood	9 (2)	153 (92.7)	9 (1)	245 (98.4)
2.8. Do n't rush me in a consultation—it takes a lot of effort to come to an appointment	9 (2)	136 (82.4)	8 (2)	227 (91.2)
2.9. Provide me with specific, accurate, and meaningful answers or explanations about my chronic pain using words or terms that won't alarm me.	8 (2)	131 (79.4)	9 (1)	235 (94.4)
2.10. Take time to explain a new diagnosis or test results using simple language so I can understand	8 (2)	135 (81.8)	9 (1)	239 (96.0)
2.11. Communicate with me or follow-up with me outside of consultations when needed	8 (2)	129 (78.2)	8 (2)	190 (76.3)

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Table 4 (continued)

<b>Category 2: Communication styles to ensure safe, respectful, and effective communication between health professionals and individuals (13 priorities)</b>				
	<b>People with chronic pain and carers (n = 165)*</b>		<b>Health professionals (n = 249)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
2.12. Help my partner or carer or family members to understand more about my chronic pain and how best to support me	7 (3)	103 (62.4)	8 (2)	213 (85.5)
2.13. Provide documents or information (eg, medical certificate, letters) for my school, workplace, or insurance company	8 (3)	122 (73.9)	8 (2)	188 (75.5)
<b>Category 3: Multidisciplinary team approach (3 priorities)</b>				
	<b>People with chronic pain and carers (n = 167)</b>		<b>Health professionals (n = 246)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
3.1. Coordinate my healthcare needs by communicating and working with other health professionals, insurers, and others to ensure I get the right treatment or care	9 (2)	142 (85.0)	8 (2)	222 (90.2)
3.2. Provide timely on-referrals to support my pain management, functional ability, or activities of daily living including allied health and specialists, when needed	9 (2)	143 (85.6)	8 (2)	227 (92.3)
3.3. Refer me to receive appropriate support services including for my mental health	9 (2)	133 (79.6)	9 (1)	227 (92.3)
<b>Category 4: Holistic approach to care (6 priorities)</b>				
	<b>People with chronic pain and carers (n = 164)*</b>		<b>Health professionals (n = 244)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
4.1. Treat me as a whole person to help me to manage my pain condition(s) as well as other health issues that I live with	9 (1)	153 (93.3)	9 (1)	235 (96.3)
4.2. Provide a holistic approach to my care that is tailored and looks after my physical, mental, occupational, social, spiritual, and intellectual needs	9 (2)	139 (84.8)	9 (10)	231 (94.7)
4.3. Help me to prevent further joint damage from arthritis	8 (4)	106 (64.6)	7 (2)	156 (63.9)
4.4. Take a proactive approach to my pain care including education on diet and exercise	8 (3)	113 (68.9)	8 (2)	214 (87.7)
4.5. Understand that chronic pain can be complex and include different types of pain or multiple pain problems	9 (1)	153 (93.3)	9 (1)	235 (96.3)
<b>Category 5: Ensuring genuine partnership approaches with me for my pain care (13 priorities)</b>				
	<b>People with chronic pain and carers (n = 162)*</b>		<b>Health professionals (n = 234)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
5.1. Ask me questions about my pain to understand what my needs or goals or priorities are and how I want to deal with my pain	9 (1)	145 (89.5)	9 (1)	228 (97.4)
5.2. Be sensitive to my financial circumstances including compensation or insurance when considering treatment or management options	8 (3)	121 (74.7)	8 (2)	207 (88.5)
5.3. Explain the pain management options available to me, including possible risks (eg, side effects) and benefits, in a way that I can understand and make informed choices	9 (1)	148 (91.4)	9 (1)	225 (96.2)
5.4. Give me a range of pain management or treatment options as soon as possible—with and without medication	9 (1)	145 (89.5)	8 (1)	216 (92.3)

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Table 4 (continued)

