Spine

SPINE Volume 40, Number 11, pp 842-850

HEALTH SERVICES RESEARCH

Easy to Harm, Hard to Heal

Patient Views About the Back

Ben Darlow, PhD,* Sarah Dean, PhD,† Meredith Perry, PhD,‡ Fiona Mathieson, MA (Clin Psych),§ G. David Baxter, DPhil,‡ and Anthony Dowell, MBChB*

Study Design. Qualitative interview study.

Objective. Explore attitudes, beliefs, and perceptions related to low back pain (LBP) and analyze how these might influence the perceived threat associated with back pain.

Summary of Background Data. Psychological factors that contribute to the perceived threat associated with LBP play an important role in back pain development and the progression to persistent pain and disability. Improved understanding of underlying beliefs may assist clinicians to investigate and assess these factors.

Methods. Semistructured qualitative interviews were conducted with 12 participants with acute LBP (<6-wk duration) and 11 participants with chronic LBP (>3 mo duration). Data were analyzed thematically using the framework of Interpretive Description.

Results. The back was viewed as being vulnerable to injury due to its design, the way in which it is used, and personal physical traits or previous injury. Consequently, participants considered that they needed to protect their back by resting, being careful with or avoiding dangerous activities, and strengthening muscles or controlling posture. Participants considered LBP to be special in its nature and impact, and they thought it difficult to understand without personal experience. The prognosis of LBP was considered uncertain by those with acute pain and poor by those with chronic pain. These beliefs combined to create a negative (mis)representation of the back.

Conclusion. Negative assumptions about the back made by those with LBP may affect information processing during an episode of pain. This may result in attentional bias toward information indicating that the spine is vulnerable, an injury is serious, or the outcome will be poor. Approaching consultations with this understanding may assist clinicians to have a positive influence on beliefs.

Key words: acute low back pain, chronic low back pain, attitude, fear-avoidance beliefs, outcome expectations, patients, health knowledge, attitudes, psychosocial, practice, qualitative research, applied psychology, behavioral medicine, rehabilitation.

Level of Evidence: 3

Spine 2015;40:842–850

Psychological factors play an important role in the development of low back pain (LBP) and the progression to persistent pain and disability.[1–4] Key factors include fear avoidance beliefs, catastrophization, self-efficacy beliefs, depression, emotional distress, and outcome expectations.

Many psychological factors associated with poor outcome seem to overlap.[5] These can be conceptualized as contributing to, or resulting from, the perceived threat associated with LBP. Interpreting a stimulus as threatening creates fear (associated with escape and avoidance strategies), hypervigilance, decreased pain tolerance, difficulty ignoring pain, more catastrophizing, and less use of cognitive coping strategies.[6–13]

Understanding the reasons behind these psychological factors is vital if they are to be addressed effectively.[2,14,15] Improved understanding of people's beliefs about LBP may provide a classification of factors that influence perceived threat, thereby providing clinicians with a framework to investigate and address these factors.

This qualitative study aimed to explore the range of attitudes, beliefs, and perceptions present, and analyze how these might influence the perceived threat associated with LBP. We aimed to generate new perspectives and improve understanding rather than examine belief prevalence.

MATERIALS AND METHODS

Data were gathered and analyzed with the framework of Interpretive Description.[16] This methodology aims to inform clinical understanding by identifying themes and patterns

From the *Department of Primary Health Care and General Practice, University of Otago, Wellington, New Zealand; †Institute of Health Research, University of Exeter Medical School, Exeter, England, United Kingdom; ‡Centre for Health Activity and Rehabilitation Research, School of Physiotherapy, University of Otago, Dunedin, New Zealand; and §Department of Psychological Medicine, University of Otago, Wellington, New Zealand.

Acknowledgment date: July 1, 2014. Revision date: September 16, 2014. Acceptance date: November 18, 2014.

The manuscript submitted does not contain information about medical device(s)/drug(s).

A Searchwell grant from the Wellington Branch of Physiotherapy New Zealand funds was received to support this work.

Relevant financial activities outside the submitted work: board membership, consultancy, employment, grants, payment for development of educational presentations, payment for lectures, royalties, expert testimony, travel/accommodations/meeting expenses.

Address correspondence and reprint requests to Ben Darlow, PhD, Department of Primary Health Care and General Practice, University of Otago, Wellington, PO Box 7343, Wellington South 6242, New Zealand; E-mail: ben.darlow@otago.ac.nz

DOI: 10.1097/BRS.0000000000000901

within participant perspectives.[16,17] It values prior clinical and theoretical knowledge as a starting point, which can be challenged and refined through the research.[17,18] The New Zealand Central Regional Ethics Committee approved this study (CEN/11/EXP/014). The methods have been described in depth previously.[19]

Recruitment

Participants from one region of New Zealand were included if they had acute (<6 wk) or chronic (>3 mo) LBP, were 18 years of age or older, and fluent in English. Participants were excluded if they had received back surgery. Participants were purposively sampled to maximize the range of viewpoints recorded in terms of characteristics thought likely to interact with back pain beliefs.[16] These were age, sex, ethnicity, occupation, LBP experience (duration, severity), and health professional interaction. This was achieved by advertising in a range of health care facilities and public spaces and screening respondents. Initial contact was made by telephone, at which time the study was explained and respondents were screened for participation.

