

## **Physiotherapy Theory and Practice**



Date: 18 May 2017, At: 10:43

An International Journal of Physical Therapy

ISSN: 0959-3985 (Print) 1532-5040 (Online) Journal homepage: http://www.tandfonline.com/loi/iptp20

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**To cite this article:** Anoop Chowdhury PT, BSc (Hons), Post Grad Dip, Manual Therapy & Wenche Schrøder Bjorbækmo PhD, PT (2017): Clinical reasoning—embodied meaning-making in physiotherapy, Physiotherapy Theory and Practice, DOI: <u>10.1080/09593985.2017.1323360</u>

To link to this article: <a href="http://dx.doi.org/10.1080/09593985.2017.1323360">http://dx.doi.org/10.1080/09593985.2017.1323360</a>

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## Clinical reasoning—embodied meaning-making in physiotherapy

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#### **ABSTRACT**

This article examines physiotherapists' lived experience of practicing physiotherapy in primary care, focusing on clinical reasoning and decision-making in the case of a patient we call Eva. The material presented derives from a larger study involving two women participants, both with a protracted history of neck and shoulder pain. A total of eight sessions, all of them conducted by the first author, a professional physiotherapist, in his own practice room, were videotaped, after which the first author transcribed the sessions and added reflective notes. One session emerged as particularly stressful for both parties and is explored in detail in this article. In our analysis, we seek to be attentive to the experiences of physiotherapy displayed and to explore their meaning, significance and uniqueness from a phenomenological perspective. Our research reveals the complexity of integrating multiple theoretical perspectives of practice in clinical decisionmaking and suggests that a phenomenological perspective can provide insights into clinical encounters through its recognition of embodied knowledge. We argue that good physiotherapy practice demands tactfulness, sensitivity, and the desire to build a cooperative patient-therapist relationship. Informed by theoretical and practical knowledge from multiple disciplines, patient management can evolve and unfold beyond rehearsed routines and theoretical principles.

#### ARTICLE HISTORY

Received 2 October 2015 Revised 29 May 2016 Accepted 10 June 2016

#### **KEYWORDS**

Clinical reasoning; embodied meaning; phenomenology

#### **Prologue**

The physiotherapy consultation begins the moment I greet my patient and invite her into my office. I observe her appearance, body language, and facial expression; I watch how she rises from her seat and walks into the room. Inside, I've already arranged the seats so there's nothing between the patient and myself, and I sit down opposite her, within touching distance. I begin with a set of questions to get a dialog going. This structured yet permeable framework forms part of my subjective examination and enables me to gather information about her symptoms and how they impact her life while also gaining insights into her beliefs and concerns. I then move on to the physical examination. This requires her to remove relevant clothing and perform various actions on and around the plinth. As she does so, I test out hypothetical pain drivers and consider factors that might be contributing to them. I do this systematically, to ensure the evidence either supports or negates my hypothesis; the process is always open to change and backtracking. Following this, the patient gets dressed and resumes her seat. I outline my findings before discussing and negotiating a plan with her. Follow-up appointments follow the same pattern, although the content changes and evolves. (From first author's reflective notes)

## Introduction and background

In this article, we examine a physiotherapists' lived experience of practicing physiotherapy in primary care with a patient with chronic neck problems. Inspired by phenomenology, our research is based on our understanding of physiotherapy, and the competence of practitioners, as linked to pathic knowledge. Professional knowledge is pathic to the extent that the act of practice depends on the sense and sensuality of the body, personal presence, relational perceptiveness, tact regarding what to say and do in contingent situations, reflective routines and practices, and other aspects of knowledge that are in part pre-reflective, pre-theoretic, and prelinguistic (Van Manen, 2007).

In physiotherapy, strategies for clinical decisionmaking have been strongly influenced by medical science, where diagnosis formation is central. The combination of hypo-deductive reasoning and pattern recognition (often referred to as diagnostic reasoning) is grounded in a biomedical perspective, which remains dominant in physiotherapy practice and education (Elstein, Shulman, and Sprafka, 1978; Groen and Patel, 1985; Thomson, Petty, and Moore, 2014). However, recently, it has been argued

physiotherapeutic management solely based on a biomedical perspective cannot engage with the complexity of pain and dysfunction that patients experience (Wellens, 2010). Evidence from recent neuroscience suggests that pain is contextual, influenced by life experiences, and associated with threats to tissues and perceived vulnerability (Jones and Hush, 2011).