<b>Category 5: Ensuring genuine partnership approaches with me for my pain care (13 priorities)</b>				
	<b>People with chronic pain and carers (n = 162)*</b>		<b>Health professionals (n = 234)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
5.5. Help me to manage or reduce my pain so I can function, participate in day-to-day activities (ie, work, social, family, exercise, etc) as independently as possible and improve my quality of life	9 (1)	149 (92.0)	9 (1)	227 (97.0)
5.6. Help and support me when I have a pain flare-up	9 (1.25)	144 (88.9)	9 (1)	216 (92.3)
5.7. Involve me as an equal partner in actively making decisions or plans about my care or treatment options and ensure my preferences are included	9 (1)	148 (91.4)	9 (1)	227 (97.0)
5.8. Offer me the best treatment options for my condition regardless of my age	9 (1)	144 (88.9)	9 (1)	217 (92.7)
5.9. Develop a pain management plan with me that caters to my individual needs, and regularly review and adjust if some options don't work	9 (1)	149 (92.0)	9 (1)	219 (93.6)
5.10. Be flexible with treatment and care plans given limited access to health professionals and costs for those living in regional or rural areas	8.5 (2)	127 (78.4)	9 (1)	218 (93.2)
5.11. Listen and accept when I tell you I have tried suggested treatment options and they haven't worked for me	9 (1)	148 (91.4)	9 (1)	221 (94.4)
5.12. Offer me evidence-based treatments and strategies, including new or latest therapies	9 (1)	145 (89.5)	9 (1)	218 (93.2)
5.13. Support me in my decisions to use more natural ways to manage my pain (ie, not just medications)	8 (2)	132 (81.5)	9 (1)	219 (93.6)
<b>Category 6: Knowledge and experience of health professionals (2 priorities)</b>				
	<b>People with chronic pain and carers (n = 165)*</b>		<b>Health professionals (n = 232)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
6.1. Be knowledgeable about the different types of pain and why my pain is persisting	9 (1)	149 (90.3)	9 (1)	223 (96.1)
6.2. Be willing to undertake research to learn or better understand my condition(s) when you don't have the knowledge	9 (1)	150 (90.9)	9 (1)	221 (95.3)
<b>Category 7: Supporting my self-management (2 priorities)</b>				
	<b>People with chronic pain and carers (n = 166)*</b>		<b>Health professionals (n = 230)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
7.1. Be able to direct me to evidence-based pain management resources, give me practical strategies and basic information to guide and support self-management of my pain	8 (2)	142 (85.5)	9 (1)	224 (97.4)
7.2. Be able to direct me to patient support and advocacy groups	7 (3)	93 (56.0)	8 (2)	192 (84.5)
<b>Category 8: Safe use of medicines in my pain care (5 priorities)</b>				
	<b>People with chronic pain and carers (n = 166)*</b>		<b>Health professionals (n = 229)*</b>	
	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>	<b>Median in 1-9, NRS (IQR)</b>	<b>n (%) of responses in corresponding median band</b>
8.1. Give me access to the right medication(s) that help me function rather than challenge whether it is needed or treat me like I am a drug addict	9 (2)	140 (84.3)	8 (3)	164 (71.6)

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Table 4 (continued)

Category 8: Safe use of medicines in my pain care (5 priorities)				
	People with chronic pain and carers (n = 166)*		Health professionals (n = 229)*	
	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band
8.2. Allow, and support me, to change my medication dosage based on my pain levels instead of dosage restrictions	9 (2)	127 (76.5)	7 (3)	132 (57.6)
8.3. Provide timely access to repeat prescription medicines	9 (1)	141 (84.9)	7 (3)	158 (69.0)
8.4. Support my decisions around medications, both what I choose and choose not to take, based on my experiences	9 (1)	142 (85.5)	7 (3)	163 (71.2)
8.5. Provide me with the safe prescription medications I need to be able to actively participate in my life (ie, parent, work, social life, community work, etc)	9 (1)	144 (86.7)	8 (2)	177 (77.3)
Category 9: Diagnosis or looking for a cause (4 priorities)				
	People with chronic pain and carers (n = 167)		Health professionals (n = 228)*	
	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band	Median in 1-9, NRS (IQR)	n (%) of responses in corresponding median band
9.1. Help me to find a diagnosis or cause for my pain without stigma	9 (2)	144 (86.2)	8 (2)	186 (81.6)
9.2. Continue to look for reasons or diagnosis for my pain, even when tests or scans are inconclusive	9 (2)	133 (79.6)	6 (4)	73 (32.0)
9.3. Provide a clear diagnosis quickly or provide me with a clear outline of how my pain will be investigated	8 (2)	138 (82.6)	7 (3)	151 (66.2)
9.4. Undertake a thorough clinical assessment	9 (1)	150 (89.8)	9 (1)	209 (91.7)

Bolded scores represent those pain care priorities not meeting retention criteria (defined as median panel  $\geq 7$  with level of agreement of  $\geq 70\%$  by panellists within the 7-9 band). Participants rated the importance of pain care priorities in increasing order of importance from 1 to 9.

