Qualitative component of a mixed method review

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| **Study Reference Number** | **Country** | **Participants** | **Data Collection  Methods** | **Data Analysis  Methods** |
| **(1)** | United States (US)      | a trained and licensed chiropractor in a small town in the American Midwest    | ethnographic case-report       | not explicitly specified, but healing performance of a chiropractor is proposed to contain four intrinsic claims to trustworthiness    |
| **(2)** | US      |  20 patients at the Group Health Cooperative of Puget Sound.    | discussion groups     | information for the qualitative analysis and findings was limited    |
| **(3)** | Canada      | 6 chiropractors licensed with the College of Chiropractors of British Columbia     | interviews       | thematic analysis       |
| **(4)** | US      | 15 randomly selected participants from the 29 participants randomised to the chiropractic group    | interviews        | grounded theory approach    |
| **(5)** | Canada      | 197 participants were recruited from 20 participating chiropractors in Ontario       | interviews using Flanagan’s Critical Incident Technique.        | inductive content analysis    |
| **(6)** | Australia   | 208 patients were observed    | recording duration of all patient-practitioner interactions was recorded, some were audiotaped, notes taking    | thematic analysis       |
| **(7)** | Australia      | 9 chiropractors and 173 patients    | interviews       | data were analysed by comparing the responses of individual patients with those of their practitioner in each of 173 case studies.    |
| **(8)** | US          | 171 participants part of a randomised control trial    | interviews       | interactive approach to qualitative content analysis    |
| **(9)** | Canada     | 6 focus groups, a total   of 69 patients.    | focus group sessions    | qualitative content analysis (an interpretive approach)    |
| **(10)** | US      | A male family chiropractor and a sample of 57 people, who made a total of 104 office visits between them       | Data were collected through 1) audiotape of all clinical interaction of the chiropractor for eight days, 2) formal and informal interviews with the chiropractors., his staff, and patients    | Data was content analysed using the modified Bales method of process analysis (11)     |
| **(12)** | Canada     |  11 chiropractors and nine patients    | interviews    | grounded theory approach    |
| **(13)** | US      | 60 participants in the Crotched Mountain    | individual interviews or focus groups    | thematic content analysis    |
| **(14)** | Canada      | 3 female patients and 3 male patients in the Halifax metro area, Nova Scotia, Canada    | focused ethnographic approach involving 16 semi-structured interviews    | A systematic approach for analysing ethnographic data developed by Roper and Shapira (15)     |
| **(16)** | Canada      | 90 participants were recruited from two private chiropractic clinics in Calgary, Alberta, Canada       | interviews    | thematic analysis          |
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| CODEBOOK |

| Theme/Subtheme/Code | Description | Example quotes:  |
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| **Theme: Chiropractic care as a change process.** | This theme demonstrates how the qualitative findings portrayed chiropractic care as a change process. In an ethnographic case report, Bolton (1) analysed the therapeutic encounters between one chiropractor and his patients as “*a communicative and performative event*” (p.309). The author (1) proposed that during each encounter a “*healer*” is expected to validate four intrinsic claims which are generalisable to different therapeutic approaches and which can be validated in diverse ways depending on the “*healer*” (p. 309). A chiropractor is expected to validate each claim they elucidate to establish and maintain trust between them and their patients (1), and one of these claims states “*I am making changes that will be realised in an improvement in your illness*” (p.309). Applying Bordin’s (17) formulation of WA to Bolton’s analysis (1), the role of the chiropractor in patients’ care could be viewed as that of a change agent. In another study exploring the process of establishing trust, Oths (10) described how a chiropractor tends to explain to new patients that this change may be a prolonged process: “*Most people don't feel better 'til after several treatments. Be patient, don't get discouraged. It takes time.”* (p.96). While in general the passage of time is necessary for the validation of the claim that a practitioner will bring change to patients’ circumstances (1), “*the patient is invited to accept or autonomously chooses to accept other more immediate criteria by which to validate it*” (p.315). For example, change is “*often emphasised and punctuated by loud cracks as Dr Miller adjusts the patient’s spine*” (p.315). Furthermore, Jamison (6) suggested that the working relationship has therapeutic elements, and the encounter could have an “intrinsic psychotherapeutic effect” because of this perception that change is happening: “*Formulation of a working diagnosis resulted from dynamic interaction between the patient and the practitioner, and this became the focus for immediate therapeutic intervention. Something was being done!*” (p.97). Patients also confirmed the importance of this notion of change (8): “*The only thing that would really make it [treatment] worthwhile is if I felt comforted from it, or I had a slight glimmer of hope that there’s going to be improvement. Otherwise, I don’t see the purpose in it*” (p.11). Patients also noted that their idea of the change they desire to see is individual and subjective (8): as one participant emphasised “*every patient here has their own story, so what is good for one person may not be good for another person*.” (p. 6). For chiropractors, this change may include not only the physical but also the psychological aspect of patients’ wellbeing (14): “*We just try to change the mind-set right out of the get go*.” (p. 224).The change process may require patient education to facilitate negotiation and establish what the desired change can be and how to work collaboratively towards it. As one practitioner explained, the role of a chiropractor should prioritise patients’ needs and preferences (14): “...*the focus should be revolving around their wants, not trying to subjugate their wants to my own...*” (p. 225) |
| Code: Change can include not just physical improvement but also change in patient mindset. | The change process may involve alterations in biological, psychological and social factors. | “Male Chiropractor 1: *… just from experience and with knowing the literature, the first thing we do is we just have a chat …* ***I think the biggest thing is reassurance and we just try, within reason, we try to make them understand that nine times out of ten they are not broken.****We just try to change the mind-set right out of the get go.” (14)“I learned a little bit more-being a little bit more confident than I was before I started. I felt that something maybe was drastically wrong and that there would not be a chance for any kind of improvement. But I feel a whole lot better about it, I feel looser in my movements and uh-more confident of just about anything.” (8)* |
| Code: Expectation that the chiropractor will be the change-agent in this process. | There is the expectation that a chiropractor will facilitate the hoped-for change. | The healing encounter may be analysed as a communicative and performative event [6, 7, 8]. It is possible to elucidate four claims, which, although they  may  be  satisfied  in  different  ways  by  different  healers,  may  be intrinsic to healing encounters generally. It is on the basis of these claims that trust in the healer is encouraged or discouraged. The claims are: 1.  “I am a healer.” 2.  “I am sincere.” 3.  “I practice a form of medicine that derives its power from truth.” 4.  “I am making changes that will be realized in an improvement in your illness.” (1) |
| Code: it is important to clarify what is the desired change | Some patients do not have a clear idea of what to expect at the start of chiropractic treatment, others go and see a chiropractor with a specific goal in mind. | Truthfully, I didn’t really know what to expect because it was my first time there; but I had been to the doctor quite a few times and nothing had been, well they just prescribed drugs. I was thinking after the first trip of cracking and bending and everything that it would be better, but no I think it was 2 or 3 visits after and everything was fine. So, my expectation, I didn’t’ really know what to expect, but after a couple of visits, it seemed to be a lot better than going to my doctor and just getting drugs prescribed. (FG1: 293-312) (9) |
| Code: loud cracks could suggest to the patient that change is happening | Loud cracks as a chiropractor adjust spine could be perceived as "changes are being made". | As music enthusiasts are aware, digitalization of sound (by nature analogic) increases the clarity of distinction between sounds. Like-wise, digitalization of healing, often emphasized and punctuated by loud cracks as Dr. Miller adjusts the patient’s spine, encourages the patient to consider that changes are being made [20, p. 140].(1) |
| Code: patients' perception of quality of care is influenced by the perception of change resulting from treatment | Patients' perception of progress is a factor influencing their evaluation of the quality of care. |

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| Satisfying Treatment Outcomes |

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| A: Positive Response to Treatment – satisfaction with improvement in symptoms and/or function |
| B: Full Resolution of Complaint – complete recovery in response to treatment |

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(5) |
| Code: perceived progress | Patients express the importance of perceived progress. | “Of note, responses reflected a favourable view of even small degrees of change in global perceived effect, for example, ‘If I could improve, you know, even a little bit, it would be worthwhile’ (17930).”“The only thing that would really make it [treatment] worthwhile is if I felt comforted from it, or I had a slight glimmer of hope that there’s going to be improvement. Otherwise, I don’t see the purpose in it.” (19522) (8) |
