## Lives on Hold

# A Qualitative Synthesis Exploring the Experience of Chronic Low-back Pain

Samantha Bunzli, Bphty(hon), PhD Candidate,\* Rochelle Watkins, PhD,† Anne Smith, PhD,\* Rob Schütze, MPsych (Clinical),‡ and Peter O'Sullivan, PhD\*

Objectives: Chronic nonspecific low-back pain (CLBP) is a prevalent, costly condition that is remarkably resistant to intervention. Substantial evidence suggests that a mismatch exists between the biomedical beliefs held by clinicians and patients and the biopsychosocial nature of CLBP experience. The aim of this metasynthesis of qualitative studies was to provide clinicians with a richer understanding of their patients' CLBP experience to highlight the importance of moving away from biomedical paradigms in the clinical management of CLBP.

Methods: Qualitative studies exploring the CLBP experience from the perspective of the individual were included. Twenty-five articles representing 18 studies involving 713 participants were subjected to the 3-stage analytic process of extraction/coding, grouping, and

Results: Three main themes emerged: the social construction of CLBP; the psychosocial impact of the nature of CLBP; and coping with CLBP.

**Discussion:** The authors conceptualize the experience of CLBP as biographical suspension in which 3 aspects of suspension are described: suspended "wellness," suspended "self," and suspended "future". The implications of improved clinician understanding of the CLBP experience and directions for future research are discussed.

Key Words: low-back pain, qualitative research, chronic pain, experience

(Clin J Pain 2013;29:907-916)

hronic nonspecific low-back pain (CLBP) is one of the leading causes of disability in western countries incurring substantial personal and societal cost. 1 Statistics show that the societal costs of CLBP are increasing rather than decreasing<sup>2</sup> making effective and efficient CLBP management a priority for the medical and allied health care professions (HCP).

Limitations in a purely biomedical approach to CLBP management has led to a paradigm shift towards a clientcentered approach, which recognizes the complex interactions between an individuals' biopsychosocial contexts, which influence their disability.<sup>3,4</sup> Qualitative methods are

well suited to investigate this biopsychosocial paradigm. By exploring how individuals make sense of their situation, qualitative methods provide insight into behavior, deepening our understanding of CLBP disability.<sup>5</sup> Qualitative metasynthesis is "an interpretive integration of qualitative findings that are themselves interpretive syntheses of data."6 More than a summary of findings, they offer a novel interpretation of the data that may contribute to the development of clinically orientated theory.

Despite its limitations, research shows that many HCP endorse a biomedical paradigm over a biopsychosocial approach in the clinical management of CLBP. 8,9 Similarly, biomedical beliefs are widely held by lay and chronic pain populations. 10,11 However, the chronic pain literature has identified tensions created by the biomedical paradigm in relation to the legitimization of pain and suffering, uncertainty, and fear and anxiety for the future. 12-14 These tensions may sustain physical and psychological disability in CLBP. Providing HCP with a richer understanding of the subjective CLBP experience may assist in resolving this apparent discord between widely endorsed biomedical conceptualizations of CLBP and the lived experience of CLBP. In recent years a substantial number of qualitative studies exploring the subjective CLBP experience have been published. The aim of this metasynthesis is to integrate findings from these studies with the vision that providing HCP with a richer understanding of the CLBP experience will highlight the importance of moving away from biomedical paradigms in the clinical management of CLBP.

## **METHODS**

## **Identification of Studies**

The databases MEDLINE, EMBASE, AMED, CINAHL, PsychINFO, Sociological Abstracts, and Scopus were searched twice over the period from January 2011 to October 2011 using the MeSH headings "back pain" and "qualitative research" as broad search terms to maximize findings. In addition, a sensitive search strategy in Medline (through OvidSP) was performed using the combination: interview\*[Title/Abstract] OR interviews[MeSH:noexp] OR experience\*[Text Word] OR qualitative[Title/Abstract] AND low back pain[MeSH:noexp]. Titles were screened and abstracts were read where appropriate. Cross-referencing of relevant articles was undertaken simultaneously.

## **Inclusion Criteria**

Studies involving individuals with a diagnosis of CLBP defined as low-back pain (LBP) of duration  $\geq 3$ months, not attributed to pathologic entities such as

Received for publication May 28, 2012; revised October 12, 2012;

accepted October 22, 2012.

From the \*School of Physiotherapy, Curtin University, Perth; †Telethon Institute for Child Health Research, Centre for Child Health Research, The University of Western Australia; and ‡Wisdom Health Pty Ltd, West Perth, WA, Australia.

The authors declare no conflict of interest.

Reprints: Samantha Bunzli, Bphty(hon), PhD Candidate, School of Physiotherapy, Curtin University, GPO Box, U1987 Perth, WA, Australia 6845 (e-mail: samantha.bunzli@postgrad.curtin.edu.au). Copyright © 2013 by Lippincott Williams & Wilkins

infection, tumor, osteoporosis, inflammatory disorders, fractures, radicular syndrome, or cauda equina syndrome15 were included in this review. Where the diagnosis of nonspecific was not clear, but no specific causes of LBP were reported by the authors, studies were included. This is justified by evidence that 85% to 90% of LBP patients are diagnosed with nonspecific LBP. 16 Studies involving individuals aging from 18 to 65 years were included to capture the chronic pain experience of working aged adults, which may differ from that of older adults in whom age-associated expectations and anticipation of declining physical health may moderate the pain experience. <sup>17,18</sup> Studies that included perspectives from the individual with CLBP in addition to other parties (such as partners and HCPs) were included, where the findings from the individual were clearly separated. Studies needed to meet the criteria of "qualitative research," that is, the findings represented some degree of transformation of data, that is, interpretation, rather than remaining as rewordings or summaries of participants' voices. 19 Studies reported in English, French, and Spanish were eligible for inclusion, consistent with the language capacities of the authors and available resources.

#### Assessment of Trustworthiness

Trustworthiness in this metasynthesis is defined as the degree of confidence that the results and conclusions of a study are based on sound methodological processes. However, as a lack of consensus exists with regard to criteria for the judgment of trustworthiness in qualitative research, 6 no study was excluded from this synthesis on this basis. Where concern over aspects of trustworthiness existed, this was documented and considered in the discussion of findings.