\* Defines total number of responses to question where different from overall N (total).

IQR, interquartile range; NRS, numeric rating scale.

A majority (>74%) of health professionals self-rated (pooled across disciplines) levels of confidence in their ability to support care as “fairly confident” or “extremely confident” for 6 of 9 categories (1-6) (66.7%), with category 1 (validation of each person’s individual pain experience) showing the highest proportion of responses for ratings of “extremely confident” (44.2%). A lower proportion of overall levels of confidence (combined “fairly confident” or “extremely confident”) was evident for categories 7 (supportive self-management; 65.2%), 8 (safe medicines use; 48.5%), and 9 (diagnosis/pain cause; 57.9%). Discipline variability in confidence ratings was most evident for nonmedical and nursing disciplines in categories 8 (safe medicines use) and 9 (diagnosis/pain cause).

### 3.5.2. Health professional perceptions for what should be included in pain training programs

Free-text summaries of what health professionals indicated should be covered in pain training programs aligned closely with the 9 pain care priority categories (Supplemental file 8, supplemental digital content, available at <http://links.lww.com/PAIN/B619>). Of note, summaries highlighted a need for upskilling health professionals on practical interpersonal and coaching “how to” skills that would better enable them to support care aligned to the pain care priorities. For example, enhancing therapeutic alliance through effective communication (shared understanding; helpful language; holistic care); communicating

simply and effectively about pain when there is no diagnosis; communicating with Aboriginal and Torres Strait Islander peoples and other vulnerable groups in sensitive and appropriate ways; strategies to support and empower individuals to better self-manage (safely exercise; build mental health resilience); and medication harm minimisation strategies.

### 3.6. Translation of pain care priorities into a framework (phase 3)

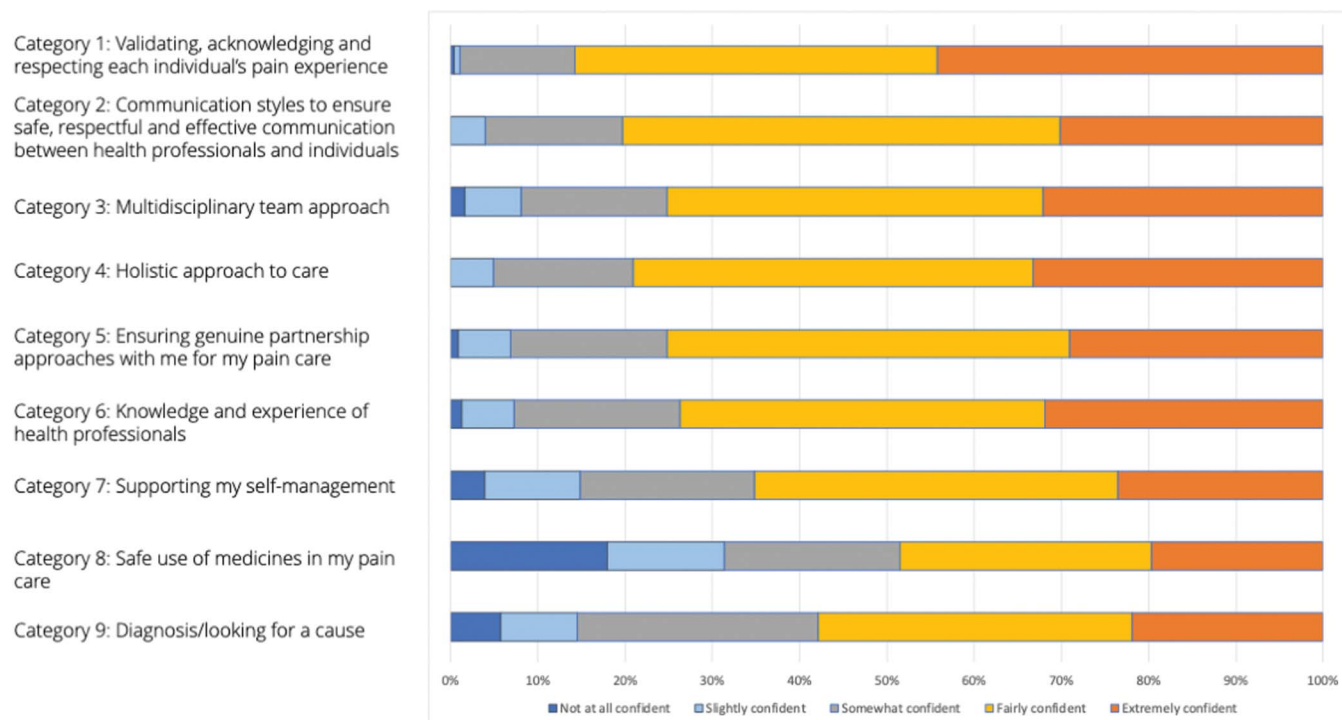
#### 3.6.1. Identification of critical pain care priorities for foundation-level training