| Code: Previous experiences shape expectations about the change that may occur. | Chiropractors' reputation, feedback from others, patients' previous experiences with chiropractic care influence their expectations of the change process. | Learning with this kind of intense focus what the reality is, in terms of hopes or expectations, I think I have gotten a little more realistic in my expectations.” (15549)(8) Self-referred patients typically expected to leave the office feeling better or with their condition resolved, primarily because of previous experience with chiropractic care. The referred patients had varied expectations ranging from none to complete immediate relief of their symptoms; few having been informed by their physician what to expect from the treatment. (9) |
| Code: time is the main way of validating that change is indeed happening as a result of treatment | Data reveals that time is a main factor in most noticeable examples of change and progress and chiropractors are aware of that. They try to note this to patients. | Typically, the chiropractor imparts substantial information to a patient during the initial visit in a manner easily understood by the average person. With a new patient during an initial office visit he would explain: "Now (patient's name), there's three different reactions that you may have here. First is, you may feel better, of course. Most people don't feel better 'til after several treatments. Be patient, don't get discouraged. It takes time. You understand? The second is, you may feel sore. Because we're moving the bones. It's like going to the dentist. They put braces on the teeth, they tighten 'era down, and it hurts like hell for a while..."  (16)“My back improved greatly when I went to the chiropractor. I have never had so much relief... After about a month or so, [the exercise] made me feel better for the rest of the day. I didn’t have that slump two or three in the afternoon. I’m a little more mobile and able to do things—makes a better life.” (18858)(10) |
| collaboration | On one hand, collaborative working was illustrated when a practitioner gives homework, offers education, provides explanations, and ensures that patients understand and agree. On the other hand, this theme also emphasises the role of patients’ active engagement in their treatment journey. According to the data, the relationship between the patient and the chiropractor is cooperative in nature (10): “*Under chiropractic care, treatment is often negotiated with the patient, respecting the patient's autonomy.*” (p. 98). As the quote suggests, this theme also demonstrates the importance of negotiation. Some patients in the qualitative component acknowledged their role in this change process (16): “*…every time I go there, I get good advice, whether it’s ‘have you tried this’? Or with respect to changing your eating habits or some exercises…. ‘You know every time I go, it’s almost like I get a little nugget of information to get a shot to make the quality of my life better.*” (p. 4).Patients can have a more proactive approach (4): “*The chiropractic treatments were amazing in that way. I learned about a new form of treatment and [another way to be proactive]*” (p.159). In such cases, the change process is indeed negotiation between the patient and the chiropractor (4): “*I trusted [the chiropractor] would understand, and he would always shift [his approach] based on whatever I was saying*” (p.159). Conversely, some patients expect that their involvement in bringing about change will be minimal, and their practitioner is the one that will improve their circumstances (14): “*I paid her to fix my back. I didn’t pay her to teach me how to fix my back*” (p. 224). Sadr and colleagues (12) noted in their study that “*only a few of the patients seemed to be very knowledgeable about their pregnancy and asked questions or challenged their chiropractors about various techniques or treatment*” (p.4). It could be argued that educating the patient about their health and providing clear explanations about their treatment options may empower them to be more proactive in the negotiation. For example, Jamison (6) explored the establishment of WA in chiropractic and noted that although patient education was not a feature of every clinical encounter, it was “*a component of the total therapeutic regime and provided a foundation upon which patient could actively pursue shared therapeutic goals*” (p. 97). One of the chiropractors also emphasised the role of patient education (12): “*I think the more knowledge they have [patients], the better they are... the woman who is going through the first pregnancy is very scared, hesitant, anxious and wants that kind of knowledge, and wants the practitioner to know what they’re going through and set their mind at ease.”* (p.4). Overall, patients valued practitioners’ efforts to explain and teach them how to do things correctly (14) “*instead of just printing off some exercises*” (p. 225). Regardless of participants’ beliefs about the level of their personal responsibility in their care process, the data revealed that patients would like to know what the plan is for bringing about change. Chiropractors considered that to be cooperative in nature, their approach should be honest and compassionate (3): *“What I always say is that ‘We’re going to try to get you better, it might not be me. I might need help with other people. But the end result is that I’ll do everything I can to help you out’.*” (p.103). Overall, qualitative data from chiropractors suggest that this collaboration includes communication, patient-centredness, mutual trust. The following themes will discuss in more detail these components of a collaborative working relationship. |
| Code: A chiropractor ask if patients agree with their care. | A chiropractor makes efforts to ensure mutual agreement. | Especially when therapeutic decisions are to be made, the D.C. does not order the patient to do something, but gives him or her the options and his (often emphatic) professional opinion and concerns, then works with a patient to arrive at a final decision. (10) |
| Code: Chiropractic care is cooperative in nature. | Participants described chiropractic care as collaboration, negotiation, partnership, relationships that are reciprocal. This was an important component for both patients. | Under chiropractic care, treatment is often negotiated with the patient, respecting the patient's autonomy. Dr. A realizes adherence to prescribed treatments will be low if the patient is unhappy with the treatment. Especially when therapeutic decisions are to be made, the D.C. does not order the patient to do something, but gives him or her the options and his (often emphatic) professional opinion and concerns, then works with a patient to arrive at a final decision. (10)The third theme extracted from our interviews was the value of the patient−practitioner relationship and how this fostered a sense of self-efficacy and self-care. Overall, participants had a positive view of the chiropractic care they received and described their relationships with the chiropractors as reciprocal and collaborative. They expressed the importance of having a trusted provider listen to their report of symptoms, adapt approaches based on their feed-back, create a personalized approach, and teach them about the multifaceted nature of their condition. Participants explained that managing the complexity and chronicity of migraines was facilitated by trusting and reciprocal relationships with their health care providers. They also valued the focused, compassionate care provided by the chiropractors, occurring in 20-minute weekly sessions. (4) |
| Code: Chiropractor's giving homework as part of treatment. | It is a common practice for the tasks of treatment to extend beyond the clinical appointment - "patients are expected to carry out prescribed regimens of exercise, diet and physical therapy with the aid of family members". | *“I know that it’s not just cracking your back....They give me homework. Sometimes they give you exercises. “*“One patient said that her chiropractor did not give her any exercises to do, but generally most of the patients were given some sort of exercise regimen to follow, or were encouraged to do yoga, stretches and/or walking. One patient said: (PT07) “*She’s given me a sheet of stretching exercises that are specifically for pregnancy.”* Patients believed that this active component of their treatment empowered them to take care of themselves when in pain: (PT05) *“he gave [me] some stretches to do… I do them as needed… So when my back is particularly sore but I know I’m not going to the chiropractor for a few days, then I’ll do those stretches and go from there*.””(4) |
| Code: Chiropractors ensure that patients understand the information provided to them. | In order to collaborate, patients should have a clear understanding of what is required of them during care and what are the goals and tasks of treatment. Chiropractors aim to provide such information in accessible manner, ensuring that patients gain an insight of their circumstances. | Typically, the chiropractor imparts substantial information to a patient during the initial visit in a manner easily understood by the average person. With a new patient during an initial office visit he would explain: "Now (patient's name), there's three different reactions that you may have here. First is, you may feel better, of course. Most people don't feel better 'til after several treatments. Be patient, don't get discouraged. It takes time. You understand? The second is, you may feel sore. Because we're moving the bones. It's like going to the dentist. They put braces on the teeth, they tighten 'era down, and it hurts like hell for a while..."(10) |
| Code: Clarification on the treatment plan. | Chiropractors make an effort to clarify the treatment plan to patients. | You would be talked to about your condition a little bit more and what their [staff] plan is to do for you. (P2 – Patient)  (13)The chiropractors generally emphasized communicating well with their patients as part of providing care and outlining the outcomes to expect. (12) |
