



Original Article

'Talking a different language': a qualitative study of chronic low back pain patients' interpretation of the language used by student osteopaths



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ABSTRACT

Background: A growing body of research evidence has identified psychosocial factors to be important in the management of low back pain (LBP). Evidence suggests that healthcare professionals have a considerable influence on patients' attitudes and beliefs. Few studies have investigated how patients experiencing LBP interpret the language used by their osteopath during their consultation and the impact of language on their attitudes and beliefs of their LBP.

Objectives: To explore and describe how patients with acute or chronic LBP interpret the language used by student osteopaths when explaining their diagnosis, and the impact their interpretation has on their attitudes and beliefs of their LBP.

Method: Semi-structured qualitative interviews were conducted with a purposive sample of nine patients experiencing LBP who had recently attended an osteopathic teaching clinic in the UK. Interviews were transcribed verbatim and elements of grounded theory were used as a framework for data analysis.

Results: Participants expressed a range of interpretations in response to the language used when discussing their LBP. The use of medical words, metaphors and analogies, reassurance and the patient-practitioner relationship were identified as factors influencing the level to which participants engaged, taking an active role in their care.

Conclusions: The language used by student osteopaths' influences patient beliefs about LBP in a variety of ways. The current study furthers understanding of how language contributes to these beliefs, identifying ways through which communication can contribute to improved healthcare through enhancing patient engagement.

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Implications for practice

- The language used by student osteopaths influences patients' LBP attitudes and beliefs in a variety of ways.
- The language used to explain and describe LBP to patients can influence the level to which they engage and take part in their own care and management.
- Educators working closely with students should not promote models and theories of osteopathy which emphasise physical and pathbiomechanical explanations/descriptions of LBP.

- Biomedically orientated descriptions may engender fear and disengagement in patients, and construct unhelpful beliefs and negative attitudes towards their LBP.

1. Introduction

Rudyard Kipling's famous quote "Words are, of course, the most powerful drug used by mankind" [1] p. 237) illustrates how the spoken word can have a strong impact on individuals' feeling and self-perception. Neuroimaging research shows that pain-related words can influence the central nervous system, contributing to the perceived threat associated with the experience of pain [2]. Language is essential to communication and a crucial part of creating meaning of the individual lived-experiences of the internal world (the body) and outside (social) world [3]. The same word can

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mean different things to different people, and this meaning is co-constructed through social interaction [4] and is dependent upon the interpreter's values and beliefs [5].

Effective language and communication is considered an important part of osteopathic clinical practice. In the UK, Australia and New Zealand, current osteopathic practice standards emphasise the requirement for practitioners to communicate effectively in order to provide safe and effective care [6–8]. Verbal communication is more than just an exchange of words, it helps to build trust and confidence and therefore plays a fundamental role in developing and maintaining a therapeutic relationship [9]. Furthermore, evidence suggests that effective communication (e.g. reassuring and validating communication) has a positive effect on patients' emotions relating to their musculoskeletal pain [10,11]. A review of practitioner-patient communication by Street Jr. et al. [9] identified an association between communication and health outcomes, and identified two pathways through which this occurs: A direct pathway - influencing emotions such as hope, reassurance, fear and anxiety, or indirectly through gaining patient understanding and trust in treatment aims [9]. It concluded that a deeper understanding of the specific aspects within communication is needed to see how and why this occurs [9].

In the UK, the National Institute for Health and Care Excellence (NICE) estimates that low back pain (LBP) affects about one third of the adult population each year [12], and is estimated to cost an annual £12.3 billion [13]. However, the burden of chronic LBP extends deeper than medical costs alone. Evidence indicates that chronic LBP (CLBP) negatively impacts upon self-image [14,15], psychological health, personal relationships, and CLBP is associated with higher levels of depression and anxiety [16]. Psychosocial factors are well recognised as important predictors for both the initial onset of LBP and chronicity [17,18]. For people experiencing CLBP, attitudes and beliefs can present barriers to recovery as well as influence pain perception and response to treatment [18]. Although the experiences, attitudes and beliefs of individuals experiencing CLBP have received some attention in the context of osteopathy [15,19], there has been little primary research exploring what influences the beliefs of LBP patients receiving osteopathic care. A cross-sectional survey from New Zealand suggests that negative views about the back and back pain are prevalent amongst LBP patients, and are associated with reduced confidence in movement of the back [20]. Low expectations of recovery, depression and avoidance of movement, or activities that might cause pain or injury, have all been associated with poorer outcomes [21]. Qualitative research has offered an insight into the nature and context of individual LBP patients' views. For instance, a qualitative study by Darlow et al. [22] identified that information from healthcare professionals was often interpreted by patients with LBP (acute and chronic) as meaning that the back is vulnerable and requires protection. This resulted in some participants experiencing feelings of anxiety, avoidance of activities and frustration when their pain continued [22]. A review of qualitative research investigating the role of healthcare practitioners in helping people suffering from CLBP, suggests that gaining an understanding of the individuals' pain experience is imperative for practitioners when adopting person-centred approach [15]. Communication has been perceived by patients as the most important factor in their care [23,24]. Individuals consulting practitioners appreciate clear explanations of their LBP as well as self-management, treatment aims and reassurance [23]. Such information should be delivered in a way that is individual to their needs [25]. Theories of health behaviour suggest that what patients think and believe about their LBP affects their behaviour [26]. Therefore, how patients interpret the explanation regarding their diagnosis may play an important role in the amount of control an individual perceives they have in