The interdisciplinary consensus panel deemed 25 (56.8%) of 44 pain care priorities critical for inclusion in foundation-level pain training (Table 5). For domain 9 (“Diagnosis/looking for a cause of pain”), the 60% cut off for inclusion as a critical pain priority was not reached. This triggered further panel discussion with a consensus decision reached for inclusion of 9.1 and 9.4 as critical priorities for foundation-level training.

#### 3.6.2. Road testing the framework

When mapping an existing consortium foundation-level training program (EPM) against the framework, the panel identified 11 of 25 critical pain care priorities (44%) where content was explicitly aligned (Table 5). Training gaps that could be addressed by





**Figure 2.** Health professionals' (pooled data) levels of confidence ("not at all confident" to "extremely confident") in their ability to provide care aligned to the 9 pain care priority categories (listed in order on y-axis).

making foundation-level content more explicit were highlighted, and recommendations made for how content could be strengthened. For example, recommendations for the development of specific content to strengthen therapeutic alliance included: listening to individual's lived experience of pain, raising awareness of patient-centred care and promoting effective communication (eg, empathic validation); and, for use of specific language to intentionally position the person with lived pain experience, such as "*the person with pain*," "*the impact on the person with pain*," the "*person with pain* working in partnership with health professionals in shared decision making"; and case studies that explicitly embed pain care priorities within activities and create opportunities for discussion on how to appropriately target critical pain care priorities.

### 3.6.3. Recommendations for the application of the framework to pain training programs

The consensus panel determined the following 5 recommendations to support the genuine adoption and embedding of the pain care priority framework within and across the broader consortium's interdisciplinary pain training programs:

- (1) Recommendation 1. A framework comprising all 44 empirically derived pain care priorities is represented "in toto" as a blueprint for guiding all consortium pain training content;
- (2) Recommendation 2. This framework is explicitly positioned within and across each pain training tier to reflect the genuine partnership approach adopted to inform the consortium's pain training content (that is, aligned to principles for person-centred, value-based care);
- (3) Recommendation 3. For each tier of consortium training, a standardized protocol is adopted to
  - derive from the framework, those pain care priorities deemed critical for a specific tier or program or level of training;

- map extant content or newly proposed content against the pain care priorities identified as critical for that tier or program; and
- where content gaps are demonstrated, content contributors indicate where and how these gaps are addressed to ensure critical pain care priorities are explicitly and genuinely addressed.

- (4) Recommendation 4. Evaluation of the consortium's pain training programs includes specific measures to ensure learning outcomes have been attained and reflect specific capabilities related to critical pain care priorities. The evaluation framework for the broader consortium program of work should also consider appropriate measures to reflect the faithful embedding of these priorities in training programs.
- (5) Recommendation 5. The framework of pain care priorities forms a blueprint to guide future codesign of Australian health workforce pain training programs, including adopting the mapping, embedding, and evaluation processes proposed in recommendations 1 to 4.

