

## **Lives on hold: A qualitative synthesis exploring the experience of chronic low back pain**

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**Abstract:**

Chronic, non specific low back pain (CLBP) is a prevalent, costly condition which 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 is to provide clinicians with a richer understanding of their patients' CLBP experience in order to highlight the importance of moving away from biomedical paradigms in the clinical management of CLBP. Qualitative studies exploring the CLBP experience from the perspective of the individual sufferer were included. Twenty five articles representing 18 studies involving 713 participants were subjected to the three stage analytic process of extraction/coding, grouping and abstraction. Three main themes emerged: The social construction of CLBP; The psychosocial impact of the nature of CLBP; and Coping with CLBP. The authors conceptualise the experience of CLBP as biographical suspension in which three 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.

**Introduction:**

Chronic non specific low back pain 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 (2) making effective, efficient CLBP management a priority for the medical and allied healthcare professions (HCP).

Limitations in a purely biomedical approach to CLBP management has led to a paradigm shift towards a client centred approach which recognises the complex interactions between an individuals' bio-psycho-social contexts which influence their disability (3, 4). Qualitative methods are well suited to investigate this biopsychosocial paradigm. By exploring how individuals make sense of their situation, qualitative methods provide insight into behaviour, deepening our understanding of CLBP disability (5). 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 which may contribute to the development of clinically orientated theory (7).

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, 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.

A large body of evidence suggests that patients with chronic pain feel misunderstood by health care professionals (15-18). Clinician-patient mismatch in regards to models of pain, treatment goals and understanding the CLBP experience is thought to contribute to poor outcomes in the management of CLBP (19, 20). In recent years a substantial number of qualitative studies involving individuals with CLBP have been published. The aim of this paper is to integrate findings from these studies in a metasynthesis in order to provide clinicians with a deeper understanding of their patients' CLBP experience.

## **Method:**

### *Identification of studies:*

The databases MEDLINE, EMBASE, AMED, CINAHL, PsychINFO, Sociological Abstracts and Scopus were searched twice over the period January – October 2011 using the mesh headings 'back pain' and 'qualitative research' as broad search terms to maximise findings. In addition a sensitive search strategy in Medline (via 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 where appropriate, abstracts were read. Cross referencing of relevant articles was undertaken simultaneously.

### *Inclusion criteria:*

Studies involving individuals with a diagnosis of CLBP defined as low back pain of duration  $\geq 3$  months, not attributed to pathological entities such as infection, tumour, osteoporosis, inflammatory disorders, fractures, radicular syndrome or cauda equina syndrome (21) were included in this review. Where the diagnosis of nonspecific LBP was not clear, but no specific causes of LBP were reported by the authors, studies were included. This is justified by evidence that 85-90% of LBP patients are diagnosed with nonspecific LBP (22). Studies involving individuals aged 18-65 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 (23, 24). Studies exploring the experience of CLBP from the perspective of the individual sufferer were included. Studies which included perspectives from the individual sufferer in addition to other parties (such as partners, health care professionals) were included where the findings from the individual were clearly separated. Studies needed to meet the criteria of 'qualitative research' that this, the findings represented some degree of transformation of data ie. interpretation, rather than remaining as rewordings or summaries of participants voices (25). 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 regarding criteria for the judgement 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, Rogers, & Williams (26). As in Sim and Madden's 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 (27).

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 (Sim & Maddon 2008).
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 more than one perspective on the topic of enquiry, including a reflexive concern for the researchers' standpoint ie. 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 purpose-designed 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; fulfilment of trustworthiness criteria; extracted findings (see Table 1).

Extracted findings were separated from: presentations of data used to provide evidence for findings eg. quotations; imported findings from other studies referred to by the authors; and the researchers' discussions of the meaning or significance of their findings (6)

### Synthesis of studies:

The analytic process was adapted from Sandelowski & Barroso (6). It involved 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 – analysing 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 three stages were not performed sequentially, but rather simultaneously. Through a process of constant comparative analysis (28), emerging groupings from early codings, were checked with on-going 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 two articles from an earlier date of publication (29, 30) 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' (SB) doctoral studies.

The search strategy was performed twice by the first author (SB). Two authors (SB and AS) independently assessed retrieved titles and abstracts against the inclusion criteria.