The multidimensional nature of pain and dysfunction underlines the limitations of diagnostic reasoning based exclusively on a biomedical perspective (Jensen, Gwyer, Shepard, and Hack, 2000; Resnik and Jensen, 2003). Research on clinical reasoning among expert practitioners conducted by Edwards et al. (2004) revealed the interplay of several reasoning strategies. Rather than favoring one particular strategy of practice, therapists were found to embrace multiperspectives and incorporate several reasoning strategies in response to individual cases. This suggests that, in practice, multiple perspectives can complement each other and do not need to compete for attention. When allied with skilled reasoning, a multidimensional approach can facilitate more complete and robust practice. Indeed, Shaw and DeForge (2012) encourage physiotherapists to act as bricoleurs, embracing multiple perspectives, and knowledge to achieve our goals.

Clinical reasoning has been described as a social, cognitive, and interactive process where practitioners make wise decisions (Edwards et al., 2004). How the practitioner experiences this process and what it is like to practice physiotherapy with tact and reflective clinical reasoning and decision-making form the focus of this article.

The interactive and inter-subjective nature of physiotherapy requires exploration of the lived experiences of those involved in physiotherapist-client encounters. Such knowledge is seen to play a significant role in supporting and understanding physiotherapy practice (Shaw and Connelly, 2012). However, while current knowledge has introduced multiple layers of complexity into the reasoning associated with physiotherapy practice, the experience of physiotherapists when delivering this multidimensional care has been explored to only a very limited degree.

In the article, we present and examine one particular physiotherapy encounter, focusing on the lived experience of the physiotherapist collaborating with his patient throughout the first session in a course of seven treatment sessions. Our aim is to examine and reveal how physiotherapists experience the process of therapy and to highlight significant, meaningful aspects of the phenomenon of aiming for reflective, pathic care in physiotherapy.

## Developing and working with our research material

When conducting this research, we adopted a phenomenological approach inspired by the work of van Manen (1990; 2014) and Finlay (2011; 2013). Such an approach offers rich opportunities to explore the meanings arising in lived experience (Van Manen, 2014), in particular the lived experience of ordinary life: in our case, the day-to-day experience of practicing physiotherapy. This approach can provide insights that speak not only to our intellectual competence but also to our practical capabilities (Van Manen, 2014), something we regard as vital to any discussion of the phenomenon of clinical reasoning in the practice of physiotherapy.

The first author, a practicing physiotherapist, offered his own practice as the research scene. Two women, with a four-year and a seven-year history of neck and shoulder pain, respectively, were recruited as participants. Both had undergone years of variant therapy, including chiropractic, physiotherapy, and naprapathy to manage their symptoms, with limited effect. While one of the two participants (we name her Eva) completed a course of physiotherapy comprising seven sessions, the second participant withdrew after the first assessment for personal reasons. In total, then, eight sessions of physiotherapy formed the empirical base of our study.

## **Ethics**

The regional committee for medical research ethics (REK-S) and, the Norwegian Social Science Data Services (NSD), Data Audit has approved the project for confidentiality and anonymity of the research participants and data. Written informed consent was obtained from the participating patients and physiotherapists.

All treatment sessions were videotaped, and notes were written after each session. During further analysis, both authors viewed all eight videos together, sharing immediate reactions, questions, reflections, and experiences related to each of the eight sequences. From the start, the first author was concerned that Eva's first consultation had proved demanding for both parties. After watching the videos, the second author reached a similar conclusion, voicing concern about the way that this particular consultation had proceeded. What was going on between, and in-between, the physiotherapist and Eva in this consultation? What were the challenges experienced by the physiotherapist about? Because this consultation was experienced as particularly difficult and challenging by both authors, we determined to direct our attention to this single consultation in its entirety for this article.

The videos of the first session with Eva were transcribed by the first author, who added and developed reflective notes on sequences and parts of the transcripts. Further work with the transcript and reflective notes followed as we engaged in writing, reading, and discussion. We sought to be open and attentive to the experiences and expressions of physiotherapy displayed and re-experienced. We also attempted to explore the nature, meaning, significance, and singularity of the encounter by observing and thereby re-living the experience. When writing, we tried out different ways of structuring what we saw and heard on the video, what the physiotherapist had written in his reflective notes, and the new questions and comments emerging from our common work on the material. We asked ourselves how best to present lived experiences concerning progress and process in this first treatment session. After some deliberation, we decided to present descriptions of several episodes from the actual session, followed by the physiotherapist's reflections on these episodes. By this means, we sought to focus on verbal and physical interactions while viewing clinical reasoning as an interweaving, dynamic process. Inspired by Van Manen (1990), we aimed for concrete, rich, and thick description that might shed light on the physiotherapy encounter and its experiential ramifications.