Data Collection

Audio-recorded, semistructured interviews were conducted after obtaining written informed consent. A schedule of questions guided interviews; this allowed flexibility to discuss items as they arose (see Supplemental Digital Content 1 Table, available at: http://links.lww.com/BRS/A971, which details the interview questions). Afterward, participants completed a demographic information sheet, the Roland-Morris Disability Questionnaire,[20] and the Tampa Scale of Kinesophobia.[21]

Data Analysis

Interview recordings were transcribed verbatim. Data from participants with acute and chronic LBP were analyzed separately. A thematic framework was created on the basis of concepts identified in the first 3 transcripts. Individual comments were then coded by theme within NVivo 9.2 software (QSR International Pty Ltd, Melbourne, Australia). Transcripts continued to be coded within groups of 3. Either the emergent themes were integrated into the existing framework or the framework was reorganized to incorporate the new perspective, and previous transcripts were reviewed for data related to the new theme.

Data collection and analysis occurred concurrently and informed each other iteratively. Recruitment was suspended when no new themes occurred with 2 subsequent interviews in each participant group (*i.e.*, theme saturation was achieved for both acute and chronic LBP). Detailed theme summaries were circulated and discussed among the entire research team after the sixth interviews and to agree upon theme saturation. Finally, themes from participants with acute and chronic pain were reviewed for similarities and differences. The variety of backgrounds and perspectives within the multidisciplinary research team helped ensure that the research was not biased by any single viewpoint.

RESULTS

Twelve participants with acute LBP and 11 participants with chronic LBP were interviewed. A further 3 eligible respondents with acute pain and 10 with chronic pain were not interviewed because their characteristics were similar to previous participants. Participants had diverse backgrounds, occupations, LBP experience, impairment levels, and fear avoidance beliefs (Tables 1 and 2).

Five main themes emerged: (1) the vulnerability of the back; (2) the special nature of back pain; (3) the prognosis of back pain; (4) activity and back pain; and (5) influences upon beliefs. The first 3 of these themes will be presented and discussed in this article. The theme relating to influences upon beliefs had been published previously.[19] The activity and back pain theme will be described in a subsequent publication.

The thematic framework is illustrated in Figure 1. The diagram relates to the "Vicious Flower" model, which is a common way of representing the contribution of related negative thoughts to the reinforcement of negative self-perceptions. Quotes illustrating themes are presented within the text. Further quotes are presented in Tables 3 to 5.

Vulnerability of the Back

All participants related their LBP to some form of physical injury, damage, or dysfunction. Observations that back pain often starts after trivial events combined with assumptions that pain represents damage to create a perception of structural vulnerability (Table 3). Participants also thought that they could injure their back without being aware that they were "causing damage" at the time.

Participants were often uncertain about exactly what was damaged, especially those with acute pain. The nature and the quality of the pain informed interpretations of what was wrong. Many participants were concerned about potential explanations for their pain, with some tending to catastrophize.

> I believe that they're just out of place, or there's something wrong with the actual vertebrae themselves, whether or not they're cracked, I don't know (ALBP05).

Participants with acute pain wanted the certainty of a diagnosis primarily because they thought this necessary to inform management and prevent recurrence. Participants with chronic pain also identified the need to validate their problem.

In general, participants thought that increases in pain represented more damage and decreases in pain represented some form of healing or recovery. Modulation of pain by nonphysical factors such as anxiety or shifting focus was identified by some participants.

The vulnerability of the back was thought to arise from the way in which it is used, its design, and personal factors. Participants thought that the back was at risk of "overuse" because it is used for "everything" in daily life. They also thought that the back was poorly designed or adapted for

TABLE 1. Characteristics of Participants With Acute Low Back Pain

Participant Code	Age (yr)	Sex	Ethnicity	Occupation	Duration of LBP (d)	RMDQ (0–24)	TSK (17–68)
ALBP01	18	Female	NZ European	Student	5	1	43
ALBP02	29	Female	Māori	Administrator	2	19	41
ALBP03	50	Male	Māori	Student	14	16	44
ALBP04	45	Male	NZ European	Solicitor	30	10	36
ALBP05	19	Female	NZ European	Student	5	12	42
ALBP06	55	Female	NZ European	Doctor	41	4	34
ALBP07	24	Female	Taiwanese	Research assistant	30	14	41
ALBP08	36	Female	Japanese	Early childhood teacher	5	5	43
ALBP09	25	Male	NZ European	Orange juice production	3	14	44
ALBP10	44	Male	NZ European	Clinical psychologist, lecturer	20	1	25
ALBP11	37	Male	NZ European	Baker	4	12	43
ALBP12	52	Female	NZ European	Administrator	4	16	47
Mean (SD)	36.2 (13.1)				13.6 (13.4)	10.3 (6.1)	40.3 (6.0)

