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Improper Communication Makes for Squat: A Qualitative Study of the Health-Care Processes Experienced By Older Adults in a Clinical Trial for Back Pain

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Abstract

Background: The study focused on perceptions of older adults toward the healthcare processes they experienced during a clinical trial for back pain that involved family medicine residents and licensed chiropractors. **Methods:** Individual semi-structured interviews were conducted with 115 older adults after a 12-week, 3-arm, randomized controlled trial. Two researchers conducted thematic analysis with inductive coding using qualitative software to identify participants' salient experiences of the doctor–patient relationship, healthcare process, and collaboration between study providers. Investigators categorized thematic codes within an existing framework of clinical excellence in primary care. **Results:** Participants emphasized provider communication and interpersonal relationships, professionalism and passion for patient care, clinical and diagnostic acumen, and skillful negotiation of the health-care system. Older adults also described the importance of interdisciplinary collaboration and their preferences for receiving hands-on treatments for musculoskeletal conditions. **Conclusion:** These older adults valued doctors who communicated clearly and spent time listening to their concerns. Many participants appreciated clinicians who supported an active role for patients in their health-care and who provided touch-based care for musculoskeletal conditions.

Keywords

chiropractors, collaboration, family medicine physicians, doctor–patient relationship, older adults, health services delivery

Introduction

Health-care providers, including family medicine doctors (MDs) and doctors of chiropractic (DCs), face special challenges when treating older adults with painful musculoskeletal conditions, such as low back pain (LBP). A National Institutes of Health Task Force of Research Standards for chronic LBP defined the condition as back pain that is an ongoing problem for the past 3 months (1). Among US adults, between one-quarter to one-third have experienced LBP during a 3-month period and the rates are similar in adults older than 65 (2,3). Low back pain symptoms may present in older adults as or along with other biomechanical and soft-tissue abnormalities (4), such as scoliosis, sacroiliac or hip pain, or myofascial pain. Without reliable evaluation, including a structured history and physical examination, such conditions might be missed (4), which can lead to overutilization of healthcare resources, such as inappropriate or unnecessary testing, imaging, and injection procedures (5). Low back pain is an important topic of interest because it is one of the most common reasons people seek health care (6). It is especially crucial to learn about LBP in older adults because it can interfere with activities of daily living and increase the risk of falling (7).

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Health communication, one facet of the doctor–patient relationship, is an important component of chronic pain management. Problematically, doctors' empathy may decrease for older patients and those with chronic pain (8), which may impact patient outcomes (9). This could be the result of a steady decline in empathy among younger people due to a decrease in face-to-face communication and also a decrease in medical student empathy (10,11). Additionally, patients who appear distressed or in pain appear to be harder to work with which could adversely affect provider–patient relationship and empathy (12).

Human interaction is a psychophysiological process, such that providers and patients who perceive empathy and mutuality during the clinical encounter both benefit (13). Differential communication and decreased empathy associated with chronic pain may negatively impact the doctor–patient relationship (14). Strong doctor–patient relationships may lead to better treatment adherence, higher patient satisfaction, and better health outcomes (15). Patients value respect as an important aspect of doctor–patient communication (16), with shared values and support considered essential for effective collaboration (17). Barriers to effective health communication include poor interpersonal skills on the part of the physician, overuse of medical terminology, and not listening thoroughly to the patient's complaints (18).

Qualitative studies of patients living with LBP describe varied aspects of health communication, such as ageism and negative attitudes (19), professional and family support (20), and clinician feedback (21), as affecting patient perceptions of the doctor–patient relationships. Our previous work explored older adults' opinions about the potential benefits of collaboration between MDs and DCs for managing LBP, with interprofessional communication a primary consideration (22). The purpose of this study was to explore older adults' perceptions of the healthcare processes, including doctor–patient relationships and health communication, that they experienced during a clinical trial of interprofessional care for LBP.

Methods

This descriptive study was a secondary analysis of qualitative interviews from a prospective randomized controlled trial (RCT) (23-25). Participants were randomized into 3 treatment groups and received 12 weeks of (a) primary medical care for LBP, (b) parallel primary medical and chiropractic care, or (c) collaborative primary medical and chiropractic care using a professional practice model to improve interdisciplinary communication. Trial participants (n = 131) were age 65 years or older and diagnosed with subacute or chronic LBP, with the current LBP episode lasting at least 1 month in duration and with an LBP severity rating $\geq$4 on the 11-point pain numerical rating scale (NRS) (25). Given the design of this pragmatic RCT, which was to evaluate 3 different professional practice models of conservative care for LBP, neither the patient participants nor their study clinicians were blinded to participant treatment group (23). Institutional review boards (IRB) at Genesis Health System and Palmer College of Chiropractic, Davenport, Iowa, approved the study protocol for the original trial, with the Palmer College IRB approving the secondary analysis. Participants provided written consent and gave verbal permission to audio-record (23).