| Code: Educating patients. | Educating patients is seen as a key aspect of the chiropractor-patient communication. Patient education is seen as facilitator to treatment adherence. Chiropractors who educate their patients are perceived as knowledgeable, attentive and competent. | A few of the chiropractors placed great emphasis on patient education about pregnancy, particularly with respect to the changes that are taking place in the patient’s body as they are going through their pregnancy, or the various reasons behind their LBP symptoms. For instance, with respect to doing yoga, DC09 said: “*I encourage that if there are no contraindications, and I give them simple postural advice and things they can do at their workplace*.”One chiropractor said educating his patients is 50% of what he does, and that it is (DC11) “*a great component initially*”(12) |
| Code: Goal setting. | Some chiropractors engage in goal setting with their patients while others do not. Practitioners who do not engage in goal setting are more focused on the tasks involved in the treatment plan. However, focusing on the goals of care could illustrate the progress over time. | Following the initial consultation, the D.C. outlines an anticipated treatment regimen and timetable so that the patient knows what to expect: "I will treat you four times this week. You may need daily, but...we'll see as we go along. If you're doing better next Monday, we'll go down to three times. Then we'll go down to twice a week until you're 100% better. Stretch it out to three weeks, four weeks, for as long as you like, to try to keep the subluxations down to a minimum... Usually you'll be in and out of here (the office) in forty minutes. Do you have any questions?"(10) |
| Code: not only the time spent with the patient is important but also having a proposed timeline for the treatment plan | Both patients and chiropractors note that having a timeline and a plan is important to them. A plan following a timeline could provide a sense of progress and ensure that patients feel the change resulting from treatment. | Classified as a facilitator to exercise “Having exercise timeline where chiropractor/ patient looks for progress”(14) |
| Code: patient who understands his condition is empowered | Patients note that what they've learned about their condition helps them feel in control, that knowing they can impact their pain makes a significant difference. Chiropractors also acknowledge that the communication depends on the level of knowledge of both parties. Patients who are knowledgeable also are more confident to take part in the clinical decision making process. | These older adults often mentioned the dual themes of knowledge and self-efficacy as benefits of trial participation: “I learned a little bit more-being a little bit more confident than I was before I started. I felt that something maybe was drastically wrong and that there would not be a chance for any kind of improvement. But I feel a whole lot better about it, I feel looser in my movements and uh-more confident of just about anything.” (15622) “Knowing I can impact the pain with the exercises really has made a significant difference.” (16921)Participants used what was learned about self-care to view their spine condition differently:“Learning with this kind of intense focus what the reality is, in terms of hopes or expectations, I think I have gotten a little more realistic in my expectations.” (15549) (8) |
| Code: Patients feel in control of their care if they are involved in the process. | Patients emphasize that if they are involved in the decision making process give them a sense of control over their circumstances. | So I felt very much a part of the process, and very much in control of my care. I felt more in control than I think I have with most physician type of things. So the chiropractor seemed more of a friend and less of someone who is just going to write up a script and send you out the door. (9) |
| Code: Patients proactive engagement in the decision making process. | Some patients were more assertive when it comes to their care. They were asking the chiropractor for a justification for decisions related to the treatment process. | Only a few of the patients seemed to be very knowledgeable about their pregnancy and asked questions or challenged their chiropractors about various techniques or treatments:"PT06: “I think we sort of have more of a dialogue about what treatment options to pursue, I think I’m more assertive in terms of asking ‘why’ or ‘how come’ or ‘is this a good option’ and ‘what else could we do’.”"(12) |
| Code: patients' responsibility in the treatment process | The level of engagement and patients' perception of their responsibility in the treatment process varies. Some have a proactive approach, others expect that the chiropractor will be the one to brin about change. | Female Patient 6: I paid her to fix my back. I didn’t pay her to teach me how to fix my back … Maintenance (chiropractic adjustments) is huge. That should be stressed more. Because if I had known that way back when, I might have been better … Exercises for low back… don’t waste paper by photocopying that for me.Male Chiropractor 1: … they still feel like they need or they want the adjustment … we do it if we need to… but we don’t just kind of cater to expectations or wants from previous experiences… If you look at active and passive care, the big thing that we talk about with this population is that really it’s not going to be me, it’s more going to be you … it’s more about what you’re going to do away from here, and some people aren’t really comfortable with that … They’d rather get the fix. In one treatment. (14) |
| Theme: communication | The third theme describes the communication between a patient and a chiropractor. First, example communication techniques serving different purposes were identified and are discussed in subtheme “Effective communication”. Second, potential conflicts are described as part of the clinical encounter in subtheme “Conflicts”.  |
| Subtheme: Conflict | In the data, the definition of conflict included differences in opinion, tension, misunderstandings, failure to manage patients’ complaints, and unwillingness to refer the patient to other specialists. Oths (10) described example conflicts in the following context: “*Disagreements, tension, and passive and active antagonism tend to surface during critical points of the clinical encounter. Differences of opinion were sometimes voiced between doctor and patient. At times, this attested to the strength of their relationship when either showed s/he was not afraid to question or criticise the other's opinion*.” (p.102). Differences in opinion were viewed as a test of the WA, which could be resolved via empathy, negotiation, and active listening.  While using communication techniques with a specific goal in mind can be effective, this can make a chiropractor less attentive to their patient’s comments when they focus on the task at hand. Non-attentiveness may also be the result of chiropractor’s beliefs: if a practitioner expects that the cause of pain is entirely biomechanical, then he or she may be less attentive to patient’s social and psychological concerns (1): *“Dr. Miller explains that because of the power of the manual muscle test he does not need to get a detailed personal history from the patient: the body will tell him everything he needs to know. Consequently, much of the conversation is characterised by apparently unmotivated comments and questions about family, work, etc, and general medical advice.*” (p.308). Similarly, a patient described their negative experiences with chiropractors (9): *“I don’t think that they showed the attention that they should have to the aches and pains that you were saying. They were almost focused on; well, this is what works and telling you that this is what the other doctors used to do, and it does work*.” (p. 157). Occasions where non-medical details about a patient were remembered were considered beneficial for building trust. In contrast, beliefs about chiropractor’s sincerity could be undermined by their non-attentiveness(10): “*this non-attentiveness seems to be the root of much of the tension occurring in exchanges*” (p.103). Similarly, Mior (9) found that patients questioned the value of their treatment and the intentions of their chiropractor when too little time was spent building interpersonal relationships. Consultations where the practitioner only used manipulative therapy without any other therapies or did not prescribe exercises or lifestyle recommendations were perceived as negative experiences ([51](#_ENREF_51)). To avoid potential conflicts, chiropractors should pay attention to and seek to address potential signs of disagreement in a patient (10), which may be “*expressed as passive tension, primarily in the form of nervousness (usually with new patients), insecurity, overcaution, and dependency*” (p.102). In cases of conflict (10), chiropractors’ negativity may be “*expressed as open antagonism, manifested by impatience or interrupting the patien*t” (p.102). Conflicts are a likely part of the working relationship: attentiveness to the expectations of both parties involved should be prioritised.  |
| Code: condescending approach to patients has a negative impact on their perception of care quality | "Concerns over professional attributes of chiropractors describing them as lacking initiative, providing therapies of convenience to the chiropractor, intellectually condescending, prone to over treatment." | “Concerns over professional attributes of chiropractors describing them as lacking initiative, providing therapies of convenience to the chiropractor, intellectually condescending, prone to over treatment” (5) |
| Code: DC's way of expressing disagreement | "Most of the doctor's negativity is expressed as open antagonism, manifested by impatience or interrupting the patient" | Mainly, patient negative affect is expressed as passive tension, primarily in the form of nervousness (usually with new patients), insecurity, over-caution, and dependency, while most of the doctor's negativity is expressed as open antagonism, manifested by impatience or interrupting the patient. This often stems from misunderstandings:  P: (somewhat tense) Oh, can you have somebody put my X-rays in an envelope. (withdrawing) I'm meeting with the sawbones at 1:00 today. D: You're going to see who? P: (tense) Ah...Dr. Smith. D: (sharp) He's what? P: (quietly) My sawbones...my annual physical. D: He's an orthopedic surgeon? P: (withdrawn, barely audible) No, just an M.D. D: And he wants to see your X-rays on your back? P: (testily) I don't know that he does. But I'm going to go in and tell him that...what's going on. Antagonism toward the patient tended to surface when the patient failed to comply with a treatment regimen: D: (annoyed) Then you go out there and do things you shouldn't be doing and the whole thing comes back again. You can't do that. So I'm helping it and you're aggravating it. I'm helping it, you're aggravating it. We're going to go nowhere quick. (10) |