Trustworthiness criteria were adapted from Popay et al.<sup>20</sup> As in Sim and Madden's<sup>21</sup> qualitative metasynthesis of the experience of fibromyalgia syndrome, these criterion were selected as they were considered the most applicable across a spectrum of methods and epistemological stances.

- (1) A focus on, and privileging of, the subjective experience of CLBP.
- (2) Use of methods that are intrinsically adaptive and/or adaptiveness in choice or sequencing of stages in the research process. Adaptive refers to the responsiveness of the research design to the real life social contexts encountered during the course of the study.<sup>21</sup>
- (3) Choice of informants whose knowledge or experience is relevant to the substantive focus and theoretical framework of the study.
- (4) Appropriate presentation of primary data and description of context.
- (5) Consideration of >1 perspective on the topic of inquiry, including a reflexive concern for the researchers' standpoint, that is, consideration of how the professional background, beliefs, and attitudes of the researchers have shaped the study's methodology, analysis, and interpretation.
- (6) Evidence of analysis and interpretation of data at a conceptual and theoretical level.
- (7) Findings are related to broader theoretical concerns and/or other empirical contexts.

## **Data Analysis**

Data extraction was performed using a purposedesigned form. Extracted data consisted of a description of the participants, description of the setting, the aims of the study, the research disciplines of the authors, the methodological approach, data collection methods, fulfillment of trustworthiness criteria, and extracted findings (Table 1). Extracted findings were separated from presentations of data used to provide evidence for findings, for example, quotations; imported findings from other studies referred to by the authors, and the researchers' discussions of the meaning or significance of their findings.

## **Synthesis of Studies**

The analytic process was adapted from Sandelowski and Barroso.<sup>6</sup> It involved the following 3 stages.

- (1) Extraction of findings and coding of findings for each article
- (2) Grouping of findings (codes) according to their topical similarity to determine if findings confirm, extend, or refute each other.
- (3) Abstraction of findings—analyzing the grouped findings to identify additional patterns, overlaps, comparisons, and redundancies to form a set of concise statements, which capture the content of all findings.

These 3 stages were not performed sequentially but rather simultaneously. Through a process of constant comparative analysis, <sup>47</sup> emerging groupings from early codings were checked with ongoing coding and used to guide later coding. Emerging abstraction was checked for suitability of fit with groupings and through theoretical sampling. Theoretical sampling involved the selection of 2 articles from an earlier date of publication<sup>23,24</sup> to see if and how changes in contemporary chronic pain models influenced the experience of CLBP or interpretation of the experience.

## Consideration of Metasynthesis' Trustworthiness

The authors of this review are clinical and research physiotherapists and a clinical psychologist. Their research and clinical interests lie in the implementation of biopsychosocial models of pain management. This metasynthesis draws on the literature review work of the first authors' (S.B.) doctoral studies. The search strategy was performed twice by the first author (S.B.). Two authors (S.B. and A.S.) independently assessed retrieved titles and abstracts against the inclusion criteria.

The coding, grouping, and abstraction process was performed by the first author (S.B.). A subset of articles was randomly selected for cross-coding by another author (R.W.), who performed a second-level grouping and thematic description on the subset while remaining blinded to the results of the metasynthesis. No discrepancies were identified in this process, strengthening the claim that the findings of this metasynthesis are based on the primary data.

The abstraction process was presented by S.B. (a physiotherapist) to the other authors (research and clinical physiotherapists and a clinical psychologist) to prompt discussion/debate about the suitability of fit of the final model to the early codes/grouping. Any disagreement was resolved by discussion and consensus agreement among the 5 authors.

#### **RESULTS**

A total of 871 articles were scanned in the databases. Seventy articles were retrieved, of which 46 did not meet the inclusion criteria. One article was identified through cross-referencing. Twenty-five articles were included representing

**TABLE 1.** Description of Included Studies

References	No. Participants	Female (%)	Age (y)	Duration	Employment	Setting	Methodology	Research Discipline	Data Source	Unfulfilled Trustworthiness Criteria
Ashby et al <sup>22</sup>	11	0	23-59	> 8 mo	Unemployed	Australia work hardening program	Thematic analysis embedded in ethnographic study	Occupational therapy	Individual semistructured interviews and participant observation	Category 5
Bowman <sup>23</sup> Bowman <sup>24</sup>	15	40	Unknown	> 6 mo	Mixed	US pain clinic	•	Nursing	Indepth interviews	Category 4 Category 5 Category 4 Category 5
Busch <sup>25</sup>	30	Unknown	26-59	> 3 mo	Employed	Swedish pain clinic	Grounded theory	Physiotherapy	Semistructured interviews	
Campbell and Guy <sup>26</sup>	16	Unknown	34-78	> 1 y	Unknown	Secondary care UK	Thematic analysis	Unknown clinician in pain clinic	2x focus groups meeting 4 times each	
Coole et al <sup>27</sup>	25	52	22-58	3 mo-35 y	Employed	UK pain clinic	Thematic analysis	Unknown clinician in pain clinic	Semistructured interviews	Category 5
Corbett et al <sup>28</sup>	6	50	19-59	> 3 mo	Unknown	UK	Thematic		Semistructured	
Crowe et al.29	64	48	25-80	> 12 wk	Unknown	community Community New Zealand	analysis Inductive thematic analysis	Nursing/ physiotherapy	interviews Semistructured interviews	Category 5
de Souza and Frank <sup>30</sup> ; de Souza and Frank <sup>31</sup>	11	55	27-79	>6 mo	5 unemployed 1 retired	UK rheumatology clinic	Framework approach using thematic content analysis	Physiotherapy	Individual unstructured interviews	Category 5 Category 5
Holloway et al <sup>32</sup> ; Holloway et al <sup>33</sup> ; Walker et al <sup>34</sup> ; Walker et al <sup>35</sup>	20	40	28-80	2-52 y	1 participant employed	UK pain clinic	IPA	Health psychology, nursing	Indepth unstructured interviews	Category 5 Category 4 Category 5
May et al <sup>36</sup>	12	50	20-55	> 1 y	Unemployed	UK pain clinic	Content analysis	Unknown	Semistructured interviews	Category 5 Category 4
Osborne and Smith <sup>37</sup> ; Osborne and Smith <sup>38</sup> ; Smith and Osborne <sup>39</sup>	6	30	36-52	5-15 y	Unemployed	UK pain clinic	IPA	Psychology	Semistructured interviews	Category 4
Raak and Wahren <sup>40</sup>	10	67	Working age	> 13 mo	Unknown	Sweden community	Content analysis	Nursing	Indepth interviews	
Satink et al <sup>41</sup>	7	57	42-70	10-29 y	Unemployed	The Netherlands pain clinic	Narrative approach	Occupational therapy		
Snelgrove and Liossi <sup>42</sup>	10	70	39-66	> 4 y	Unknown	UK pain clinic	IPA	Nursing/ psychology	Semistructured interviews	Category 5
Strunin and Boden <sup>43</sup>	414	Unknown	age	Unknown Described as "chronic" verage of 22 wk off work	Unknown	US community	Ethnography	Medical anthropology	Semistructured phone interviews	
Toye and Barker <sup>44</sup>	20	65	29-67	"Persistent" pain, involved in treatment over several months to years	Mixed	UK pain clinic	Grounded theory	Physiotherapy	Semistructured interviews	
White and Siebold <sup>45</sup>	5	100	32-44	> 6 mo	Unknown	Community	Narrative autoethnography	Nursing	Open-ended interviews	
Young et al <sup>46</sup>	31	45	20-65	"Time off work for LBP in last year" Demographic data describe long history over several years	Mixed	Australia Community Canada	Phenomenology	Health science	6x focus groups	

