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Behavioural typologies of experienced benefit of psychomotor therapy in patients with chronic shoulder pain: A grounded theory approach

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ABSTRACT

In this study we aimed to develop a theoretical account of the experienced benefit of psychomotor therapy in addition to treatment as usual in patients with chronic shoulder pain.

The qualitative study design was based on a grounded theory approach. Open-ended face-to-face interviews were conducted after treatment was completed. We generated data and performed analyses by constant comparative analysis and theoretical sampling that focused on the patients' behavioural characteristics related to the experienced benefit of psychomotor therapy.

We conducted 12 interviews, eight of which were with men. "Regaining capability" emerged as representative of the pattern of behaviour. Through this pattern, the patients resolved concern about losing capability. Regaining capability involved three behavioural typologies: taking advice, minding the body, and encompassing life changes. The patients' behavioural typologies revealed different levels of life changes. Psychomotor therapy offered the patients in our study new and better ways of coping with their shoulder pain.

1. Introduction

Shoulder pain is a highly prevalent condition causing discomfort and disability in everyday life [1–3], resulting in socioeconomic burdens [4]. Shoulder pain tends to increase with age and be more prevalent in women, in persons from lower socioeconomic groups, and in psychologically stressed populations [4]. Shoulder pain often manifests as chronic (lasting more than 3 months), and should not be regarded solely in a biomechanical or biomedical perspective [4]. A biopsychosocial approach to treatment in which chronic pain is considered a condition in which physical, social, and behavioural factors influence the patient's well-being and prognosis is needed [5,6].

Psychomotor therapy has been shown to affect the physiological, psychological, and social roots of chronic pain [7]. Psychomotor therapy is a holistic body-mind-oriented treatment based on the biopsychosocial model [8] that aims to support the individual's ability to master his life by integrating body, emotion, cognition, and behaviour. An essential aspect of psychomotor treatment is the balancing of muscle tension, stress, bodily and mental calmness, and body awareness [6,7,9,10]. The use of relaxation plays a role in psychomotor therapy. The overarching goal is to increase body awareness, prevent and re-balance inappropriate muscle tension and stress, achieve a state of bodily and mental tranquillity, and gain personal insight [11].

The extent and focus of psychomotor therapy vary among different countries. In Denmark, psychomotor therapy has existed as a health-oriented discipline since the 1940s. However, there is not a widespread tradition of research in the field of psychomotor therapy, though a recent systematic review indicates some support for the effectiveness of relaxation interventions in treating pain

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[12]. In regards to body awareness, van der Mass et al. [13] concluded that psychomotor therapy seems to enhance body awareness, which may be an important way to improve the multidisciplinary treatment outcome in patients with chronic pain. In a recent cohort study [8], improvements in body awareness correlated with improvements in health-related quality of life, disability, and depression. It was suggested that psychomotor therapy may be especially beneficial for patients with low body awareness.

The aim of the present study was to develop a theoretical account of the experienced benefit of psychomotor therapy in addition to treatment as usual in patients with chronic shoulder pain.

2. Methods

2.1. Study design

This qualitative study was designed using a grounded theory (GT) approach according to Charmaz [14] and is an impeded study to an ongoing randomised controlled trial (RCT) examining the effect of a psychomotor intervention in people with chronic shoulder pain. The present study focused on exploring the experienced benefit of psychomotor therapy using open-ended face-to-face interviews. The constructivist approach enabled us to theorise on the informants' interpretation during the interviews. GT is of particular interest and relevance to practice in an area where a theoretical understanding about a phenomenon is absent [14]. The study was conducted and reported according to the Consolidated Criteria for Reporting Qualitative Research [15].

2.2. Participants

The RTC comprised 87 individuals (age 18–75 years) with shoulder pain (VAS>2 at rest, VAS>5 in activity) lasting more than 3 months and sleep problems caused by the shoulder pain. Another inclusion criterion was low body awareness ($\leq$3) as assessed by the Multidimensional Assessment of Interoceptive Awareness. An orthopaedic specialist in shoulder conditions recruited patients for the RCT.