| Code: differences in opinion as a test of the relationship | "Differences of opinion were sometimes voiced between doctor and patient. At times, this attested to the strength of their relationship when either showed s/he was not afraid to question or criticize the other's opinion." | Differences of opinion were sometimes voiced between doctor and patient. At times, this attested to the strength of their relationship when either showed s/he was not afraid to question or criticize the other's opinion. For instance,  D: (regarding a prescribed treatment) Remember that stuff, R-1. Did that seem to help? P: (with conviction) No! In another instance: P: Can I criticize your music? D: It's pleasant, isn't it? P: (part in jest, part serious) It's giving me a headache. D: (mock scoff) Giving you a headache! Don't listen to it then. Headache! (laughs) It's mellow.  (10) |
| Code: disagreeable and reluctant classified as negative professional attributes | Dissatisfaction was influenced by chiropractors' professional attributes. | “poor quality judgments on their physicians it was on descriptions of professional attributes such as miserable, disagreeable, reluctant” (5) |
| Code: disagreement caused by a misunderstanding | Misunderstanding as a cause of tension. | This often stems from misunderstandings:   P: (somewhat tense) Oh, can you have somebody put my X-rays in an envelope. (withdrawing) I'm meeting with the sawbones at 1:00 today. D: You're going to see who? P: (tense) Ah...Dr. Smith. D: (sharp) He's what? P: (quietly) My sawbones...my annual physical. D: He's an orthopedic surgeon? P: (withdrawn, barely audible) No, just an M.D. D: And he wants to see your X-rays on your back? P: (testily) I don't know that he does. But I'm going to go in and tell him that...what's going on. Antagonism toward the patient tended to surface when the patient failed to comply with a treatment regimen: D: (annoyed) Then you go out there and do things you shouldn't be doing and the whole thing comes back again. You can't do that. So I'm helping it and you're aggravating it. I'm helping it, you're aggravating it. We're going to go nowhere quick. (10) |
| Code: exacerbation of patients' complaints is classified as a dissatisfying treatment outcome | Patients dissatisfaction can be influenced by inattentiveness to their concerns. Chiropractors recognise the importance of addressing patients' concerns. | When participants discussed honesty, they often described scenarios where they were acknowledging points of conflict with patients in a humble and genuine manner. Participants described that patients would be able to tell if their chiropractor is being honest“I just try to figure out all their points are of negativity and I address them as opposed to pretending they’re not there. Because if you chicken out, you lose them.” (3) |
| Code: failure to refer the patient to other HCPs is perceived as a dissatisfying standard of practice | Patients find important for their chiropractor to be willing to refer to other specialists if needed and some chiropractors acknowledge that they should collaborate with others if patients' concern is out if their scope, | “C: Failure to Refer – HCP unwilling or unable to refer to specialist of other HCP” (5) “Chiropractors were generally open to referring their patients to other professionals if necessary. DC12 said when a patient comes in with a concern “that is a bit out of my scope,” he encourages her to contact her midwife or OB-GYN.” (12) |
| Code: managing complaints from patients as an aspect of satisfying standard of practice | Attentiveness to patients' complaints is important, | Factors influencing satisfaction:

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| E: Managing Multiple Health Concerns – ability of HCP to manage multiple complaints simultaneously |

Factors influencing dissatisfaction:

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| B: Aggravation of Presenting Complaints – exacerbation of complaints in response to care |

(5) |
| Code: non-attentiveness as a cause of tension | Patients and chiropractors describe the importance of being attentive. Authors describe the impact of inattentiveness, | “At times the D.C. appears to disregard patient comments and accounts, especially during the first part of a session. This non-attentiveness seems to be the root of much of the tension occurring in exchanges”. (10)“Sincerity  is  less  easily  sustained  by  dramatic  displays;  it  is  most appropriately  validated  over time. It is more often noted by its absence, as  in  the  doctor  who  doesn’t  pay  attention  to  the  patient’s  statements. However,  sincerity  may  be  suggested  or  ascribed  on  the  basis  of  other characteristics. “ (1) |
| Code: patients' expression of disagreement | nervousness (usually with new patients), insecurity, over-caution, and dependency | “Mainly, patient negative affect is expressed as passive tension, primarily in the form of nervousness (usually with new patients), insecurity, over-caution, and dependency” (1) |
| Code: using humour to ease the tensions | Humour could be useful in certain situations. | Joking, laughter, and humorous exchanges are standard elements of the established chiropractor-patient relationship. Dr. A seems to believe, as some do, that laughter has the therapeutic effect of healing the sick (see Cousins 1976). It was a rare session in which genuine humour was not shared between chiropractor and patient, as in the following case: P: (joking) Did you ever think of getting artificial fingers with padding on them? (both laugh loud) D: I've worked them to the bone! Patient questions are handled in seriousness, but sometimes with a bit of humour to ease patient tensions: P: Do you know of any place where you can go where you learn how to breathe correctly? D: Yeah. P: Do you.'? D: Yeah, Lake Erie. You just jump in. When you can't breathe anymore you come up and you breathe correctly then (laughs). P: (Amused.) Oh, I hear you! Isn't he funny. D: What kind of breathing do you want? There's all kinds of different breathing, you know. I mean, I'm a connoisseur on breathing. P: Are you? D: I do it all the time! P: Oh, oh, and I said, "are you?"  (He then proceeds in earnest to teach and practice a yoga breathing exercise with her, even stopping back in later after seeing another patient to check on her progress.)   (1) |
| Subtheme: effective communication | It was noted in one study (12) that *“communication between chiropractors and patients depended on the knowledge level of both parties”* (p.4). Considering the importance of mutual understanding for collaboration as discussed above, one of the key communication goals should be clear explanation. A chiropractor should invest time to explain and to ensure that the patient has correctly interpreted the information (3): “*clear and timely communication is an opportunity for chiropractors to understand patient expectations and assure patients that they are in a safe environment*” (p.102). Practitioners acknowledged the importance of clear explanations in the negotiation process (14): “*We try to really map it out in layman’s terms, this is why this is affected, and this is why if we can take the time to put in the work, it’s going to help. I think that’s been the most effective approach for sure, for adherence.”* (p. 225). An explanation can be facilitated using non-verbal communication or analogies to illustrate a point (10): for instance, “*…during his explanations, the D.C. often actively demonstrates the movement or procedure he wants his patients to practice, thus identifying with the role of the patient.*” (p.97). This is useful for the patient in two ways: not only will they have a mental image of what the movement should look like, but also, they will feel more confident about doing it.  Referring to Bordin’s formulation of WA (17), prioritising clear explanation as a communication goal can facilitate reaching a mutual agreement in relation to the goals of treatment and the tasks involved in the treatment plan.Jamison (6) showed that practitioners may engage in both social and professional interaction with their patients: communication would be “*characterised by acceptance both of the patient as an individual and of their complaint as valid and worthy of diagnostic consideration and therapeutic intervention*” (p. 96). Similarly, Mior (9) discussed the qualitative data in their study by emphasising that *“the nature of the communication went beyond exploring the presenting complaint - the symptom - it focussed upon how their condition impacted upon the whole patient”*(p. 153)*.* In scenarios where the focus is the presenting complaint, communication may be entirely instrumentally oriented (10): “*During an orthopaedic examination of a patient, the doctor is intent upon identifying the problem. A long battery of range of motion and pain tolerance tests are given. Therefore, most statements made are instrumentally oriented, usually consisting of directions, requests, and some information*.” (p.97). Different communication techniques would be relevant if the purpose of communication is bonding on a more personal level. A chiropractor may use language in a person-centred manner (10) when they do not “*depersonalise a patient by referring to body parts with a definite article (e.g., 'the' neck looks fine today) but rather use a possessive pronoun (e.g., 'your' knee is swollen)*” (p.105). Chiropractors recognised that the rapport can be further strengthened by comments of praise, encouragement, and reassurance (10). Again, the role of non-verbal communication is key: a smile, handshake or eye-contact can create a friendly environment and the ability to read patients’ body language can inform a chiropractor on how to react accordingly (3, 10). In other words, participants discussed the establishment of bond as an intentional goal of communication and recognised that this goal requires a particular set of communication techniques. For example, active listening is of the utmost importance (3): *“Uninterrupted listening provides an opportunity for patients to feel engaged and was described as a method of forming meaningful connection*.” (p.101). Chiropractors mentioned that active listening requires time (16):  “*You try to direct the discussion as much as possible but give the patient the time to really explain what their experience has been, you know? I find that breaks down barriers really quickly and builds trust and confidence in a new person.*" (p.5).  Patients want to feel empathically understood and listened to (16): “*We have a great relationship, and we talk a lot during the treatments, so I feel like my needs are being met*” (p. 5). Conversely, a condescending, disrespectful, disinterested approach, was described as a factor leading to dissatisfaction with care quality (5).  The role of active listening is also central when the goal of communication is shared decision-making or negotiation. In fact, one of the potential causes of conflicts between a patient and a chiropractor is misunderstanding.   |