IPA indicates interpretative phenomenological approach; LBP, low-back pain; US, United States; UK, United Kingdom.

18 studies (Fig. 1). Four articles from 3 studies included participants aged older than 65 years. The study by Holloway and colleagues<sup>32–35</sup> separated findings from the 2 participants aged older than 65 that were included in their study. The large study by Crowe et al<sup>29</sup> included 64 individuals aged 18 to 80 and, although no information is given regarding the number of individuals aged older than 65, the findings are consistent with the CLBP experience of working age adults in the other studies included in this metasynthesis and therefore the article was included, as were 2 other studies. 26,30,31 Studies exploring the treatment experiences of people with CLBP were not included in this metasynthesis where the objectives were to improve treatment programs rather than understand the CLBP experience itself. Likewise, studies exploring the workplace experiences of people with CLBP were not included where the purpose was to, for example, identify workplace challenges and barriers to return to work rather than understand the CLBP experience.

A summary of the included studies are presented in Table 1. The 25 included articles were published between 1991 and 2011. All studies took place in western countries, primarily in the pain clinic setting, <sup>26,22–27,30–39,41,42,44</sup> with 6 taking place in the community. <sup>28,29,40,43,45,46</sup> A total of 713 participants were involved in the 18 studies (Table 1).

Criterion of trustworthiness are presented for the readers to consider (Table 1). Twelve articles failed to fulfill all trustworthiness criterion. Eleven articles failed to fulfill Category 5<sup>22–24,27,29–31,33,35,36,42</sup> and 4 failed to fulfill Category 4.<sup>23,24,34,36</sup>

Initial coding of included studies resulted in 27 codes, which were reduced to 11 categories and finally arranged into 3 themes (Tables 2 and 3). These themes were: CLBP as a socially mediated experience; the psychosocial impact of the nature of CLBP; and coping with CLBP.

Although no refutations of findings were found, the findings from 1 study included in this metasynthesis require extra consideration. Bowman<sup>24</sup> found that participants attributed other physical symptoms to their CLBP such as nausea and faintness. Although this finding was not replicated by any other studies, it is noted that our contemporary understanding of the physiological effects of stress and anxiety has advanced considerably since 1991 and thus the authors of this synthesis justify the inclusion of this finding into the theme "Psychosocial impact of pain."

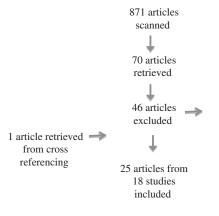
## **Findings**

## The Social Construction of CLBP

Participants in the studies held biomedical beliefs about their back pain. A biomedical explanation for the CLBP was critical for an individual to establish their pain as being a legitimate disability, which could then receive the support of the family, workplace, and welfare agencies. 26-28,32-34,36,37,40,42,44 The lack of a satisfactory etiological explanation for their "invisible" pain meant participants in many studies felt at risk of not being believed. <sup>23,24,26,32–34,37,42,44</sup> Without a valid explanation for their pain, the participants' belief in the linear diagnosistreatment-cure model was shaken, fueling feelings of anxiety in the face of an uncertain future. 25-28,32,42,46 "Health shopping," where participants sought opinions from a range of different health professionals in the hope of finding a satisfactory etiological explanation, was a commonly employed practice among participants in the included studies. 25,26,32,34,46 The participants' experience in the health care system was repeatedly described with feelings of anger and frustration towards professionals who could not fulfill expectations of a diagnosis-treatment-cure pathway. <sup>26,28,32,34,42,44</sup>, However, despite disenchantment with the medical system, it seemed that individuals maintained "hope" that advancements in medical technology would mean a diagnosis could be found and their pain subsequently resolved. 25,26,28,34,36,41,42

Iatrogenic distress was described in several studies. Walker et al<sup>34</sup> found that the biomedical model adopted by the participants' doctors encouraged passivity and avoidance. They claimed that the medical system encouraged participants to seek a nonexistent cure. Corbett et al<sup>28</sup> also found that the participants' doctors painted a bleak future, leading to participant anxiety, pessimism, hypervigilence, and hopelessness. Holloway et al<sup>33</sup> found that age-related explanations intended by doctors to legitimize pain or support the benign nature of their CLBP were interpreted by participants as implying progressive deterioration of their condition and conferring stigma of the aging body. Ashby et al<sup>22</sup> reported that participants' erroneous biophysical interpretations of their pain acquired from HCPs lead to fear of movement and subsequent avoidance behavior.

Stigmatization of CLBP was a theme in almost all included studies. The role of the media was highlighted as



Reasons for Exclusion:
Other chronic pain conditions included
(n=13)
Not nonspecific LBP (n=1)
Not chronic LBP (n=9)
Not only from perspective of person with
CLBP (n=6)
Did not meet criteria of qualitative research
(n=1)
Individuals aged<18 included (n=1)
Focus on treatment experience not on pain
experience (n=8)
Focus on return to work/workplace

FIGURE 1. Flow chart of study identification. LBP indicates low-back pain.