2.3. Randomisation

The patients were randomly selected from an outpatient surgical clinic between March 2016 and April 2017. Eligible participants were randomised to usual care and usual care + psychomotor therapy with 1:1 allocation, stratified by the administration of concomitant corticosteroid injection. A computer-generated randomisation schedule with permuted blocks of random sizes (i.e., 2–6) was used to prepare opaque, sealed, sequentially numbered envelopes placed in separate ring binders (corticosteroid: Yes/No) by a research assistant not otherwise affiliated with the project.

2.4. Interventions

On the day of but prior to randomisation, both groups received individual instructions from an experienced physiotherapist on how to perform 12 weeks of physical exercises for the scapulaglenohumeral muscles. Specific exercises where based on the individual participant's pain and movement restrictions, but consisted mostly of strengthening and stabilisation exercises for the glenohumeral joint with a focus on activation of the rotator cuff muscles, and strengthening exercises for the scapula-thoracic muscles aimed at reducing the imbalance between muscles performing upward rotation/retraction and elevation/protraction of the scapula. Posture correction and stretching exercises were also applied if deemed relevant by the physiotherapist. Patients were advised to seek further advice on the progression of exercises at a private physiotherapy clinic and to continue the exercises for at least 3 months.

In addition to treatment as usual, the intervention group was offered 1-h psychomotor therapy sessions once a week for 5 weeks starting right after randomisation. The five sessions of psychomotor therapy consisted of a combination of inquiry dialogue and manual therapy.

The dialogue, in which the patients' symptoms were understood in a broader biopsychosocial logical perspective, focused on learning and awareness of body stress and pain, and the importance of body posture, working posture, position of rest, sleep, breathing, relaxing, and various exercises (lasting approximately 25–30 min). The manual therapy was performed on a treatment table on top of the clothes, similar to a full body massage with very gentle touch and slightly stretching into the muscles to assist the patients in getting into contact with the sensory system of the proprioceptive senses (lasting approximately 25–30 min).

2.5. Sample and setting

The participants were recruited from the intervention group at the first visit with the psychomotor therapist. Two of the invited participants did not want to join in the interviews. In keeping with the principles of GT methodology, we did not predict the sampling for the qualitative study. We based the selection for the qualitative study on the principles of purposive theoretical sampling and continued until we achieved theoretical saturation [14]. The interviews aimed to provide insight into the participants' understanding of psychomotor therapy and the patterns of behaviour that they employed during the intervention. The descriptive characteristic of the participants are provided in Table 1.

2.6. Interviews

We conducted qualitative open-ended face-to-face interviews and analysed the collected information using GT methods underpinned by the philosophy of symbolic interactionism, which is defined as follows: people act towards things or people on the basis of meanings arising from social interactions [14,16]. We conducted interviews after the patients completed five 1-h treatments with psychomotor therapy. To prepare for the interviews, we watched digital film recordings of the second full treatment with psychomotor therapy. When the researcher asked specific questions referring to the recordings, it helped the patients memorise and express experiences from the treatment. We transcribed the interviews verbatim but did not return the transcripts to the participants for comments because accuracy and correctness were not a focus [17]. The main questions in the interviews regarded what happened during the treatments with the psychomotor therapist, asking the respondents to describe changes (if any) from before they started psychomotor therapy to now and what psychomotor therapy means to them.

One of the assumptions was that human existence is characterised by a latent, unconscious pattern of behaviour. The research team's pre-understanding stems from practical experiences working with people with chronic pain, diagnostic examination, psychotherapy, and from educating students in a Bachelor's of Psychomotor Therapy degree programme. During the entire research process, we strived to be open to the informants' concerns to ensure that the theory derives from the data and researchers' constructions. The constructivist approach resulted in a deeper understanding of the experienced benefit of psychomotor therapy. The interviewer is a psychologist, assistant professor, with no

Table 1
Descriptive data of participants.