managing their LBP.

Healthcare professionals have been found to have a strong influence upon the attitudes and beliefs of people with LBP, with information and advice having lasting effects upon patients' beliefs [22,27]. Similar findings were demonstrated in a qualitative study by Stenberg et al. [28] where healthcare professionals seemed to influence the views and beliefs towards physical activity of Swedish men and women, who were experiencing neck and back pain. Explanations given by healthcare practitioners appeared to reinforce pain beliefs relating to physical activity enhancing fears of damage or, motivating participants to engage in exercise [28]. However, further research is needed to explore the transferability of these qualitative studies to an osteopathy context in the UK and elsewhere.

Exploring how patients interpret information has proved to be valuable in other healthcare professions. For example, a qualitative study conducted in two Rheumatology outpatient clinics in the UK, identified that patients did not always interpret reassurance in the way that medical doctors had intended. Participants' interpretation of the doctor's words were constructed in accordance to their own views and experiences [29]. It appears that people experiencing LBP often misinterpret commonly used medical terms. For example, a study by Barker et al. [30] demonstrated that patients' perception of the meaning of 'medical words' were often different to the intended meaning of the healthcare professional. The study included a wide range of practitioners involved in the management of patients with LBP; however osteopathy was not well represented.

The aim of this study was to explore how patients with LBP interpret the language used by student osteopaths when explaining their LBP diagnosis and what influence this interpretation might have on patient attitudes and beliefs about LBP.

2. Methods

The methods are reported according to the Consolidated Criteria for Reporting Qualitative Research (COREQ) [31].

2.1. Study design

The study adopted an interpretive qualitative research design, using constructivist grounded theory as a framework for data collection, analysis and conceptualisation [32]. An interpretive approach to grounded theory [33] sought to construct new and contextual knowledge surrounding patients' subjective experiences and interpretations of the explanation provided to them about their LBP.

2.2. Participants

Nine participants took part in the research. All participants were recruited from a purposive sample of patients currently being treated for LBP at the British School of Osteopathy (BSO) General Clinic. Purposive sampling was used to enable a range of experiences to be explored [34]. Table 1 presents a summary of participants' characteristics.

2.3. Recruitment of participants

Participants were recruited through posters displayed within the BSO clinic. Patients who expressed an interest were screened via email or telephone to ensure they met the inclusion criteria (Table 2). A participant information sheet was emailed or given directly to the participant. A two week cooling off period between recruitment and interview was observed in order to provide

Table 1
Characteristics of participants.

Participant number	Gender	Age (Years)	Occupational field	Duration of LBP (Years)	Number of appointments at the BSO	Previous consultation for LBP
P1	Female	35	Healthcare	2	2	Physiotherapist, chiropractor, A+E
P2	Male	44	Healthcare	21	2	Osteopath, physiotherapist, chiropractor
P3	Male	31	Restaurant/food services	6	5	GP
P4	Female	67	Retail customer service	25	5	GP, chiropractor physiotherapist
P5	Male	53	Finance	36	2	GP, A&E
P6	Female	81	Retired	30	5	GP, physiotherapist,
P7	Male	42	Corporate business	20	3	GP, rheumatologist, surgeon, physiotherapist
P8	Male	55	Education	2–3	5	Physiotherapist
P9	Male	69	Retired	30	5	GP

Table 2
Inclusion and exclusion criteria.**Inclusion criteria**

- Patients who had attended between 1 and 5 appointments at the BSO for treatment of LBP.
- Patients experiencing either acute (<3 months) or chronic (≥3 months) LBP.