Aware that what we experience at a pre-reflective level always involves interpretation when we attempt to express that experience in words (Van Manen, 2014), we distinguish between our efforts to describe what we see and hear (set in italics) and our reflexive analysis (set in bold face). This implies that the sequences presented below do not exactly reflect the sequences of events as they occurred during the consultation; this is not an exact report of the encounter. Rather, our aim has been to capture something of the experience of doing and watching physiotherapy by focusing on the sequences that made us pause and ponder. This endeavor makes explicit use of the first author's reflexive comments, based on the notes he added to the initial transcription. Our reflective work is the fruit of sustained collaboration: when viewing the videos, reading the transcription, and adding to and re-writing the first author's reflexive notes.

The physiotherapist's reflexive notes pertain to his ongoing conversation about the various experiences while simultaneously living in the moment during the encounter (Finlay, 2002). To reflect is to be understood as "thinking about" experiences from a distance (Finlay, 2002). Phenomenological inquiry and analysis cannot be separated from the practice of writing (Van Manen, 2006). In phenomenological research, writing is about struggling to understand lived experiences. The process of analysis and understanding is tied to the process of writing and re-writing (Van Manen, 2014).

In the presentation that follows, the conversation (both verbal and nonverbal) between Eva and the physiotherapist is italicized, while the physiotherapist's reflexive notes along with contextual information are set in bold face. The "I" is the physiotherapist (also the first author of this article).

## A glimpse into physiotherapy practice

Eva is a young locum auxiliary nurse living with her partner and their two children. She has experienced neck and shoulder symptoms on and off for seven years and has consulted a number of therapists without any lasting improvement. Her general health is good, and she does not take any regular medication.

#### The first part of the consultation with Eva

My aim is to gain an understanding of why she is here, and I want her to be precise about the sequence of events and her current symptoms. My plan is to let her speak freely and then influence and direct the consultation with questions and prompting, if required. I aim to engage in a seemingly open dialog underpinned by non-rigid, rather permeable consultation frameworks. I start things off with a question:

"Why are you here?"

"I have pain in my neck and shoulders." (Eva)

Eva stops without elaborating further. "Where do you feel it? Can you show me?" She vaguely points to her neck, so I approach her and let her guide my hands over her areas of symptoms. Satisfied with the symptom mapping thus far, I continue. "Okay, do you feel any symptoms in your head?"

"Sometimes I feel it in the back of my head and the front." (Eva)

"On the left or right side?"

"I feel it all over my head." (Eva)

Eva stops without elaborating further so I continue chasing down her head symptoms till I am satisfied. "What about your shoulders?"

"Sometimes." (Eva)

"Left and right?"

"No, only on the right." (Eva)

"I see. Do you get any numbness or pins and needles in your arm or hand?"

"I get pins and needles in my right hand." (Eva)

"The whole hand?"

"Yes." (Eva)

"Your thumb?"

"No." (Eva)

"Do you think there's a relationship between your symptoms?"

"Don't know." (Eva)

I feel tension and slight unease in the room. I get the feeling she isn't comfortable. If anything she seems aloof, uninterested. I want to map her symptoms in detail, but she offers me next to nothing in response to my questions. I feel I cannot fully trust the information provided so I try to change my approach and style. I tighten up the questioning by becoming more direct. I offer her alternatives, reiterate what she tells me and give her opportunities to correct me. I feel forced repeatedly to juggle and alter my questioning style. Just when I manage to get the ball rolling, we stop again.

"My understanding is that your symptoms are intermittent. Are there any activities that trigger your neck pain?"

"Yes, when I empty the dishwasher." (Eva)

"Do you feel anything in your shoulder when you do that?"

"No, just the neck." (Eva)

"Okay, how long can you carry on for before the onset?"

"That can be pretty quick." (Eva)

Full stop again and still no elaboration. So I try giving her an example: "Say you clear the whole machine?"

"Then I'll feel it, if it's a bad day." (Eva)

The ebb and flow of our dialog are taxing, and I find myself forced to ask the same question in different ways to bridge the gap between what Eva says and what I understand. There are pauses between my questions and the answers I get. On one hand, I am doing this to allow my-self time to analyze and evaluate my data; on the other hand, this may show her that I'm listening to the data she's provided and evaluating it. Watching the video, I recognize that as I become more specific and aim for clarity I physically approach her, enforcing my understanding with reiteration and physical gestures. In contrast, I allow more space between us when I occasionally manage to get her to open up and speak freely.