TABLE 2.	Identification	of Themes	From	Initial	Coding

Themes		Categories	Codes
CLBP as a socially mediated experience	CLBP as a socially mediated experience	Stigma	Stigma; biomedical model pain; not being believed; psychogenic pain
	-	Experience with health system	Experience with health system; health shopping; iatrogenic distress; hope
		Establishing credibility	Establishing credibility; social comparisons; pain behaviors; concealing pain
The psychosocial impact of the nature of CLBP	The nature of pain	Omnipresence of pain	Omnipresence of pain
		Fluctuating/ unpredictable	Fluctuating/ unpredictable pain
	Effect of pain	Life disruption	Disrupted curriculum vitae; disrupted activities of daily living change in social roles
		Psychological	Fear for job; fear for future; effect of psychosocial factors; changing self; psychological effects of pain
		Other physical symptoms	Other physical symptoms
Coping with CLBP	Coping	Acceptance	Acceptance
		Coping strategies	Coping strategies; hypervigilance; social withdrawal

painting an image of people with CLBP as fraudulents seeking secondary gains.<sup>33,45</sup> Participants felt that society viewed people with CLBP as burdens, without value or virtue and thus threatening social order.<sup>32,33,39</sup> HCPs were identified as painting an image of the demanding, difficult, and drug-seeking CLBP patient.<sup>45</sup> Any inference by HCPs of the pain being psychological in origin was felt by participants in several studies to be labeled with the stigma of questionable integrity.<sup>34,36,37,46</sup> In the workplace, some studies commented that participants felt employers viewed them as lazy, unreliable, and undesirable employees thus

leading to the dilemma of disclosure and its impact on sickness records and job security. 24,27,32,34,35,46

Strategies to gain credibility. Feeling the validity of their pain experience being doubted by others, participants felt the need to establish themselves as credible characters. Some studies found that participants took care to portray themselves as virtuous, moral, and previously active people who were in no way culpable for their pain, which they invariably attributed to an underlying pathology <sup>36,42,44</sup> or even to the fault of others. <sup>26,34</sup> Studies found that participants felt the need to justify their pain was real and not

TABLE 3. Example Extract From Within the Category: Stigma

	Biomedical Model	
References	of Pain	Not Being Believed
Toye and Barker <sup>44</sup>	Diagnosis important to have a legitimate reason for the pain	Not believed by HCP, friends, family, or colleagues
	Diagnosis so others can believe them	Invisibility of condition challenges credibility
	Want a positive test result although they acknowledge this is counter-intuitive—why be disappointed with a result showing there is nothing wrong?	Back pain is common and varies greatly in severity, therefore it is difficult to appear genuine
	Insistent on getting a scan. Shocked, disappointed when nothing is wrong	Cultural stereotypes of someone with unexplained back pain
	Psychosocial explanations from doctor contradict attempts to establish legitimacy	
Snelgrove and Liossi <sup>42</sup>	Participants concerned to express pain as biomechanical in origin and because of no fault of their own	Invisibility of condition
	Sensory, biological core of pain emphasized rather than affective response to it	Uncertain etiology and prognosis mean problems maintaining integrity
	The participants biomedical understanding of pain made failings of HCP difficult to understand	Not being believed
	Still adhered to medical model of understanding despite disenchantment with medical system	
	Physically centered coping strategies—avoidance, positioning	
Coole et al <sup>27</sup>	Keen to justify symptoms by acceptable biomedical explanations backed up by investigations	Afraid of not being believed
	Uncertainty among participants as to cause	
	Developed own explanations for their pain—wear and tear, degeneration, arthritis, history of heavy work, and age	

psychogenic in origin.<sup>35–37</sup> One study commented on the late sequencing of emotional responses to pain during interviews, only divulging such information after they had established themselves as credible people.<sup>42</sup>

A recurrent theme in the included studies was the importance of the outward appearance of pain in establishing and maintaining the credibility of their CLBP. <sup>24</sup>,2<sup>7</sup>,3<sup>3</sup>-3<sup>5</sup>,3<sup>7</sup>,4<sup>4</sup>,4<sup>5</sup> The consistency or persistence of pain behaviors was considered important in judging if the pain was genuine or not, however, this proved difficult in light of the fluctuating nature of pain. <sup>27</sup>,4<sup>4</sup> Appearing healthy or mobile while remaining in pain was to risk "being branded a fake" and therefore participants felt obliged to appear ill and disabled. <sup>37</sup> Several studies, however, highlighted a dilemma for participants who felt they needed to negotiate not looking too ill but ill enough. <sup>27</sup>,3<sup>7</sup>,4<sup>4</sup>,4<sup>5</sup> Thus, excessive overt distress was also seen to threaten their credibility and participants in some studies concealed their pain to avoid appearing like "that type of person (with CLBP)." <sup>37</sup> In several studies, this dilemma was overcome by social withdrawal, thus avoiding the scrutiny of others. <sup>23</sup>,3<sup>2</sup>,3<sup>3</sup>,3<sup>3</sup>,3<sup>3</sup>,4<sup>3</sup>

Comparison of the self with others with chronic pain was identified in several studies as a strategy to gain credibility. <sup>23,35,37,39,44</sup> The existence of other people with chronic pain gave an element of legitimacy to their experience. Comparison of their situation to that of others allowed participants to "rank" their level of disability or loss. In 1 study, participants found it important to their credibility that they distinguish themselves from the typical chronic pain "malingerer."<sup>44</sup>

## Psychosocial Impact of the Unpredictable, Omnipresent Nature of Pain

The nature of pain. In the studies reviewed, pain was described as omnipresent, salient, and characterized by unpredictable fluctuations in intensity during both waking and sleeping hours. Osborn and Smith<sup>38</sup> describe the ability of pain to disrupt even the smallest and most mundane activities of daily living: "These activities had now to be done carefully, effortfully, and with forethought and in some cases had gone from being unconscious and thoughtless to planned, fearful ,and threatening" (p. 220). Two studies describe lack of sleep and disrupted sleep as a consequence of pain. <sup>30,40</sup> Studies commented on the uncertainty associated with the fluctuating nature of pain, which posed challenges to coping on a daily basis and making plans for the future. <sup>28,29,40,42,46</sup> This had a significant impact on daily functioning particularly in the workplace and family context.

