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Clinical reasoning and clinical use of basic body awareness therapy in physiotherapy – a qualitative study?

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ABSTRACT

Background: Clinical reasoning is the ability to integrate and apply different types of knowledge, weigh evidence critically and reflect upon the process to arrive at a diagnosis. Body awareness is an approach directed toward an awareness of how the body is used in terms of body function, behaviour, and interaction with self and others.

Methods: In the present study, 36 physiotherapists (PTs) from 13 countries working with body awareness methods, mainly Basic Body Awareness Therapy (BBAT) in mental health were interviewed in six focus groups. Content analysis was used to analyse how the informants' reasoned around the concept of body awareness therapy, and how they use it in their clinical work with patients.

Result: Body awareness was conceived as being in contact with sensations and emotions, to be able to control symptoms, such as pain, to find a balance and to develop one's identity by relating to oneself and others. BBAT was used as a whole body treatment, to promote balance and stability, to teach about body, movements, and coping strategies, to interact in a therapeutic approach and to be integrated with other methods and professionals.

Conclusion: The present results can be used to improve the PTs clinical reasoning.

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KEYWORDS



Physiotherapists perspective; health; clinical competence; focus group

Background

Body awareness is an approach often used within physiotherapy to promote health and well-being [1–3]. It has been defined as a treatment directed towards an awareness of how the body is used in terms of body function, behaviour, and interaction with self and others [4]. The concept body awareness has been described as a mechanism of action for mind-body approaches, for example, yoga, tai chi, body awareness therapies, mindfulness-based therapies/meditation and Feldenkrais [1].

In Sweden, mental health problems are the second cause of absence from work in the general population. Stress-related disorders, anxiety and depression have increased within the population, particularly among adolescents in Sweden [5]. Girls and young women aged 16–24 years report more problems than boys and young men. Factors such as unemployment, pressure in education, normative body ideals and sexual harassment may be possible explanations to this [6]. Also, changing living conditions in western societies, increased individualisation, and a focus on consumption, fitness, and appearance may contribute [7]. This situation may, to some extent, explain the increased interest to use body awareness methods within physiotherapy and the importance of adopting a biopsychosocial and holistic perspective in relation to health problems [8].

Basic Body Awareness Therapy (BBAT) is mostly used within physiotherapy within the Nordic European countries. It has many positive effects such as increased health, self-efficacy, increased use of functional coping strategies and a reduction of musculoskeletal symptoms [9,10]. It has also been shown to reduce posttraumatic stress disorders [11], anxiety, depression [3,12], eating disorders [2], and mental illness [11]. BBAT has also been used to improve movement awareness and movement quality [13,14] and to deepen the contact with the body and one's identity, the embodied identity [4]. The aim of BBAT is to normalise posture, balance, breathing, and coordination by using simple movements and exercises during stillness and action. The movements are performed in lying, sitting, standing or walking. The awareness is turned to the movements and to what is experienced at the moment of performance [15]. To improve the grounding, e.g. the relation between the physical body and the ground in different positions is often used as a starting point in therapy. To let gravity work on the body without tensing up the muscles have been found to increase the experience of basic security [16]. To improve both the contact with the body and the feeling of 'ownership' of the body as well as the tolerance for different motor and sensory dimensions are focal points in the BBAT treatment in order to re-establish 'the embodied identity' (e.g. the inseparable unity of body and identity) [4,15].

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Clinical reasoning is a core competency that has to be acquired by all clinicians. It is the ability to integrate and apply different types of knowledge, weigh evidence critically and reflect upon the process used to arrive at a diagnosis [17]. Clinical reasoning can also be defined as the physiotherapists' capability to synthesise information from the clinical assessment, analyse and use the findings, tailor an appropriate intervention and evaluate its effectiveness [18]. It is influenced by the context and guided by the physiotherapists' cognitive and reflective processes [19].