"If you clear the whole dishwasher in one go, is that enough to produce shoulder pain?" Eva nods. "Do you get headaches or pins and needles as well if you do that activity?"

"Sometimes, but that can also happen if I'm stressed, pacing about and doing movements that aren't good for me." (Eva)

"Okay, so you'll feel it in your neck and shoulders first, and if you continue you can get headaches and pins and needles?"

"Yes, that's correct." (Eva)

"Do you think it's reasonable to believe your symptoms are related?"

"I guess so." (Eva)

Eva smiles, which perhaps suggests she has understood my reasoning. "Do you sleep right through the night?"

"I wake up a couple of times." (Eva)

"Every night?"

"Yes." (Eva)

"Once or twice?"

"Once." (Eva)

"Because of your neck pain and shoulder?"

"Yes."(Eva)

"What do you do then? Do you have to get up and move about?"

"No, I just turn over and quickly fall asleep again." (Eva)

I feel that Eva requires lots of prompting. But the more I chase the less interested she seems to be, so I have to pick up on every physical cue and manage the number of questions, otherwise I may risk losing her. The tension is palpable. The complexity of her symptoms requires me to dwell on what she's telling me, and it's taking more time then I am accustomed to.

"Right, my understanding this far is that shoulder and neck movement will eventually trigger your symptoms. If you carry on, the symptoms extend to your head and pins and needles occur. If you empty the dishwasher and get pain, does the pain stop if you stop your activity?"

"I'd need to take ibuprofen or something." (Eva)

"I see. But does it ease off quickly or does it take a few hours?"

"If I haven't done too much, it'll ease off during the day." (Eva)

"Okay, so it depends on how much you do. Is there anything else that triggers your symptoms?"

There's a pause, then: "Yes, walking on asphalt or hard surfaces." (Eva)

This information—walking on asphalt—throws me at first. I'm unable to evaluate the data quickly and adequately. Aware of my uncertainty, I lose focus on the issue at hand and become self-conscious. Can she perceive my lack of understanding? Can she see I'm a bit lost? It feels like a poker game where my cards are exposed, along with her preconceptions about my lack of ability to give her a plausible answer or help her. I'm working tirelessly to establish rapport and trust with someone who doesn't seem that interested, all the time testing her patience with more questions, ones she may regard as surplus to requirements but which are essential to me. At length, however, a potential painaggravating factor emerges.



"How does work affect your symptoms? Do you notice any difference in the symptoms when you're at work rather than at home?"

"It depends on the clients." (Eva)

Full stop again. "Okay, what do you do at work?"

"Well, I'm an on-call auxiliary nurse, so everything from cleaning patients to administering medication." (Eva)

"Do you have to move and lift patients?"

"Yes." (Eva)

"So how does your body respond to that?"

"Not great." (Eva)

She appears sceptical about my questions about her work and time management and my suggestion of a possible link with her present symptoms. From her body language, I get the impression she regards these questions as unnecessary. Intuitively, I summarize how I see things thus far.

So you've been going for treatment these past seven years, with limited effect and no explanation from any of the health professionals as to what might be driving your pain, apart from your neck being stiff. On top of which your MRI investigations are also negative.

I pause again to give her time to reflect and add her own thoughts. But there's no response. "So, what do you think is causing the pain?"

"Stress, maybe," she replies tentatively. (Eva)

As Eva believes that her symptoms may be stressrelated, I seek to legitimize her thoughts by providing a jargon-free neurophysiological explanation, focusing on how psychological and social factors can drive and intensify pain. She does not seem to take to the neurophysiological explanation immediately, so I use examples she can relate to in order to back up my case—with questionable success. This is a bit unexpected, given that she herself has raised stress as a possible factor. At a later stage, I may need to provide her with contextual evidence to further reinforce my claim. But for now I'm happy just to skim the surface.

"Do you live alone?"

"No." (Eva)

She stops again and I use hand gestures to encourage her to elaborate.

Then, finally: "Two kids and a partner." (Eva)

"How old are your kids?"

"Five and seven." (Eva)

Full stop. "Do you need to lift or carry the younger one?"

"Yes, sometimes." (Eva)

"Okay, does that give you any problems?"

"No." (Eva)

I want her to tell me about her home situation and I believe now that she responds best to direct questioning. "Do you manage all the housework?"