| Code: Chiropractors should make their patients feel comfortable. | A participant explains how the vulnerability during treatment requires the practitioner to create a feeling of comfort. | This person (chiropractor) is going to be massaging you, you have various amounts of clothing on, and you want there to be that comfortable feeling; and that is what a chiropractor’s job has to do. He has to make sure you are comfortable, and it is not only the results they get from how your injury is fixed but the other reason for the success of their practice I think, is how well they can have that bedside manner or ability to have a relationship with you, to make you feel comfortable when coming in. (9) |
| Code: clear explanation facilitates treatment engagement | A number of chiropractors realise the importance of mutual understanding. For example, a study identifies clear explanation of the purpose behind exercises as a facilitator to exercise adherence, | Male Chiropractor 1: *We try to really map it out in layman’s terms, this is why this is affected and this is why if we can take the time to put in the work, it’s going to help. I think that’s been the most effective approach for sure, for adherence. I think they just need to understand … I’m not giving you three random things to work on at home because I feel like you should do exercise … I think* *knowledge is power, and once they can understand, and I’ve had the light bulb moment where you just try to throw in exercise versus this is what’s happening here, this is how this is going to address that problem…*(14) |
| Code: communication can be instrumentally oriented, consisting of directions and requests with a purpose of problem identification | Communication techniques differ depending on the goal in mind. | During an orthopaedic examination of a patient, the doctor is intent upon identifying the problem. A long battery of range of motion and pain tolerance tests are given. Therefore, most statements made are instrumentally oriented, usually consisting of directions, requests, and some information:  Doctor (D): OK, sit up straight please. (guiding the patient with his hands) Turn your head that way as far as you can. Anything? Patient (P): No. D: Go the other way. Tell me... right there? P: Urn-hum. D: Oh, you can't go that far, huh? P: No, it hurts. (10) |
| Code: communication techniques for information exchange | communication is important for successful exchange of information. | “Dr. A's ample supply of information are such techniques of communicating as language consciousness, use of analogy, negotiation, and repetition of important points.” “Information transfer continues throughout the treatment sessions. Following the initial consultation, the D.C. outlines an anticipated treatment regimen and timetable so that the patient knows what to expect: "I will treat you four times this week. You may need daily, but...we'll see as we go along. If you're doing better next Monday, we'll go down to three times. Then we'll go down to twice a week until you're 100% better. Stretch it out to three weeks, four weeks, for as long as you like, to try to keep the subluxations down to a minimum... Usually you'll be in and out of here (the office) in forty minutes. Do you have any questions?"..” (10) |
| Code: failure to explain the purpose behind the treatment Code: impairs treatment engagement | A barrier to exercise adherence is the lack of explanation and justification behind the benefit of an exercise plan. |

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| 4. Exercise Delivery | * Chiropractor does not provide, or provides a poor explanation of the purpose behind exercises.
* Prescribed exercises are complicated or hard to follow.
* Little time spent on exercises in the clinic and no timeline or progression outlined.
 | 1. Chiropractor provides a clear explanation of the purpose behind exercises.
2. Prescribed exercises are simple with repeated exercise demonstration and review.
3. Having exercise timeline where chiropractor/ patient looks for progress.
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Table 2Sample supporting quotes for each theme generated from semi-structured interviews with chiropractors (n = 6) and patients (n = 6) regarding the barriers and facilitators to prescribed exercise adherence in patients with non-specific chronic low back pain (14) |
| Code: level of knowledge | There is acknowledgment about the role of patients' and chiropractors' level of knowledge. | “One pattern that emerged from the interviews was that communication between chiropractors and patients depended on the knowledge level of both parties. Only a few of the patients seemed to be very knowledgeable about their pregnancy and asked questions or challenged their chiropractors about various techniques or treatments” (12) |
| Code: non-verbal communication and trust | non-verbal communication plays a role in the formation of trust. | Despite the emphasis on verbal communication and listening, there was acknowledgement that non-verbal communication plays an important role in the clinical encounter. A handshake, a smile, and eye contact can help establish rapport but importantly, understanding when it is and isn’t appropriate to touch a patient given the intimate nature of manual therapy. During patient encounters, identifying body language can be a helpful tool to understand patient comfort(3) |
| Code: spending time to explain the treatment | explanation requires time to ensure understanding | Male Chiropractor 2: *in reference to common exercise delivery and how this may be perceived to patients: Obviously it doesn’t seem that important, I only spent three minutes on it and they didn’t even ask me about it at the second visit. I agree with patients, how important could it be?* *You didn’t assess it, you showed me in two minutes and ever since then you just ask me if I’m doing it? You don’t even ask me, don’t even watch me do it again, you don’t even test me? Imagine if the school* *system was like that? Did you study? Yeah, I studied. Great, you passed, 80%, there you go, you don’t have to write the test.(14)* |
| Code: the chiropractor explains what are his expectations from his patients | communicating information of practitioners' expectations of the patient | Also, during his explanations, the D.C. often actively demonstrates the movement or procedure he wants his patients to practice, thus identifying with the role of the patient. For example, in describing to a woman how to lift a laundry basket, he squatted to the floor and rose several times, acting out the proper position.  The D.C. makes an effort to verify that he has been correctly interpreted. He typically clarifies unclear points before moving on. Also, the doctor frequently asks patients if they agree, understand, or follow him. And he clarifies or repeats patient utterances to assure his own interpretation is correct. (10) |
| Code: the importance of active listening | Patients and chiropractors discuss the importance of active listening and being heard. | Chiropractors and patients both placed an emphasis on the importance of listening and time spent during encounters.  “You know, and I think that’s the difference, I know my chiropractor is going to listen to me first, as compared to my MD who I think will partially listen.” (Focus group Patient 2) “You try to direct the discussion as much as possible but give the patient the time to really explain what their experience has been, you know?  I find that breaks down barriers really quickly and builds trust and confidence in a new person.” (Chiropractor 1) “I’ll easily spend 30 min with them and just sometimes it almost seems like some of them require a little bit more time than just rushing them in and out. That’ll often go against all of the other (health care) experiences that they’ve had, they’re usually pretty used to people rushing them in and out.” (Chiropractor 3) (16) |
| Code: the importance of demystifying medical jargon | facilitating explanation by using language accessible to patients. | Communication is destined to break down if one speaks in terms the other does not understand. This chiropractor purpose- fully demystifies medical jargon by translating scientific definitions into lay terms the patient can comprehend. He habitually 'unpacks' health and illness definitions in this manner: "You have a cervical dorsal mild fasch it is and cervical strain, which means you have strained muscles in the neck, you sprained the ligaments, and you have some muscle inflammation." The act of naming a patient's health condition in itself demystifies it for the patient. The formal medical terms are included along with lay terms to insure the patient's confidence in his own knowledge and because he believes "patients have a fight to know." (10) |
| Code: the use of analogies to ensure efficient communication | An example of a practitioner using analogies to illustrate a point. | As a strategy by which to help patients conceptualize their conditions, Dr. A makes extensive use of analogical accounts. These etiological explanations draw on examples from other domains, especially mechanical ones from the everyday world, which can be easily understood regardless of one's socioeconomic background. For example, regarding a patient in for nutritional counselling, he compared a functional imbalance in a person to a car needing a tune-up: "We're looking for functional disturbances. Like the difference between a new car and an old car. They'll both get you to work, but one will do it a lot more efficiently." In other cases, when educating patients about spinal misalignments impinging on the disc, he might liken the vertebrae and discs to a brick and mortar wall: "If the brick was sitting like this (demonstrates unparallel brick with his hands) what would happen? Just the pressure alone would eventually wear out that side of the mortar. Well, just imagine, if that building had the ability to move, it would wear out even quicker." (10) |