To promote the learning of clinical reasoning skills is important within physiotherapy. This can be performed by the use of previous knowledge, sharing expert strategies and encouraging reflection, metacognition, practice and availability of formative feedback [17]. To include a behavioural approach in physiotherapists' clinical reasoning, processes are today fundamental in clinical practice to promote health-related behaviour changes [20].

Only a few studies have, to our knowledge, been focussed on physiotherapists' clinical reasoning in relation to body awareness and their experiences of how they use body awareness in their physiotherapy practice.

Aim

The aim of this study was to describe how physiotherapists from different countries working with mental health problems and/or musculoskeletal pain disorders understand and reason around the concept of body awareness therapy and how they use it in their clinical work with patients.

Research questions

1. What is body awareness for you?
2. How do you use body awareness in your clinical practice

Material and method

Informants

A total of 36 physiotherapists participated in the study. The participants came from Belgium (one), Canada, (one), Denmark (ten), England (one), Finland (six), Japan (one), Netherlands (one), Norway (two), Scotland (one), South Africa (two), Sweden (seven), Switzerland (two) and USA (one). The informants volunteered to participate because of interest in the subject. Four focus groups were performed in connection with conferences in mental health. The remaining two focus groups were performed at a special occasion to obtain more in-depth data and variation in the study. Informed consent was obtained from all the informants before the interview started. Confidentiality was guaranteed and the results were analysed on group level so that no individual could be identified.

The group consisted of five males and 31 females. The ages were between 23–71 years old, median 52 and mean 49 years. Years of practice as a physiotherapist varied between 1 year and 46 years, median 28 years, mean 22

years, and years as a physiotherapist in mental health varied between 1 year and 29 years, median 9 years, and mean 11 years. They were working with both children, young and old patients within the whole mental health spectra, e.g. patients with psychosis, depression, post traumatic stress disorders, anxiety, dementia, eating disorders, pain rehabilitation or stress-related disorders. Their work places were general practice, private practice, hospital or psychiatric outpatient care units.

Method

Qualitative interviews were performed by the use of focus groups. By the use of this method, new research areas can be explored from the participants' perspective [21]. Data were collected in six focus groups. The number of participants varied between 3 and 9 in each group. In focus group interviews, all participants in the group are able to talk freely about their opinions and experiences of the topic in question. They are motivated by each other's comments and can add reflections to each other's answers. Each focus group lasted from one to one and a half hour. In the present study, the reasoning around the concept of body awareness therapy and how to use it in clinical practice were explored. All participants had the opportunity to freely express their experiences. During the interviews, one researcher was a moderator and led the discussions, whilst another researcher served primarily as an observer. The focus group discussions were audio-recorded and transcribed verbatim.

An interview guide was developed consisting of two research questions 'What is body awareness for you' and 'How do you use body awareness in your clinical practice?' Follow-up questions were used to clarify and to deepen the interviews.

Analysis

The interviews were analysed using qualitative content analysis according to Graneheim and Lundman. We began with a manifest content analysis and when we interpreted the data and labelled the categories, it developed into a latent content analysis [21]. A content analysis includes the following steps; (1) a naive reading of all interviews to understand the whole content and selection of the unit of analysis, (2) identification of meaning units across the whole data material, (3) condensation, abstraction and coding the meaning units and (4) sorting the meaning units in categories [21]. In the present study, the interviews were read by all researchers to get a sense of the whole material. The whole data material was considered as the unit of analysis. Then, two of the researchers identified all possible meaning units that answered each research questions. These were condensed, abstracted and labelled with codes in a cooperation between the two researchers. The codes were compared and sorted into categories. The analysis moved back and forth through these steps and the categories were discussed until agreement was reached. The categories will be described with illustrating quotations.

Result

The personal understanding of the concept of body awareness

Four categories emerged; contact with sensations/emotions, to be able to control pain, to find balance and to develop the identity by relating to one's self and others. These categories will now be described.