Exclusion criteria

- People under the age of 18
- Students studying at the BSO – as their interpretation of language will be informed by their osteopathic education
- Non English speaking patients – due to the difficulty in obtaining data and the potential for misinterpretation.

participants with adequate time to fully consider their involvement in the study.

3. Data collection and analysis

Semi-structured interviews were conducted with participants and analysed using the following elements of grounded theory (GT) as a framework for data analysis: coding, memo writing and diagramming [32]. Grounded theory enabled a flexible and focused approach to explore in-depth the personal experiences and interpretations of participants in relation to the language used by student osteopaths when discussing their LBP diagnosis [32]. A constructivist approach to GT was adopted to help understand the meanings of words and experiences co-constructed by participants during interviews, and the interaction of the researcher with the data during analysis helped to further develop data into the study findings [32].

After providing informed consent participants were asked to complete a short questionnaire to obtain socio-demographic data (age, gender, employment status, LBP history) to facilitate purposive sampling and data analysis later on. Interviews were conducted face-to-face at the BSO Clinic by the main researcher (KC), who was a female student in her final year of the Masters of Osteopathy course at the BSO. All but one participant had no prior relationship with the researcher. Throughout the study, the researcher critically reflected on the possible influence that this relationship may have had on the data analysis and interpretation, so as to minimise any potential bias. Finally, only the researcher and participant were present during the interview.

An interview guide was developed following review of the

literature and in discussions with the second researcher, a practicing osteopath with experience in qualitative research (OT) (Table 3). Initially opening questions were asked to help build the researcher-participant relationship and trust [35] thereby enhancing credibility of the data generated [36]. Open questions were then used to facilitate the collection of rich data and encourage detailed information and stories to develop. Prompts were used to further explore participant responses and investigate their individual meaning rather than make assumptions about meaning [32]. In line with GT methods, data collection and data analysis occurred concurrently, meaning that during data collection the interview questions were altered to focus on and explore further important areas that developed from data analysis [32].

Interviews lasted between 35 and 60 minutes, and were audio recorded and transcribed verbatim by KC. Transcripts were read and re-read by KC to facilitate data immersion [37]. This allowed the researcher to compare data between and within participants, to explore and analyse differences and similarities [32]. Data collection and analysis occurred until no new categories and insights could be constructed and a point of theoretical sufficiency was reached [38].

3.1. Coding

Initially line-by-line coding was used to closely examine the data, and identify information of importance to both the researcher and participant [32]. Focused coding was used later to centre on the most significant codes and test these against the data [32]. The codes were then separated and the results were used to develop categories which captured the variation and different dimensions

Table 3
Example interview guide.

- 1) Can you tell me briefly about your lower back pain?
- 2) Thinking about your recent osteopathy appointments at the BSO, can you tell me about how your osteopath explained/described your lower back pain?
- 3) What was it like for you to receive an explanation for your lower back pain?
- 4) How has the explanation provided by your student osteopath at the BSO affected you? How did it make you feel?
- 5) Thinking about your recent appointments, was there anything the student practitioner said during the process that you didn't understand or that concerned you?
- 6) Is there anything you would like to ask me, or feel you would like to add?

Table 4

Example of line-by-line coding. Participants' words or phrases which informed the codes are in bold.

Interview data	Example of line-by-line coding
Spondylosis , I think now that's what he meant that's the dehydration of the discs or something along those lines , he hadn't really made it obvious that that's the case, at the time I'm thinking scoliosis and I'm thinking I've got a twist in the spine and now he's also telling me I've got a dehydration of the disc.	Biomechanical diagnosis Reflecting upon the meaning Feeling uncertain about the meaning Communication was ineffective Confusing words and terms Diagnosis in the context of himself Feeling overwhelmed

of the data. An example of line-by-line coding is provided in Table 4.

3.2. Memo writing and diagramming

Memo writing and diagramming was used throughout data collection and analysis as reflexive and analytical tools to facilitate the researcher's interpretation of the data, and identify bias which could be checked with the data [32]. Diagramming allowed visual comparisons of the data be made and to help develop relationships between categories and sub-categories [32]. Memos and diagrams contributed to the study's audit trail, enhancing dependability and confirmability of the study [36].

4. Trustworthiness

Several strategies were used to enhance the trustworthiness of this qualitative study [36], these are summarised in Table 5.