The corresponding author (S.A.S) completed all interviews (n = 115) at the chiropractic research clinic after collection of the quantitative outcomes. The audio-recorded interviews followed a structured guide and lasted approximately 15 minutes (range 10-25 minutes) in duration. Recordings were transcribed verbatim by a professional service and reviewed for accuracy. For this secondary analysis, full transcripts were de-identified (names/titles removed) and shortened to include the sections which explored the older adults' experiences of their doctor–patient relationships and perceptions of collaboration between MDs and DCs. The data analysts were also blinded to participants' age, gender, and treatment group. Transcripts were imported into NVivo-9 software (QSR International, Doncaster, Victoria, Australia) for analysis.

Demographic statistics were calculated with SPSS version 22.0 (IBM SPSS Statistics, Chicago, Illinois). Measurement of clinical characteristics was described in detail in the published protocol (23) and reported in the primary results (25). Briefly, overall pain level in past 24 hours was recorded using an 11-point NRS where 0 was rated as "no pain" and 10 was rated as "worst possible pain." Baseline LBP duration was categorized on a 7-point scale with 1 being pain onset of less than 1 week and 7 being pain onset 1 year or more, with clearly defined categories between these anchors. Baseline general health status was rated on a 5-point scale, with 1 = excellent, 2 = very good, 3 = good, 4 = fair, and 5 = poor.

Two researchers (B.W. and S.A.S.) conducted a thematic analysis to describe the experience of these health-care processes from participants' perspectives (26). S.A.S. is a female, PhD-prepared, registered nurse with advanced training in geriatric nursing and extensive experience conducting qualitative research. S.A.S. served as the project manager for this RCT; her primary interaction with patient participants consisted of conducting these qualitative interviews. B.W. is a female doctor of chiropractic who was a student in a master of science in clinical research program who completed coursework and mentored experiences in qualitative research. She had no contact with the participants as this was a secondary data analysis which was completed after the original study. D.D., L.N., and D.L., faculty members at Palmer College of Chiropractic, served as graduate advisory committee members to B.W. during her degree program and had no interactions with patient or clinicians in this trial. C.G. was the principal investigator of the trial and had no interaction with patient participants. S.A.S. and C.G. were involved in clinician training for the RCT.

Table 1. Baseline Characteristics of 115 Older Adults With Low Back Pain.

Variable	n (%), unless specified
Age (years), mean (SD)	72.9 (6.2)
Sex, male	74 (64%)
Ethnicity, not Hispanic/Latino	112 (97%)
Race, white	108 (94%)
Education, high school graduate or higher	112 (97%)
Overall pain in past 24 hours, 0- to 10-point numerical rating scale, mean (SD)	5 (3)
Duration of low back pain, 1 year or longer	95 (82%)
General health status	
Excellent or very good	38 (33%)
Good	60 (52%)
Fair or poor	17 (15%)

Abbreviation: SD, standard deviation.

A random sample of 36 interviews, stratified by gender and treatment group, was analyzed to generate the initial codebook. The analytic team relied upon inductive coding, a process where researchers generate insights while reading the transcript, therefore developing the coding framework on an ongoing basis throughout analysis (26). Multiple rounds of coding took place in NVIVO. B.W. first coded 36 interviews, which S.A.S. then reviewed. The analysis team met to discuss the codebook and development of themes, with emerging themes disseminated to the graduate advisory committee at key points throughout the analysis. B.W. revised the coding based on these discussions, and then proceeded to code another round of interviews and meet again to discuss until all transcripts were complete. As more themes or codes were generated, previously coded interviews were recoded. After multiple coding rounds of all 115 transcripts, codes were organized into themes, or recurrent concepts summarizing the range of topics or experiences of participants (26). Themes then were categorized into the core domains of clinical excellence for primary care, including communication and interpersonal skills, professionalism and humanism, diagnostic acumen, skillful negotiation of health care systems, knowledge, scholarly approach to practice, and passion for patient care (27). Quotes are provided with a participant number, gender, and age.

Results

Table 1 shows participant demographics (25). Figure 1 provides the health-care processes identified by participants as important in LBP management. These older adults emphasized 4 themes consistent with the clinical excellence in primary care framework (27), including communication and interpersonal relationships, professionalism and passion for patient care, clinical and diagnostic acumen, and skillful negotiation of the health care system. Two additional themes also were important to participants, interdisciplinary collaboration and hands-on treatment approaches for musculoskeletal complaints.