| Code: the use of negotiation if the goal is decision-making | Example of a chiropractor negotiating with patients. | Especially when therapeutic decisions are to be made, the D.C. does not order the patient to do something, but gives him or her the options and his (often emphatic) professional opinion and concerns, then works with a patient to arrive at a final decision. For instance, he will query: "If I gave you a support, would you wear it?" In one case a young teenaged girl with a recurring hip problem had been treated previously by several doctors and hospitals. Her pain had subsided since her initial chiropractic exam with Dr. A, but before he was to begin treatment: D: M: (to mother) But if you wanted to wait until she had pain again and do it then, it's up to you. Whatever you want me to do. You could bring her back when she's hurting again. No, I don't want to wait until it starts hurting again, because I want to get the problem solved before she gets older. D: OK, then what I'll do is start treating her today. (10) |
| Code: use of non-verbal communication to illustrate a point | non-verbal communication can facilitate explanation. | Also, during his explanations, the D.C. often actively demonstrates the movement or procedure he wants his patients to practice, thus identifying with the role of the patient. For example, in describing to a woman how to lift a laundry basket, he squatted to the floor and rose several times, acting out the proper position. (10) |
| Code: using language in a person-centred manner rather than depersonalising the patient | Person-centred communication involves knowledge of the patient beyond their condition, using language which does not depersonalize a patient by referring to body parts with a definite article, using language which demonstrates positive affect and genuine concern, respect and reassurance, | The dialogue seemed to focus around the degree and intensity of the interpersonal, doctor-patient communication that embraced the biopsychosocial model, or as noted by one patient who described that it took a ‘holistic approach’. The nature of the communication went beyond exploring the presenting complaint - the symptom - it focussed upon how their condition impacted upon the whole patient. The provider-patient dialogue integrated information about the physical aspects of their condition, and its consequence upon the patient’s emotional and social well-being. They saw the dialogue as being informative, health related, and interactive; addressing their concerns, questions, and facilitating their participation in their plan of management. In summary, patients’ rating of the level of satisfaction represented the sum total of their experience with the chiropractic encounter (9) |
| Code: using language to Code: facilitate the bond by using we rather than you | a chiropractor using "we" when referring to the tasks in a treatment plan. | Also, when stating goals or responsibilities for therapy, he often uses the pronoun "we" to indicate the mutual effort involved (e.g., "hopefully we can achieve it..."; "all we can do is try to get it as strong as possible...").  (10) |
| Theme: patient-centredness as agreement on values, preferences and needs. | Qualitative results from one of the studies (13) described patient-centredness as “*the quality of a chiropractor (and, importantly, all staff members) that demonstrates a provision of care that is respectful and responsive to the patient, and which is inclusive of the person’s values, preferences, and needs*” (p.6). Often it is “*expected the chiropractor to demonstrate this same quality (patient-centredness) in their interactions*” (p.6). Overall, the person-centeredness may facilitate collaboration during care and the this theme provides examples. Some patients (13) considered that “*…the chiropractor should have personal knowledge of each patient as well as information about the history of their injury and his or her current medical conditions. Such personal knowledge should then be integrated into the evolving care of the individual patient*” (p.6). Such personal knowledge might enable practitioners to better understand each patient and facilitate collaboration. Indeed, patient’s perception that their chiropractor does not understand them was identified as a barrier to exercise adherence: considering patients’ values, preferences, and needs may influence patients’ active engagement in their care (14). Patient-centredness may also impact the establishment of a mutual bond (4): ‘*Participants also noted that the chiropractors listened and “would understand” and “shift” in response to their concerns, a cornerstone to building a trusting relationship*’ (p.149). While trust is a key interpersonal process underpinning this bond, there are other positive feelings which patients associate with chiropractors whose approach is patient-centred (16): “*It’s easy to feel like you’re friends with those kinds of professionals*.”( p.5). Interestingly, the findings revealed that person-centredness comes with its challenges. For instance, a chiropractor (14) shared that they have “*probably sent people for x-rays as peace of mind for the patient*” (p. 224). Some practitioners felt that patients’ previous experiences and beliefs may have negative impact on the change process (14): “…*they still feel like they need or they want the adjustment … we do it if we need to… but we don’t just kind of cater to expectations or wants from previous experiences...*” (p. 224). A practitioner (12) noted: “*The bio-psycho-social model is very relevant too. Because they are not all coming to me from nice family units...”* (p.5). The following quote from one of the studies (9) provides a good summary of this theme: “*The majority of patients felt the chiropractic care they received was patient-centred. They interpreted this as being involved, informed, and participant in approving the care they received. They reported being an active participant in the decision-making process of their care and the chiropractor seemed respectful of the patients’ needs and concerns.”* (p. 157). The examples discussed in this theme reveal how patient-centred approach which treats the patient as an individual with needs, values and preferences can facilitate the formation of WA and its three components: agreement on the goals of care, agreement and collaboration on the treatment plan and the foundation of positive reciprocal feelings. The next theme examines one of the key interpersonal processes involved in this mutual bond- the trust between a chiropractor and a patient.  |
| Code: chiropractor sincerely interested in patients' wellbeing | Patients and chiropractors note that patients’ perception that the chiropractor is genuinely interested in their wellbeing and them as a person is crucial for the professional relationship. | “De: In my experience it is everything that satisfies you. The results, the fact that he is interested in your life, ‘What did you do on the weekend?’ Well I am into horses, 154 ‘How are the horses doing?’ ‘How are your grandchildren doing?’ Just everything: they are pleasant, they are on time, they spend time with you, and it’s just the whole thing. It is like visiting a friend almost; he cared not just in getting results, but also about how you are feeling, your emotions - the whole thing.”(9) |
| Code: feelings of friendliness in the relationship between chiropractor and the patient | Genuine care about the person creates for the patient feeling of comfort. | Patients related having a great deal of trust in their chiropractors and feeling comfortable with them. “Having people like her who actually give a shit and want you to have a better quality of life, I’m to a point where I can have times where I can forget that I’ve got it.” (Patient 5) “We have a great relationship and we talk a lot during the treatments so I feel like my needs are being met.” (Patient 6)  “It’s easy to feel like you’re friends with those kinds of professionals.” (Patient 3) (16) |
| Code: importance of communication during treatment | An ongoing conversation where patients are being listen to creates the feeling that "their needs are being met". | “We have a great relationship and we talk a lot during the treatments so I feel like my needs are being met.” (Patient 6) (16)“The dialogue seemed to focus around the degree and intensity of the interpersonal, doctor-patient communication that embraced the biopsychosocial model, or as noted by one patient who described that it took a ‘holistic approach’. The nature of the communication went beyond exploring the presenting complaint - the symptom - it focussed upon how their condition impacted upon the whole patient. The provider-patient dialogue integrated information about the physical aspects of their condition, and its consequence upon the patient’s emotional and social well-being. They saw the dialogue as being informative, health related, and interactive; addressing their concerns, questions, and facilitating their participation in their plan of management. In summary, patients’ rating of the level of satisfaction represented the sum total of their experience with the chiropractic encounter”. (9)  |
| Code: individual differences | Chiropractors acknowledge that every patient have different preferences, expectations, needs and values. | “Patient preferences about their healthcare delivery were important considerations. For example, different patients might have previous preferences or expectations about chiropractic care, while others might have none. Patients who had received chiropractic care in the past might need new information about how their injury could change the delivery of chiropractic services. Or, simply, patients might prefer to schedule their chiropractic visits at varying times of the day.” (13)  |