	ID	MAIA score	Age	VAS night	VAS relaxing	Duration mdr.	Work	Marital status
Open	1	2,64	59	9,1	10	100	Yes	1
	2	2,04	66	5,2	2,4	6	Yes	3
	3	2	67	9,6	5,2	11	No	1
	4	2,6	43	6,4	6,7	72	Yes	2
	5	1,74	48	5,3	4,3	8	Yes	1
	6	1,47	38	5,2	4,7	4	Yes	1
Selective	7	2,72	45	6,8	5,3	7	Yes	2
	8	1,61	64	6,2	5,7	24	Yes	1
	9	2,43	60	6,6	4,9	24	Yes	1
Theoretical	10	2,8	47	7,2	6	5	Yes	1
	11	2,25	55	10	5,1	12	Yes	3
	12	2,91	39	6,1	5,3	12	Yes	3

Marital status (1 = yes; 2 = no, but lives with a regular partner; 3 = no, lives alone).

relationship to the participants prior to study commencement and with previous experiences from conducting research interviews [17]. An interview guide was used in the initial interviews to maintain focus on the questions and the purpose of the study. The interviews were carried out in a private office in the outpatient surgical clinic immediately after the fifth treatment with psychomotor therapy [17].

2.7. Data collection and analysis

We collected data jointly with open, focused, and theoretical coding and analysed it to determine which data to collect next. In the open phase, we collected data to generate variations in age, gender, shoulder condition, pain, and body awareness and analysed the variations to explore the participants' actions, attitudes, and experiences with psychomotor therapy. Next, we compared events experienced by the participants to identify similarities, differences, and variations and formulated these incidents in provisional concepts. In the focused and theoretical phase, we compared the provisional concepts with other concepts from the analysis to establish the best fit among them and ensure that theoretical saturation was attained. The sample procedure continued until we achieved conceptual density. We coded, organised, and analysed the data manually. On the basis of the evolving analysis, we identified behavioural strategies, relationships, and variance among these strategies by theoretical sampling. Finally, we formulated the substantive theory (see Table 1).

In line with Charmaz [14], the categories and theory were developed from the patterns revealed by the researchers' theoretical constructions of the informants' subjective experiences. Theorising was a nonlinear process and required flexibility, reflexivity, and an open mind.

2.8. Ethics

Informed written consent was obtained from all participants prior to the overall study. The study was approved by the Danish Data Protection Agency, Region of South Denmark (J. nr. 2008-58-0035) and The National Committee on Health Research Ethics, Region of South Denmark (J. nr. S-20150111).

2.9. Rigor

We conducted regular meetings with the research team to discuss the qualitative component of the study as well as sampling methods, data generation, codes and categories, and implications for further sampling. Memos with reflections were written jointly as a record of the research process. We pursued credibility by collecting rich data through multiple methods of data collection (i.e., interviews, video recordings, and notes) and through adherence to GT processes and procedures. We created an audit trail by keeping all data and a detailed description of the research process. We addressed originality by staying to the participants' experiences of psychomotor therapy, using the participants' quotes to describe the processes. A final literature search was integrated into the findings.

3. Results

The interviews were carried out between June and December 2016 and yielded rich data about behavioural changes, actions, experiences, and attitudes associated with psychomotor therapy. Concept density was reached after interviews with 12 study participants (4 women, 8 men; age range 37–66 years). The interviews lasted between 21 and 45 min (mean 32 min; Table 1).

Data regarding loss of functioning in daily living appeared frequently, and the category “regaining capability” (see Fig. 1) emerged as representative of the pattern of the participants' behaviour. The analysis generated an explanatory framework of the pattern of behaviour in people with chronic shoulder pain. The theory of regaining capability (Table 2 Analytic process) involved three typologies: taking advice, minding the body, and encompassing life changes.

3.1. Taking advice

The typology of taking advice reflects how patients take practical advice on how to use the body in a gentler way after attending psychomotor therapy for the shoulder pain. The patients' overall

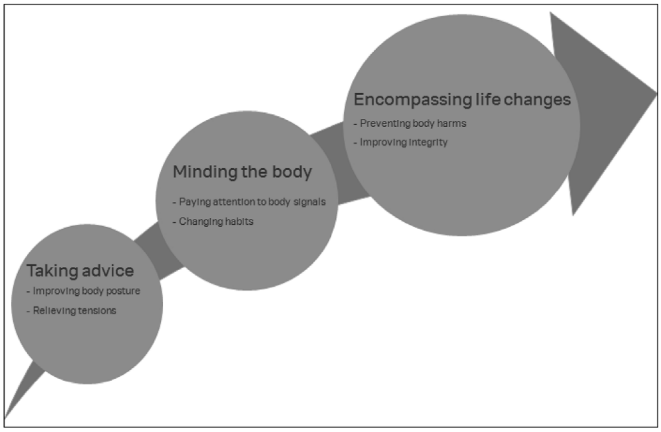

Fig. 1. The theory of regaining capability.