The coding, grouping and abstraction process was performed by the first author (SB). A subset of articles was randomly selected for cross-coding by another author (RW) who performed a second level grouping and thematic description on the subset whilst 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 in the primary data.

The abstraction process was presented by SB (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 amongst the five 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 18 studies (See Figure 1). Four articles from three studies included participants aged >65 years. The study by Holloway, Walker and Sofaer (31-34) separated findings from the two participants aged >65 that were included in their study. The large study by Crowe et al. (35) included 64 individuals aged 18-80 and whilst no information is given regarding the number of individuals aged >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 two other studies (17, 36, 37). 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 can be seen in Table 1. The 25 included articles were published between 1991-2011. All studies took place in Western countries, primarily in the pain clinic setting (17, 29-34, 36-47); with six taking place in the community (35, 48-52). A total of 713 participants were involved in the 18 studies. (see Table 1).

Criterion of trustworthiness are presented for the readers to consider (Table 1). Twelve articles failed to fulfil all trustworthiness criterion. Eleven articles failed to fulfil category 5 (29, 30, 32, 34-37, 39, 40, 45, 46) and four failed to fulfil category 4 (29, 30, 33, 45)

Initial coding of included studies resulted in 27 codes which were reduced to 11 categories and finally arranged into three themes (see 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.

Whilst no refutations of findings were found, the findings from one study included in this metasynthesis require extra consideration. Bowman (30) found that participants attributed other physical symptoms to their CLBP such as nausea and faintness. Whilst 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 (17, 31-33, 39-42, 45, 48, 51). The lack of a satisfactory aetiological explanation for their 'invisible' pain meant participants in many studies felt at risk of not being believed (17, 29-33, 39-42). Without a valid explanation for their pain, the participants' belief in the linear diagnosis-treatment-cure model was shaken, fuelling feelings of anxiety in the face of an uncertain future (17, 31, 39, 40, 47, 49, 51). 'Health shopping', where participants sought

opinions from a range of different health professionals in the hope of finding a satisfactory aetiological explanation, was a commonly employed practice amongst participants in the included studies (17, 30, 31, 33, 49). The participants' experience in the health care system was repeatedly described, with feelings of anger and frustration towards professionals who could not fulfil expectations of a diagnosis-treatment-cure pathway (17, 31, 33, 40, 41, 51). 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 (17, 30, 33, 38, 40, 45, 51).

*Iatrogenic distress* was described in several studies. Walker et al. (33) 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 non-existent cure. Corbett et al. (51) also found that the participants' doctors painted a bleak future, leading to participant anxiety, pessimism, hypervigilance and hopelessness. Holloway et al. (32) found that age related explanations intended by doctors to legitimise 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. (46) reported that participants' erroneous biophysical interpretations of their pain acquired from health care professionals lead to fear of movement and subsequent avoidance behaviour.

*Stigmatisation of CLBP* was a theme in almost all included studies. The role of the media was highlighted as painting an image of CLBP sufferers as fraudulents seeking secondary gains (32, 50). Participants felt that society viewed CLBP sufferers as burdens, without value or virtue and thus threatening social order (31, 32, 44). Health care professionals were identified as painting

an image of the demanding, difficult, drug seeking CLBP patient (50). Any inference by health care professionals of the pain being psychological in origin was felt by participants in several studies to be labelled with the stigma of questionable integrity (33, 42, 45, 49). 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 (30, 31, 33, 34, 39, 49).

*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, previously active people who were in no way culpable for their pain which they invariably attributed to an underlying pathology (40, 41, 45), or even to the fault of others (17, 33). Studies found that participants felt the need to justify their pain was real and not psychogenic in origin (33, 42, 45). 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 (40).

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 (30, 32-34, 39, 41, 42, 50). The consistency or persistence of pain behaviours was considered important in judging if the pain was genuine or not, however this proved difficult in light of the fluctuating nature of pain (39, 41). Appearing healthy or mobile whilst remaining in pain was to risk “being branded a fake” and therefore participants felt obliged to appear ill and disabled (42). Several studies however highlighted a dilemma for participants who felt they needed to negotiate not looking

too ill, but ill enough (39, 41, 42, 50). 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)” (42). In several studies, this dilemma was overcome by social withdrawal, thus avoiding the scrutiny of others (29, 31, 32, 38, 42, 44).