| Code: patient feeling misunderstood as a barrier to treatment engagement | A study identify as a barrier to exercise adherence when patients think that the chiropractor does not understand them. | “Patient perceives the practitioner does not understand them.”(14) |
| Code: patient-centredness as a quality of the chiropractor | Patient-centredness is a quality that patients expect to see from their chiropractor. | Patient-Centeredness, the central domain, was defined as the quality of a chiropractor (and, importantly, all staff members) that demonstrates a provision of care that is respectful and responsive to the patient, and which is inclusive of the person’s values, preferences, and needs. Each patient who was interviewed identified at least one instance of patient-centeredness that they had experienced with current staff members. An exemplar of this attitude came from a patient’s description of his work with a physical therapist: “Patient oriented. He makes you part of the program. You know exactly what’s going on and why he is doing what he’s doing” (P1 – Patient). Many patients further specified how they expected the chiropractor to demonstrate this same quality in their interactions. For instance, since no two patients were alike, patients and staff thought the chiropractor should have personal knowledge of each patient as well as information about the history of their injury and his or her current medical conditions. Such personal knowledge should then be integrated into the evolving care of the individual patient. (13) |
| Code: Patient-centred care involves shared decision-making and mutual respect. | Patients perceive patient-centred care as a decision-making process where they are actively engaged in, | The majority of patients felt the chiropractic care they received was patient-centred. They interpreted this as being involved, informed, and participant in approving the care they received. They reported being an active participant in the decision-making process of their care and the chiropractor seemed respectful of the patients’ needs and concerns. Perhaps as a consequence of the repeated visits to the chiropractor, the ongoing feedback they received from the chiropractor during their encounters promoted greater communication, which in turn 158 strengthened the doctor-patient relationship, and facilitated patient participation in their care. (9) |
| Code: patient's needs above self-serving motives | Patients and chiropractors discuss the importance of considering patients’ needs. | *“I tell them at the very beginning that I will never do things by surprise. I will always explain things before I do it. You are always the boss, I’m not. This visit is about you not me.”*“Many of our interviewees identified that patients can be vulnerable and that demonstrating empathy and placing patient needs above self-serving motives help establish trust.” (3) |
| Code: person centredness via the use of language | Patient-centredness could be expressed via language in conversations.  | “Another notable aspect of Dr. A's language is that he does not depersonalize a patient by referring to body parts with a definite article (e.g., 'the' neck looks fine today) but rather uses a possessive pronoun (e.g., 'your' knee is swollen)” (10) |
| Code: providing the opportunity for the patient to share their experience | Practitioners should make an effort to provide an opportunity to patients to share their perspective on their condition and circumstances.  | “…“You try to direct the discussion as much as possible but give the patient the time to really explain what their experience has been, you know?  I find that breaks down barriers really quickly and builds trust and confidence in a new person.” (Chiropractor 1) “I’ll easily spend 30 min with them and just sometimes it almost seems like some of them require a little bit more time than just rushing them in and out. That’ll often go against all of the other (health care) experiences that they’ve had, they’re usually pretty used to people rushing them in and out….”(16) |
| Code: remembering non-medical details of Code: patient's life shows genuine interest | Patients feel like when a chiropractor asks questions and shows interest beyond patients’ conditions this show genuine care about their wellbeing. | “De: In my experience it is everything that satisfies you. The results, the fact that he is interested in your life, ‘What did you do on the weekend?’ Well I am into horses, 154 ‘How are the horses doing?’ ‘How are your grandchildren doing?’ Just everything: they are pleasant, they are on time, they spend time with you, and it’s just the whole thing. It is like visiting a friend almost; he cared not just in getting results, but also about how you are feeling, your emotions - the whole thing.” (9) |
| Code: responding to patient's concerns is a cornerstone to building a trusting relationship | Trust is improved when patients’ concerns and needs are being attended to. | “Participants also noted that the chiropractors listened and “would understand” and “shift” in response to their concerns, a cornerstone to building a trusting relationship.” |
| Code: spending time | Patient-centred care often requires time.  | “I’ll easily spend 30 min with them and just sometimes it almost seems like some of them require a little bit more time than just rushing them in and out. That’ll often go against all of the other (health care) experiences that they’ve had, they’re usually pretty used to people rushing them in and out.” (Chiropractor 3) (16) |
| Code: WA and PC have impact on treatment engagement | A study identifies working alliance and patient-centred care as important factors for patients’ adherence to exercise.  |

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| 3. The Therapeutic Alliance and Patient-centred Care | * Poor clinical relationship.
* Patient perceives the practitioner does not understand them.
 | 1. Trust and rapport developed.
2. Chiropractor helps patient set meaningful exercise-based goals.
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(14) |
| Code: the role of empathy | Empathy is key when patients are vulnerable. | “…..Often statements which were characterized by positive affect demonstrated the D.C.'s genuine concern for and empathy with the patient, as in the case of a patient with a severe recurring headache: "If that headache comes back...you come in tomorrow. As a matter of fact, if that headache really gets as bad as it did last time, you call me up on Sunday and I'll come down here and treat you, OK?" This type of supportive statement was routine for the chiropractor:  P: When I first came in I was actually crying there was so much pain. D: The first day I wanted to lay down and cry with you”……….(10) |
| Theme: trust | One study exploring the therapeutic encounter revealed that trust has a specific role in the working relationship (1): “*Dr. Miller’s fundamental claim is that he is a healer. By this claim to legitimacy, he asserts that he is a qualified and practicing authority in the healing arts, and potentially helpful to people who present to him. As such he is allowed to make certain kinds of statements and do certain things, patients are correct to consult him in illness and he is entitled to the respect and rights accorded healers*.” (p.310). It was suggested that practitioners’ trustworthiness depends on the credibility of chiropractic in general, which is usually validated through scientific evidence, experience, and good reputation. If the role of the chiropractor is that of the change agent, there are standards that should be considered. For instance, the chiropractic profession in UK (United Kingdom) is regulated by law: The Chiropractors Act 1994 provides statutory regulation, and the title 'chiropractor' is protected under this legislation (18). However, there are normative expectations which are more subjective and are examples of contextual factors in general clinical encounters. For example, the title doctor, the white coat, the tidy office, the medical jargon, the framed diplomas, and certificates, are all instances of symbolic representations of credibility. It should be noted that such contextual factors may also impact patients’ perception of chiropractor’s trustworthiness. One study (1) described how “*for some patients a clean office and an air of professional decorum are indicative of professional propriety and trustworthiness*” (p.310). The notion of honesty was emphasised (3): “*Participants suggested that a trusting relationship would be established more quickly if they admit to mistakes and acknowledge their own limitations, which sometimes resulted in a referral.*” (p.101). As the following quote shows, referring patients to other healthcare professionals who can better address their needs may increase their trust in the chiropractor (3): “*When I refer them out to another discipline, another chiropractor or something like that, that actually they trust me more than anything else*” (p.103). Chiropractors also acknowledged that agreement on goals and tasks is key for the establishment of trust between them and their patients. As one participant (3) explained about his approach: “*I tell them at the very beginning that I will never do things by surprise. I will always explain a thing before I do it. You are always the boss, I’m not. This visit is about you not me*.” (p.103). Considering that the process of building trust is unique for each working relationship, chiropractors also pointed out the role of non-verbal communication. First, patients’ nonverbal communication reveals their level of trust and comfort in each situation. Second, chiropractors use their own nonverbal communication to establish trust (3): “*eye contact, firm handshake, knowing when and when not to touch somebody*” (p.102).  |
| Code: authenticity | The practitioner being themselves, communicating on a "human level" with the patient builds trust. | One participant (I2) expressed the belief that chiropractors demonstrating authenticity will have greater success in developing trust with patients. Another participant (I5) felt that displaying genuine interest in the patient helped establish rapport. They mentioned that “trying to exist at a human level with them” (I5), would build trust. When asked about characteristics of an authentic chiropractor, one response was:“I think they’re very direct. I think they’re not afraid to be themselves. So, they’re staying human.” [I2](3)  |