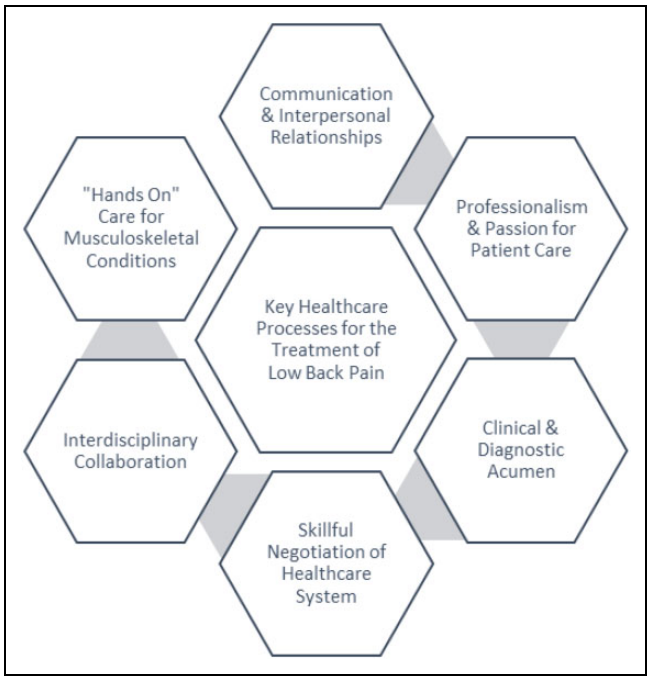

Figure 1. Older adults' perceptions of key health-care processes for the treatment of low back pain.

Communication and Interpersonal Relationships

Participants reported generally favorable interpersonal relationships with study clinicians and remarked upon the caring bedside manner of both the MDs and DCs. Patients often mentioned their clinician was helpful, encouraging, and genuine. Patient-centered communication set the tone for positive relationships:

> She makes you feel at ease. You don't hesitate to tell her anything and everything, and she works well with you. She's a good conversationalist; explained everything . . . She's very good. I enjoyed her company; enjoyed her work (P4, Female, Age 74).

Several aspects of communication were mentioned as being important for providers to grasp. Listening was a top priority. Patients liked to express their concerns and be heard by the clinicians:

> I think the communication process was important, the listening and the direction back and forth is probably the most important thing. I mean, the fact that I told her what my problem was, she said "okay." And once we had addressed the treatment she said, "do this or do that" . . . it was just caring and information between the individuals (P54, Male, Age 66).

(Doctor) would sit down and ask me what I was doing and listen to everything I had to say and answer all my questions . . . wonderful with teaching (P21, Female, Age 68).

He listened to concerns. The neck cracking, kind of, freaked me a little bit. When I told him that, he concentrated on other things and we stayed away from that area (P32, Male, Age 65).

Some participants did not think their clinician communicated effectively, which may have shaped their perceptions of the quality of care they received:

None of them did anything anyway, they just asked questions and recommended Tylenol (P3, Male, Age 72).

Professionalism and Passion for Patient Care

Professionalism was a quality these older adults noticed, whether the attitude was demonstrated by their doctor or went lacking. Participants liked their doctor to be courteous, organized, and thorough in their treatment plan.

He always was very cordial, always answered all my questions. We discussed things, and he was very, very thorough about explaining things to me (P69, Male, Age 72).

The concept of time was also valuable to these older adults. Patients appreciated it when their doctor took time to listen and address their concerns.

She's been fantastic, very patient-oriented, very caring, takes time to listen, to any questions or concerns you have, and address them, takes the time (P44, Female, Age 70).

He explained different things and had plenty of time. I never felt rushed. I was totally relaxed. He was very professional (P113, Female, Age 77).

Participants preferred doctors who were compassionate and enthusiastic about their job. Encouragement and empathy were important for trial participants:

(Doctor) seemed to care about me as a person, not just as a study object, but as a person and knew what I was going through (P84, Male, Age 67).

Clinical and Diagnostic Acumen

These older adults valued a doctor who knew how to manage their care; that is, possessed the clinical acumen to diagnose and treat LBP:

If you had an ache or a pain, she straightened you out. She put you back on the right track (P4, Female, Age 74).

Participants appreciated clinicians who kept them informed about their conditions and treatment options:

I liked knowing what they found and why I was having pain (P115, Male, Age 66).

They also wanted answers about their health-related diagnoses, which some patients had sought over many years and across multiple providers:

I've had several back doctors . . . He is the first one who explained to me what's wrong with me, why this hurt. I went home, and I was telling my family, "I now understand why my back hurts so much where it hurts, why it hurts there." He did a great job. First of all, he told me, "this is what we're looking at, and this is what we can do." And then he did it (P52, Female, Age 65).

Of special interest to these older adults was the self-care advice offered by their doctors for their LBP:

He examined me and figured out the problem and gave me exercises to do and kept checking me. I mean it couldn't have been any better, got down to the problem and we worked it out and solved it (P38, Male, Age 66).