Table 2
Analytic process.

Quotes from interviews	Initial coding	Core	Selective/focused coding	Theoretical coding	Categories and subcategories
"The therapist has given me some tools that help me relax, sit with my hands in the right position, and exhale. She has also given me some exercises with the ball. I have tried to follow her advice" (3) "The therapist has given me some good advice concerning movement and in terms of how various issues interact. She also advised me on my ideal posture" (2) "To take time to sit down and breathe, focus on something else and to give the body a time-out" (10)	Significant that participants take advices on the body deriving from the conversations with the therapist	Regaining capability	Bio-medical perspective The therapist is an expert on shoulder problems Improving body posture relieve pain Aware of body tension	Taking advice	Taking advice Improving body posture Relieving tensions
"I feel that bodily attention and relaxation helps the psyke, which makes it easier for me to cope in my daily life" (8) "I must respect the fact that when something hurts, then I need to take the pain seriously and do what needs to be done" (5) "At work I should avoid going into robot mode. If I learn to take some breaks and calm down, then I can change some work routines and my shoulder will not suffer so much" (6) "I used to be very tense. I no longer focus so much on the shoulder itself. Now I think more in terms of how my body is doing. She [the therapist] has helped me think of the entire body " (6)	Substantial that the participants have broadened their reflections on the lived body	Regaining capability	Coherence between body and mind The therapist is a professional who is helping patients to unite body and mind Considerations on what can worsen muscle tensions Know how to respond to body signals Willingness to change habits	Minding the body	Minding the body Paying attention to body signals Changing habits
"The therapist has developed a holistic focus on me, and taught me to listen to my body, before it is too late" (7) "Previously I did yoga, played soccer, did fitness, and ran every day, because I preferred to be active … But actually I was destroying my body injury by injury (…) I have had time to stop and talk about who I am as a person and to see a connection between my actions and how my body feels" (7) "Yesterday I said no thanks to an event. We should have gone bowling, but I was simply too tired, and my shoulder hurt, so I declined … Previously I was "the good girl", now I am better at saying "no thank you" (…) The process has freed up some space for me, I would say. I still have room for everyone else in my life. I think that when I can take better care of myself, then I can also take better care of others" (11)	Significant that the participants now see themselves in a new and broader perspective and make life altering choices	Regaining capability	Biopsychosocial perspective The therapist is a facilitator A shift in the perception of the cause of shoulder pain Knowing yourself better The body as an important resource Conscious decisions	Encompassing life changes	Encompassing life changes Preventing body harms Improving integrity

experienced benefit of psychomotor treatment correlated with a biomedical perception of understanding pain. Patients expressed a lack of understanding of the underlying causes and absence of personal share in the occurrence of the pain. The patients saw the psychomotor therapist as an expert on shoulder problems and on how to eliminate the pain. Patients viewed their own role in the course of treatment as taking advice and acting accordingly whenever they remember to.

> *The therapist has given me some tools that help me relax, sit with my hands in the right position, and exhale. She has also given me some exercises with the ball. I have tried to follow her advice.* (Informant 3)

In the beginning, patients found the manual therapy to transgress their modesty borders. However, the overall benefit of the manual therapy on the treatment table is pleasantness and relaxation. The patients found the psychomotor therapist's recommendations on how to exercise and how to use exercise equipment (e.g., small balls), breaks, and breathing techniques to be beneficial. Patients realised that they themselves can influence the pain intensity and understand better how to reduce their shoulder pain. However, they were not certain how the psychomotor therapy will affect their future life. Patients strived to remember and to follow advice given by the psychomotor therapist on improving body posture and how to relieve tension.

3.1.1. Improving body posture

The patients recognised that they can affect the intensity of their shoulder pain by improving their body posture. The recognition concerns the importance of paying attention to sleeping, sitting, standing, working, and driving positions.