Comparison of the self with other chronic pain sufferers was identified in several studies as a strategy to gain credibility (29, 34, 41, 42, 44). The existence of other people with chronic pain gave an element of legitimacy to their suffering. Comparison of their situation to that of others allowed participants to ‘rank’ their level of disability or loss. In one study, participants found it important to their credibility that they distinguish themselves from the typical chronic pain ‘malingerer’(41).

#### Psychosocial impact of the unpredictable, omnipresent nature of pain

*The nature of pain.* In the studies reviewed, pain was described as omnipresent, salient and characterised by unpredictable fluctuations in intensity during both waking and sleeping hours. Osborn & Smith (43) 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 (36, 48). 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 (35, 40, 48, 49, 51). 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. (30, 31, 33, 35, 37, 39, 46, 47, 51).

Studies widely reported changing roles within the family context (29-32, 34, 37, 38, 40, 42, 44, 46, 50-52). Unreciprocated dependency on family members associated with feelings of helplessness was described in several studies (17, 29, 31, 34, 36, 37, 50, 52). Loss of the conjugal relationship and marital strain and breakdown were identified (34, 46, 50, 52).

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 (30, 31, 35, 37, 40, 42, 47, 51). 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' (17, 29, 34, 40, 44, 52). Corbett et al. (51) 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 studies participants (17, 30, 34, 35, 38, 47, 49, 51). These changes in attitude and mood were reported to result in feelings of depression (29-31, 40, 47, 52).

*The changing sense of self.* The psychological effects of pain amounted to an 'assault on the self' (44). Many included studies described a dichotomy between the past and present self, the ideal and perceived self (31, 32, 34, 35, 40-44, 52). Perceived changes in identity resulted in feelings of self denigration, self loathing and shame by participants in the studies (40, 42, 44, 47, 52). One study involving highly disabled individuals found that the battle to retain the self was more

distressing than pain itself (Smith et al. 2007). Many studies described a battle lost, where a new, altered identity emerged as a consequence of pain (34, 41, 42, 44, 52). This new 'me but not me', was met with feelings of distress and grief (41, 42, 44, 49) and in one study, suicidal ideation (52).

### Coping with CLBP

*Strategies to control the omnipresent, unpredictable nature of pain* reflected the biomedical belief systems held by the studies participants. Physically centred strategies were widely cited, the most common being hypervigilance to painful or threatening movements (30, 35, 43) and activity restriction or avoidance (29, 36, 47, 49-51). Medication use to control pain was common, with participants in several studies highlighting concerns around dependency, side effects and their impact on the 'self' (39, 40, 49)

*Strategies to control the 'assault on the self'* consistently included avoidance and withdrawal. Withdrawal from social contact to avoid 'letting others down' and perceived stigmatisation were widely employed despite participants acknowledging that isolation exacerbated feelings of depression (29, 31, 32, 34, 37, 38, 42, 46, 47). Persistent strategies were also cited whereby participants exceeded their perceived functional capacities in an attempt to fight back against the pain (29, 37, 44, 47, 51). 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 (38, 49, 50).

*Acceptance.* Whilst in many studies participants described a 'battle' or 'fight' to control the pain and the assault on the self (30, 38, 41, 43, 44) participants also acknowledged the need to learn to live with the pain (30, 31, 38, 41, 47, 48, 51). Participants in the study by Bowman (30) 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 (31). Corbett et al (51) 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 three major themes describing the CLBP experience: the social construction of CLBP; the psychosocial impact of the unpredictable, omnipresent nature of pain; the strategies employed to cope with the pain and protect against the 'assault on the self'. These themes are consistent with Bury's notion of biographical disruption (53), 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 behaviours; the disruption of explanatory frameworks from an existential perspective; and the mobilisation of resources to face their altered situation.

Whilst the notion of biographical disruption is a widely acknowledged description of the chronic illness experience and indeed five of the included studies cite it in their discussions (34, 41, 43, 44, 51), it has also been argued that biographical disruption is a fact of life. Similar to life events such as divorce or retirement, self re-definition and life restructuring have been reported with chronic illnesses such as HIV or diabetes (54, 55).



Soklaridis, Ammendolia, & Cassidy (54) 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 aetiology, may be conceptualised 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, painfree lives. Three main aspects of suspension are described: suspended 'wellness'; suspended self; suspended future.