In the workplace, recurrent flare-ups disrupted the consistency of work ability. The struggle to retain work was described in several studies with participants expressing fear about job loss and future financial insecurity. 22,24–29,31,32,34

Studies widely reported changing roles within the family context.<sup>22–24,28,31–33,35,37,39,41–43,45</sup> Unreciprocated dependency on family members associated with feelings of helplessness was described in several studies.<sup>23,26,30–32,35,43,45</sup> Loss of the conjugal relationship and marital strain and breakdown were identified.<sup>23,35,43,45</sup>

The nature of pain and its effect on social functioning had significant psychological consequences. Studies described participants experiencing disbelief at why they were suffering, prompting feelings of frustration, anger, guilt, and despair. <sup>24,25,29,31,32,37,42</sup> Negative emotions in response to pain were felt to be so strong that they became directed outwards at others, with participants in several studies describing themselves as "short tempered." <sup>23,26,35,39,42,43</sup> Corbett et al<sup>28</sup> found that the psychological aspects of back pain were inextricably linked to the physical side with fluctuations in pain directly related to fluctuations between hope and despair. Anxiety and distress, in light of an uncertain future, were widely described by study participants. <sup>24–26,28,29,35,41,46</sup> These changes in attitude and mood were reported to result in feelings of depression. <sup>23–25,32,42,43</sup>

The changing sense of self. The psychological effects of pain amounted to an "assault on the self." Many included studies described a dichotomy between the past and present self, the ideal and perceived self. 29,32,33,35,37–39,42–44 Perceived changes in identity resulted in feelings of self-denigration, self-loathing, and shame by participants in the studies. 25,37,39,42,43 One study involving highly disabled individuals found that the battle to retain the self was more distressing than pain itself. Many studies described a battle lost, where a new, altered identity emerged as a consequence of pain. 35,37,39,43,44 This new "me but not me" was met with feelings of distress and grief 37,39,44,46 and in 1 study, suicidal ideation. 43

## Coping With CLBP

Strategies to control the omnipresent, unpredictable nature of pain reflected the biomedical belief systems held by the studies participants. Physically centered strategies were widely cited, the most common being hypervigilence to painful or threatening movements<sup>24</sup>,29,38 and activity restriction or avoidance. <sup>23</sup>,25,28,30,45,46 Medication use to control pain was common, with participants in several studies highlighting concerns around dependency, side effects, and their impact on the "self." <sup>27</sup>,42,46

Strategies to control the "assault on the self" consistently included avoidance and withdrawal. Withdrawal from social contact to avoid "letting others down" and perceived stigmatization were widely employed despite participants acknowledging that isolation exacerbated feelings of depression. <sup>22,23,25,31–33,35,37,41</sup> Persistent strategies were also cited whereby participants exceeded their perceived functional capacities in an attempt to fight back against the pain. <sup>23,25,28,31,39</sup> Findings from several studies described participants partaking in a cost analysis or risk assessment where contextual demands influenced whether to engage in activities or not, with or without pain. <sup>41,45,46</sup>

Acceptance. Although in many studies participants described a "battle" or "fight" to control the pain and the assault on the self, <sup>24</sup>,38,39,41,44 participants also acknowledged the need to learn to live with the pain. <sup>24</sup>,25,28,32,40,41,44 Participants in the study by Bowman<sup>24</sup> acknowledged the need to live with pain but expressed despair at the thought of pain always being present. In another study, participants highlighted difficulties in accepting pain when fluctuations in pain meant continuous adjustment had to be made, leaving them feeling insecure and uncertain. <sup>32</sup> Corbett et al<sup>28</sup> found that learning to live with the pain facilitated the turning point from a trajectory of despair to one of hope for the future.

## **DISCUSSION**

This metasynthesis identified 3 major themes describing the CLBP experience: the social construction of CLBP; the psychosocial impact of the unpredictable and

omnipresent nature of pain; and the strategies employed to cope with the pain and protect against the "assault on the self." These themes are consistent with Bury's<sup>48</sup> notion of biographical disruption, which suggests that LBP is an experience in which the structures of everyday life and the belief upon which they rest are disrupted. Three main aspects of disruption have been described: the disruption of taken for granted assumptions and behaviors; the disruption of explanatory frameworks from an existential perspective; and the mobilization of resources to face their altered situation.

Although the notion of biographical disruption is a widely acknowledged description of the chronic illness experience and indeed 5 of the included studies cite it in their discussions, <sup>28,35,38,39,44</sup> it has also been argued that biographical disruption is a fact of life. Similar to life events such as divorce or retirement, self-redefinition and life restructuring have been reported with chronic illnesses such as human immunodeficiency virus or diabetes. <sup>49,50</sup>

Soklaridis et al<sup>49</sup> propose that biographical disruption in individuals with CLBP requires a different kind of self-restructuring because unlike experiences of loss or other chronic illnesses, there is the underlying hope that once the pain is gone, life can get back to normal. Indeed, the inability of individuals with CLBP to accommodate pain in their lives, to accept pain, and the tendency to regard the past self as the preferred self may represent a biography suspended in time.

## **CLBP Experience as Biographical Suspension**

The experience of CLBP, a chronic illness of uncertain etiology, may be conceptualized as biographical suspension. It may be argued that individuals with CLBP live a life "on hold," one in which the "pause" button has been pressed until such time as the "play" button will return them to their former, pain-free lives. Three main aspects of suspension are described as suspended "wellness", suspended self, and suspended future.

#### Suspended Wellness

The biopsychosocial model of CLBP conflicts with the biomedical beliefs individuals with CLBP hold. Glenton<sup>13</sup> claims that whilst one is fighting to prove they are sick, they cannot get better. It is possible that until such time as legitimacy is established, lives are suspended in the chronic pain sick role, characterized by a constant and ongoing battle for legitimacy. Individuals with CLBP feel the credibility of their pain is judged on the consistency and persistence of observable pain behaviours and therefore appearing healthy or mobile whilst remaining in pain is to risk being branded "a fake." 37,44 Wellness is thus suspended until legitimacy is achieved.