## 4. Discussion

### 4.1. Main findings

The "*listen to me, learn from me*" framework of 44 empirically derived pain care priorities reflects strong multistakeholder consensus for what is most important to Australian people living with chronic pain and those supporting them, when seeking pain care. The "*listen to me, learn from me*" framework creates new opportunities to reorient health workforce training and shift efforts towards better codesigned care models aligned to the framework. Through a partnership lens, and in response to the Australian NSAP for Pain Management,<sup>2</sup> the framework is designed as a blueprint for shaping interdisciplinary pain training

**Table 5**

**Critical pain care priorities identified by the panel for foundation-level pain training and alignment of an exemplar foundation-level training program (EPM) to those critical care priorities.**

	Critical foundation-level priority	EPM alignment
Category 1: Validating, acknowledging, and respecting each individual's pain experience (5 priorities)		
1.1. Acknowledge and believe that my pain is real—do not be dismissive about my pain story or tell me it is all in my head	✓	✓
1.2. Acknowledge my feelings and my experiences, particularly how my pain impacts my physical, social, and mental well-being	✓	
1.3. Show empathy about my pain and situation	✓	
1.4. Trust or believe what I am telling you about my pain, current pain levels or ratings, my symptoms, my history, and my experiences	✓	✓
1.5. Respect my knowledge of my own body and experiences	✓	
Category 2: Communication styles to ensure safe, respectful, and effective communication between health professionals and individuals (12 priorities)		
2.1. Ask me questions to understand my history and relationship with pain prior to the onset of chronic pain		
2.2. Ask me questions about my pain to understand how it impacts my life	✓	✓
2.3. Be encouraging and provide hope where possible about managing my pain		
2.4. Be honest with me if you don't have an answer or if you can't provide a diagnosis or find a specific reason for my pain		
2.5. Be open minded to potential causes of my pain rather than try to categorise me or attribute it to my weight or gender		
2.6. Create a consultation space where I feel safe and respected to share details about my pain and not feel judged or dismissed	✓	
2.7. Listen to me, learn from me, and hear what I am telling you, so it makes me feel that my concerns have been understood	✓	
2.8. Don't rush me in a consultation—it takes a lot of effort to come to an appointment		
2.9. Provide me with specific, accurate, and meaningful answers/explanations about my chronic pain using words or terms that won't alarm me	✓	
2.10. Take time to explain a new diagnosis or test results using simple language so I can understand		
2.11. Communicate with me or follow up with me outside of consultations when needed		
2.13.* Provide documents or information (eg, medical certificate, letters) for my school, workplace, or insurance company		
Category 3: Multidisciplinary team approach (3 priorities)		
3.1. Coordinate my healthcare needs by communicating and working with other health professionals, insurers and others to ensure I get the right treatment or care		
3.2. Provide timely on-referrals to support my pain management, functional ability, or activities of daily living including allied health and specialists when needed	✓	
3.3. Refer me to receive appropriate support services including for my mental health	✓	
Category 4: Holistic approach to care (3 priorities)		
4.1. Treat me as a whole person to help me to manage my pain condition(s) as well as other health issues that I live with	✓	✓
4.2. Provide a holistic approach to my care that is tailored and looks after my physical, mental, occupational, social, spiritual, and intellectual needs	✓	✓
4.5.* Understand that chronic pain can be complex and include different types of pain or multiple pain problems	✓	✓
Category 5: Ensuring genuine partnership approaches with me for my pain care (13 priorities)		
5.1. Ask me questions about my pain to understand what my needs or goals or priorities are and how I want to deal with my pain	✓	
5.2. Be sensitive to my financial circumstances including compensation or insurance when considering treatment or management options		
5.3. Explain the pain management options available to me, including possible risks (eg, side effects) and benefits, in a way that I can understand and make informed choices	✓	
5.4. Give me a range of pain management or treatment options as soon as possible—with and without medication	✓	✓
5.5. Help me to manage or reduce my pain so I can function, participate in day-to-day activities (ie, work, social, family, exercise, etc) as independently as possible and improve my quality of life	✓	
5.6. Help and support me when I have a pain flare-up		
5.7. Involve me as an equal partner in actively making decisions or plans about my care or treatment options and ensure my preferences are included	✓	
5.8. Offer me the best treatment options for my condition regardless of my age		
5.9. Develop a pain management plan with me that caters to my individual needs and regularly review and adjust if some options don't work	✓	✓

(continued on next page)

Table 5 (continued)