Contact with sensations/emotions

Body awareness was understood as sensations and feelings in the body and a way to uncover emotions in social situations and how different emotions affected the person. The informants' understanding was largely grounded in their own practical experiences of the method. This contact included bodily reactions concerning limits and assets. Body awareness was also experienced as a means to be empathetic and to be able to understand the emotions of others.

'For me body awareness is how I feel at any given time in my body, for example to make me comfortable. I am aware of comfort in different positions, I am aware of how different emotions affect me, my neck tense when I am stressed and my heart beats when I am tense. Body awareness is also how my body feels in social situations. How my energy feels when I am tired understanding the limits of my body, and what symptoms I feel when I reach those limits, and being aware of what the consequences are of going beyond the limits of my body. How my mental thoughts affect my body, the thoughts come first and the reactions next, and then the body responds accordingly'.

To be able to control pain

Body awareness was understood as a means to be able to control symptoms and pain.

'For me, body awareness allows me physically to control pain, if I am aware of where the pain is coming from, then I can use the techniques such as BBAT to control that pain, to get rid of that pain, it also allows me to prevent myself to not going into situations where I get into pain'.

To find balance

Body awareness was understood as finding the balance both in the body and between body and mind and between calmness and being active.

'Body awareness releases the body and the mind. Balance is a good thing about body awareness, body balance but also balance in what I do and also a balance between my body and mind, so my words don't take me too far, in relationships and so on, and to find a better balance'.

To develop the identity by relating to oneself and others

Body awareness was understood and experienced as a way to be and live in the body and relating to others, being a bridge between the inner and outer life. It was a tool to take action to promote one's health. In cultures where the body was experienced to be more unrestricted, this characterised the movements.

'To me body awareness is a vehicle or a temple for my identity and it gives presence and resonance, and because of that I can choose to be and to take action, I can protect myself. We have different bodies, we have the physical body, the social body and for me the spiritual body is also very present, where I can sense energy flow that is also a part of body awareness. For me the basic work is identity, body awareness is identity'.

'There are different body cultures... patients from parts of Africa comes from a culture where the body naturally is considered to be free, so for them to find a meaning in doing movements can be very, very difficult... or to relax and calm down and reflect on oneself may be unnatural for them'.

How do you use body awareness in your clinical practice?

Six categories emerged in the analysis. These were, (1) as a whole body treatment, (2) to promote balance and stability, (3) to teach about the body and how to practice movements, (4) to coach the patient to cope with pain and anxiety, (5) to interact with the patients in a therapeutic approach and (6) to integrate BBAT with other methods and professionals.

As a whole body treatment

BBAT was used as a whole body treatment including thoughts, movements, emotions and relation to others and the environment. To coach the patients towards increased awareness of what happens in the body, not only joys but also limitations and problems were considered to be important. In addition, to be able to use the body as optimally as possible and to tailor and dose the treatment to the individual, the patient was stressed as important issues.

'For me, the aim is connected to the whole body, the thoughts, the movements, emotions and relation to others. Working with body awareness is not only working with movements but also how it is to be in the world with the body, limitations and problems. The whole existence. To acknowledge what happens in the body and reflect on it and to learn how to cope with and master movements and use the body to do what one wants to do. To attain a better balance between the body and the mind, you can say'.

'I think that physiotherapists always work with dosage independent of the method used. The dosage in BBAT is developed in interaction with the patient. As a PT, I am always aware of how the patient reacts, and answers to treatment, how the breathing reacts and what happens in the moment. So you deliver the treatment and the dosage in relation to what happens and also if you shorten or prolong the treatment in the session'.

To promote balance and stability

The informants perceived that it was important to connect the body in sitting and standing to a stable ground in the movements. This was experienced to be a prerequisite to normalise muscle tension and to find the balance between the body and mind. If the patients were much traumatised, the PTs perceived that stabilising movements were important and that the patient needed to keep their muscular tension

to prevent dissociative experiences. Some informants also used BBAT in the workplace to find a balanced sitting position. The most common treatments were focussed on movements that increased stability, balance, awareness and breathing and reduced muscle tension.