"If I pace myself." Full stop. (Eva)

This consultation is challenging. I'm trying to give her opportunities to speak freely but she offers me nothing beyond what I ask for and I feel forced to lead the consultation more than I'd like. It's as if she's losing confidence in me, and that I'm testing her patience. I need to improvise and employ different communication strategies, and otherwise, I won't acquire a reasoned account of her problems and will risk losing her. She's had these symptoms for seven years, so she may longer give them much thought or reflection. Or maybe she's just bored of answering the same old questions posed in the past by other health care providers.

"So you think it's stress? Only stress?"

"Yes, I believe so." (Eva)

"And you've come to this conclusion on your own?" "Yes." (Eva)

"Does it get worse when you're stressed?"

"Yes, it does." (Eva)

"So that means the symptoms are relative to your physical work and level of stress?"

"Yes, I think that's correct. When you work as a locum," she continues, "you're constantly on call. I have to drop whatever I'm doing when I get a call. It's difficult to plan." (Eva)

"I see what you mean. That's the health care system in Norway for you. They can't give us a steady job, can

Searching frantically for anything we might have in common, I seek to offer her a bit of myself. Instead I find myself bending the truth by suggesting that I've experienced similar frustrations with locum work. This evidently yields success, for we share a laugh. Immediately I sense that I've achieved more control and that our rapport has been strengthened.

In this subjective examination, I see that my continuous evaluation and interpretation of data have left me with conflicting evidence. I employ multiple questions regarding all her symptoms to challenge my interpretation or give further evidence to support or negate my deductions. I am testing her patience. Parallel to undertaking a process of diagnostic reasoning I must build trust, confidence, and ultimately rapport. I strive to see things from her perspective and encourage her active involvement in the process, despite her evident ambivalence toward me. I want to discover what it is that she wants from physiotherapy, her expectations and her immediate goals.



So you manage to do everything you need to. We need to set some goals, something we can achieve together. When you've had symptoms for so long we can't expect any quick fixes. So I suggest we start off by addressing simple things and try to make small changes. We've touched on a few things-sleep, emptying the dishwasher, walking. Would changes here be something that could make your life easier?

"Yes. If I could carry on longer without pain that would be good." (Eva)

The Next Stage of the Consultation: The Physical Examination

"Right, shall we have a look at you, then?" Eva nods. "If you can take your top off and stand beside the plinth." She does as I instruct. "We're going to go through some movements, and I want you to let me know the exact point when you experience any pain, discomfort, or anything else." She nods. "Do you feel any pain now, when standing?"

"No." (Eva)

Standing in front of Eva and demonstrating the action, I ask, "Can you bring your shoulder forwards, please?"

"Yes." She brings both her arms up into flexion. "That's it," she says at about 160 degrees left shoulder flexion. (Eva)

"Okay, that's good. Any problems with the right shoulder?"

"No, not at the moment." (Eva)

"But it's usually the right shoulder that gives you problems, isn't it?"

"Yes, but now it's the left." (Eva)

"Okay, so what's stopping you going further? Is it the pain?"

"No, not the pain. It just won't go any further, but it's painful, too." (Eva)

Again I'm thrown off. I addressed only the right shoulder in the subjective examination. She had not told me about the left shoulder-or perhaps I hadn't pursued it sufficiently. While I don't completely abandon the physical examination I'd planned on the basis of the subjective examination (which now appears inaccurate), I no longer fully trust it. My stress and discomfort have also been increased by the unexpected findings, and this furthers clouds my ability to reason quickly in action. It feels as if, having fumbled over the symptom mapping, I'm working in the dark.

I now ask her to sit down on the plinth so that I can explore her neck and upper back while she's in a sitting position. I adjust and re-adjust the height of the plinth so that she can sit with both feet firmly on the floor.

"Are you sitting comfortably?" She nods. "What do you feel now as you're sitting?"

"I don't really know." (Eva)

"Alright. Do you feel any pins and needles, headache, anything in your neck, shoulders, arm or your upper back?" I place my hand on the respective body parts as I pose my questions.

She ponders before replying. "A little bit, maybe, in the upper back." (Eva)

I place my hand on the area in question and ask, "Can you grade the pain on a scale of 0 to 10, where 0 is no pain and 10 is severe pain?"

"A 3, maybe." (Eva)

"Okay, we'll go through more movements and I want you to let me know if your pain changes or if you get any of the other symptoms."

Our interaction remains labored from my point of view. In contrast to my normal practice, I've introduced the Visual Analogue Scale (VAS) for pain in the physical examination rather than the subjective examination. I can't recall making a conscience decision to leave it out earlier. However, at the time, I was afraid of losing her with excessive questions about her symptoms.