#### 1. Suspended wellness:

The biopsychosocial model of CLBP conflicts with the biomedical beliefs individuals with CLBP hold. Glenton (13) claims that whilst one is fighting to prove they are sick, they can't get better. It is possible that until such time as legitimacy is established, lives are suspended in the chronic pain sick role, characterised 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" (41, 42). Wellness is thus suspended until legitimacy is achieved.

## 2. Suspended self

The psychological effects of the CLBP experience amount to an assault on the self (44, 56). The sense of “not being me” infers the existence of a former true self. Individuals engage in an “ongoing, futile battle to preserve the pre-illness identity” (57). They maintain faith that the medical system will eventually fulfil 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-entmeshment theory (58) 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 (59).

## 3. Suspended future

Sociological research claims that individuals develop new projections of their future that correspond to their projected illness trajectory (60), thus the ability to make future plans is likely to be contingent on a pain prognosis. The absence of an aetiological explanation combined with the fluctuating nature of their pain mean individuals with CLBP face an uncertain illness trajectory. This uncertainty affects short, mid 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). In order to improve outcomes and patient satisfaction, it is important for patients and clinicians to co-create a shared narrative around CLBP (18). Conceptualising 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 (3). 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 (61). This legitimacy may remove the need for pain behaviours thus permitting the pathway to wellness. Butler and Moseley's 'Explain Pain' paradigm (62) 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 (63).

Two important elements of biographical suspension, the reluctance to concede a biomedical explanation for pain and the battle to preserve the pre illness identity, have also been identified as important to the construct of Acceptance in chronic pain research (64). Similar to Toye and Barker (41) we emphasise 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 (65). Future research is needed to determine the role that Acceptance based interventions may play in the management

of CLBP (65, 66). In particular, it remains to be seen how distinct and effective these so-called third-wave psychological interventions are compared to more established psychological treatments such as Cognitive Behavioural Therapy (CBT), which has a much greater body of evidence suggesting positive effects on pain, disability and mood, albeit with similarly small effect sizes (67).

### *Design considerations*

This qualitative metasynthesis has roots in subtle realism which argues that whilst qualitative research involves subjective perceptions, there is some underlying reality that may be studied (68). The authors acknowledge the emphasis qualitative investigation places on idiographic knowledge, the complexities and contradictions of individual experiences that appear resistant to 'summing up' (69). However the authors also adhere to the opinion that qualitative health research involves the identification of patterns in experiences that can inform clinical practice (70) and therefore perceive qualitative metasynthesis to be "a cross case generalisation created from the generalisations made from and about individual cases" (69). Richardson and Lindquist (7) have made calls for qualitative metasynthesis in order to allow knowledge gained from individual qualitative studies to inform evidenced based medicine in physiotherapy practice. This present paper is amongst the first to answer their call. Whilst the findings of this metasynthesis are not novel, the synthesis of these findings and conceptualisation 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 two least fulfilled trustworthiness criteria were categories 4

and 5 indicating that these studies could be at risk of overinterpreting their qualitative data. The repetition amongst findings however (see Table 4), lends support to the rigour 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 ie 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 auto-ethnography'. 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 studies would impact on the results. This claim is supported by the theoretical sampling of two publications which predated contemporary bio-psycho-social models of pain (29, 30).

The exclusion of one study requires further discussion. Lillrank (14) 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 (tumour) 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 emphasised. 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' (24, 71); 2. Strong commonalities amongst the findings of included studies; and 3. Resonance of the synthesis' findings and interpretation with claims from experts in this field of research (72-75).

### *Future Research*

Whilst this synthesis has highlighted the strength of evidence amongst 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 subjects 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.

### *Conclusion*

A deeper contextual understanding of the individuals' pain experience as provided by qualitative research is of fundamental importance in evidenced based health care. This metasynthesis of qualitative studies identified three 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.