## **Suspended Self**

The psychological effects of the CLBP experience amount to an assault on the self.<sup>39,51</sup> The sense of "not being me" infers the existence of a former true self. Individuals engage in an "ongoing, futile battle to preserve the preillness identity."<sup>52</sup> They maintain faith that the medical system will eventually fulfill their expectations of the diagnosis-treatment-cure pathway, thus the present self may be viewed as a temporary imposter and hope is maintained that one will eventually return to their former true self. This is consistent with self-pain-enmeshment theory,<sup>53</sup> which states that when pain elimination is the primary but

unobtainable goal in individuals with chronic pain, the movement towards future selves is blocked, leading to a sense of entrapment.<sup>54</sup>

## Suspended Future

Sociological research claims that individuals develop new projections of their future that correspond to their projected illness trajectory,<sup>55</sup> thus the ability to make future plans is likely to be contingent on a pain prognosis. The absence of an etiological explanation combined with the fluctuating nature of their pain mean individuals with CLBP face an uncertain illness trajectory. This uncertainty affects short-term, mid-term, and long-term planning with consequences for social and occupational activities. Individuals with CLBP engage in a day by day battle to control their pain and suspend future plans until such time as they may receive a viable prognosis and with it, a tangible future.

## **Clinical Implications**

A substantial body of evidence suggests that a discord exists between biomedical paradigms and the lived experience of CLBP. 12-14 To improve outcomes and patient satisfaction, it is important for patients and clinicians to cocreate a shared narrative around CLBP. Conceptualizing the CLBP experience as biographical suspension may facilitate this.

At the core of biographical suspension in CLBP is diagnostic uncertainty. Biomedical beliefs about CLBP appear deep rooted in western society and difficult to change.<sup>3</sup> It is therefore important that patients receive a diagnostic explanation for their pain, which is acceptable to them, providing them with the legitimacy they are seeking.<sup>56</sup> This legitimacy may remove the need for pain behaviors thus permitting the pathway to wellness. Butler and Moseley's<sup>57</sup> "Explain Pain" paradigm, for example, may provide patients with a valid physiological explanation for their pain and has been shown to have positive effects on outcome measures in CLBP.<sup>58</sup>

Two important elements of biographical suspension, the reluctance to concede a biomedical explanation for pain, and the battle to preserve the preillness identity have also been identified as important to the construct of acceptance in chronic pain research.<sup>59</sup> Similar to Toye and Barker, 44 we emphasize that acceptance does not imply "resignation or quitting," rather it seems that an individuals' acceptance of a credible explanation for their pain and the acceptance of a new identity are essential in enabling individuals to engage in meaningful life activities both in the present and future despite pain. A recent review has found some evidence that acceptance-based interventions may be of benefit for people with chronic pain, although reported effects are small and based on few high-quality studies. 60 Future research is needed to determine the role that acceptance-based interventions may play in the management of CLBP. 60,61 In particular, it remains to be seen how distinct and effective these so-called third-wave psychological interventions are compared with more established psychological treatments such as cognitive-behavioral therapy, which has a much greater body of evidence suggesting positive effects on pain, disability, and mood, albeit with similarly small effect sizes.<sup>62</sup>

#### **Design Considerations**

This qualitative metasynthesis has roots in subtle realism, which argues that although qualitative research involves

subjective perceptions, there is some underlying reality that may be studied.<sup>63</sup> The authors acknowledge the emphasis qualitative investigation places on idiographic knowledge and the complexities and contradictions of individual experiences that appear resistant to "summing up."64 However, the authors also adhere to the opinion that qualitative health research involves the identification of patterns in experiences that can inform clinical practice<sup>65</sup> and therefore perceive qualitative metasynthesis to be "a cross-case generalization created from the generalizations made from and about individual cases."64 Richardson and Lindquist<sup>7</sup> have made calls for qualitative metasynthesis to allow knowledge gained from individual qualitative studies to inform evidence-based medicine in physiotherapy practice. This present paper is among the first to answer their call. Although the findings of this metasynthesis are not novel, the synthesis of these findings and conceptualization of the CLBP experience as "biographical suspension" constitute a unique and important contribution to the clinical management of CLBP.

Trustworthiness was not considered in the inclusion criteria of this metasynthesis, however, it is important to consider that the 2 least fulfilled trustworthiness criteria were Categories 4 and 5, indicating that these studies could be at risk of overinterpreting their qualitative data. The repetition among findings, however (Table 4), lends support to the rigor of the articles included and limits the influence that this potential source of bias may have had on the results of this metasynthesis. In the interest of enhancing trustworthiness in future qualitative studies, authors are urged to (1) declare their standpoint to allow judgements to be made as to how these shape their study; and (2) present sufficient primary data, that is, quotes, to assure readers that study findings are grounded in the participants' voices.

The search strategy in this metasynthesis employed wide search terms to enable the maximum return of titles. However, multiple synonyms exist in the literature for "qualitative research," often involving methodologies such as "phenomenology," "narrative autoethnography." It is thus possible that relevant studies may have been missed. A saturation of themes was reached, however, with a striking repetition of findings among included studies (Table 4). As the data from all included studies was incorporated into the final model, it is considered unlikely that the inclusion of further

**TABLE 4.** Number of Contributing Statements and Articles to Grouped Codes

<b>Grouped Codes</b>	No. Contributing Statements	No. Contributing Articles
Psychological effects of pain	134	24
Stigma	96	21
Life disruption	60	20
Establishing credibility	55	17
Experience with health system	44	12
Coping strategies	36	18
Social withdrawal	18	11
Fluctuating/ unpredictable pain	16	9
Omnipresence of pain	12	8
Acceptance	11	7
Other physical symptoms	1	1

studies would impact on the results. This claim is supported by the theoretical sampling of 2 publications, which predated contemporary biopsychosocial models of pain.<sup>23,24</sup>

The exclusion of 1 study requires further discussion. Lillrank<sup>14</sup> conducted a narrative analysis of submissions for an autobiographic writing competition on CLBP. As the author has a sociology background, no medical professionals were involved in the recruitment process and some women report specific LBP diagnoses (tumor) this study was excluded from the metasynthesis. It is pertinent to note, however, that the search for diagnostic certainty detailed in this study lends compelling support to the synthesis findings.