After establishing physical asterisks during right rotation of neck when sitting and left shoulder flexion when standing, I continue my examination in supine of Eva's neck, upper back, and shoulder. I do this rigorously, being somewhat fastidious. The neck and shoulders are also explored fully with physiological and accessory movement in different positions and directions until I reproduce Eva's symptoms.

"Okay, I'm going to mobilize this part of your neck, and I want you to let me know if your symptoms change, if they get worse or stay the same. Any pain as I'm doing this?"

"Yes." (Eva)

"Okay, is that the pain you're familiar with or is it just painful because of my handling."

"It's my pain." She tenses up. (Eva)

"Are you okay?" I ask.

"You're not going to crack my neck, are you?" (Eva) "No, I promise I won't."

I address the neck movement restriction first, using mobilization techniques to see if I can make a change to her physical asterisk or her symptoms. Initially I don't make any change to her symptoms or range of movement. This forces me to think on my feet while not abandoning too abruptly the areas I'm exploring. I change grade and direction before moving my attention to other segments.

I find myself keeping my cards close to my chest. I avoid being too obvious about what I'm hoping to achieve with the treatment. I can also be more confident about there being an improvement in her symptoms if she says so without being presented with that option. I'm worried, too, that if I ask her about an "improvement" that hasn't occurred I may lose what little credibility I possess in her eyes.

Eventually, I manage to produce treatments that change the symptoms in her neck and right shoulder. Her initial response to these techniques is to tense up, despite reporting she finds the handling comfortable and safe. I believe that this may be due to previous experiences she's had with manipulation of her neck. I therefore reassure her and adapt my handling until she is comfortable, a message she conveys verbally, visually and by touch.

After a while, I manage to make a few changes to her active range of movement in the neck and shoulder, both in supine and when sitting. However, when I reassess her in the starting position these changes are not apparent to her.

The handling is intimate. I subtly adjust the force and direction of treatments, introducing elements that are both spontaneous and reasoned in the moment. I collect, collate and analyze the information I obtain from what Eva verbally communicates, what I see in her facial expressions and what I feel through my hands. Although there seems to be certain fluidity to this process of examination and treatment, there is also a sense of nervousness in the room. I feel desperate to find something that will convince both Eva and me that I can help her. Yet when I succeed in making a difference, she does not notice it. For me, the change in the range of shoulder movement is both bodily felt and visible (its visibility was also evident to the co-author when watching the video). However, it is not evident to Eva.

#### Main points so far

The physiotherapist aims to establish a dialog in which Eva feels free to speak about how she experiences her neck problem and how it affects her everyday life. Besides encouraging Eva to vocalize her experiences and elaborate on them, the physiotherapist asks specific questions about her bodily symptoms and functions. Asking her to perform specific movements, he observes, touches, and palpates areas of her neck, upper back, and shoulders in an attempt to get a better understanding of her problems. These multiple ways of interaction and communication form the basis for the information that will enable the physiotherapist to offer explanations and sound management.

Rather than being a straightforward process in which the patient comfortably provides her narrative and succinctly answers questions regarding her pain and function, clinical reasoning can involve a continuous effort to involve the patient and create dynamic, meaningful co-operation at many levels. There appear to be two distinct communicative agendas: On the one hand, building a picture of the patient's lived experience of neck and shoulder pain, and, on the other, posing specific questions and carrying out specific bodily examinations geared to assessment and treatment. In the actual encounter, however, the two agendas are not easily woven together. Sensing he has fallen well short of providing a satisfactory account of Eva's problems, the physiotherapist is left feeling incompetent and insecure; using the metaphor of a poker game, he describes feeling "thrown" by unexpected information; he feels he is "working in the dark." He notes that when thrown off course he turns his attention away from Eva to himself. As the examination continues, there are moments when he fails to make any changes to Eva's body and functioning, and other times when bodily change is achieved (an observed on the video by both authors). Yet when change does occur Eva does not notice it.

This encounter is not uncommon. With hindsight, the physiotherapist would have done things differently, and we are sure readers could provide ample examples of alternative management strategies. As we dwell with the challenging interaction, verbal and bodily communication, and reasoning in action that constitute the landscape of the physiotherapy encounter, phenomenological theory offers us a means to further explore the phenomenon of clinical reasoning in physiotherapy, understood as situated relational embodied reasoning.