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Figure 1. Flow chart of study identification

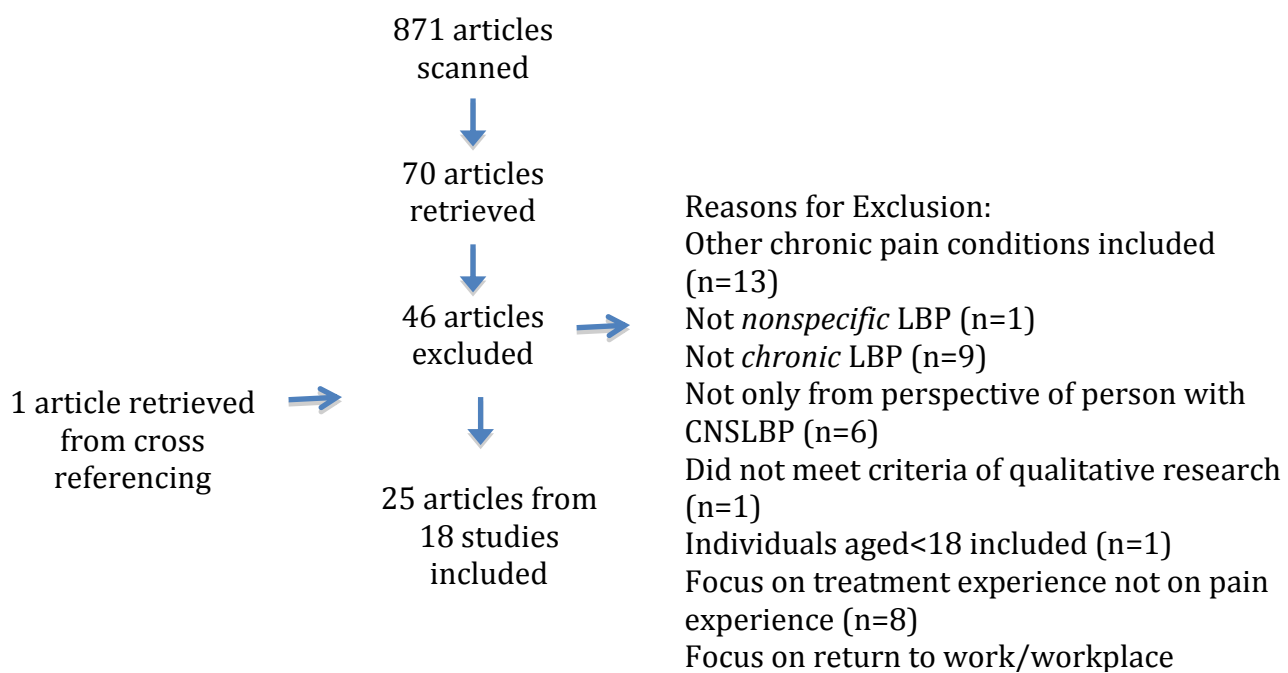


Table 1. Description of included studies

Reference	Number participants	% Female	Age (years)	Duration	Employment	Setting	Methodology	Research discipline	Data source	Unfulfilled trustworthiness criteria
Ashby et al. 2010	11	0%	23-59	>8 months	Unemployed	Australia work hardening programme	Thematic analysis embedded in ethnographic study	Occupational Therapy	Individual semi structured interviews and participant observation	Category 5
Bowman 1991	15	40%	Unknown	>6 months	Mixed	US pain clinic	Phenomenology	Nursing	In-depth interviews	Category 4 Category 5
Bowman 1994										Category 4 Category 5
Busch 2005	30	Unknown	26-59	>3 months	Employed	Swedish pain clinic	Grounded theory	Physiotherapy	Semi-structured interviews	
Campbell & Guy 2007	16	Unknown	34-78	>1 year	Unknown	Secondary care UK	Thematic analysis	Unknown clinician in pain clinic	2 x focus groups meeting 4 times each	
Coole et al. 2010	25	52%	22-58	3 months-35 years	Employed	UK pain clinic	Thematic analysis	Unknown clinician in pain clinic	Semi structured interviews	Category 5
Corbett et al. 2007	6	50%	19-59	>3 months	Unknown	UK community	Thematic analysis	Physiotherapy	Semi structured interviews	
Crowe et al. 2010	64	48%	25-80	>12 weeks	Unknown	Community New Zealand	Inductive thematic analysis	Nursing/ Physiotherapy	Semi-structured interviews	Category 5