RMDQ indicates Roland Morris Disability Questionnaire (scored on a range from 0 to 24, with higher scores indicating greater disability); TSK, Tampa Scale of Kinesophobia (scored on a range from 17 to 68, with higher scores indicating greater levels of fear avoidance beliefs); NZ, New Zealand.

modern life. Personal physical traits (*e.g.*, height and weight) or lifestyle factors (*e.g.*, diet and posture) were also thought to increase the likelihood of subsequent pain.

Participants with chronic pain invariably thought that their own spine was particularly vulnerable due to genetic factors or previous injury or (mis)use. Most participants considered that injury created a "weak point," increasing the risk of subsequent pain. Even when pain resolved, they thought that the underlying problem could resurface at a later date.

> I guess it's always going to be a weak point (ALBP06).

TABLE 2. Characteristics of Participants With Chronic Low Back Pain

Participant Code	Age (yr)	Sex	Ethnicity	Occupation	Duration of LBP (yr)	RMDQ (0–24)	TSK (17–68)
CLBP01	45	Male	NZ European	Doctor	30	10	24
CLBP02	65	Female	NZ European	Administration manager	16	6	25
CLBP03	52	Female	NZ European	Librarian	31	15	57
CLBP04	39	Female	NZ European	Writer/editor	20	7	36
CLBP05	32	Female	NZ European	Performing arts teach/ performer	8	4	37
CLBP06	37	Male	Māori/NZ European	Builder/student	15	13	34
CLBP07	48	Female	Māori	Quality improvement co-ordinator	4	20	48
CLBP08	25	Female	Māori/NZ European	Student	5	4	27
CLBP09	67	Male	Indian	Retired	30	22	49
CLBP10	60	Male	Indian	IT manager	20	10	41
CLBP11	32	Female	NZ European	Sickness beneficiary	9	12	40
Mean (SD)	45.6 (14.1)				17.1 (10.1)	11.2 (6.0)	38.0 (10.5)

RMDQ indicates Roland Morris Disability Questionnaire (scored on a range from 0 to 24, with higher scores indicating greater disability); TSK, Tampa Scale of Kinesophobia (scored on a range from 17 to 68, with higher scores indicating greater levels of fear avoidance beliefs); NZ, New Zealand.

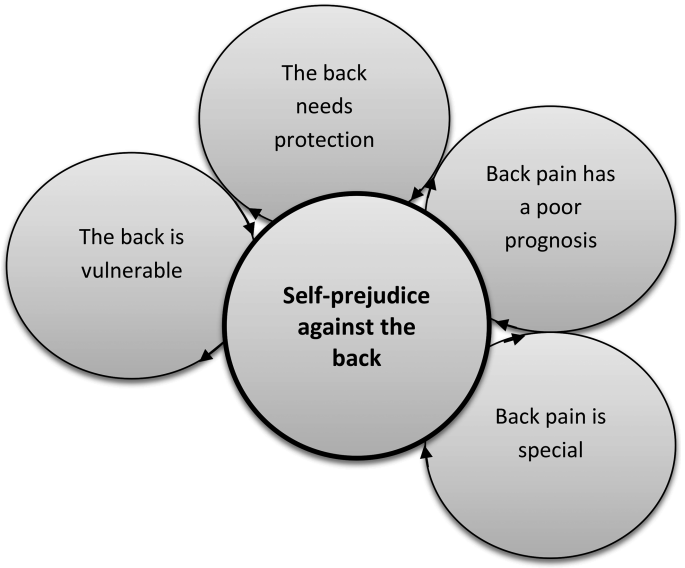

Figure 1. Summary of thematic framework representing the contribution of themes to self-prejudice against the back.

Participants with chronic pain often identified a degenerative element to their problem. Degeneration was generally viewed as a catastrophic diagnosis, associated with concepts of falling apart and "excruciating pain."

> It feels like it's crumbling. Like my back is crumbling and it can't support me (CLBP07).

Activities perceived as placing load upon the back were seen as being dangerous. These usually included lifting and bending, twisting, and sitting. Running, dancing, and digging were also identified by multiple participants.

Protection of the Back

Back pain was often thought to result from a failure to adequately protect the back, and participants often blamed themselves for this. Participants' pain experience reinforced beliefs that the back was vulnerable and indicated that higher levels of protection were required in future.

> I'll be much more vigilant about not straining my back (ALBP09).

