

MEDICALLY UNEXPLAINED PHYSICAL SYMPTOMS, MISUNDERSTOOD AND WRONGLY TREATED? – A SEMIOTIC PERSPECTIVE ON CHRONIC PAIN

Abstract

Medically unexplained physical symptoms (MUPS) are a significant and increasing health issue in the western world. Chronic pain constitutes a considerable element of these symptoms, and the lack of a biomedical explanation of their cause challenges the clinical encounter. The limitations of biomedicine become evident in these encounters and expose the need for an expanded understanding of body and symptom. Semiotics, as an anti-dualistic meta-theory, closes the gap between natural science and the humanities, and views the human body in an evolutionary and existential perspective. By focusing on interpretation and communication of signs as ongoing processes at all levels of life, biology and experience, the subjective and the measurable will be integrated. A special type of sign, the self-referential, is part of the body's internal communication. These signs may be viewed as the body's warnings to itself, for instance when the individual's consciousness, thought and action run counter to the organism's physiological and psychological needs. In a semiotic perspective, existential conditions may also activate the body's defence systems. In these contexts the unexplained pain may be understood as a functional warning sign. The enhanced understanding of body and symptom that a semiotic approach calls for is relevant for the work of physiotherapists and may lead to more constructive clinical encounters with patients with unexplained chronic pain.

INTRODUCTION

Medically unexplained physical symptoms (MUPS) are a dominant group of afflictions in the western world's panorama of disease, and receive significant attention in health and medical science, and in the clinical setting. Chronic pain as part of the broad picture of MUPS, also including fatigue syndromes and digestive problems, has increased significantly and is considered to affect more than 15% of the world's population (Baliki and Apkarian, 2015; Murray and Lopez, 2013). Research suggests that 40% of all patients with chronic pain are dissatisfied with the help they receive. A review article from The Cochrane Library concludes that up to one in three medical consultations include MUPS, and that studies of the effect of non-medical treatment yield inconclusive and modest findings (van Dessel et al., 2014).

The use of key terms such as aetiology, pathology and diagnosis in medical practice implies that much is contingent upon identifying the cause of illness and health issues. When the cause is not identified, disease mechanisms are unclear and suffering cannot be named, doubt and uncertainty may arise, both on the part of the patient and the therapist. The lack of explanation of the patient's symptoms may result in a feeling of not being taken seriously, while the therapist is under pressure to define the problem and offer adequate treatment. This places a strain on the clinical encounter and may result in mutual dissatisfaction and negative expectations, which are known to affect the treatment results negatively (Benedetti, 2011; 2014).

Lasting or recurrent pain from the musculoskeletal system is of clinical relevance to physiotherapists. In contrast to acute and transient pain, which has a clear health-preserving function, the biological significance of chronic pain is problematic. It is often considered an illness in itself, with apparent changes in the peripheral and central nervous system (Baliki and Apkarian, 2015; Gereau et al., 2014). These pains, which represent frequent and recurring challenges to the physiotherapist, also involve patients who frequently return – “revolving door” patients in the clinic. There is reason to claim that default perspectives on pain is not sufficiently accounted for or acted upon by physiotherapists and that the biomedical definitions of symptom and sign fall short in the context of MUPS.

In this article we address these challenges by presenting a theoretical perspective based on semiotics. Going beyond the biomedical concept of causation we will bring forward what we believe to be an enhanced understanding of MUPS. A semiotic model can contribute to this at two levels. Being a meta-theory it encompasses and integrates different fields of knowledge about illness and the human body, from the natural sciences, the social sciences and the humanities. More directly, semiotics can elucidate the connection between certain bodily signs and circumstances in the patient's life and perception of reality. We investigate the possibility that the unexplained symptoms carry a message and thus perform a bodily or biological function, if this is the case, an alternative approach to the symptoms is necessary.