There were, however, some providers that study participants remarked on as lacking this essential clinical acumen:

I felt she cared, but she didn't do anything. She just asked me the same questions the receptionist or the other person did (P5, Female, Age 74).

Skillful Negotiation of the Health-Care System

Participants wanted doctors who know the local health-care system. Older adults appreciated doctors who knew when to refer them to another doctor and who had established relationships with professional colleagues who might better address their health concerns:

Very informative as far as what he said to me and what he did in the referrals he made, but it was all the referrals that's where I got my help (P7, Female, Age 77).

However, a few participants commented their referrals were for medical services rather than for complementary or chiropractic care:

He suggested physical therapy and the option of surgery. He never suggested that I should get chiropractic treatment (P100, Male, Age 65).

Interprofessional Collaboration

Participants considered interprofessional collaboration, the primary intervention tested in this RCT, as beneficial and essential for patient care:

> Collaboration between any providers is always necessary no matter what the subject matter. Proper communication makes for good performance. Improper communication makes for squat (P36, Male, Age 67).

These older adults noted changes in their interactions with providers when the clinicians shared their treatment notes or communicated with each other through telephone calls:

> When I got over to the MD, he seemed to know what was going on with my problems that were being taken care of here [at the chiropractic clinic] (P4, Female, Age 74).

Hands-On Treatment Approach

Participants highly valued hands-on treatment approaches and specifically stated the words "hands-on," "human contact," or "touch" during their interviews. Clinicians offering manual therapies, such as chiropractors, physical therapists, and massage therapists were appreciated for their hands-on approach, with many of these older adults associating touch with treatment.

> MD was fine, but the physical therapist just had the hands on, like the DC had the hands on (P21, Female, Age 68).

Participants also negatively compared providers who only asked health questions about their musculoskeletal complaint, with those who conducted through a physical examination or offered hands-on treatments:

> I'm sure he did his job and he was very pleasant, and he explained things and was informative, but as far as a hands-on thing . . . (P4, Female, Age 74).
>
> It was a hands-off arrangement over there, it was a hands-on arrangement over here (P90, Male, Age 78).
>
> (Doctor) did a few of the things—put me on the table and pulling my leg up. "Does this hurt? Does that hurt?" Just went through some of that routine and it was a good experience (P77, Male, Age 75).

Table 2 offers perceived strengths in patient-provider communications and areas for improvement. Each theme included positive and negative examples, for both MDs and DCs. Many participants (n = 53), when asked how doctor–patient interactions might improve, stated either no improvements were needed, or they were unqualified to make this determination, as they were not health care providers. Participants appreciated it when providers had a caring demeanor. Patient education was important as patients wanted to be able to discuss treatment options with their providers and have the providers listen to them with concern. Time was also valuable as patients wanted the doctors to spend time with them as well as frequent treatments.

Discussion

This secondary analysis of qualitative interviews highlighted important aspects of the health care processes experienced by older adults who completed a pragmatic RCT of 3 professional practice models of LBP care involving medical doctors and DCs. This RCT was conducted in 2 unique settings, a family medicine residency program that trained early career physicians and a chiropractic research center that employed DCs with at least 5 years clinical experience. With only one exception, the assigned clinicians were not the primary care provider or usual chiropractor of the participant. In addition, most patient participants received care from both MDs/DOs and DCs and also might have received care from other types of health professionals. Given this trial context, we primarily sought to understand the experiences of these older adults in receiving LBP care under these different practice models comprehensively across providers rather than comparatively between the professions or treatment groups.

Participants reflected extensively upon the doctor–patient relationships they had with the clinicians who treated them in this study. These older adults appreciate doctors who were effective communicators, skillful listeners, apt diagnosticians, and sound educators. Participants remarked negatively on the quality of their health-care when such communication was lacking. Similar to our findings, a recent scoping review of patients' perceived needs of health-care providers for LBP management indicated a desire for good communication, shared decision-making, information that legitimized their symptoms, and individualized continuity of care (28).

We aligned our coding framework to a systematic review of 2000 studies that informed a model of clinical excellence in primary care that included 6 major themes: communication and interpersonal skills, professionalism and humanism, diagnostic acumen, skillful negotiation of the healthcare system, knowledge and a scholarly approach to clinical practice, and a passion for patient care (27). Our participants discussed these indicators of clinical excellence, except for the theme of the providers' knowledge base and scholarly approach, which, along with professional orientation, may influence LBP outcomes (29). Interestingly, primary care providers and health professionals with a special interest in LBP may lack knowledge about appropriate treatments (30,31), demonstrate fear-avoidant behavior (21,32), or hold problematic attitudes about LBP (33,34) that may impact patient perceptions of health-care quality (35).