	Critical foundation-level priority	EPM alignment
5.10. Be flexible with treatment and care plans given limited access to health professionals and costs for those living in regional or rural areas		
5.11. Listen and accept when I tell you I have tried suggested treatment options and they haven't worked for me		
5.12. Offer me evidence-based treatments and strategies, including new or latest therapies		
5.13. Support me in my decisions to use more natural ways to manage my pain (ie, not just medications)		
Category 6: Knowledge and experience of health professionals (2 priorities)		
6.1. Be knowledgeable about the different types of pain and why my pain is persisting	✓	✓
6.2. Be willing to undertake research to learn or better understand my condition(s) when you don't have the knowledge		
Category 7: Supporting my self-management (1 priorities)		
7.1. Be able to direct me to evidence-based pain management resources, give me practical strategies and basic information to guide and support self-management of my pain	✓	
Category 8: Safe use of medicines in my pain care (3 priorities)		
8.1. Give me access to the right medication(s) that help me function rather than challenge whether it's needed or treat me like I am a drug addict		
8.4.* Support my decisions around medications, both what I choose and choose not to take, based on my experiences.		
8.5. Provide me with the safe prescription medications I need to be able to actively participate in my life (ie, parent, work, social life, community work, etc)	✓	✓
Category 9: Diagnosis or looking for a cause (2 priorities)		
9.1. Help me to find a diagnosis or cause for my pain without stigma	✓	
9.4.* Undertake a thorough clinical assessment	✓	✓

\* Nonsequential numbering reflects pain care priorities that did not reach either the eDelphi and health professional panel thresholds for retention in the final pain care priority list.  
EPM, Essential Pain Management.

programs, with the overall aim of strengthening health workforce capabilities to support high-quality care of people living with chronic pain.

#### 4.2. Strengths and limitations

The James Lind PSP methodology<sup>47</sup> provided an accepted research framework with our design extending the PSP, with multistakeholder engagement including lived pain experience and cross-disciplinary perspectives, jointly informing the empirically derived framework. The PSP principles of transparency, inclusivity and avoiding waste in research<sup>54</sup> resonated with our objectives, while the overarching goals focused on improving chronic pain care in Australia, reflecting articles in the Declaration of Montreal.<sup>46</sup>

The broad sampling frame captured participants from all Australian states and territories and included Aboriginal and Torres Strait Islander peoples' representation, life course representation (16-93 years) for the eDelphi panel, and purposively balanced cross-disciplinary representation for the priority rating study, including more than half from primary care settings. Despite a sampling frame designed to maximise heterogeneity, study cohorts were overly represented by females, primarily of middle age. Children (<16 years) were not captured in the eDelphi, nor non-AHPRA-registered health professionals (eg, accredited exercise physiologists, dietitians, social workers), indicating an area for future framework validation.

#### 4.3. Shared and unique perspectives on pain care priorities

Seeking to better understand people's priorities for chronic pain care is an important step towards genuine partnership in health care, yet lacking as a deliberate approach to health workforce

training. From our study, high overall levels of concordance demonstrated across study populations on the most important priorities (median scores or agreement levels; proportion of retained survey items) indicates a strong shared understanding of what matters in real-world lived experience of chronic pain and care. This is unsurprising given the cohorts' demographics, with significant pain duration and impact for people living with chronic pain, experienced carers (years of support), and clinicians with substantial exposure (caseload) and experience (years of practice).

The framework broadly reflects chronic pain care recommendations,<sup>51,56</sup> capturing the multidimensionality of chronic pain, however, critically repositioning care through the lived experience lens. This inversion may have advantages in helping clinicians navigate chronic pain complexity<sup>57</sup> and better support person-centred care.<sup>23,71</sup> The essence of the framework was captured simply and poignantly by one priority in particular; "listen to me, learn from me and hear what I am telling you, so it makes me *feel* my concerns have been understood." This priority articulates how listening carefully, validating, and acknowledging individual pain stories might be one of the most positive, safe, low-cost, and impactful aspects of care. Supporting care aligned to these priorities requires health professionals to take time, to develop reflective practices and understand how to strengthen communication, including how we can better deliver our messages so people want to listen and learn from care teams and partner in co-care planning and enable people with chronic pain to build self-efficacy.<sup>42</sup>

Particular foci for training highlighted by the total number of pain care priorities within categories, included validation of individual's pain experiences (my pain is real, acknowledge me, and my feelings; impact of pain on my whole self; show empathy; trust and believe me; respect my knowledge); safe, effective, and

respectful communication; supporting holistic care planned in genuine partnership; supportive self-management tailored to individual's preferences; and acknowledgement of experiences for what worked and did not. Training needs to enhance capabilities in effective pain communication,<sup>32,52</sup> empathic listening and validation,<sup>8,53</sup> and shared decision making,<sup>40</sup> in line with findings from phase 3 showing gaps in EPM content that require strengthening.