#### Clinical reasoning—embodied reasoning

In phenomenological terms, what we experience and how we make sense of what we experience depend on the kind of bodies we are and how we, at any time, interact with the various environments and situations we inhabit (Merleau-Ponty, 2005). Our existence is a bodily one, and as body subjects we are always experiencing meaning (Merleau-Ponty, 2005). An important aspect of our phenomenological bodily being is the duality involved in being both subject and object at the same time. This is what Merleau-Ponty calls the ambiguity in being "my body for me and my body for others." As he observes,

we must ask why there are two views of me and of my body: my body for me and my body for others, and how these two systems can exist together. It is indeed not enough to say that the objective body belongs to the realm of 'for others', and my phenomenal body to that of 'for me', and we cannot refuse to pose the problem of their relations, since the 'for me', and the 'for others' co-exist in one and the same world. (Merleau-Ponty, 2005, pp. 121-122)

In the case history presented here, the physiotherapist at times experiences the encounter as like participating in a poker game and being "thrown" by unexpected information. Finding such experiences stressful and uncomfortable, he turns his attention towards himself and wonders if the patient can see his insecurity.

As expressive bodily beings, we are both personal and relational, subject, and object; we are "what others think of us and what our world is" (Merleau-Ponty, 2005, p. 122). This suggests that we are able to perceive how we are seen by others; indeed, both the physiotherapist and Eva seem able to perceive how they are seen by the other.

As the physiotherapist attempts to get a picture of Eva's neck and shoulder problems through dialog, his uncertainty grows, both about how she is experiencing the situation and about his ability to help her. This leads him to turn the attention towards himself and ask if the patient can see his uncertainty.

Discussing how the body is both personal and of the world, Merleau-Ponty (2005) describes this as involving a continuous embodied shift of direction inwards and outwards. In physiotherapy, therapist and patient engage in continuous reciprocal action: seeing and being seen; talking and being listened to; and touching and being touched. Through this, they create the situation they share. In arguing that through our bodies we are also of the world, Merleau-Ponty presents the body subject as also a social subject, for "to be a body, is to be tied to a certain world... our body is not primarily in space: it is of it" (Merleau-Ponty, 2005, p. 171). For the individual, subjectivity and transcendence therefore

consist in me being given to myself. I am given, that is, I find myself already situated in a physical and social world. I am given to myself, which means that this situation is never hidden from me, it is never round about me as an alien necessity, and I am never in effect enclosed in it like an object in a box. (Merleau-Ponty, 2005, p. 419)

Being-in-the-world is fundamental to Merleau-Ponty's theory. Arguing that it is mistaken to treat "the social as an object" (Merleau-Ponty, 2005, p. 421), Merleau-Ponty views the social world as a permanent field or dimension of our existence. In the clinical setting, for example, the past experiences of both physiotherapist and patients form part of the social and cultural world which colors their interaction and conversation. Their interaction is influenced by what Merleau-Ponty calls "ready-made meanings." As he notes, "We live in a world where speech is an institution [and where we possess] ready-made meanings in our commonplace utterances" (Merleau-Ponty, 2005, p. 213). Such meanings are those that derive

from, or are informed by, the dominant opinions and discourses of society at a particular time.

In our case study, the physiotherapist experienced Eva as offering very little information about her neck and shoulder problems and how they were affecting her life. He hoped she would speak more freely about this, but instead got (in his own words) "next to nothing." He described their conversation as an "ebb and flow," with lots of stops. The dialog he had hoped for was more like an interrogation on his part.

While seeking to get insights into the patient's lived experiences, the physiotherapist simultaneously sought to examine specific body functions in order to explain the patient's problems. This suggests that his gaze shifted and that there was movement between a diagnostic focus and a pathic glance or touch. Achieving a balance between diagnostic activity and expressing pathic interest and concern would seem an important issue in physiotherapy practice.

In their practice, physiotherapists face the challenge of balancing a diagnostic attitude with being pathically attuned to themselves, their patients (the other), and the shared situation. A gnostic attitude holds practice to be defined by rationalistic factors and by cognitive and intellectual knowledge and understandings. It is much easier to learn concepts and informational knowledge than to develop pathic knowledge and understanding, which is about intelligibility and sensual sensibility (Van Manen, 2014). Yet, as a phenomenological body, the physiotherapist finds that he is reading himself, the other and the situation in an empathic and sensitive way to achieve pathic knowledge.