The authors make no claim that the experience of CLBP as presented here is representative of all people with CLBP. The need for future research exploring the experience of CLBP in other age groups and societies is emphasized. However, some level of generalizability of the findings to other working aged adults with CLBP in western societies is supported by: (1) empirical studies in CLBP in which higher pain acceptance and feelings of life control are associated with reduced disability and "future-directed orientations in life" 18,66; (2) strong commonalities among the findings of included studies; and (3) resonation of the synthesis' findings and interpretation with claims from experts in this field of research. 67–70

#### **Future Research**

Although this synthesis has highlighted the strength of evidence among qualitative studies exploring the CLBP experience in working aged adults in western societies, it has also highlighted the gaps in our current understanding of the CLBP experience. In addition to future research involving patients from other age groups and societies, we also identify a need for future longitudinal qualitative studies that will allow for a better understanding of the relationship between time and the CLBP experience.

#### CONCLUSIONS

A deeper contextual understanding of the individuals' pain experience as provided by qualitative research is of fundamental importance in evidence-based health care. This metasynthesis of qualitative studies identified 3 themes describing the CLBP experience: the social construction of CLBP; the psychosocial impact of the nature of CLBP; and coping with CLBP. Interpretation of these findings resulted in a novel theory of biographical suspension in which suspended wellness, suspended self and suspended future represent "lives on hold" for individuals with CLBP.

#### **REFERENCES**

- Walker B, Muller R, Grant W. Low back pain in Australian adults: the economic burden. Asia Pac J Public Health. 2003;15:79–87.
- 2. Freburger J, Holmes G, Agans R, et al. The rising prevalence of chronic low back pain. *Arch Intern Med.* 2009;169:251–258.
- O'Sullivan P. It's time for a change with the management of nonspecific chronic low back pain. Br J Sports Med. 2012; 46:224–227.
- Waddell G. Low back pain: a twentieth century health care enigma. Spine. 1996;21:2820–2825.
- 5. Harding G, Gantley M. Qualitative methods: beyond the cookbook. *Fam Pract*. 1998;15:76–79.
- Sandelowski M, Barroso J. Handbook for Synthesizing Qualitative Research. New York: Springer Publishing Company Inc; 2007.

- Richardson B, Lindquist I. Metasynthesis of qualitative inquiry research studies in physiotherapy. *Physiother Res Int.* 2010;15:111–117.
- 8. Linton S, Vlaeyen J, Ostelo R. The back pain beliefs of health care providers: are we fear-avoidant? *J Occup Rehabil*. 2002;12:223–232.
- 9. Coudeyre E, Rannou F, Tubach F, et al. General practitioners' fear-avoidance beliefs influence their management of patients with low back pain. *Pain.* 2006;124:330–337.
- Gross D, Ferrari R, Russell A, et al. A population based survey of back pain beliefs in Canada. Spine. 2006;31: 2142–2145.
- 11. Ihlebaek C, Eriksen H. Are the "myths" of low back pain alive in the general Norwegian population? *Scand J Public Health*. 2003;31:395–398.
- Geisser M, Roth R. Knowledge of and agreement with chronic pain diagnosis: relation to affective distress, pain beliefs and coping, pain intensity and disability. *J Occup Rehabil*. 1998;8:73–88.
- 13. Glenton C. Chronic back pain sufferers—striving for the sick role. Soc Sci Med. 2003;57:2243–2252.
- Lillrank A. Back pain and the resolution of diagnostic uncertainty in illness narratives. Soc Sci Med. 2003;57: 1045–1054.
- 15. Airaksinen O, Brox J, Cedraschi C, et al. Chapter 4: European guidelines for the management of chronic non specific low back pain. *Eur Spine J*. 2006;15:S192–S300.
- Waddell G. The Back Pain Revolution. Edinburgh: Churchill Livingstone; 2004.
- 17. Williams S. Chronic illness as biographical disruption or biographical disruption as chronic illness? Reflections on a core concept. *Sociol Health Illn*. 2000;22:40–67.
- de Vries H, Reneman M, et al. Workers who stay at work despite chronic nonspecific musculoskeletal pain: do they differ from workers with sick leave? *J Occup Rehabil*. 2012;22: 489–502.
- 19. Sandelowski M, Barroso J. Classifying the findings in qualitative studies. *Qual Health Res.* 2003;13:905–923.
- Popay J, Rogers A, Williams G. Rationale and standards for the systematic review of qualitative literature in health services research. *Qual Health Res.* 1998;8:341–351.
- Sim J, Madden S. Illness experience in fibromyalgia syndrome: a metasynthesis of qualitative studies. Soc Sci Med. 2008; 67:57–67.
- 22. Ashby S, Richards K, James C. The effect of fear of movement on the lives of people with chronic low back pain. *Int J Ther Rehabil*. 2010;17:232–243.
- 23. Bowman J. Reactions to chronic low back pain. *Issues Ment Health Nurs*. 1994;15:445–453.
- 24. Bowman J. The meaning of chronic low back pain. AAOHN J. 1991;39:381–384.
- Busch H. Appraisal and coping processes amoung chronic low back pain patients. Scand J Caring Sciences. 2005;19:396–402.
- Campbell C, Guy A. "Why can't they do anything for a simple back problem?": a qualitative examination of expectations for low back pain treatment and outcome. *J Health Psychol*. 2007;12:641–652.
- Coole C, Drummond A, Watson P, et al. What concerns workers with low back pain? Findings of a qualitative study of patients referred for rehabilitation. *J Occup Rehabil*. 2010; 20:472–480.
- Corbett M, Foster N, Ong B. Living with low back pain stories of hope and despair. Soc Sci Med. 2007;65:1584–1594.
- Crowe M, Whitehead L, Gagan M, et al. Listening to the body and talking to myself—the impact of chronic lower back pain: a qualitative study. *Int J Nurs Stud.* 2010;47:585–592.
- de Souza L, Frank A. Experiences of living with chronic low back pain: the physical disabilities. *Disabil Rehabil*. 2007;29: 587–596.
- de Souza L, Frank A. Patients experiences of the impact of chronic back pain on family life and work. *Disabil Rehabil*. 2011;33:310–318.