Can these skills be trained? While health professionals showed high levels of self-rated confidence in their ability to support care aligned to priorities, evidence indicates challenges to adopting a biopsychosocial framework.<sup>42,57</sup> Real-world applications need to extend beyond the “know how” to building practical competencies and capabilities, that is, the “doing.”<sup>16,66,68,69</sup> Novel training interventions show this is possible,<sup>8,9,26,27,39,41–43,73</sup> although sustainable implementation remains challenging<sup>31,65</sup> with system and service reform critical to bypassing key constraints.<sup>17,42,57</sup> Target skills are summarised in an elegant recent meta-ethnographic synthesis investigating what it means for a person to live with chronic pain.<sup>73</sup> From this, recommendations for care interventions included effective communication (listening, hearing, and valuing individual pain stories); validation of pain experience with meaningful, acceptable explanations; encouraging patients to connect with a meaningful sense of self, showing self-compassion and kindness; identifying and exploring possibilities for future lives; and facilitating safe reconnection with social networks.<sup>73</sup> These findings resonate with our framework, specifically communication, genuine partnership approaches and validating, acknowledging, and respecting individual pain experiences.

Training health professionals in “how to” be validating may improve clinical encounters and outcomes.<sup>32</sup> Training empathic validation is feasible and can improve communication, with validation timing and “dose,” and “whether or not a person *feels* validated by a listener’s response,” considered important parameters.<sup>53</sup> Others have raised the importance of helpful communication language to avoid stigma (negative empathy).<sup>24</sup> Here, training in a collaborative and responsive style of verbal and nonverbal communication (soliciting, exploring, validating concerns) can facilitate a shared conversational agenda and safe consultation space for individuals to describe their pain-related concerns.<sup>27</sup> Enduring clinical behaviour change requires system reform to better support person-centred care and fund care models.<sup>17</sup>

Very few items did *not* meet retention criteria for the final framework. Given this, coupled with high overall median scores and high levels of agreement across cohorts for a majority of items, an additional survey round was deemed unnecessary. From the eDelphi study (phase 2), unique nonretained items related to communication with family, carers, and friends; proactive care approaches (education, diet, exercise); and patient support and advocacy. Strategies may already be in place, an interpretation consistent with care data (Supplemental file 5, supplemental digital content, available at <http://links.lww.com/PAIN/B619>). For the priority rating study, unique non-retained items related to safe medicines use (timely access to repeat prescriptions or pain-contingent dosing) and diagnosis (looking for a pain cause or diagnosis), reflecting known care tensions. For example, regarding diagnostics, the tenuous relationship between chronic back pain and pathology (imaging)<sup>49</sup> has implications for driving unnecessary, low-value care.<sup>59</sup> Helping people make sense of their chronic pain from a biopsychosocial perspective and contextualising imaging findings against age- and sex-related normative data<sup>49</sup> could be

training targets. Reframing diagnosis towards identifying the multidimensional factors influencing a person’s pain experience can help them make sense of their pain<sup>20–22,29</sup> and identify modifiable factors to support self-management, while gently countering common pain misconceptions.<sup>60,61</sup> Collectively, this can help people avoid being trapped in a diagnostic vacuum or within unhelpful reductionist diagnostic labels.

#### 4.4. Application of the framework to interdisciplinary pain training programs

Embedding this framework “in toto” (9 categories, 44 pain care priorities) within and across consortium training programs (novice to advanced) is an intentional systems’ strengthening strategy,<sup>17</sup> an approach endorsed by consortium members. Not all priorities will be adopted for all training programs. Rather, consortium members will systematically apply the framework across the suite of training programs, using our established methodologies. This systematised approach will enable critical foundation-level care priorities to be extended across more advanced training programs, thereby strengthening training consistency and coherence. Where training gaps are identified, new content will be derived to target care priorities by reinforcing and extending practical capabilities using established educational methodologies,<sup>30,33</sup> with flexibility to adapt for discipline-specific training or population-specific training (eg, paediatric pain care).

Pain training programs will be housed within a sophisticated digital ecosystem, in line with World Health Organisation recommendations for the use of digital interventions as a systems strengthening tool.<sup>76</sup> Hybrid models will support flexible learning, with scope to scale and sustain.<sup>23,71</sup> Planned implementation strategies involve partnerships with Australian universities and consumer advocacy and health professional bodies using methodologies we have previously described,<sup>11</sup> and supported by an Australian Government-funded initiative led by the Faculty of Pain Medicine (Australian and New Zealand College of Anaesthetists), to enhance capacity building in health workforce pain education.