Several authors point to the limitations of evidence-based medicine and the need to revise biomedical thinking (Eriksen et al., 2013; Kirkengen and Thornquist, 2012; Greenhalgh, Howick and Maskrey, 2014). Nicholls and Gibson (2010) aim for a more theoretical and holistic understanding of the body among physiotherapists. They explore the term “embodiment” and wish to highlight the body’s significant and existential aspect in the minds of physiotherapists. In line with these authors, our intention is to present and discuss symptoms and signs in a semiotic perspective. We will begin with some general reflections on these terms, including a short update on the pain concept. Some examples of the relationship between bodily signs and existential factors will follow, this would be life circumstances physiotherapists face in their daily practice. Clinical implications, also in relation to other approaches of treatment, will be discussed, constructive clinical encounters being the ultimate goal.

SYMPTOMS AND SIGNS IN A SEMIOTIC MODEL

Reflections on pain

The prevailing definition of pain is based upon a subjective and emotional experience of actual and or potential tissue damage (Merskey, Bogduk et al., 1994). However, more recent research in pain physiology indicates the overlap between the brain’s representation of bodily versus emotionally conditioned pain experience and activation of the same neural circuits in the somatosensory cortex. This is one example of how pain perception also occurs independently from nociception. “Both physical pain and rejection hurt” (Kross et al., 2011, p. 6270). Besides, pain does not always have to have a negative connotation (Bastian, Jetten, Hornsey, and Leknes, 2014). The experience of pain involves important learning, while also increasing the capacity for self-regulation with regard to cognitive control, coping and achievement.

Modern neuroscientific research tells us much about how pain perception and pain behaviour are reinforced through factors such as vulnerability, negative learning, maladaptation and sensitisation (Baliki and Apkarian, 2015; Apkarian, Hashimi and Baliki, 2011). There are, however, fundamental questions connected to the origin of unexplained pain; in which context did it first

appear; what were the early symptoms an expression of; and how could they be understood in a biological, psychological and existential sense? Central to our contribution is the notion that unexplained pain has its reasons, a purpose and a meaning, hidden in the patient's mental and bodily history. This may seem obvious; however, it is rarely expressed explicitly in clinical practice.

The individual and cultural sensitivity of symptoms

In biomedical terminology, the term "symptom" is understood as patients' subjective description of their ailments (Dorland, 2011). Based on their description, the doctor or therapist will look for signs that may explain the cause of the symptom. This entails distinguishing between symptom and sign, whereby the sign, if it can be verified through technological examinations, laboratory tests or clinical tests, provides an objective explanation or endorsement of the symptom. Despite the fact that signs that can be visualised and measured must also be interpreted, based on the interpreter's knowledge and experience, the relevant context and prevailing medical culture, the sign is considered to have greater credibility and legitimacy than the symptom (Stiano-Ross, 2012). However, for the patient the symptom will always be a sign – a sign that something is wrong, and one that generates worry and anxiety.

It is common to both patient and therapist that the symptom, as a bodily experience, can primarily be ascribed to a disruption or malfunction in the body. This may contribute to a fixed, narrow perception of the relationship between body and symptom. The fact that the existence and expression of symptoms has changed over various historical periods and cultural currents indicates that the symptom is a dynamic and mutable entity. (Stiano-Ross, 2012; Lian and Bondevik, 2015). Likewise, patients' perception and description of the symptom will be characterised by their living conditions and life histories, psychological factors and the prevailing cultural and social context – the patient's life world. These factors form the basis for the patient's meaning-making activity, and are reflected in the patient's way of understanding, relating to and communicating the symptom.

This provides a basis for regarding the symptom as a biocultural phenomenon, and symptom debut, development and changing expression as biocultural events (Stiano-Ross, 2012).