De Souza and Frank 2007; De Souza and Frank 2011	11	55%	27-79	>6 months	5 Unemployed 1 Retired	UK rheumatology clinic	Framework approach using thematic content analysis	Physiotherapy	Individual unstructured interviews	Category 5 Category 5
Holloway et al. 2000; Holloway et al. 2007; Walker et al. 1999; Walker et al. 2006	20	40%	28-80	2-52 years	1 Participant employed	UK pain clinic	IPA	Health psychology, Nursing	In-depth unstructured interviews	Category 5 Category 4 Category 5
May et al. 2000	12	50%	20-55	>1 year	Unemployed	UK pain clinic	Content analysis	Unknown	Semi structured interviews	Category 5 Category 4
Osborne & Smith 1998; Osborne & Smith 2006; Smith & Osborne 2007	6	30%	36-52	5-15 years	Unemployed	UK pain clinic	IPA	Psychology	Semi structured interviews	
Raak & Wahren 2006	10	67%	Working age	>13 months	Unknown	Sweden community	Content analysis	Nursing	Indepth interviews	
Satink et al. 2004	7	57%	42-70	10-29 years	Unemployed	The Netherlands	Narrative approach	Occupational therapy	Semi structured	

						pain clinic			interviews	
Snelgrove & Lioffi 2009	10	70%	39-66	>4 years	Unknown	UK pain clinic	IPA	Nursing/ psychology	Semi structured interviews	Category 5
Strunin and Boden 2004	414	Un-known	Working age	Unknown. Described as 'chronic'. Average of 22 weeks off work.	Unknown	US community	Ethnography	Medical Anthropology	Semi-structured phone interviews	
Toye & Barker 2010	20	65%	29-67	'Persistent' pain, involved in treatment over several months to years	Mixed	UK pain clinic	Grounded theory	Physiotherapy	Semi structured interviews	
White & Siebold 2008	5	100%	32-44	>6 months	Unknown	Community Australia	Narrative autoethnography	Nursing	Open ended interviews	
Young et al. 2011	31	45%	20-65	'Time off work for LBP in last year". Demographic data describe long history over several years	Mixed	Community Canada	Phenomenology	Health science	6 x focus groups	

IPA = Interpretative phenomenological approach

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 behaviours; 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 CV; 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



Table 3. Example extract from within the category: Stigma

Author(s)	Biomedical model of pain	Not being believed
Toye et al. (2010)	<ul style="list-style-type: none"> <li>• Diagnosis important to have a legitimate reason for the pain</li> <li>• Diagnosis so others can believe them</li> <li>• Want a positive test result although they acknowledge this is counter-intuitive – why be disappointed with a result showing there is nothing wrong?</li> <li>• Insistent on getting a scan. Shocked, disappointed when nothing is wrong</li> <li>• Psychosocial explanations from doctor contradict attempts to establish legitimacy</li> </ul>	<ul style="list-style-type: none"> <li>• Not believed by HCP, friends, family or colleagues</li> <li>• Invisibility of condition challenges credibility</li> <li>• Back pain is common and varies greatly in severity therefore it is difficult to appear genuine</li> <li>• Cultural stereotypes of someone with unexplained back pain</li> </ul>
Snelgrove et al. (2009)	<ul style="list-style-type: none"> <li>• Participants concerned to express pain as biomechanical in origin and due to no fault of their own</li> <li>• Sensory, biological core of pain emphasized rather than affective response to it</li> <li>• The participants biomedical understanding of pain made failings of HCP difficult to understand</li> <li>• Still adhered to medical model of understanding despite disenchantment with medical system</li> <li>• Physically centered coping strategies – avoidance, positioning.</li> </ul>	<ul style="list-style-type: none"> <li>• Invisibility of condition</li> <li>• Uncertain aetiology and prognosis mean problems maintaining integrity</li> <li>• Not being believed</li> </ul>
Coole et al. (2010)	<ul style="list-style-type: none"> <li>• Keen to justify symptoms by acceptable biomedical explanations backed up by investigations</li> <li>• Uncertainty amongst participants as to cause</li> <li>• Developed own explanations for their pain: wear and tear, degeneration, arthritis, history of heavy work, age.</li> </ul>	<ul style="list-style-type: none"> <li>• Afraid of not being believed</li> </ul>

Table 4. Number of contributing statements and articles to grouped codes

Grouped codes	Number of contributing statements	Number of 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