Applications of the IASP curriculum within Australia include interdisciplinary<sup>30</sup> and discipline-specific health workforce pain training.<sup>45</sup> Internationally, while discipline-specific training initiatives have been undertaken,<sup>38</sup> widespread pain training gaps remain.<sup>64</sup> The “*listen to me, learn from me*” framework provides an opportunity to revisit the IASP’s curricula through the lens of lived experience, supporting the Global Alliance of Partners for Pain Advocacy Task Force mission. The IASP curriculum could be mapped against this framework to inform curricula adaptations contextualised to jurisdictional interdisciplinary health workforce training initiatives to promote better pain care for people living with chronic pain<sup>17</sup> and to help arrest the global disability burden attributed by chronic pain.<sup>6</sup> Opportunities for adapting the framework for health workforce capacity building to support person-centred care in other chronic noncommunicable conditions, such as arthritis, may also be of strategic interest.<sup>1,3,12,13</sup>

#### Conflict of interest statement

The authors have no conflicts of interest to declare.

#### Acknowledgements

The authors gratefully acknowledge the assistance and educational pain expertise and discussion provided by the



Project Lead, Professor Michael Nicholas (Pain Management Research Institute, Sydney University), and consortium partners (Australian Pain Society and National Ageing Research Institute; University of South Australia (Pain Revolution); and the Menzies Centre for Health Policy and Economics, University of Sydney). The authors acknowledge with permission the generosity and assistance from people living with chronic pain who contributed to the design and piloting of the eDelphi survey tool (Albert Victor Millard, Laurence O'Connor, Cass Milne, Brooke Fehily, Teresa Briggs, Ben Horgan, Frederick Lawrence, Tim Robertson, Allan Cunningham, Jan Weston) and the support of consumer pain advocacy and professional bodies in disseminating information about the study to their memberships (Painaustralia, Chronic Pain Australia and bodies of the AHPRA-registered health professionals who participated in the priority rating study). Individuals, including EEAG members, are also acknowledged for their assistance in disseminating the survey invitations through their clinical and professional networks.

Individuals named as authors have participated in the research in the following ways: Conception and design: H. Slater, A. M. Briggs, P. B. O'Sullivan, J. E. Jordan, R. Schütze, A. Browne, S. De Morgan, and B. Horgan. Analysis and interpretation of the data: H. Slater, J. E. Jordan, J. Chua, P. B. O'Sullivan, R. Schütze, R. Goucke, S. De Morgan, and A. M. Briggs. Drafting of the article: H. Slater, J. E. Jordan, J. Chua, and A. M. Briggs. Final approval of the article: H. Slater, J. E. Jordan, P. B. O'Sullivan, R. Schütze, R. Goucke, J. Chua, A. Browne, B. Horgan, S. De Morgan, and A. M. Briggs. Data analysis expertise: H. Slater, J. E. Jordan, J. Chua, and A. M. Briggs. Obtaining of funding: H. Slater, A. M. Briggs, P. B. O'Sullivan, and R. Schütze. Administrative, technical, or logistic support, H. Slater, J. E. Jordan, J. Chua, A. Browne, and A. M. Briggs. Collection and assembly of data: H. Slater, J. E. Jordan, J. Chua, and A. M. Briggs. H. Slater (H.Slater@curtin.edu.au) and A. M. Briggs (A.Briggs@curtin.edu.au) take responsibility for the integrity of the work as a whole, from inception to finished article. Funding for the study was awarded by the Commonwealth Government of Australia (Grant GO2810). The funding organisation had no influence in the study design, collection, analysis, and interpretation of data or in the writing of the manuscript and in the decision to submit the manuscript for publication. J. Chua was supported by research funds from Curtin University.

## Appendix A. Supplemental digital content

Supplemental digital content associated with this article can be found online at <http://links.lww.com/PAIN/B619> and <http://links.lww.com/PAIN/B620>.

## Supplemental video content

A video abstract associated with this article can be found online at <http://links.lww.com/PAIN/B620>.

## Article history:

Received 20 December 2021

Received in revised form 10 March 2022

Accepted 13 March 2022

Available online 6 April 2022

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