Our analysis introduces an additional theme to the concept of clinical excellence, the hands-on treatment approach (22), which may be an especially salient concern for patients with musculoskeletal complaints, such as LBP, or those who have had positive past experiences with manual therapies. Many of the older adults we interviewed praised providers who touched them during clinical exams or who treated their LBP with their hands, whether these providers were chiropractors, physical therapists, or osteopathic and medical physicians. In contrast, these elders spoke critically of clinicians

Table 2. Older Adults' Perceptions of the Health-Care Processes in a Low Back Pain Clinical Trial.

Theme	Participants Quoted (n)	Strengths Quote	Needed Improvement Quote
Use caring demeanor	94	He treated me as an individual rather than just another person to see. (P58) He was concerned, wasn't just going through a study to garner information, he really cared. That made a difference for me (P84)	She said, "Now this is with the study, with the lower back pain study." She did make it clear, which was good, that we weren't to talk about everything [health-related]. Okay. She was there with the study as a study doctor, not as my personal doctor (P109)
Discuss treatment options	60	They listened well as to what the situation was and made some general comments about exercising and possible physical therapy if the pain were to get worse. (P32) Checked the meds and advising me to resume some of the physical therapy, and activities that I knew about. (P47) Ordering the physical therapy and encouraging me to lose weight (P9)	They just took my vitals, asked me what medications I was on, and that was the extent of it. (P114) He could have done better, by being more helpful, getting more involved in the case, asking and answering more questions. He could have been more open and made more suggestions [about] my habits (P100)
Offer patient education	56	Maximized education that allowed me to take more control myself with what was going in my life with my back. (P31) She gave me printouts of what I should be doing every day. Helps a lot in that you can't remember everything, especially at my age . . . I still got those pictures, and I will continue to use them. (P101) Explain what she was going to do so you didn't wonder what was going to happen to you (P88)	Maybe explain a little bit better some of the whys [of medication changes]. I understood better on my follow-up visit . . . why we wanted to change [dose and timing]. (P1) Just tell me what is wrong with it. I would like to know why my back hurt. Is it that I'm getting at the age where that decreases? I don't have any – I call them cushions [discs] between them [vertebrae]? I would like to know why I have this back pain (P5)
Listen with concern	17	He listened and seemed interested. He would want to know how the week had been, very compassionate and professional, very good at what he does. (P79) She listened as if she heard what I said and responded appropriately. My experiences with doctors have not been like that (P12)	I had three appointments, saw three doctors. The only one that really seemed like he knew what was going on was the last one. That was quite satisfying. Actually sat and talked to me. What the pain was, how it related, the pain going down the legs. He seemed quite thorough (P41)
Provide frequent treatments	16	Doctor worked on that thing [spine condition], I think about three weeks . . . now it's straightened out. (P78) Zeroed in on the problem . . . treated me each time with care . . . questions about my progress. Saw me 11 times for the problem. It's to the point now where she feels I have to call [if appointments are needed] (P75)	Doctors ought to see patients more often because, I don't know if physically it would have done anything, but mentally it would have made me feel like they cared (P36)
Spend time with patient	12	I have never had a doctor who spent this much time. (P12) He explained a lot of different things and had plenty of time; I never felt rushed. For the first time in my life, I was totally relaxed on the table, totally. (P113) She seemed pretty thorough . . . I was there almost an hour, there were a lot of questions and checking out stuff (P92)	Be involved. Initial appointment was going to take 30-45 minutes. It took 11 minutes because he spent too much time with the person before me. He came and said, hi, and left. It was very unsatisfying (P41) Lengthen out the thing, give a 15-minute treatment, maybe have it as a half hour. It's like therapy. (P30) I wish he could have spent more time with me. I think he could have had more input as far as what this pill's going to do rather than just say, here, take these (P103)

whose approach used talk, medications, or referral with little physical touch. Human touch is beneficial for decreasing pain levels (36,37) which may explain why these patients appreciated the hands-on treatment approach (22). Clinicians untrained in the manual therapies might consider how to incorporate more hands-on approaches, such as physical examinations, when caring for patients with musculoskeletal conditions.

Communication was valuable to the patients. The older adults in this study did not like one-sided communication where the doctor was doing most of the talking. Although not specifically in this study, this harmonizes with previous literature examining barriers to effective doctor–patient communication, which may be attributed to a lack of communication skills on the doctor's end, the use of medical terms, and not listening thoroughly to the patients' complaints (18). Patients want open communication and a doctor who listens carefully and gives appropriate time and attention to their needs (38). A qualitative study of adults 50 years and above showed that doctors need to initiate conversations and help guide patients health-care management (39).

The combination of poor communication and decreased empathy associated with chronic pain may negatively impact the doctor–patient relationship. Doctor–patient communication may also differ based on the social class and education of the patient. Patients with more education and a higher social class tend to be more involved in their health care and may have better communication with their doctor (14). When patients have a good relationship and trust their doctor, this may allow for better communication.