'I work a lot with balancing the body both in sitting and standing positions. I try to talk about the connection between to be in physical and mental balance and try to make them sense it. In that way, we can find a stable ground to reduce the muscle tensions. You try to normalise it (muscle tension) by starting from the floor and up'.

'I almost always use standing and lying movements (to promote stability) If the person has difficulties in lying down we will be standing noticing the ground and to have a relation to the ground. To be aware of the ground, being stable and to be able to yield to the floor and relax your muscles. Then I use small bounces and rotations and generally to align the body around the vertical axis'.

To teach about the body and how to practice movements

Some informants pointed to the importance of teaching their patients about the body and helping them to be more aware of their body and how to practice movements. The PTs answered all possible questions to promote the patients' motivation to participate in a BBAT group. One pedagogic principle was to focus on doing the movements much smaller in order to establish a sensory connection, use less energy and do the movement more natural.

'They do not in the beginning care about making body awareness movements, because they do not notice themselves. So I start to educate them theoretically. My goal is to help them regain the body from childhood, as it was before their eating disorder started, to be able again to stand up for themselves and to accommodate their sensations and emotions. So I start to teach something about the autonomic nervous system and how it influences psychological and physical aspects of the body and how the breathing is connected to that'.

'Due to the cultural background, some persons may not know any anatomy at all so I have to simplify what I teach. It should be simple, concrete and easy to understand'.

'I teach them what is natural bodily reactions and what happens in the body when you have PTSD. I also teach why they should practice small easy movements instead of using all their muscle force. I talk a lot about the use of energy. It is not necessary to use 100% of your energy on a movement that can be made with only 50%'.

'To coach the patient to cope with pain and anxiety'.

The PTs applied the treatment to the context and understanding of each patient. They focussed on working with the patients' resources and the things the patient could manage, concerning both on how it felt in the body when everything is fine and on how to handle negative symptoms and pain.

'Well in sitting I do a small body rotation, neck rotation and flexibility movement of the upper neck, shoulder lifting all very small, so little, so little. When the patients do much bigger movements it hurts so I say "try see if you can do it with smaller movements so it doesn't hurt"'

'In my groups, I try to change the perspective when patients talk about pain. I ask do you have any healthy parts. That changes the attitudes'.

'To interact with the patients in a therapeutic approach'.

The therapeutic approach of the PT was seen to be important. Some considered themselves and the relationship with patient to be the main tool in treatment. It was important to support the patient to express themselves and their reactions in the relation with the PT. It was important that the PT was aware of and acknowledged the processes of transference and counter-transference and that the PT practiced body awareness and had therapeutic skills.

'The more I have worked with BBAT, the more I realised that I was the tool, it astonished me that I was so important as a person and I got more and more calm and did not have to do so much.

I just felt like a big mother, to take care of what the patients may feel in the relation, so that they could feel – here is a person to rely on. The relationship was very important to me and the possibility to work in another way'.

'I need to practice myself to take care of the patients' reactions "I work with patients with traumas, when you work with these patients, it is even more important to be aware of your own body as you have to take care of transference and countertransference from the patient. So when I work with the patient I also do body awareness myself and I try to not come in the same breathing as the patient or to take over the feelings from the patient. So I try to be grounded myself in my own breathing, this means a lot of practice on your own because you have to be aware all the time, and at the same time, be aware of the patients' reactions and feelings, so when working with body awareness, you need a lot of practice yourself"'

'To integrate BBAT with other methods, professionals and cultural contexts'.

Some of the informants described that they integrated BBAT with other methods, professionals and in different cultural contexts. BBAT was combined with meditation, physical exercise, sensory stimulation, behavioural therapy, relaxation therapy, rhythmic stabilisation, tactile stimulation and technical aids, according to the individual need of the patient. The PT was often part of an interdisciplinary team and cooperated in different ways with other professionals. BBAT was also used with persons from different cultural contexts.