Another aspect of pathic knowledge is its expression in the confidence of physiotherapists, in terms of what they "feel" about the atmosphere of the encounter and how they judge their ability to "read" the patient and the situation. This suggests that pathic knowledge enables us to engage in embodied practice (Van Manen, 2014) and that it is acquired in the process of practical action. While some of our actions remain habitual and routine, sensitive and sentient embodied practice enables us to learn afresh as we strive to attune to the patient. Together with our patient in the "inbetween," we are open to contingencies, novel situations, and the unexpected.

Through rigorous, systematic argument, Merleau-Ponty provides evidence of the primacy of the body in all aspects of human existence. For him, the body is the source of all perception and action, as well as the core of all expression, language and meaning (Shusterman, 2005). It is as expressive bodily beings that physiotherapists practice their profession. During their work, they balance gnostic knowledge with pathic insights and understanding and express this subtle process through their embodied way of being at any moment. As Sheets-Johnstone (1999) observes, it is as embodied beings that we are able to understand and act within this world, with varying degrees of success.

For Merleau-Ponty, human embodiment involves the body experiencing the world in terms of three dimensions: our biology, our general capacities at any time, and the specific cultural knowledge we have acquired (Dreyfus and Dreyfus, 1999). As embodied beings, we are always biological, social, and cultural beings who seek to construct meaning from the activities and situations in which we are involved (Merleau-Ponty, 2005).

Sheets-Johnstone (1999) argues that all meaningful interaction involves pre-reflective embodied reasoning rooted in our patterns of bodily activity. Embodied reasoning comes to us prior to any use of language and (if we accept Sheets-Johnstone's argument) also prior to constructed reasoning models. In the interaction that is therapy, it can be argued that a more robust practice may be achieved by employing multifaceted clinical reasoning strategies capable of combining three forms of knowledge: 1) diagnostic; 2) pathic; and 3) pre-reflective. Our case history shows how the lived experience of the therapist, as well as verbal and nonverbal interaction and communication, contributes to embodied knowledge. Such knowledge is often prereflective and based on improvisation and instinct. It tells the physiotherapist when to back away from certain lines of questioning, when to chase up certain aspects or clues, how far to go, and what language to use.

Physiotherapy practice as an interactive process involves not simply the physiotherapist's diagnostic reasoning but also how the patient finds meaning and understanding in therapy. At times, there may be a discrepancy between what the physiotherapist observes and what the embodied patient experiences. In our case study, Eva's failure to recognize the change in the range of movement in her left shoulder can be understood as her body's inability to "catch" (kapiert) and "comprehend" (Merleau-Ponty, 2005) the new range of movement. It would appear important that physiotherapists understand, acknowledge, and relate to such discrepancies. When movement is learned, this involves the body understanding (as in this case) a new range of movement, which in turn becomes a habit whose meaning and significance are absorbed (Merleau-Ponty, 2005). The patient's failure to recognize the slight change to the range of movement in her shoulder offers the physiotherapist the added challenge of bringing the changed movement restriction to her attention. He can then help her feel it and be ready to explore, experiment, and re-learn. As Nancy (2000, p. 185)

notes, "The unity of the world is nothing other than its diversity." For the physiotherapist and their patient, there is always mutual sharing and the exploration of a multiplicity of worlds.

#### Closing remarks

A central task of clinical embodied reasoning in physiotherapy is to establish a connection so that an exchange of ideas, experiences, knowledge, felt changes, and opinions can develop and prosper. The "inbetween" of physiotherapist and patient emerges as a kind of mutual functional and bodily exploration. Despite the desire of the physiotherapist to find logical connections between signs and symptoms that lead to specific functional diagnoses, this is not always readily achieved. In such instances, failure to get the pieces that will solve the puzzle may prove troubling and discomforting. But clear answers and ready explanations will not often be at hand, and becoming comfortable in the grey areas of clinical practice may be a prerequisite for compassionate and pathic practice in physiotherapy.

The lived experience of the practitioner in this study suggests that physiotherapists require not simply awareness of their own body and that of the patient but also the ability to improvise and adapt in action. Their practice demands tactfulness and sensitivity as they seek to build a cooperative relationship. Once this is achieved, patient management can evolve and unfold beyond rehearsed routines and structured theoretical principles. Ultimately, the success or failure of the consultation hinges on the therapist's ability to engage with the patient on multiple levels, imparting meaning to the patient's dysfunction and supporting their efforts to improve their engagement with the world.

#### **Declaration of interest**

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

## **Funding**

Financial support from The Norwegian Fund for Post-Graduated Training in Physiotherapy through the FYSIOPRIM project is gratefully acknowledged.

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