Key ways of protecting the back were as follows: rest, being careful with or avoiding dangerous activities, strengthening surrounding muscles, or reducing the danger with lifting or sitting with posture control. Participants with chronic pain saw these strategies as ways of minimizing the impact of LBP upon their lives, whereas those with acute pain viewed these as ways of preventing the development of "a back problem."

> Doing whatever I need to do to strengthen my back so that I don't develop a chronic back problem (ALBP08).

Many participants reported that their back pain did not start while doing the activity they considered responsible but sometime later. They then reviewed their recent activities for one perceived as being sufficiently dangerous to have caused injury. Participants often seemed to dismiss contrasting positive information, which could demonstrate that these activities are actually safe.

> I suspect it's probably from lifting something in the incorrect manner … I haven't done anything [else] overly strenuous in the last week (ALBP09).

The Special Nature of Back Pain

Pain was seen as a function of the back (Table 4). The back protected itself by warning of danger and issuing an instruction to stop and even forcing a cessation of activity. The person, sitting external to this process, needed to listen and respond to the message:

> It's telling me to stop. Because it makes me stop (CLBP07).

The limitations imposed on physical function were very frustrating for participants. Even daily activities such as walking, lying, and sleeping became difficult. On top of these physical impairments, LBP challenged people's financial security because of its impact upon their employment and the cost of treatment and medication:

> I can't do the job, so I'm not getting paid, kind of thing … that's the biggest problem, is the money. Like it costs so much (ALBP11).

Back pain was considered to be special and was viewed as being different to many other pains, even among those who had had significant pain experiences elsewhere. This was due to both the nature of the pain and the complexity of the problem.

> I think it's the worst pain to have (CLBP07).

Consequently, back pain was considered very difficult to understand without personal experience. The inability to see participants' pain made it difficult for others to accept its reality. This could result in participants feeling stigmatized. Consequently, investigation findings seemed to be very important to validate participants' experience.

> I spose it's like anything, if you have something to show, and I mean I sort of, said to [husband] "even a blind person could see that this is not right," it was so obvious [on the MRI scan](CLBP03).

An inability to see the problem also contributed to doubts about whether or not the back had actually healed.

> I don't have as much faith in it healing itself as like say if I got a cut on my arm. Just cause I can't see it healing (ALBP01).

TABLE 3. The Vulnerability of the Back

Subtheme	Quotations From Participants With Acute Low Back Pain (Participant Code)	Quotations From Participants With Chronic Low Back Pain (Participant Code)
Ease of injury	I know you can do lots of permanent damage to your back, and can be in heaps of vulnerable positions (ALBP05)	The back in particular—maybe it's cause all the nerves running through it, or it's a delicate thing (CLBP06)
	In fact it seemed really random. Cause it wasn't like I was causing any strain, and it's a motion that I do all the time (ALBP08)	The spinal part of my back, it can go as quick as sneezing (CLBP09)
Pain represents damage	That I had injured it somehow (ALBP08)	It went right down my leg, so I knew it, something had gone a bit more seriously wrong (CLBP04)
	I think it's something in my lungs, but it might just be in my back, but I don't really know … so it's kind of a bit worrying … I could have like stabbed my lung, or something (ALBP01)	Having that pain there all the time, it just shows me that I do have an injury (CLBP06)
Meaning of increased pain	My assumption would be that I was making it worse (ALBP08)	[increased pain indicated] um, obviously that I'd done some horrible injury (CLBP02)
	I guess just the worrying about it just kind of amplifies that a little bit (ALBP09)	I don't think I'm doing any further damage to myself, even though my body's trying to tell me that I am (CLBP06)
Diagnosis	We should have the right to know exactly what's wrong with it, and yeah, how to deal with it. And um, how to prevent it from happening again (ALBP05)	Confirmation … I'm not nuts, or I'm not, you know, there's a really good reason for being in pain (CLBP04)
Reasons for vulnerability	I just think we're not really designed to sit (ALBP04)	With the amount of movement and exercise that I've done, it's just normal for things to degenerate a bit faster (CLBP05)
	I guess you'd just become more prone to injury—degenerate as you get older (ALBP09)	That's a weak point for me (CLBP02)
	Probably also as a kid, having really soft beds (ALBP04)	It also runs in our family (CLBP03)
Dangerous activities	I was doing it [lifting] so much, and so often, that um, I just didn't—yeah, that it was probably causing damage (ALBP08)	[sitting with] certain postures, and bad postures, you can get, well I can get into trouble (CLBP01)
PROTECTION	To be more careful than I usually am (ALBP05)	I have to look after myself more than that (CLBP04)
Guilt	I shouldn't have been doing what I was doing … As soon as I did it I knew that I had made a mistake (ALBP03)	I think if I had have been more careful with myself, then it mightn't have come on (CLBP07)
Avoiding danger	I just haven't been picking the children up at all … to try and not cause further strain (ALBP08)	I need to look at not doing certain things (CLBP03)
Muscles	Exercises to strengthen my back. Like just so it's not as likely to happen (ALBP09)	You want the muscles to hold your spine in place … just to keep that really secure (CLBP05)
Technique	Bend your knees, you know, take it on-, don't take the weight on your back (ALBP12)	I have to think about how I get down, use my legs as opposed to my back as the winch, or else I will do myself an injury (CLBP01)