5. Findings

Twelve people responded to advertising. The researcher was unable to contact two participants and one participant did not meet the inclusion criteria. The final sample included nine participants (Table 1). Participants represented a wide age range (31–81 years) with varying histories of LBP, all were of chronic duration (>3 months). Participants provided a detailed narrative of their LBP and their experiences and interpretations of the explanations provided by their student osteopath. One overarching core category of 'Feeling Engaged' was developed with the following sub-categories:

- Jargonising
- Using metaphors and analogies
- Evoking emotions
- Caring for the person

Table 6 summarises these categories. The core category followed by the four sub-categories are presented in the following section, and are supported by quotations from participants.

6. Feeling Engaged

Participants expressed a range of views and experiences with regards to how the language used by their practitioner influenced their level of involvement in their own care. Primarily, language was important in facilitating participant understanding of their pain. Gaining an understanding was highly valued by all participants as it provided answers to some of their questions and aided their understanding of the treatment aims.

Finally there's some sort of answer, like there could be a light at the end of the tunnel (P1)

I need to have everything explained to me ... then I feel comfortable because then I can understand what they are doing (P5)

For some participants (P3,P4,P6), their interpretations caused them to become engaged in their own care. This meant feeling more empowered, their knowledge increased which enabled them to feel more in control of their pain and were able to manage it. For example, when participant 3 was asked how he would feel if his back pain reoccurred, he commented:

I don't think it [LBP] will reoccur, because now I understand what the issue is. I'm going to take it into my own hands and try to deal with it (P3)

Whilst for other participants (P2,P6,P7) their interpretation of some of the language used in the explanation had a strong impact on their feelings, and they appeared to feel less engaged in their own management and felt less control in managing their LBP:

I'm turning into an old man, I'm not going to be able to do the things I can do (P2)

Obtaining a clear understanding of their LBP also appeared to enhance trust, interest and confidence in the treatment plan, for example:

The problem has been identified and I know that what we are doing is the right course of action ... I feel a bit more confident (P3)

Once I had that explanation ... I have faith that the people are going to know what to do with that and take care of it (P7)

Gaining an understanding of their LBP, having trust and confidence in the explanation and treatment aims appeared to lead to higher levels of engagement in respect to the decision-making and personal behaviours pertaining to their own care. Consequently, participants' interpretation of the language used by practitioners appeared to either positively or negatively influence participants' engagement in their own care (Fig. 1).

7. Jargonising

All participants identified a specialised language or osteopathic/medical terms as used by practitioners when explaining their LBP, and this appeared to influence their own understanding, for example:

My understanding of what's causing the pain is different [now]. I was thinking about [my] bones, but now I think about the relationship between muscles and bones (P8)

Jargonising involved the different ways in which participants were influenced by words they perceived as a specialised language. Some participants perceived themselves to lack the ability to understand or to appreciate medical language and terms used (P1,P2,&P4) and consequently felt less engaged and were less willing to be honest and open with the practitioner.

A word beginning with "A-N" ... I've no idea what they were talking about ... You just sort of switch off, you nod your head as if you pretend you understand but you don't really. There's no way of making a laymen understand anything they're saying (P2)

Table 5
Strategies used to enhance the trustworthiness of the study.

	Description [36]	Strategies
Credibility	Confidence that the research has obtained an accurate interpretation of the meaning of the data which reflects the experience of participants.	Immersion in the data: Time was spent (14 months) engaging with the data to become immersed. Member checking: Participants were invited to read through the transcripts to confirm the accuracy of the data and encouraged to make any further comments [37]. Development of a trusting researcher-participant relationship with the participant, to encourage participants in disclosing detailed information and their truths. All interviews were performed immediately after the participants' consultation to enable accurate recollection of their experiences, enhancing credibility of the research. Peer-debriefing: Discussions with individuals not involved in the study provided critical feedback on the findings and helped to review codes, categories and findings.
Confirmability & Dependability	The degree in which the participants can relate to the data. Whether the findings of the study offer a dependable and realistic interpretation of the view held by the participants.	Audit Trail: Memos, diagrams, field notes, and interview transcripts were used to record details of data collected during the study and provide evidence of the analysis. Participants were reminded that there were no right or wrong answers. The researcher emphasised their interest in the participants' interpretation of the language used by the student osteopath.
Transferability	The extent to which the ideas generated may be applied to other populations or situations, and may be considered the theoretical generalisability of the findings.	Writing rich and contextual accounts so that the reader can assess the resonance and transferability to their own practice realities.