'I combine BBAT with behavioural therapy "I use it in my company where I work together with a psychologist building small groups of 6–12 people and we have behavioural therapy combined with bodily aspects from BBAT, this is health promotion and stress-reducing. Some are sick-listed and some work and we try to give them something so they can cope better and stay at work"'

'I combine BBAT with explanations and with relaxation treatment and rhythmic stabilisation. I also combine BBAT with technical aids and heavy boll quilts as tactile stimulation'.

'Another thing is to communicate to colleagues and the social insurance company what I am doing and the lack of clear inclusion and exclusion criteria, which we need in my country.

That BBAT is so widely used is a strength but how to communicate and sell it is a weakness of the method'.

Discussion

How was the concept of body awareness understood by this international group of PTs? The result showed that body awareness was conceived as being in contact with sensations and emotions, to be able to control pain and other symptoms, to find balance and to develop one's identity by relating to oneself and to the patients. This shows that this group was aware of the core characteristics of BBAT. The concept of body awareness was grounded in their own experience of the method BBAT.

The participants also described the importance of the relationship and the personalised encounter, where the resources and possibilities of each participant was met and strengthened. Previously, the importance of the therapeutic encounter, affect attunement, affect mirroring and communicating by use of a person-centered approach have been described as important in BBAT [22]. The experiences of body awareness include close contact with emotions and sensations in the body and may enable the control of pain and other symptoms have previously been confirmed in a review study by Mehling et.al. [1]. This review acknowledge that body awareness is modifiable by mental processes such as attention, affects, appraisal, beliefs, memories, conditioning, attitudes and our interpretation. This shows that the awareness of the body and mental awareness and processes affects each other mutually. The present results may be used to improve the PTs clinical reasoning, as the PTs bodily and mental awareness is important when synthesising information from the clinical assessment, the encounter with the specific patient and the reactions met in the treatment. These are all important factors related to the clinical reasoning and the analyses to select an appropriate treatment that is part of a personalised care [18].

The third category 'to find balance' is confirmed by earlier research showing that BBAT improves balance [3,23]. First, the balance in the body has to be strengthened. The examples put forward by the informants in the present study was that to strengthen the relation to the supporting floor, to ground the body, was important to work with the stability needed to handle the stressors of life. When the body was grounded, the possibility to relax and free the breathing was increased. The freedom in the breathing was seen as a means also to strengthen the sensibility of both the bodily limitations and assets and the emotional life.

The fourth category 'to develop one's identity by relating to oneself and others' is totally in line with the definition of body awareness as 'the treatment directed toward an awareness of how the body 'is used in terms of body function, behavior, and interaction with self and others' [4]. The results showed that the informant group had a deep understanding of the concept of body awareness grounded both in their own bodily experience and from their clinical experiences of the adequate dose in the personalised treatment approach, also called a person-centered approach. The results give an

indication of a holistic understanding of the body and mind, which indicates that the informants had a clinical reasoning capacity. They had the capacity to integrate and apply different aspects of knowledge and reflect upon the treatment process [17].

How did this group of international PTs use BBAT in their clinical work? First of all, they used it as a whole body treatment. This is also how it is meant to be used. Mehrling et.al. [1] showed in his review that body awareness was perceived to include 'every level... the physical, the breath, the mind, the personality and the emotions', and that the 'body' of body awareness is inseparable from its functions and all other aspects of self-awareness. In his review, body awareness was understood as a core aspect of embodied self-awareness [1].

Secondly, this group of PTs used body awareness to promote balance and stability. To obtain an improved balance and stability are well-known goals of BBAT. Maladaptive habitual postural patterns can often, in daily life, be associated with musculoskeletal pain. Improvements in postural awareness are associated with reduced pain in patients with musculoskeletal pain [24]. Psychiatric problems also result in decreased balance and stability. Balance and stability of the physical self are found to connected to the conception of well-being and control [4].

Thirdly, this group of PTs used body awareness to teach about the body and how to practice movements. This is reasonable, as presence in and awareness of movements are core aspects of BBAT when aiming at improved health and learning of coping strategies for daily use [13,23]. BBAT is developed to foster more functional movement habits. The learning of more mindful movements influence the quality of the movements, which the PTs can promote in a structured way [23].