The back was personified as an independent entity, capable of acting beyond the control (and best interests) of the person, to achieve its own goals. It was generally viewed as being capricious and unpredictable, requiring participants to faithfully adhere to routines that protect or maintain it:

> It is so sensitive that if I misbehave with my back … then again my back will go rebellious (CLBP10).

Few participants identified the impact of psychological factors upon their pain, but nearly all reported the impact of their pain upon their psychological well-being. Most commonly, participants disclosed that the pain made them depressed. They also discussed it making them feel old, affecting their decision making, and making them abrupt and irritable. This could have an impact upon their relationships with others.

TABLE 4. The Special Nature of Back Pain

Subtheme	Quotations From Participants With Acute Low Back Pain (Participant Code)	Quotations From Participants With Chronic Low Back Pain (Participant Code)
The back warns of danger	Telling me that that something is wrong and I need to be concerned about that (ALBP03)	[Pain] is trying to protect my back, and saying, "you've got to stop doing something, what have you done? What shouldn't you have done? What could you have done?" (CLBP03)
	It's saying try not to do anything at all … you shouldn't be doing it (ALBP11)	It's telling me that I'm not as fit and healthy as I should be … it's telling me that I've got too much weight … getting old, it tells me that (CLBP07)
		Something I'm doing isn't very good for my body (CLBP04)
Impact	I can't walk … I actually can't move … I can't do anything (ALBP02)	I couldn't sit, I couldn't stand, I couldn't bend, I was frozen in in one place (CLBP02)
	If I can't go to work, then you know, you don't get money, you can't pay rent, all those kinds of things (ALBP09)	I think that there's people that don't know the real me, you know, most of the people that I know now have never known me without pain, and I'm completely different (CLBP11)
	It makes you ratty and tired (ALBP12)	There've been days when I can't move, and I just don't go to work (CLBP07)
		You can't look after your kids (CLBP04)
Nature of pain	[It] was excruciating pain, um, the most pain I've ever had, ah, even allowing for the odd bit of childbirth (ALBP06)	A really hard thing to understand, unless you've had it yourself (CLBP08)
Complexity		I think, to a lot of medical profession back pain's just a total conundrum (CLBP02)
Stigma	Like my employer for example—doesn't- I don't think he really believes me (ALBP09)	It's something that can be seen as a bit of a negative (CLBP03)
		There's no real way of proving that I'm in that much pain, or that I'm not lying, that it's not just in my head (CLBP11)
The back as an entity	It's almost like it's whipping me, saying 'no, lie down' (ALBP02)	I still have this issue with wanting to do things even though my back doesn't really allow me to (CLBP06)

The Prognosis of Back Pain

Many participants with acute pain expressed uncertainty about the outlook for their back pain. They were unsure about the back's ability to heal, the likely time frames involved, and the quality of any repair. The risk of a poor outcome was perceived to be very real. This perception was influenced by the back's importance, its vulnerability, its uncertain healing capacity, and seeing the way it interfered with the lives of people with chronic back pain.

> There's always a fear that like I'm going to be like this forever (ALBP07).

TABLE 5. The Prognosis of Back Pain

Quotations From Participants With Acute Low Back Pain (Participant Code)	Quotations From Participants With Chronic Low Back Pain (Participant Code)
What I was afraid of was that I would have the pain kind of chronically … imagining that my life might become like that [friend who has chronic back pain], so that was quite, worrying (ALBP08)	I think all those things are now manifesting themselves in the form of these pains … I can't get rid of it, and I have to manage it (CLBP10)
Some parts of the body just won't repair themselves as they should (ALBP04)	It's got a record of the past … there is quite a lot of scar tissue I imagine (CLBP04)
I do believe it has a big ability to heal itself, but I still recognise that I need a bit of a helping hand (ALBP02)	I've finally come to a place where I can manage it, I feel really good about that (CLBP05)
I think operations are the main ones that are scaring me at the moment (ALBP02)	I know that there are certain things that I'll never be able to do, which is a bit hard sometimes (CLBP05)
I haven't had any experience with back pains, like this before, so I don't actually know what happens after (ALBP05)	At my age I really doubt whether, the ability of the body to come back on its own to the original condition on its own (CLBP10)

Those with chronic LBP generally had negative views about the future. Although many saw the back as being able to heal, the failure of their pain to fully resolve, or recurrence of pain, indicated that *their* back had not healed. Participants thought that their own back may not have healed because of the nature of their injury, not doing the right things, or their age.