Yeah, it's when the vertebra are fused together, I've told my brain to ignore that because I'm not really interested in that (P4)

Alternatively, other participants expressed a desire to understand what the medical words meant in case of their LBP and perceived the language as helpful to their understanding (P3,P5,P7). However, for these participants using medical terms seemed to construct beliefs that their lower back pain was a biomechanical problem:

I understand certain words but if I don't I question them ... I want to know and understand more about what it means in my condition (P3)

You understand its muscle and you need to get that flexion (P3)

8. Using metaphors and analogies

Participants used metaphors and analogies to provide rich, detailed and visual descriptions of their interpretations of the explanation given to them by their student practitioner. Metaphors appeared to help many participants remember what the practitioner had said during the explanation. Many analogies expressed

by participants appeared to emphasise the biomedical and anatomical aspects of their LBP:

It's a bit like a horse's tail where the nerve will then spread out and go to the groin area and down the legs (P5)

Some analogies appeared to be helpful to participants in gaining an understanding of the biomechanical components of their LBP. However, participants' level of engagement seemed to be related to how well this linked to treatment aims, for example:

My back was like a rusty door and every time you opened and closed it, it got a little bit looser until that door could open freely ... that really explained the problems and the solutions (P3)

In contrast, for some participants the use of some analogies by the student osteopath facilitated a lower level of engagement:

She [the osteopath] was talking about a donut with jam in between. That I can understand, with the discs, but didn't help me work out a way to fix it (P2)

One participant (P7) described the explanation provided by their student osteopath to include non-biomechanical factors

Table 6
Summary of categories and illustrative quotes from participants.

Category	Sub categories	Quotes
Feeling Engaged	Jargonising	<i>And the words they described, I can't remember, no I don't know. It's like a different language (P1)</i> <i>They explain the long words, but I never remember the long words (P4)</i>
	Using metaphors and analogies	<i>She used a metaphor, a sort of like an analogy for the dehydration. She was talking about a donut with the jam in between. That I can understand (P2)</i>
	Evoking emotions	<i>In one way, it [the diagnosis] subtly reassures you that you're dealing with professionals who know a language that you don't know, and they communicate in this language that you don't understand. So there's a certain kind of reassurance about it (P8)</i>
	Caring for the person	<i>When they say 'osteoarthritis' I think the fear comes in, and you think 'oh my goodness' (P4)</i> <i>It's personal ... so it [the explanation] gave me confidence. I didn't feel so low when I walked out the door and I knew that I wanted to come back for the next session because it was positive experience (P3)</i> <i>I thought 'oh dear, oh dear, how many years have I got before this happens?' (20% loss of function) and he was quite laidback about it 'Oh it might be years' he said 'It might be years so don't worry about it' (P6)</i>