> *The therapist has given me some good advice concerning movement and in terms of how various issues interact. She also advised me on my ideal posture.* (Informant 2)

Patients expressed that, when the way of standing influences the entire body, then it is important to consider it in the future. One of the patients had always bitten his nails and, through dialogue

with the psychomotor therapist, he became aware of the negative influence the habit had on other parts of the body (e.g., inappropriate loads on the shoulder), and so he quit. Patients took ergonomic advice on how to improve body postures by changing the positions of their hands on the steering wheel when driving, and adjusting the height on working tables and desk chairs.

3.1.2. Relieving tension

Through dialogue with the psychomotor therapist, the patients became aware of the connection between busyness at work and bodily tension. Patients highlighted the manual treatment on the table as a gentle and relaxing massage, but most importantly as a way of learning how to relieve tension by relaxing. They picked up advice, such as taking small breaks, breathing techniques, and relaxing the shoulders.

> *To take time to sit down and breathe, focus on something else, and to give the body a time-out.* (Informant 10)

Thus, the patients acknowledged the relationship between busyness and tension and, by means of psychomotor therapy, experienced ways of relieving tension, though they found parts of it challenging to integrate into everyday life.

3.2. Minding the body

The typology minding the body reflects how manual treatment on the table and dialogue with the psychomotor therapist broadened patients' reflection on the lived body. The behavioural pattern of the patient was associated with a thoughtful understanding of coherence between the body and mind, which entails a consideration of what can worsen shoulder pain, muscle tension, and soreness in the entire body. Minding the body also reflects body awareness, which means avoiding bodily disappearance and managing to think of the body as an entity that must be used but not harmed. The patients saw the psychomotor therapist as a professional who helps patients unite the body and mind, and to help them understand the complexity of chronic shoulder pain and how to respond adequately to pain on an individual level.

The patients took responsibility for establishing habits that are more appropriate and cater to both the body and mind. The experienced benefit of psychomotor therapy, besides reflection on the lived body, was extended mental energy and appreciation of 'being more than a shoulder'. Furthermore, balancing the body and mind was perceived as preventive against having more musculoskeletal harms in the future.

The essence of minding the body is the unity of body-mind, and one participant expressed it in this way:

> *I feel that bodily attention and relaxation helps the psyche, which makes it easier for me to cope in my daily life.* (Informant 8)

Patients were certain that the psychomotor therapy will affect their future life by paying more attention to body signals and by changing habits.

3.2.1. Paying attention to body signals

Paying attention to body signals is about taking care of the body and knowing what affects the body adversely.

> *I must respect the fact that when something hurts, then I need to take the pain seriously and do what needs to be done.* (Informant 5)

The patients accepted and knew how to respond to body signals, such as fatigue, exhaustion, tension, and muscle pain, and know when to change behaviour even though the 'inner autopilot' tries to take control and continue unnoticed. The patients acknowledged that they can act wisely, when the body says no and the mind says yes. They no longer regarded it as heroic behaviour to ignore body signals, such as fatigue, exhaustion, tension, and muscle soreness when paving, cooking, knitting, or gardening. Paying more attention to such body signals is an opportunity to establish new habits.

3.2.2. Changing habits

Changing habits is characterised by the patients' struggle for and willingness to change what is the best for the body and, thus, good for the shoulder. Changing an old habit is not easy, but small changes in daily routines are the first step on the road to new and better habits.

> *At work I should avoid going into robot mode. If I learn to take some breaks and calm down, then I can change some work routines and my shoulder will not suffer so much.*
>
> *(…) I used to be very tense. I no longer focus so much on the shoulder itself. Now I think more in terms of how my body is doing. She [the therapist] has helped me think of the entire body.* (Informant 6)

Regular relaxing, using breathing techniques, walking barefoot, taking a nap during working hours, dancing as exercise, and being faithful to body signals are new habits that have taken hold.

3.3. Encompassing life changes

The typology of encompassing life changes reflects how patients' attendance in psychomotor treatment becomes a tipping point, perceiving the shoulder symptoms and themselves in a new and broader perspective, and consequently making life-altering changes.

The behavioural pattern is related to greater comprehension of the shoulder pain in a biopsychosocial perspective, which is expressed as understanding the causes of the shoulder problems as multifactorial, and is related to inappropriate use of the body and overall lifestyle. The patients saw the psychomotor therapist as a facilitator of this realisation process and their own role in the course of treatment as being active in and mainly responsible for making changes in daily life in order to harmonise the body, mind, and social life, and to prevent new injuries.