Some of the pessimism of those with chronic pain was countered by the knowledge that they had made progress and improved, or a belief that they could manage (if not fix) the problem. However, participants also feared making their back worse, resulting in more pain, damage, or disability:

> You take so much for granted, that when you aren't able to do it, it's just- it's scary, it's frightening (CLBP07).

DISCUSSION

Summary of Findings

Participants viewed their back as being vulnerable and needing protection. Many participants thought that their pain was due to failing to adequately protect their back. Back pain was viewed as being special due to its nature and impact. The back was considered unlikely to heal completely, with a strong possibility of ongoing pain. These beliefs amounted to very negative (mis)representations of the back and seem to augment the perceived threat associated with LBP. Influences upon these beliefs have been described previously,[19] highlighting that information received from health professionals can have an important and long-lasting influence upon beliefs.

Strengths and Limitations

The qualitative methodology allowed an in-depth exploration of participants' underlying beliefs. The sampling frame was designed to explore the range of beliefs present rather than compare differences between sexes or ethnicities. Steps were taken to minimize the risk of researcher bias.

These findings were generated with a group of New Zealand–based participants. The sample size was not predetermined and recruitment continued until theme saturation was reached. The detailed description of participant characteristics and study setting may assist judgments regarding applicability to other settings.[22] Participants with both acute and chronic pain were recruited so that differences and similarities in their beliefs could be analyzed. Participants were demographically similar to the New Zealand populations from which they were drawn,[23–25] and their levels of impairment and fear avoidance beliefs were similar to those found in other New Zealand and international cohorts.[26–29] Although this does not mean that underlying beliefs, upon which these constructs are based, are the same as those in other populations, a large nationally representative survey (using an instrument based upon themes identified by these data) has indicated that these beliefs are prevalent in the broader New Zealand population, and that New Zealand beliefs are comparable with those found internationally.[30]

This study aimed to explore factors that influenced the perceived threat associated with LBP in order to assist clinicians to investigate and address these factors in patients presenting with back pain. Participants who had received back surgery were excluded because it was thought that their beliefs would have been strongly influenced by this process and, therefore, be distinct from the majority of patients who present with nonspecific LBP. Future research could explore beliefs among this group.

Relevant Literature

Participants with acute and chronic LBP had similar ideas about the types of activities that were dangerous for the back, including bending, twisting, lifting, sitting, and running. These beliefs resulted in participants being careful while performing these activities or avoiding them altogether. Other studies have also found that people maintain constant awareness of the back and commonly avoid or modify lifting.[31–33] The rationale that the back must be attended to in order to prevent further damage increased the threat associated with back symptoms. This may be unnecessary given recent systematic reviews have found that bending, twisting, lifting, and sitting are unlikely to be independently causative of LBP.[34–36]

Many participants with chronic LBP blamed misuse or previous injury to their back, a personal predisposition, or degeneration for their ongoing pain.[37] Beliefs that pain was due to something no longer alterable made it difficult to imagine recovery. Sloan and Walsh[38] similarly found that degenerative processes were seen as being permanent and progressive, and few participants with chronic LBP expected improvement.[38]

A diagnosis was thought necessary to inform management and prevent further episodes in participants experiencing acute LBP. This is consistent with findings that patients consider accurate diagnosis to be essential for selecting the correct treatment approach,[39] and information on how to manage back pain and resume normal activities being the most important goals for patients seeking primary health care for back pain.[40] As found previously, those with chronic pain desired a clear diagnosis to legitimize their experience.[37,41–43]

Many participants disassociated their "self" from their painful body part, regarding the back as being a somewhat untrustworthy, capricious entity, which holds many secrets: it could sustain significant injury without adequately communicating this to the person at the time; it could massively vary its capacity from one day to the next; it may not heal; and it does not provide any visual representation, or proof, of its problems. Participants discussed their back enforcing activity limitations and acting outside of their best interests. This view of the back as being independent of the "self" may reduce people's ability to take control of their back pain.

Recommendations and Conclusion

Illness representations are constructed from interpretations of available information to make sense of a health problem,[44,45] and these help determine coping procedures and outcomes.[44–47] The negative (mis)representations of the back found in the current study could be considered analogous to the self-prejudice, which has been described as part of the maintenance of mental disorders.[48] In the case of depression, there

is attentional bias to negative thoughts and information relating to the person, which is dwelled upon while contrasting positive information is dismissed. In the case of the back, this self-prejudice could mean that there is attentional bias toward information, which demonstrates that the spine is vulnerable and some activities are dangerous, as well as toward information indicating that an injury is serious or the outcome will be poor. Learning to rebalance negative and positive information is part of treatment of depression,[49] and a similar process may be useful for LBP.