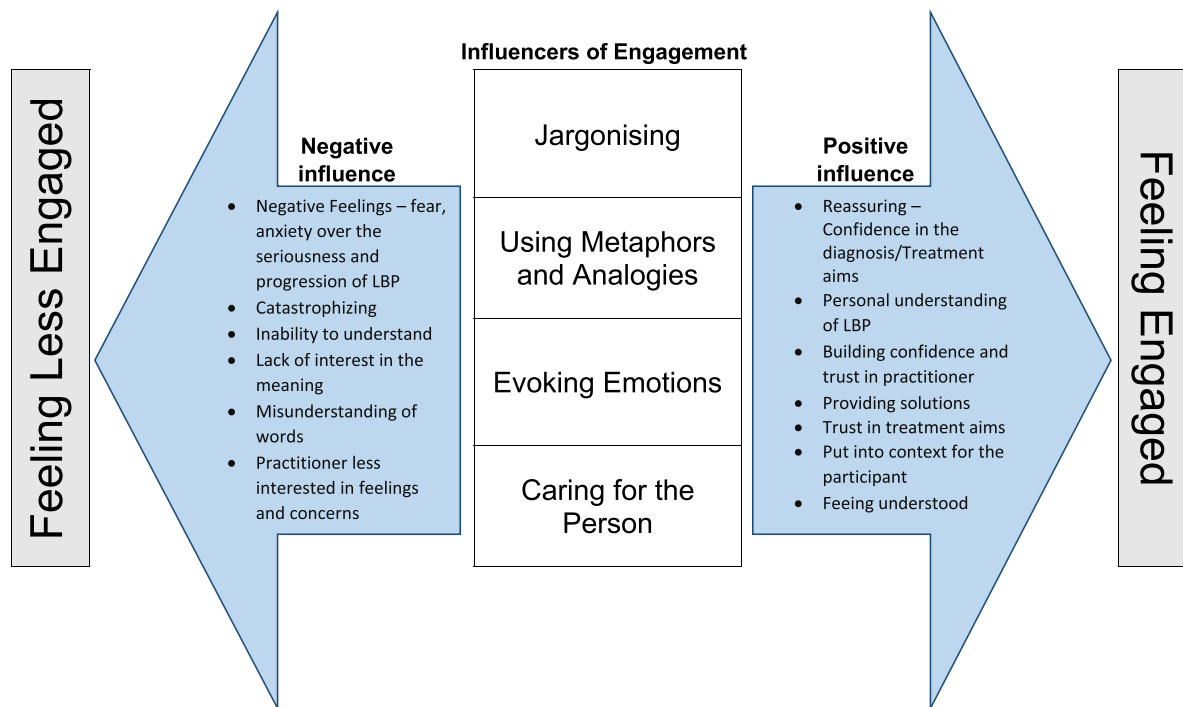


Fig. 1. Participants' interpretations of the language used by their consulting student osteopath.

which may contribute to their CLBP and appeared to help develop a clearer understanding of the mechanisms through which this occurred:

Your lower back has a sort of memory and is overreacting and so you are over cautious, unconsciously you focus on pain (P7)

Participants also used metaphors to convey their own feelings and emotions, for example:

It felt like the lower back had an elastic band sort of snapping feeling (P3)

Just feels like a knife, travelling down the inside of the leg ... that sort of worries me (P2)

For many participants, it appeared that employing metaphors and analogies when describing their LBP diagnosis was perceived to be a useful form of communication.

9. Evoking emotions

The words used within the consultation evoked strong emotional responses from participants. When medical language was used in discussing their LBP, several participants (P3,P4,P5,P8) reported feeling reassured. Reassurance appeared to occur when participants' discussed alterations in their beliefs and understanding about their LBP, resulting in them feeling more confident and trusting in the practitioner's skills and knowledge.

You break it down to make it understandable to give people confidence ... It's the understanding and knowing that it's not going to be a physical impairment that could potentially be going on for years and years (P3)

In contrast, some participants (P2, P6 & P7) expressed negative

feelings about the medical words used in the consultation. For example, when discussing how it felt when he heard the term 'degeneration' of the disc the participant replied:

It's like you are getting old, 75 or 80 years old. There is a part of your body that is twice as old as your real age so you are going to die like a tree which is completely cut from it's fluid of life (P7)

In particular, such participants reported experiencing anxiety over what this meant for them and the progression of their LBP. Where reassurance was not provided effectively participants appeared to overly worry and feel they had no control over managing their LBP, for example:

I understood what he meant by degeneration as sort of like a fading away ... he said a horrible arthritic word, scoliosis or spondylosis, and then he said degeneration and I thought, right my backs bugged (P2)

10. Caring for the person

The sub-category of caring for the person describes elements of the patient-practitioner relationship that participants considered key to developing trust, respect and empathy. Participants who felt that the explanation and advice given had been carefully considered and tailored to them felt more confident in the treatment and appeared more likely to be engaged in their care.

Actually having that package put together for you like a bespoke package, let's say of healthcare, it's personal. So it really did kind of, it give me the confidence (P3)

Participants appeared to value this personal approach, implying the information provided by the student osteopath was engaging through collaboration:

When I went to other treatment ... I felt like they were more didactic ... But I didn't have so much confidence in that Maybe it was because you felt more like you were on a production line or something ... I just felt less of an individual (P8)

In contrast, participants who felt that their care was less personalised considered communication skills and time pressures to be the main contributing factors, this resulted in them feeling uninvolved in the consultation:

The tutor comes in to talk to the student and he more or less ignores me ... talking as if I'm not here ... you sit there thinking what's going on here? (P9)

The tutor, he seemed in a rush and I was a third party and it wasn't fantastic (P2)

Participants P2 & P6 felt that the tutor practitioners were dismissive of their feelings and concerns around unknown medical words. This resulted in participants feeling a lack of respect for their concerns and a breakdown in the patient-practitioner relationship causing them to feel they were less able to take an active role in their care, for example:

He said, "Don't worry about it ... you know it all sounds pretty bad, but don't worry about it" ... I was facing down, I just stuck my thumbs up and don't know if he thought that was yes, that's absolutely fantastic but, but it wasn't (P2)