| Code: caring demeanour | Patients discuss how important it is to feel that your chiropractor truly has your best interest at heart and truly care about you. | “Participants described the importance of demonstrating a caring demeanour; although, they also expressed the importance of demonstrating empathy and commitment to the best interest of the patient” (3) |
| Code: chiropractor's trustworthiness also depends on his perceived competence. | Patients' perception of chiropractors' competence is influenced by the claims they make, the extent to which these claims are based in truth, and the noticeable change that results from treatment. | “There was emphasis on the portrayal of competence or “perceived competence” to patients which appeared to be important to establishing trust. Appearing competent was not solely based on technical skills but also interpersonal skills, cognitive skills, ethics, and appearances.” (3) |
| Code: Coercive marketing could be damaging to the formation of trust. | Chiropractors acknowledge that patients can be financially vulnerable and they take this into consideration. | Participants have stated that they avoid coercive marketing tactics, often finding that aggressively marketing products can deter patients from developing a therapeutic alliance (3) |
| Code: details in the office environment facilitate trust | Doctor’s  office,  with  its  popular  magazines,  health advisories, “piped-in” music, the receptionist, framed large diplomas and licences are details which could impact patients' perception of chiropractors' trustworthiness, | “Dr.  Miller’s  office  has  themise-en scèneof  an  doctor’s  office,  with  its  popular  magazines,  health advisories, “piped-in” music, receptionist. The examination rooms contain such  key  symbols  [12,  p.  50]  as an  X-ray  display  light,  blood  pressure cuff, section of connected vertebrae, bottles of pills and anatomical charts on the wall. Furthermore, Dr. Miller looks and acts like a physician.” (1)  |
| Code: honesty as a personal quality of the DC | Chiropractors and patients acknowledge the importance of honesty which involves telling the truth and avoiding intentional falsehoods. "Honesty emerged as a foundation for establishing trust. Participants suggested that a trusting relationship would be established more quickly if they admit to mistakes and acknowledge their own limitations; which sometimes resulted in a referral. Providing a realistic prognosis, regardless of severity was seen as important to establishing trust." | “The concept of honesty involves telling the truth and avoiding intentional falsehoods.[5](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7500233/) In several interviews, honesty emerged as a foundation for establishing trust. Participants suggested that a trusting relationship would be established more quickly if they admit to mistakes and acknowledge their own limitations; which sometimes resulted in a referral. Providing a realistic prognosis, regardless of severity was seen as important to establishing an honest dialogue with patients. When participants discussed honesty, they often described scenarios where they were acknowledging points of conflict with patients in a humble and genuine manner. Participants described that patients would be able to tell if their chiropractor is being honest”(3) |
| Code: How much time is dedicated to the patient also influence trust | Spending enough but not too much time with a patient also impacts trust. | As mentioned by two participants, having too little or too much time with a patient can negatively impact trust.*“It’s one of those scenarios where if you’re literally in and out, there’s not enough interaction for people to get to know you. (Conversely, there is) an osteopath in town that spends two hours with their patients. And most people were just like, ‘That was way too much’. It actually eroded their credibility.” [I5]* (3) |
| Code: if a DC is considered as a healer, there are certain normative expectations derived from the wider culture | Given the claim of the chiropractor that he is "a healer", as discussed in one study, the legitimacy of the claim is supported by qualifications, actions, maintaining a certain environment, certain appearance and level of competence. | “a) Dr. Miller’s fundamental claim is that he is a healer. By this claim to legitimacy he asserts that he is a qualified and practicing authority in the healing  arts,  and  potentially  helpful  to  people  who  present  to  him.  As such  he  is  allowed  to  make  certain  kinds  of  statements  and  do  certain  things, patients are correct to consult him in illness and he is entitled to the respect and rights accorded  healers. Dr. Miller exceeds this minimal definition of a healer by claiming to be a professional healer and earning his  living  through  healing.  He contrasts  himself  with  other  professional healers in the American health system, as is shown below. b) There are normative expectations  of what a healer is that derive from the wider culture” (1) |
| Code: importance of conversation and being listened to facilitate trust as well | Genuine concern and empathy expressed by listening to what a patient has to say facilitate trust. | “After the intervention, participants noted that they had developed a collaborative relationship with their chiropractors. Working with a chiropractor capable of integrating abroad variety of approaches and responsive to their concerns made sense to the participants. Participants expressed the importance of trust in their experience with the chiropractor.* *[I stayed in the study] because [I had learned] after trusting my doctor [how important that is for treating my migraines.] When I met the chiropractic doctors, I noticed positive impact on every-thing and I noticed that they are very excellent.*
* *I trusted [the chiropractor] would understand, and he would always shift [his approach] based on whatever I was saying.” (4)*
 |
| Code: ongoing professional development as validation of credibility and sincerity | A chiropractor acknowledge that a facilitator to the formation of trust are the efforts he has invested in his professional development. | “On  the  other  hand,  he  will suggest  that he has made sacrifices  in time, effort and  money to masterhis art: “Like I tell my patients, it’s been a lot of aggravation, a lot of extra study, extra money, a lot of extra work, a lot of extra wondering what the hell is going on. But I don’t regret a bit of it. It’s all been worth it.” (1) |
| Code: patient's psychological processes influencing the establishment of trust | It is recognised that there are psychological process such as anxiety and attachment which impact patients' willingness to trust or challenge the claims made by the chiropractor. | “The  healer  is  not  without  assistance  in  asserting  his  trustworthiness. The patient  will to varying  degrees  be prepared  to attribute  trustworthiness  to  the  healer  on  the  basis  of  idiosyncratic  psychological  processes (i.e., transference,  anxiety, attachment) and attitudes, props and mise-en-scène,  and “misrecognition”] of the significance  of cues in the healer’s  performance.  Some  patients  are  more  trusting  than  others.  The healer  will vary his or her performance,  consciously  and unconsciously, depending on his or her interpretation of the contingencies of the setting and manoeuvring by the patient”(1) |
| Code: patients' trust in their DC may limit their involvement in clinical decision making | When a patient trusts the chiropractor this could mean that their involvement in clinical decision making is limited. | “Interviewees mentioned that treatment planning was typically proposed by the chiropractor with their agreement. However, this finding did not correspond with the higher scores on the ‘patient activation’ subscale, which includes items dealing specifically with treatment choice and patient involvement in generating ideas for treatment plans. Interviewees indicated that patient involvement in clinical decisions was typically limited, whether by the chiropractor or the patient themselves. “He proposed something and asked if it sounded reasonable and I said he’s the professional, and let’s do it.” (Patient 4)” (16) |
| Code: role of empathy in building trust | Demonstrating empathy in times of vulnerability facilitates trust. | “Many of our interviewees identified that patients can be vulnerable and that demonstrating empathy and placing patient needs above self-serving motives help establish trust.” (3)  |
| Code: role of nonverbal communication in the process of forming trust | A participant describes how paying attention to and matching patients' body language facilitates the development of trust. | “Participant 3 (I3) described crossing legs, how patients hold their hands, and whether they look at you as non-verbal indicators of patients’ level of trust. Participant 4 (I4) described a mirroring technique which matches the patients’ body language and communication style in order to build trust.*“Eye contact, firm handshake, knowing when and when not to touch somebody, because obviously it’s a really an intimate experience when you’re seeing a chiropractor…”(3)* |
| Code: trust and rapport as facilitators to treatment engagement | Trust was identified as a facilitator to exercise adherence. |

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| 3. The Therapeutic Alliance and Patient-centered Care | * Poor clinical relationship.
* Patient perceives the practitioner does not understand them.
 | 1. Trust and rapport developed.
2. Chiropractor helps patient set meaningful exercise-based goals.
 |

(14) |
| Code: trust in the chiropractor based on the claims he makes | The process of forming mutual trust consists of different claims made by the chiropractor which are then validated over time. | The healing encounter may be analyzed as a communicative and performative event [6, 7, 8]. It is possible to elucidate four claims, which, although they  may  be  satisfied  in  different  ways  by  different  healers,  may  be intrinsic to healing encounters generally. It is on the basis of these claims that trust in the healer is encouraged or discouraged. The claims are: 1.  “I am a healer.” 2.  “I am sincere.” 3.  “I practice a form of medicine that derives its power from truth.” 4.  “I am making changes that will be realized in an improvement in your illness.” (1) |

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