These patients wanted doctors to offer LBP treatment options besides pain medicine or referrals to other providers, which is consistent with another study of older adult perspectives of medical care for back pain (40). Collaboration between MDs, DCs, and other healthcare professionals is a result of good communication, with the patient's best interest in mind (14,41). Some studies of MDs, DCs, and DOs show that referral patterns among providers are low; thus, comanagement is minimal (42-44). If comanagement occurs, usually the patient is the source of information between providers, not the providers themselves (16). Collaboration among providers can affect the quality and efficiency of the healthcare system (42). If doctors are aware patients desire collaborative care, doctors may want to start collaborating with the patient's other healthcare providers. This may also change the doctor–patient relationship because if the patient knows that his or her doctor is trying to learn about their total healthcare picture, they may trust the doctor's opinions and treatment options. Learning the importance of collaboration in the study also corresponds to the literature, which states that collaborating leads to better communication, more comprehensive services, and better health education (45).

Limitations

Nonresponse bias is a potential limitation given the number of participants who made no recommendations for improving trial processes or who reported they were unqualified to make such suggestions because they were not a doctor. Other studies have noted older adults' reluctance to bother or burden doctors with pain-related complaints because of their previous interactions with providers (19,46). In addition, our participants were almost exclusively white, non-Hispanic older adults from the Midwestern United States, whose perceptions of LBP care may not reflect those of more racially, ethnically, geographically, or age diverse populations. Our study clinicians were not the usual primary care providers or chiropractors for these participants. These older adults might have offered different perspectives on the LBP care received from their own clinicians in their usual healthcare settings. As is the case for pragmatic RCTs that examine healthcare processes, including those using manual therapy techniques, blinding of patients and providers to the study interventions was not possible (47). Thus, we are not able to assure that the patients' participation in a clinical trial did not somehow bias the clinicians' communication patterns. We also cannot definitively state that the patients' perceptions of these healthcare processes were not colored by other aspects of this RCT, such as dissatisfaction with treatment group assignment or perceived clinical outcomes. Future studies also may consider assessing patients' perceptions of health communication with clinicians who are gender- or ethnicity-congruent with themselves (48,49) or between patients and doctors who had similar preferences for the amount and style of patient involvement in health-related collaboration (50,51). This may influence patient perceptions of care quality and clinical outcomes. Finally, this analysis sought to uncover how health professionals generally might improve healthcare processes and communication with older adults. We intentionally removed specific references to individual providers or professional groups from the transcripts prior to analysis. A strength of our study was that the analysis team was composed of a registered nurse (the mentor) and a doctor of chiropractor (the mentee), representing both the biomedical and complementary medicine perspectives, which allowed for fruitful conversations intended to minimize researcher reflexivity, or the potential effects of the researchers' personal experiences, background, or beliefs on the analysis and enhance the trustworthiness of the findings (52). There may be, however, very real differences in the ways that DCs and medical physicians interact with their patients which should be explored in future studies.

Conclusion

Older adults in this trial identified healthcare processes that enhanced their experience with multidisciplinary care for back pain. Participants appreciated patient-centered communications in which doctors spent time listening to their concerns and used their clinical acumen to provide diagnostic explanations on back pain causation and self-care options. These older adults emphasized the importance of hands-on care for back pain, which included chiropractic treatments and medical examinations of musculoskeletal complaints. Interdisciplinary collaboration between providers also was viewed as beneficial. Future research might evaluate the effectiveness of communication and touch-based interventions for older patients with musculoskeletal pain.