Self-prejudicial assumptions made by patients about their back may result in them being heavily influenced by information from health professionals, which they interpret as being negative, and rejecting information designed to reassure.[19] Approaching consultations with the understanding that patients may have a self-prejudicial view of their back, which affects how they process information, could assist clinicians to focus upon providing information that is likely to be interpreted positively and exercise caution with information that may reinforce negative beliefs.

➢ Key Points

- ❑ Participants viewed their back as being vulnerable and in need of protection. Back pain represented damage and indicated that they had not adequately protected their back.
- ❑ Back pain was seen as being special and distinct from other pain experiences in its nature and impact.
- ❑ The prognosis for back pain was seen as being uncertain by participants with acute pain, and poor by participants with chronic pain.
- ❑ The combination of these beliefs created a negative (mis)representation of the back. This may affect information processing during an episode of back pain, resulting in selective attention to threatening information, potentially perpetuating back pain.

Acknowledgments

The authors thank the participants for sharing their thoughts and views.

Supplemental digital content is available for this article. Direct URL citation appearing in the printed text is provided in the HTML and PDF version of this article on the journal's Web site (www.spinejournal.com).

References

1. Iles RA, Davidson M, Taylor NF. Psychosocial predictors of failure to return to work in non-chronic non-specific low back pain: a systematic review. *Occup Environ Med* 2008;65:507–17.
2. Iles RA, Davidson M, Taylor NF, et al. Systematic review of the ability of recovery expectations to predict outcomes in non-chronic non-specific low back pain. *J Occup Rehabil* 2009;19:25–40.
3. Linton SJ. A review of psychological risk factors in back and neck pain. *Spine (Phila Pa 1976)* 2000;25:1148–56.
4. Ramond A, Bouton C, Richard I, et al. Psychosocial risk factors for chronic low back pain in primary care—a systematic review. *Fam Pract* 2011;28:12–21.
5. Campbell P, Bishop A, Dunn KM, et al. Conceptual overlap of psychological constructs in low back pain. *Pain* 2013;154:1783–91.
6. Jackson T, Huang X, Chen H, et al. Effects of threatening information on interpersonal responses to pain. *Eur J Pain* 2009;13:431–8.
7. Jackson T, Pope L, Nagasaka T, et al. The impact of threatening information about pain on coping and pain tolerance. *Br J Health Psychol* 2005;10:441–51.
8. Leeuw M, Goossens M, Linton S, et al. The fear-avoidance model of musculoskeletal pain: current state of scientific evidence. *J Behav Med* 2007;30:77–94.
9. Vlaeyen JW, Linton SJ. Fear-avoidance and its consequences in chronic musculoskeletal pain: a state of the art. *Pain* 2000;85:317–32.
10. Eccleston C, Crombez G. Pain demands attention: a cognitive-affective model of the interruptive function of pain. *Psychol Bull* 1999;125:356–66.
11. Khatibi A, Dehghani M, Sharpe L, et al. Selective attention towards painful faces among chronic pain patients: evidence from a modified version of the dot-probe. *Pain* 2009;142:42–7.
12. Crombez G, Van Damme S, Eccleston C. Hypervigilance to pain: an experimental and clinical analysis. *Pain* 2005;116:4–7.
13. Picavet HS, Vlaeyen JW, Schouten JS. Pain catastrophizing and kinesophobia: predictors of chronic low back pain. *Am J Epidemiol* 2002;156:1028–34.
14. Vlaeyen JW, Crombez G. Fear of movement/(re)injury, avoidance and pain disability in chronic low back pain patients. *Man Ther* 1999;4:187–95.
15. Jeffrey JE, Foster NE. A qualitative investigation of physical therapists' experiences and feelings of managing patients with nonspecific low back pain. *Phys Ther* 2012;92:266–78.
16. Thorne S, Kirkham SR, MacDonald-Emes J. Interpretive description: a noncategorical qualitative alternative for developing nursing knowledge. *Res Nurs Health* 1997;20:169–77.
17. Thorne S, Kirkham SR, O'Flynn-Magee K. The analytic challenge of interpretative description. *Int J Qual Methods* 2004;3:1-11.
18. Hunt MR. Strengths and challenges in the use of interpretive description: reflections arising from a study of the moral experience of health professionals in humanitarian work. *Qual Health Res* 2009;19:1284–92.
19. Darlow B, Dowell A, Baxter GD, et al. The enduring impact of what clinicians say to people with low back pain. *Ann Fam Med* 2013;11:527–34.
20. Roland M, Morris R. A study of the natural history of back pain. Part I: development of a reliable and sensitive measure of disability in low-back pain. *Spine (Phila Pa 1976)* 1983;8:141–4.
21. Kori SH, Miller RP, Todd DD. Kinesophobia: a new view of chronic pain behavior. *Pain Mana* 1990;Jan/Feb:35–43.
22. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Beverly Hills, CA: Sage Publications; 1985.
23. Accident Compensation Corporation. *Injury Statistics 2008/2009*. Wellington, New Zealand: Accident Compensation Corporation; 2010.
24. Statistics New Zealand. *2013 Census QuickStats about national highlights*. Wellington, New Zealand: Statistics New Zealand; 2013.
25. Statistics New Zealand. Key labour force measures by qualification, age, and sex. http://nzdotstat.stats.govt.nz/wbos/Index.aspx?DataSetCode=TABLECODE7080. Accessed November 7, 2013.
26. van den Hout JH, Vlaeyen JW, Houben RM, et al. The effects of failure feedback and pain-related fear on pain report, pain tolerance, and pain avoidance in chronic low back pain patients. *Pain* 2001;92:247–57.
27. Luning Bergsten C, Lundberg M, Lindberg P, et al. Change in kinesophobia and its relation to activity limitation after multidisciplinary