Symptoms as signs that carry meaning

Instead of distinguishing between symptoms and signs, the doctor and psychoanalyst Irene Matthis distinguishes between the significance of symptoms and their meaning (Matthis, 2007). She describes the symptom's significance as that which is actually present: pain or exhaustion, ascertainment of myocardial infarction or arthrosis of a joint, in other words, a *what*. The meaning aspect of a symptom alludes to questions of *how* and *why*. Biomedicine is very frequently able to answer questions of "what" and "how", but "why" is another matter: Why me, precisely? Why now, exactly? Why precisely these symptoms? The actual and universal significance of a symptom will differ from the particular, experienced content of thoughts and emotions that the symptom entails for the individual. Even when verifiable signs are present, the question of *why* will usually remain unanswered. This implies that signs which explain the cause only exist at a particular level: even when the cause of the symptom is known, the basis for it is frequently unknown. It may therefore be appropriate to differentiate between causes and reasons.

Semiotics

Semiotics is the study of signs, and the term used for a theory of signs developed by the scientist and philosopher Charles S. Peirce (1839–1914). The professor of literary studies, Drude von der Fehr, in whom we lean on in this presentation, is inspired by Peirce and his version of semiotics. In her work she aims to understand specific and subjective experiences of illness, including unexplained symptoms. The human can only be understood as an "I" (Fehr, 2008).

Semiotics is interdisciplinary and anti-dualistic, based on the idea that humans – in their endeavours to understand and relate to themselves and their reality – will seek, communicate and exchange meaning through signs. According to von der Fehr, knowledge of the sign can form the theoretical basis of subjective experience.

A sign bears a message and must be interpreted, whether it is expressed in the external world (our surroundings) or the internal world (the body). The sign may be an expression of pain, a muscular or autonomic reaction, a fracture line in a bone or loss of cartilage in a joint. Signs are produced and interpreted at all levels of human life, from cell to society. Blushing is both a reaction (to something, i.e. other signs) in the autonomic nervous system, and a sign that is expressed in the external world. The sign tells of a biologically emotional state and will be observed and interpreted by individuals themselves as well as by their environment. Thus signs are simultaneously natural and cultural.

A sign may be described as a phenomenon that represents another phenomenon (an object, state or situation), and its characteristics can only be defined based on its relationship to this other phenomenon (von der Fehr, 2008; 2010). In other words, pain as a primary sign represents the body's current condition and can only be characterised on that basis. The simplest examples are those in which pain represents or is clearly related to the condition, as in the case of physical injury. The body has interpreted its situation and initiates its own self-healing measures. The process of repair is underway, and the interpretation has led to appropriate consequences. The interpretation occurs at all levels of consciousness in the patient's body – from physiological reactions to cognition and reflection at a high level of consciousness. The physiotherapist interprets the signs from the outside and subsequently this will of course influence the patient's interpretation. Thus, during the process of interpretation new signs constantly appear which must in turn be interpreted, and this entails an ongoing, dynamic process both within and outside the body.

Biosemiotics

Biosemiotics is a field of knowledge that has its roots in natural science and philosophy, as well as biology and semiotics, respectively (Hoffmeyer, 2005). Biosemiotics seeks to describe the sign processes that control and form the basis for the development of biological interplay, between organisms in relation to each other, and physiologically and biochemically in the individual organism. The biologist Jesper Hoffmeyer calls the myriad of signs that we relate to, and that

appear both within and outside of ourselves, “the semiosphere” (Hoffmeyer, 2005). His manner of describing it is that at birth we are thrown out into this sphere of signs, significance and meaning. Everything that we sense means something and entails communication of meaning, whether it is a matter of soundwaves, sensory impressions, touch, movement, electrical impulses or chemical signals. All life forms must orientate themselves and act appropriately in this sphere in order to survive, and the prerequisite for managing and functioning in it consists of experiences in evolutionary terms and in our life histories.