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References

1. Deyo RA, Dworkin SF, Amtmann D, Andersson G, Borenstein D, Carragee E, et al. Report of the NIH task force on research standards for chronic low back pain. Int J Ther Massage Bodywork. 2015;8:16-33.
2. Strine TW, Hootman JM. US national prevalence and correlates of low back and neck pain among adults. Arthritis Care Res. 2007;57:656-65.
3. Deyo RA, Mirza SK, Martin BI. Back pain prevalence and visit rates: estimates from U.S. national surveys, 2002. Spine (Phila Pa 1976). 2006;31:2724-7
4. Weiner DK, Sakamoto S, Perera S, Breuer P. Chronic low back pain in older adults: Prevalence, reliability, and validity of physical examination findings. J Am Geriatr Soc. 2006;54:11-20
5. Weiner DK, Kim Y-S, Bonino P, Wang T. Low back pain in older adults: are we utilizing healthcare resources wisely? Pain Med. 2006;7:143-50.
6. Deyo RA, Weinstein JN. Primary care: low back pain. N Engl J Med. 2001;344:363-70.
7. Hicks GE, Gaines JM, Shardell M, Simonsick EM. Associations of back and leg pain with health status and functional capacity of older adults: findings from the retirement community back pain study. Arthritis Care Res. 2008;59:1306-13.
8. Gulbrandsen P, Madsen HB, Benth JS, Laerum E. Health care providers communicate less well with patients with chronic low back pain—a study of encounters at a back pain clinic in Denmark. Pain. 2010;150:458-61.
9. Hojat M, DeSantis J, Gonnella JS. Patient perceptions of clinician's empathy: measurement and psychometrics. J Patient Exp. 2017;4:78-83.
10. Konrath SH, O'Brien EH, Hsing C. Changes in dispositional empathy in American college students over time: a meta-analysis. Personal Soc Psychol Rev. 2011;15:180-98
11. Hojat M, Vergare MJ, Maxwell K, Brainard G, Herrine SK, Isenberg GA, et al. The devil is in the third year: a longitudinal. Acad Med. 2009;84:1182-91
12. Vowles KE, Thompson M. The patient-provider relationship in chronic pain. Curr Pain Headache Rep. 2012;16:133-8
13. Finset A, Ørnes K. Empathy in the clinician–patient relationship. J Patient Exp. 2017;4:64-8.
14. Verlinde E, De Laender N, De Maesschalck S, Deveugele M, Willems S. The social gradient in doctor-patient communication. Int J Equity Health. 2012;11:12.
15. Aelbrecht K, Rimondini M, Bensing J, Moretti F, Willems S, Mazzi M, et al. Quality of doctor patient communication through the eyes of the patient: variation according to the patients educational level. Adv Heal Sci Educ. 2014;20:873-84.
16. Hsiao AF, Ryan GW, Hays RD, Coulter ID, Andersen RM, Wenger NS. Variations in provider conceptions of integrative medicine. Soc Sci Med. 2006;62:2973-87.
17. Hellman T, Jensen I, Bergström G, Brämberg EB. Essential features influencing collaboration in team-based non-specific back pain rehabilitation: findings from a mixed methods study. J Interprof Care. 2016;30:309-15.
18. Wu H, Zhao X, Fritzsche K, Leonhart R, Schaefert R, Sun X, et al. Quality of doctor-patient relationship in patients with high somatic symptom severity in China. Complement Ther Med. 2015;23:23-31.
19. Makris UE, Higashi RT, Marks EG, Fraenkel L, Sale JEM, Gill TM, et al. Ageism, negative attitudes, and competing co-morbidities—Why older adults may not seek care for restricting back pain: A qualitative study. BMC Geriatr. 2015;15:39.
20. Snelgrove S, Liossi C. Living with chronic low back pain: a metasynthesis of qualitative research. Chronic Illn. 2013;9:283-301.
21. Darlow B, Dowell A, Baxter GD, Mathieson F, Perry M, Dean S. The enduring impact of what clinicians say to people with low back pain. Ann Fam Med. 2013;11:527-34
22. Lyons KJ, Salsbury SA, Hondras MA, Jones ME, Andresen AA, Goertz CM. Perspectives of older adults on co-management of low back pain by doctors of chiropractic and family medicine physicians: a focus group study. BMC Complement Altern Med. 2013;13:225.
23. Goertz CM, Salsbury SA, Vining RD, Long CR, Andresen AA, Jones ME, et al. Collaborative Care for Older Adults with low back pain by family medicine physicians and doctors of chiropractic (COCOA): study protocol for a randomized controlled trial. Trials. 2013;14:18.
24. Salsbury SA, Goertz CM, Vining RD, Hondras MA, Andresen AA, Long CR, et al. Interdisciplinary practice models for older adults with back pain: a qualitative evaluation. Gerontologist. 2018;58:376-387.
25. Goertz CM, Salsbury SA, Long CR, Vining RD, Andresen AA, Hondras MA, et al. Patient-centered professional practice models for managing low back pain in older adults: a pilot randomized controlled trial. BMC Geriatr. 2017;17:235.
26. Green J, Thorogood N. Qualitative Methods for Health Research. Introducing Qualitative Methods. 2nd ed. 2009;304.
27. Lee K, Wright SWL. The clinically excellent primary care physician: examples from published literature. BMC Fam Pract. 2016;17:169.
28. Chou L, Ranger TA, Peiris W, Cicuttini FM, Urquhart DM, Sullivan K, et al. Patients' perceived needs of healthcare