rehabilitation in patients with chronic back pain. *Disabil Rehabil* 2012;34:852–8.
28. Hendrick P, Milosavljevic S, Hale L, et al. Does a patient's physical activity predict recovery from an episode of acute low back pain? A prospective cohort study. *BMC Musculoskelet Disord* 2013;14:126.
29. Sieben JM, Vlaeyen JWS, Tuerlinckx S, et al. Pain-related fear in acute low back pain: the first two weeks of a new episode. *Eur J Pain* 2002;6:229–37.
30. Darlow B, Perry M, Stanley J, et al. Cross-sectional survey of attitudes and beliefs about back pain in New Zealand. *BMJ Open* 2014;4:e004725.
31. Keen S, Dowell AC, Hurst K, et al. Individuals with low back pain: How do they view physical activity? *Fam Pract* 1999;16: 39–45.
32. Briggs AM, Jordan JE, Buchbinder R, et al. Health literacy and beliefs among a community cohort with and without chronic low back pain. *Pain* 2010;150:275–83.
33. May S. Patients' attitudes and beliefs about back pain and its management after physiotherapy for low back pain. *Physiother Res Int* 2007;12:126–35.
34. Wai EK, Roffey DM, Bishop P, et al. Causal assessment of occupational bending or twisting and low back pain: results of a systematic review. *Spine J* 2010;10:76–88.
35. Roffey DM, Wai EK, Bishop P, et al. Causal assessment of awkward occupational postures and low back pain: results of a systematic review. *Spine J* 2010;10:89–99.
36. Wai EK, Roffey DM, Bishop P, et al. Causal assessment of occupational lifting and low back pain: results of a systematic review. *Spine J* 2010;10:554–66.
37. Borkan J, Reis S, Hermoni D, et al. Talking about the pain: a patient-centered study of low back pain in primary care. *Soc Sci Med* 1995;40:977–88.
38. Sloan TJ, Walsh DA. Explanatory and diagnostic labels and perceived prognosis in chronic low back pain. *Spine (Phila Pa 1976)* 2010;35:E1120–5.
39. Dima A, Lewith GT, Little P, et al. Identifying patients' beliefs about treatments for chronic low back pain in primary care: a focus group study. *Br J Gen Pract* 2013;63:490–8.
40. Turner JA, LeResche L, Von Korff M, et al. Back pain in primary care. Patient characteristics, content of initial visit, and short-term outcomes. *Spine (Phila Pa 1976)* 1998;23:463–9.
41. Verbeek J, Sengers MJ, Riemens L, et al. Patient expectations of treatment for back pain: a systematic review of qualitative and quantitative studies. *Spine (Phila Pa 1976)* 2004;29:2309–18.
42. McIntosh A, Shaw CF. Barriers to patient information provision in primary care: patients' and general practitioners' experiences and expectations of information for low back pain. *Health Expect* 2003;6:19–29.
43. Lillrank A. Back pain and the resolution of diagnostic uncertainty in illness narratives. *Soc Sci Med* 2003;57:1045–54.
44. Leventhal H, Leventhal EA, Contrada RJ. Self-regulation, health, and behavior: a perceptual-cognitive approach. *Psychol Health* 1998;13:717–33.
45. Hagger MS, Orbell S. A meta-analytic review of the common-sense model of illness representations. *Psychol Health* 2003;18:141–84.
46. Schulz PJ, Hartung U, Riva S. Causes, coping, and culture: a comparative survey study on representation of back pain in three Swiss language regions. *PLoS One* 2013;8:e78029.
47. Foster NE, Bishop A, Thomas E, et al. Illness perceptions of low back pain patients in primary care: what are they, do they change and are they associated with outcome? *Pain* 2008;136:177–87.
48. Padesky AP. Schema as self-prejudice. *Int Cogn Ther Newsletter* 1990;6:6–7.
49. Padesky AP. Schema change processes in cognitive therapy. *Clin Psychol Psychot* 1994;1:267–78.