The human body is understood to be a biological organism, at all times carrying with it its own history, that of the species and of the individual, and with a consciousness of self. Body consciousness seeks survival, self-fulfilment and meaning. Like other living organisms, the human body will also seek to maintain homeostasis and fulfil its function. However, human behaviour often runs counter to natural physiological and psychological needs, for various reasons – more or less voluntarily and more or less consciously. The individual neither thinks nor acts in all situations in his/her own best interests as a biological organism (von der Fehr, 2008; Lilleaas and von der Fehr, 2011). Self-destructive behaviour as in eating-disorders and self-loathing are obvious examples, but as we will see, there are more subtle forms also.

Irrespective of the situation in which individuals find themselves, they will produce, interpret and relate to all types of signs, based on what gives meaning in a given moment. Interpretation involves biological, cognitive and emotional factors, and results in physiological reactions and mental and emotional activity, at various levels of consciousness and in different parts of the brain. In this way, biology, experience, consciousness and behaviour are all integrated. At the same time, sign processes also encompass possibilities, creation and change.

Indexical signs

In a semiotic model, medical symptoms are considered as indexical signs. An index indicates that something occurs or is, and points to a natural or existential connection between things and phenomena (von der Fehr, 2008; 2010). The index will often point to a causal relation. A bone

fracture manifests itself with visible signs, both clinical and radiological. The accompanying pain, which is expressed through other signs, has a clear causal relationship to the fracture. The pain points back to the injury, and the injury explains the pain. High blood pressure is another example: a measurable sign that may be accompanied by dizziness, which is also a sign in the way that we understand it here. The two signs can be placed aetiologically: the measurable sign, blood pressure, can explain the sign that is experienced, dizziness.

As physiotherapists well know, dizziness can also occur without measurable, aetiological signs. However, the physiotherapist will look for and often find other signs in the body; in musculature, posture, movement and respiration. Tension and stiffness in the neck muscles are signs that are often accompanied by dizziness. Likewise, dizziness is one of several signs when patients tell of anxiety.

A relation based on association and proximity to the phenomenon exists here, rather than a direct causal relationship between the signs. The signs exist in the same body and appear to involve each other in different ways. When the sign is pain, and no other explanatory signs can be identified, it nevertheless tells us that *something* is wrong. These signs are also *indexical signs*, but of another kind. In the following we will explain the important difference between indexes based on causal relations and the ones that are based on association and proximity. These signs make up the essence of the contribution of semiotic theory regarding MUPS. Something *is*, but there is no obvious relationship between the sign as it is expressed and its explanation. If a sign like this manifests as pain, it tells us of a body that is unwell and that the individual's welfare is threatened, but in itself it does not indicate a cause (nor an obvious solution). Nevertheless, the sign may be regarded as an announcement, first and foremost to the individual itself; it carries a message, a meaning. Apparently it communicates other aspects about the patient's life and body than measurable realities, and generally the meaning will be hidden also for the patient.

Going beyond the measurable realities makes it possible to explore the signs and their meaning in a wider perspective and interpret them based on different, but equivalent, sources of

knowledge and experience – both on the part of the therapist and the patient. It becomes irrelevant to denote the knowledge as objective or subjective, as more or less valid. Knowledge and experience, be they medical or originating from a lived life, will always be characterised by the context to which they relate, the ‘zeitgeist’ and the previous history.

Self-referential signs represent the body speaking to itself

Based on biosemiotic and humanities-inspired research into disease, von der Fehr describes this other type of indexical signs as *self-referential* (von der Fehr, 2008; 2010). These are bodily signs that refer to the body itself, in the quality of a biological, experiencing organism. The signs may be expressed as pain or other medically unexplained physical symptoms and are part of the body’s internal communication. Von der Fehr regards the self-referential signs as important reminders, originating from the body’s own knowledge regarding what is good for it. Just as the heart knows that it should beat, and will react to changes in working conditions and disruptions that affect its normal function, so the body as a whole will react when living conditions, thinking and behaviour pull in a negative direction. It may be possible that the individual is establishing mental or bodily (interpretive) habits that prevent the self-healing function of the body (Lilleaas and von der Fehr, 2011). When chronic pain is a fact, the habit is entrenched both bodily and mentally.