11. Discussion

The aim of this study was to explore and describe how people presenting to a teaching clinic with LBP interpret and experience the language used by student osteopaths when explaining their LBP diagnosis and what influence this might have on their attitudes and beliefs related to their LBP. The findings suggest that the type and nature of the language used by student practitioners was fundamental to facilitating patients' understanding of their pain and engagement in their own care. This appeared to influence participants' attitudes and beliefs towards the effectiveness of their management and treatment, which is consistent with current research [27,39,40]. The findings identified variations in the way participants interpreted the language used within the consultation. These interpretations were shaped by the type of language used (medical jargon/metaphors/analogies), participant feelings and emotions, and being cared for as a person. Analysis of the impact of language identified a major category - feeling engaged. This category represented how language influenced participants' feelings and beliefs towards taking an active role in their care. Encouraging patient engagement is recognised as a key component to providing quality healthcare [41,42]. The definition of engagement and how it may lead to improved outcomes varies [43]. For example, Coulter [26] emphasised engagement as a process involving the patient and practitioner working together, to encourage patient involvement and to support informed decisions about their care [26]. Findings of this present study also suggest that language helped participants to understand their pain which promoted feelings of trust and confidence in the diagnosis and treatment aims, expectations of recovery, and a collaborative partnership.

11.1. The influence of language on patients' beliefs

Patients' interpretation of the language adopted by the student

osteopath influenced their beliefs about the nature and cause of their LBP. These findings were consistent with those previously identified [22,27], which concluded that healthcare professionals had a strong influence on the attitudes and beliefs of people experiencing LBP. The experiences of some participants in this study reflected those described in research conducted by Barker et al. [30], which demonstrated that medical words could be interpreted by participants in a negative way, contributing to the perceived threat surrounding LBP. Participants felt anxious about the meaning of these words for them and were concerned about their ability to perform their job or daily activities. Participants felt they had less control and influence over their LBP, which likely represents a decrease in self-efficacy [44]. A review by Main et al. [18] suggests patients' views about the nature of LBP and their self-efficacy beliefs are amongst the most important beliefs to be considered with regards to patients' expectations and responses to treatment. Research conducted by Dima et al. [40] further highlight the importance of explaining beyond the "diagnostic label" [40]; p. 495) to patient involvement and engagement.

The findings of this present study suggest that practitioners need to critically evaluate the words they choose to use with their patients during clinical consultation. Practitioners should recognise that patients are likely to have pre-existing beliefs around the meaning of common terms related to LBP, and it is suggested that emphasising pathoanatomical terms to communicate the diagnosis of LBP be avoided, as these may create negative thoughts and disengaging behaviours in relation to their pain and care.

In contrast, for some participants the use of medical language appeared to enhance levels of engagement. It prompted participants to ask questions and so encouraged active participation in the consultation. Grande et al. [45] recognise this as patient activation in their proposed model of patient engagement. This difference in the interpretation may be a result of the reassuring effects of language upon the participants. The findings of this present study show many similarities when compared to research exploring LBP patients' interpretation of reassurance [10,11,29]. For example, Holt et al. [46] explored the interpretation of reassurance by GP's in the UK. Participants' feelings, experiences and beliefs, alongside the patient-practitioner relationship, were similarly found to influence participants' perception of reassurance. The use of language to facilitate the development of a clear understanding of their LBP and how to resolve it, corresponds with concepts of explicit reassurance identified by Holt et al. [46]. Implicit reassurance related to participants who felt the language demonstrated expertise, knowledge and experience. This helped establish rapport, trust and confidence in the practitioner [46]. Explicit reassurance was perceived to be the more effective form, suggesting that information and explanations enhanced engagement and self-management [46].

The findings of this study suggest that the language used may inadvertently reinforce patient negative beliefs of the biomechanical/anatomical cause of their LBP. Participants' experience of medical terms and the use of biomechanical/anatomical metaphors and analogies promoted an understanding that their pain was primarily due to areas of dysfunction and damage within the back. Such language may lead to patients taking a more passive role in their care, feeling like the practitioner is there to "save the patients' body or body part" ([47]; p. 314). This was apparent for some participants in this study. Although Darlow [19] suggests that explanations focusing on a structural/anatomical cause of LBP were more likely to result in decreased self-efficacy, participants' also reported greater confidence in performing activities following the explanation.