- 32. Holloway I, Sofaer B, Walker J. The transition from well person to "pain afflicted" patient: the career of people with chronic back pain. *Illn Crisis Loss*. 2000;8:372–387.
- 33. Holloway I, Sofaer B, Walker J. The stigmatisation of people with chronic back pain. *Disabil Rehabil*. 2007;29:1456–1464.
- 34. Walker J, Holloway I, Sofaer B. In the system: the lived experience of chronic back pain from the perspectives of those seeking help from pain clinics. *Pain*. 1999;80:621–628.
- Walker J, Sofaer B, Holloway I. The experience of chronic back pain: accounts of loss in those seeking help from pain clinics. Eur J Pain. 2006;10:199–207.
- May C, Rose M, Johnstone F. Dealing with doubt. How patients account for non-specific chronic low back pain. J Psychosom Res. 2000;49:223–225.
- 37. Osborn M, Smith J. The personal experience of chronic benign lower back pain: an interpretative phenomenological analysis. *Br J Health Psychol.* 1998;3:65–83.
- 38. Osborn M, Smith J. Living with a body separate from the self. The experience of the body in chronic benign low back pain: an interpretative phenomenological analysis. *Scand J Caring Sciences*. 2006;20:216–222.
- Smith J, Osborn M. Pain as an assault on the self: an interpretative phenomenological analysis of the psychological impact of chronic benign low back pain. *Psychol Health*. 2007;22:517–534.
- Raak R, Wahren L. Health experiences and employment status in subjects with chronic back pain: a long term perspective. *Pain Manag Nurs*. 2006;7:64–70.
- Satink T, Winding K, Jonsson H. Daily occupations with or without pain: dilemmas in occupational performance. OTJR. 2004;24:144–150.
- Snelgrove S, Liossi C. An interpretative phenomenological analysis of living with chronic low back pain. Br J Health Psychol. 2009;14:735–749.
- 43. Strunin L, Boden L. Family consequences of chronic back pain. Soc Sci Med. 2004;58:1385–1393.
- 44. Toye F, Barker K. "Could I be imagining this?"—the dialectic struggles of people with persistent unexplained back pain. *Disabil Rehabil*. 2010;32:1722–1732.
- 45. White S, Seibold C. Walk a mile in my shoes: an auto-ethnographic study. *Contemp Nurse*. 2008;30:57–68.
- 46. Young A, Wasiak R, Phillips L, et al. Workers' perspectives on low back pain recurrence: "It comes and goes and comes and goes, but it's always there". *Pain.* 2011;152:204–211.
- Strauss A, Corbin J. Basics of Qualitative Research: Grounded Theory Procedures and Technique. 2nd ed. London: Sage; 1998.
- Bury M. Chronic illness as biographical disruption. Sociol Health Illn. 1982;4:167–182.
- Soklaridis S, Ammendolia C, Cassidy D. Looking upstream to understand low back pain and return to work: psychosocial factors as the product of system issues. Soc Sci Med. 2010;71:1557–1566.
- Tsarenko Y, Polonsky M. "You can spend your life dying or you can spend your life living": indentity transition in people who are HIV-positive. *Psychol Health*. 2010;26:465–483.
- 51. Charmaz K. Loss of self: a fundamental form of suffering in the chronically ill. *Sociol Health Illn*. 1983;5:169–195.
- Dickson A, Knussen C, Flowers P. "That was my old life; it's almost like a past-life now": identity crisis, loss and adjustment amongst people living with chronic fatigue syndrome. *Psychol Health*. 2008;23:459–476.
- 53. Pincus T, Morley S. Cognitive-processing bias in chronic pain: a review and integration. *Psychol Bull.* 2001;127:599–617.
- Morley S, Davies C, Barton S. Possible selves in chronic pain: self enmeshment, adjustment and acceptance. *Pain*. 2005;115:84–94.
- 55. Griffiths F, Borkan J, Byrne D, et al. Developing evidence for how to tailor medical interventions for the individual patient. *Qual Health Res.* 2010;20:1629–1641.
- Sowden G, Hill J, Konstantinou K, et al. Subgrouping for targeted treatment in primary care for low back pain: the treatment system and clinical training programmes used in the IMPaCT Back study. Fam Pract. 2011;29:50–62.

- 57. Butler D, Moseley G. *Explain Pain*. Adelaide: NOI Group Publishing; 2003.
- Moseley G. Evidence for a direct relationship between cognitive and physical change during an education intervention in people with chronic low back pain. Eur J Pain. 2004;8:39–45.
- McCracken L, Carson J, Eccleston C, et al. Acceptance and change in the context of chronic pain. *Pain*. 2004;105: 197–204.
- Veehof M, Oskam M, Schreurs K, et al. Acceptance-based interventions for the treatment of chronic pain: a systematic review and meta-analysis. *Pain*. 2011;152:533–542.
- Kerns R, Sellinger J, Goodin B. Psychological treatment of chronic pain. Annu Rev Clin Psychol. 2011;7:411–434.
- Eccleston C, Williams A, Morley S. Psychological therapies for the management of chronic pain (excluding headache) in adults. Cochrane Database Syst Rev. 2009;15:CD007407.
- 63. Hammersley M. What's Wrong With Ethnography? London: Routledge; 1992.

- Sandelowski M, Docherty S, Emden C. Qualitative metasynthesis: issues and techniques. Res Nurs Health. 1997;20:365–371.
- Thorne S, Reimer Kirkham S, MacDonald-Emes J. Interpretive description: a noncategorical qualitative alternative for developing nursing knowledge. Res Nurs Health. 1997;20: 169–177.
- Reitsma B, Meijler W. Pain and patienthood. Clin J Pain. 1997;13:9–21.
- Turk D, Wilson H. Fear of pain as a prognostic factor in chronic pain: conceptual models, assessment and treatment implications. Curr Pain Headache Rep. 2010;14:88–95.
- Hill J, Fritz J. Psychosocial influences on low back pain, disability and response to treatment. *Phys Ther*. 2011;91: 712–721.
- 69. Nicholas M, George S. Psychologically informed interventions for low back pain: an update for physical therapists. *Phys Ther*. 2011;91:765–776.
- 70. Linton S, Shaw W. Impact of psychological factors in the experience of pain. *Phys Ther.* 2011;91:700–711.