> *The therapist has developed a holistic focus on me, and taught me to listen to my body, before it is too late.* (Informant 7)

The benefit of the psychomotor therapy stems from the dialogue with the therapist, as well as from the treatment on the treatment table. In addition to less pain, better sleep, and less stress, the experienced benefits concern greater body awareness and a holistic perspective of themselves, encompassing a connection between psychological, physiological, and social factors, leading to new attention and choices to prevent body harm by changing their lifestyle and improving integrity.

3.3.1. Preventing body harm

A characteristic feature is a shift in focus from the shoulder pain itself, which was the original reason why the patients sought treatment, to seeing the shoulder pain as a symptom related to lifestyle, which gave rise to concern about preventing future body harm by making conscious changes in their lives.

Previously I did yoga, played soccer, did fitness, and ran every day, because I preferred to be active … But actually I was destroying my body, injury by injury (…). I have had time to stop and talk about who I am as a person and to see a connection between my actions and how my body feels. (Informant 7)

The patients experienced having gained energy and mental strength to make changes, such as getting more education (e.g., diploma) or another job that is physically less demanding, and listened to their bodies in a new way. Because the treatment includes the sense of touch, it gave rise to emotions and a new kind of energy. When patients experienced pain, they reflected on how they can cope appropriately, but prevention also became an important focus of attention.

3.3.2. Improving integrity

Improving integrity is about getting to know yourself better through dialogue with the psychomotor therapist and through manual treatment. The dialogue with the psychomotor therapist provided insight into who the patient is, how they live their life, typical patterns of behaviour in different situations, and the typical demands they place on themselves. Through the manual treatment on the table, the patients experienced the body, and thereby themselves, in new ways. They discovered how it feels to be relaxed, could identify when the muscle tightens up, and experienced how energy is released when they are being touched by the therapist. Body awareness was expanded; they no longer ignored, but accepted, the body and attached significance to body signals. Thereby, the body becomes an important resource to help the patient determine what is appropriate in terms of their physical and mental well-being.

Yesterday I said no thanks to an event. We should have gone bowling, but I was simply too tired, and my shoulder hurt, so I declined … Previously I was "the good girl", now I am better at saying "no thank you" (…). The process has freed up some space for me, I would say. I still have room for everyone else in my life. I think that when I can take better care of myself, then I can also take better care of others. (Informant 11)

The patient began to make more conscious decisions, and self-acceptance was admitted instead of continuously pushing aside self-considerations.

4. Discussion

The aim of this study was to develop a theoretical account of the experienced benefit of psychomotor therapy in addition to treatment as usual in patients with chronic shoulder pain. We identified three typologies of regaining capability, each reflecting different patterns of experienced benefit: taking advice on the shoulder, minding the body, and encompassing life changes. The patients with chronic shoulder pain seemed to experience a benefit from psychomotor treatment, though their experiences differed a lot. However, we found a common factor in the three typologies; the patients gained new understanding of how they could influence the shoulder pain and contribute to rehabilitation. The patients also gained new ways of coping with the pain. The character of their new insights varied, however, as did the extent to which it influenced them to make conscious changes in their lives.

Research indicates that body awareness is an important target in the multidisciplinary treatment of chronic pain [6,8,13]. There are varying definitions of the concept of body awareness. Van der Mass et al. [13], defines body awareness as a multidimensional construct that involves sensitivity and attentiveness to internal body signals, overall body states, and of the body response to changes in the environment or emotions. Psychomotor therapy seems to enhance body awareness, and psychomotor treatment has been suggested to provide benefits through improving body awareness [8]. We think these findings support our findings on the typologies of regaining capability. Furthermore, it raises the question of whether the differences in experienced benefits obtained by the identified typologies relate to different extents of body awareness.