Metaphors and analogies appear to be valuable communication tools for clinicians. The findings suggest an engaging effect on participants, via enhancing their understanding of the explanation

[26]. In a randomised-controlled trial, Gallagher et al. [48] identified metaphors as an effective tool to explain the biological processes involved in chronic pain. The study found that in some instances metaphors and analogies engaged patients' memory, attention and learning, and had the potential to reorganise previous meanings [48].

The findings also highlight that when considering the impact of language on patients' beliefs it is important to acknowledge the individual context of each patient. Language influenced participants' views and beliefs in different ways. Appreciating these differences and tailoring the explanation to the individual appeared to influence patient engagement. This concept of person-centred care appears to be incorporated in some models of osteopathic practice [33,49]. This study supports evidence from other healthcare professions that a person-centred and individualised approach to healthcare is of great value to patients [15,24,25]. Some participants expressed a desire to understand the meaning of unfamiliar words or medical terms for them personally. Where unfamiliar words evoked feelings of anxiety and concern for participants, practitioners' efforts to reassure them using phrases such as "don't worry about it", seemed to contribute to a perceived lack of person-centred care. In these cases, participants felt that the student osteopath failed to acknowledge and understand their concerns about their LBP, and subsequently participants felt dismissed, invalidated and anxious. The concept of validation and its impact on emotions and adherence was investigated in an experiment by Linton et al. [10]. Conveying an acceptance that the patients' experience is real (validation) was shown to help to reduce feelings of stress, to enable participants to better understand explanations resulting in increased adherence to the exercise.

It is therefore important for practitioners to be aware of the impact that medical terms may have on patients' feelings and emotions, and to try and gain an understanding of the patients' experience and their perceived needs. Obtaining a clear understanding of the meaning of unfamiliar words in relation to individual prognosis and management is an important influence upon patients' expectations of recovery and beliefs about self-management. Research in other disciplines of healthcare has shown that promoting a person-centred approach to care can improve patient outcomes [25,50].

12. Limitations and implications

Given the nature of qualitative research, the theoretical transferability of this study needs to be considered. This study reports on the experience of individuals experiencing LBP, which is valuable for informing clinical practice [14,15,22,39]. Participants were all recruited from the same teaching clinic which may limit the transferability of the findings to other students of osteopathy or practicing osteopaths. The language used in the consultation may differ from that in other populations of LBP patients receiving osteopathy or manual therapy, due to the educational requirements of the BSO clinic. Further qualitative or quantitative research in the form of focus groups or questionnaires could help explore the theoretical transferability of the findings to the wider context and cultures of clinical practice. Patients' views and beliefs of their LBP are constructed from a variety of sources [22,27], and in this study it was not possible to fully separate how participants' interactions with other healthcare professionals may have influenced their interpretations and experiences which were conveyed during interviews; however during interviews the researcher focused the discussion on the language used by the student osteopath during previous consultations.

People with acute or chronic LBP were invited to take part in the study to enable exploration of potential differences or similarities

in how language is interpreted. However, nobody experiencing acute LBP responded to advertising resulted in all participants experiencing chronic LBP. Research suggests psychosocial factors play a key role in the development and maintenance of LBP [17,51,52]. Additional research exploring how osteopathic patients with acute LBP interpret the type and nature of language used is necessary, and may provide insight into the development of chronic LBP.

There is a strong association between the beliefs of healthcare practitioners and patients [18,27]. Educators working closely with students (such as clinical and technique tutors) must not promote models and theories of osteopathy which emphasise the use of biomechanical/anatomical language, physical impairments and path-biomechanics; which, when communicated to patients, subsequently relegates their individual illness experience and risks constructing or reinforcing unhelpful beliefs. Therefore, the findings of this study highlight the importance of osteopathic education and training for both clinical tutors and students to develop explanations which enhance patient engagement and avoid negative thoughts, emotions and behaviours in relation to patients experiencing LBP.

13. Conclusion

The findings of this study suggest that the language used by student osteopaths influences patient beliefs about LBP in a variety of ways, both positively and negatively. In accordance with evidence from a growing body of research exploring LBP beliefs, understanding the explanation as perceived by patients is a crucial part of osteopathic care, and the language used appeared to be fundamental in facilitating this. Patients' understanding, trust and confidence in the explanation and treatment aims influenced their engagement. The use of metaphors and analogies, biomedical jargon, evoking feelings and emotions and person-centred care were all found to influence patients' interpretation of the language used and subsequently their level of engagement in their LBP care.

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