providers for low back pain management: a systematic scoping review. Spine J. 2018;18:691-711.
29. Darlow B, Fullen BM, Dean S, Hurley DA, Baxter GD, Dowell A. The association between health care professional attitudes and beliefs and the attitudes and beliefs, clinical management, and outcomes of patients with low back pain: a systematic review. Eur J Pain. 2012;16:3-17.
30. Buchbinder R, Staples M, Jolley D. Doctors with a special interest in back pain have poorer knowledge about how to treat back pain. Spine (Phila Pa 1976). 2009;34:1216-26.
31. Cayea D, Perera S, Weiner DK. Chronic low back pain in older adults: what physicians know, what they think they know, and what they should be taught. J Am Geriatr Soc. 2006;54:1772-7.
32. Linton SJ, Vlaeyen J, Ostelo R. The back pain beliefs of health care providers: are we fear-avoidant? J Occup Rehabil. 2002; 12:223-32.
33. Fullen BM, Baxter GD, O'Donovan BGG, Doody C, Daly L, Hurley DA. Doctors' attitudes and beliefs regarding acute low back pain management: a systematic review. Pain. 2008;136: 388-96.
34. Breen A, Austin H, Campion-Smith C, Carr E, Mann E. "You feel so hopeless": A qualitative study of GP management of acute back pain. Eur J Pain. 2007;11:21-9.
35. Walker J, Holloway I, Sofaer B. In the system: the lived experience of chronic back pain from the perspectives of those seeking help from pain clinics. Pain. 1999;80:621-8.
36. Mancini F, Nash T, Iannetti GD, Haggard P. Pain relief by touch: a quantitative approach. Pain. 2014;155:635-42.
37. Marta IER, Baldan SS, Berton AF, Pavam M, da Silva MJP. The effectiveness of Therapeutic Touch on pain, depression and sleep in patients with chronic pain: clinical trial. Rev Esc Enferm USP. 2010;44:1100-6.
38. Quigley DD, Elliott MN, Farley DO, Burkhart QQ, Skootsky SA, Hays RD. Specialties differ in which aspects of doctor communication predict overall physician ratings. J Gen Intern Med. 2014;29:447-54.
39. Silver MP. Patient perspectives on online health information and communication with doctors: a qualitative study of patients 50 years old and over. J Med Internet Res. 2015;17:e19
40. Goold SD, Lipkin M. The doctor–patient relationship. J Gen Intern Med. 1999;14:26-33.
41. Pelletier KR, Marie A, Krasner M, Haskell WL. Current trends in the integration and reimbursement of complementary and alternative medicine by managed care, insurance carriers, and hospital providers. Am J Heal Promot. 1997;12:112-23.
42. Smith M, Greene BR, Haas M, Allareddy V. Intra-professional and inter-professional referral patterns of chiropractors. Chiropr Osteopat. 2006;14:12.
43. Weigel PAM, Hockenberry JM, Bentler SE, Kaskie B, Wolinsky FD. Chiropractic episodes and the co-occurrence of chiropractic and health services use among older medicare beneficiaries. J Manipulative Physiol Ther. 2012;35:168-75.
44. Carey TS, Freburger JK, Holmes GM, Castel L, Darter J, Agans R, et al. A long way to go: practice patterns and evidence in chronic low back pain care. Spine (Phila Pa 1976). 2009;34:718-24.
45. Gallo JJ, Zubritsky C, Maxwell J, Nazar M, Bogner HR, Quijano LM, et al. Primary care clinicians evaluate integrated and referral models of behavioral health care for older adults: results from a multisite effectiveness trial (PRISM-E). Ann Fam Med. 2004;2:305-9.
46. Clarke A, Martin D, Jones D, Schofield P, Anthony G, McNamee P, et al. "I try and smile, I try and be cheery, I try not to be pushy. I try to say 'I'm here for help' but I leave feeling . . . worried": a qualitative study of perceptions of interactions with health professionals by community-based older adults with chronic pain. PLoS One. 2014;9:e105450.
47. Machado LAC, Kamper SJ, Herbert RD, Maher CG, McAuley JH. Imperfect placebos are common in low back pain trials: a Systematic review of the literature. Eur Spine J. 2008;17:889-904.
48. Aseltine RH, Sabina A, Barclay G, Graham G. Variation in patient–provider communication by patient's race and ethnicity, provider type, and continuity in and site of care: an analysis of data from the Connecticut Health Care Survey. SAGE Open Med. 2016;4. doi:10.1177/2050312115625162
49. Mast MS, Kadji KK. How female and male physicians' communication is perceived differently. Patient Educ Couns. 2018; 101:1697-1701.
50. Jahng KH, Martin LR, Golin CE, DiMatteo MR. Preferences for medical collaboration: patient-physician congruence and patient outcomes. Patient Educ Couns. 2005;57:308-14.
51. Schinkel S, Schouten BC, Street RL, van den Putte B, van Weert JCM. Enhancing health communication outcomes among ethnic minority patients: the effects of the match between participation preferences and perceptions and doctor–patient concordance. J Health Commun. 2016;21:1251-59.
52. Berger R. Now I see it, now I don't: researcher's position and reflexivity in qualitative research. Qual Res. 2015;15:219-34.

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