Previous research has discussed whether being more aware of your body is adaptive or maladaptive [8,18]. The main question is whether sensitivity to body signals is a resource reflecting an integration of mind and body, or whether sensitivity to body signals is related to distress and anxiety [18]. Studies indicate that the adaptivity or maladaptivity of sensitivity to body signals is determined by the mode of attention of the individual [8,18]. Sensitivity to body signals in terms of being aware of bodily states and reactions may better enable individuals to show consideration for their emotional and somatic conditions, making it a salutogenic factor [18–20]. However, Ginzburg et al. [18] showed that monitoring bodily signals in terms of actively scanning the body for cues of physical condition is associated with high hypochondriac tendency and anxiety, and that the adaptivity of sensitivity is dependent on the level of monitoring and pain catastrophising. According to van der Mass et al. [8], adding psychomotor treatment to treatment as usual for chronic pain led to increased body awareness and decreased catastrophising. Furthermore, an increase in body awareness seemed to be related to improvements in the outcome variables health-related quality of life, disability, and depression, supporting the adaptive view of body awareness [8]. Thus, an increase in body awareness for patients suffering from chronic pain may be related to them perceiving signals from their body, being less inclined to pain catastrophising, and being more able to cope with the pain [13].

The patients in our study all gained new ways of coping with their shoulder pain. As far as the typology taking advice is concerned, it is questionable whether the patients increased body awareness. This seems to be the case for the patients in the typologies minding the body and encompassing life changes. They seemed to become increasingly aware of the connection between body and mind, being less occupied with the symptoms, becoming aware of the necessity of showing consideration for the body in general, and attending to the body as a source of knowledge. The patients actively attended to body signals and made changes in their lives to balance body and mind, presumably increasing self-efficacy. This finding seems to be consistent with the findings of van der Mass et al. [8], who suggested self-efficacy and catastrophising to partly mediate the relationship between improvements in body awareness and treatment outcomes. Similarly, Dragesund [21] found, in a study of psychomotor physiotherapy for patients with chronic pain, that body awareness is essential in increasing the ability to cope with pain. This is consistent with our findings that the initial frustration when feeling pain is now followed by ideas on how to cope with the pain.

According to Øien et al. [22], the way and extent to which people perceive their body may determine their possibilities for regulating daily life activities. Perceiving not only pain, but also bodily reactions such as breathing and tension, creates the possibility of connecting the experiences to daily life and acting considerably. Øien et al. [22] distinguished between being detached from and being in touch with the body and referred to Merleau-Ponty, stating that the body leaves a great variety of possibilities open for new ways of using oneself. The behaviour found in the typologies minding the body and encompassing life changes indicated that the

individuals became increasingly in touch with their bodies, which allowed them to pay more attention to their needs and broadened the options available for action. Recognising and gaining an understanding of the body's reactions in different contexts became a new way of understanding oneself [23]. Thus, the shoulder pain became the entryway to new self-perception, which may result in improved rehabilitation, reduced risk of future injuries, less stress, and individuals that are more resourceful. However, all of the participants in our study scored low on body awareness before attending psychomotor therapy, as this was one of the inclusion criteria based on the suggestion that psychomotor therapy may be especially beneficial for patients with low body awareness. Therefore, our findings are based on the benefits experienced by patients who started with low body awareness. We do not know what the experienced benefits would be for patients with initially high body awareness. Moreover, we do not know the long-term benefits of psychomotor therapy for people with chronic shoulder pain. These questions remain for future research to answer.

4.1. Methodological considerations and limitations

The aim of GT is the development of a situation-specific middle range theory, which is in line with the aim of this study; therefore, its applicability is limited to the experienced benefit of psychomotor therapy in patients with chronic shoulder pain and low body awareness scores. A limitation of this study is that we only collected data from one clinical setting. To improve the theoretical model of regaining capability, we will need to extend the data collection to cover different clinical settings. Future research will need to clarify the transferability of this GT to other types of chronic pain.

A second limitation of this study is that no interviews were performed with patients not receiving the additional psychomotor interventions, whereas the implications of the physiotherapist's advice on posture and pain management cannot be withdrawn from the model.

5. Conclusion

The patients' behavioural typologies revealed different levels of life changes. Psychomotor therapy offered all of the patients in our study new and better ways of coping with their shoulder pain. Thus, they all came to play an active role in their rehabilitation. However, the extent to which they gained new insights from attending psychomotor therapy and made life-altering decisions varied.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.ctcp.2018.03.001.

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