This group of PTs also used body awareness to coach their patients to cope with pain and anxiety. This is very important to do as both pain and anxiety have a very negative impact on health, self-efficacy and the relationship to the body [25-27] and to acknowledge and work with the relationship to the body is important for health. The changes in the relation to the body and self when living with pain has been described as a step-wise process [25,26]. First, the opinion that health can be taken for granted has to be abandoned. Next, a reorientation to cope with future threatening situations is needed. Then a new direction towards the future with new prerequisites can be developed. BBAT may, according to the informants, be a part of this process. By integrating the aching body into the self-trusting cooperation between body and self can be developed [25]. BBAT has in a recent randomised controlled study been shown to reduce pain in patients with fibromyalgia [28].

This group of PTs also used BBAT to interact with their patients in a therapeutic approach. A positive interaction with the patients is important for positive rehabilitation outcomes and factors important for a good interaction with patients have been identified, such as to be confirmed and listened to [29]. Earlier research has also confirmed that body awareness can include interaction with oneself and others

and contribute to develop the identity. This can be described as a process towards greater unity between body and self, very similar to the conceptualisation of embodiment as a dialectic of body and self, from having an absent body towards a more lived body [4,30].

The participants also integrated BBAT with other methods, professionals and cultures.

BBAT is not yet studied from a cultural perspective, but it is reasonable to believe that living in a collectivistic or individualistic culture influence both the body awareness and pain perception and interpretation [31]. Earlier research has also shown that women and immigrants are particularly vulnerable to pain [32]. To be aware of and move the body in a harmonious way is according to our informants natural in many African cultures. So, cultural aspects seem to be important to consider in clinical reasoning in physiotherapy, as it is influenced by the context [33]. To acknowledge socio-cultural aspects in clinical reasoning is important and assessment tools for that needs to be developed [33]. Another cultural aspect that may influence the clinical reasoning is the PTs own values and interpretations in the treatment process, as clinical reasoning also is influenced by the PTs cognitive and reflective processes [19]. A holistic sociocultural approach is, therefore, indicated when treating immigrants from different cultures.

Method discussion

Physiotherapists from 13 countries participated in the present study, also physiotherapists from outside Europe, for example, Canada, Japan and South Africa. These PTs volunteered to participate in the focus groups, thanks to interest in the area and most of them also had a clinical experience of working with patients clinically. They also had a personal experience of working with themselves through body awareness methods. Therefore, the data material became rich and thick.

Credibility refers to the researchers' ability to capture the reality. All the researchers had earlier experience of working with qualitative methods and had a long-term understanding of BBAT, both theoretically and clinically. The researchers worked close to the text in the analytic work and description of the results, which ensured conformability. Member checking was not performed, as this group lived in a variety of countries. Triangulation was performed by the three researchers. One of them was also a psychologist and the other two have a long-term experience of clinical work with the method with different patient groups. It was a strength in the study that the participants understood the BBAT concept as a way to control pain and they also worked with their patients coaching them to cope with bodily and emotional pain.

Dependability refers to the relationships between informants and researchers in terms of being interrelated and having had professional interaction with each other. In this study, one of the researchers had been a colleague to some of the informants. All three researchers had a pre-understanding of the topic in question, which may have influenced

the way the questions were formulated and the analytic process. However, the results were grounded in the data and the analysis was performed close to the text. Concerning transferability, the knowledge obtained from this study may be transferable to other contexts in the world where BBAT is used.

A limitation was that not all participants from the participating countries were fluent in English and as this was a sensitive topic to talk about some participants may have had some difficulties to express what they wanted to say exactly. Another limitation was that we had a time limit of one and a half hour for each focus group, so all potential experiences may not have been covered. With more time, the data material may have been even more rich and thick.

Disclosure statement

No potential conflict of interest was reported by the authors.

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