Patients as well as healthcare workers acknowledge the general need for nourishment, sleep and rest, physical activity and fresh air as prerequisites for good health. Similarly, we know that psychological needs such as those for affirmation, affiliation, intimacy and respect are fundamental to our experience of wellness. However, when these needs are insufficiently catered for, ignored or counteracted, it can be difficult to assimilate how this can lead to specific bodily ailments and ill health. Despite a growing understanding of how body and brain communicate in monitoring and regulating the organism, it is easy to forget that the human body is also a living, purposeful biological organism that knows what is best for itself, and “wants” to function optimally and fulfil its function. When the body is prevented from doing this, it will have to speak out, to itself, in other words to the individual. As a body, it will naturally use its own language – bodily signs such as pain

and fatigue. From a semiotic or biosemiotic perspective, we may say that the body expresses its wisdom and knowledge through bodily signs, as a message to the individual that “things are taking a wrong turn!”

The self-referential signs thus function as warnings and are triggered when the individual’s thinking and behaviour run counter to the fundamental needs of the organism, such as when the individual relates inappropriately to his/her own welfare and integrity. This type of warning must be acknowledged and followed up by the individual him/herself (Lilleaas and von der Fehr, 2011). Some aspect of life, thinking or action has to change in order for the body, i.e. the person, to regain its balance, physiologically and mentally. Perhaps it is as a qualified partner in exploring what this “something” is, that we can best help the patient. However, one can also regard the experience of peace, relaxation and well-being as self-referential signs, as a positive feedback from the body itself; I am in balance, I am well.

As mentioned, neurobiological research confirms how the brain’s various networks communicate in monitoring and adjusting the condition of the body, but also how the plasticity of brain cells renders them vulnerable to inexpedient learning and maladaptation (Apkarian et al., 2011; Benedetti, 2011). The latter may be the origin of negative interpretive habits that entail a conflict between the organism’s search for balance and well-being, and the individual’s learned patterns of thought and behaviour. Humans do not always act in their own best interests and are often driven by forces other than those of self-preservation. The precondition for learning, either positive or negative, is the interpretation of the meaning of a sensory impression or situation. What gives meaning is again based on the interpretation of signs: is the sensory impression interpreted as pleasant or unpleasant? Do the signs indicate that the situation is safe and positive, antagonistic or threatening? Since the interpretation is characterised by context and experience, motivation and expectation, it has its own innate logic, but its consequences will not necessarily appear rational or serve the individual as a biological organism and integrated self. According to von der Fehr, MUPS

constitute a progression from constructive warnings to negative bodily interpretive habits, from self-referential signs to prolonged, unexplained symptoms (von der Fehr, 2008).

EXISTENTIAL RELATIONSHIPS AS A BASIS FOR SELF-REFERENTIAL SIGNS

It is important to remember the time aspect in this development; the bodily signs have existed on a time continuum before they came to be described at a particular point in time as symptoms. They have appeared, reached the level of consciousness and been interpreted, lived and felt with a varying degree of presence and intensity. The signs may have been interpreted as threatening or harmless, created anxiety or been ignored. Individuals react in very different ways to bodily signs, and only through insight into the basis for interpretation and formation of meaning can reactions and action be understood at a deeper level. Since the origin of dysfunction, negative learning and maladaptation has to do with existence itself, attention must be paid to the individual patient's experience of their history. The history will perhaps show that signs that were ignored should have been taken seriously, that what was interpreted as harmless was, in reality, an early warning. Signs of pain and fatigue as a result of injury, over-exercising or overwork may serve as examples. In other cases, signs that are essentially harmless may lead to fear-based interpretations and inexpedient strategies, referred to as "fear-avoidance beliefs" (Linton and Shaw, 2012).

In the encounter with unexplained pain, an approach that goes beyond a description of symptoms, disease history and mapping of findings seems necessary. It is essential to search for the origin of the signs and how they were interpreted in time and context. A biopsychosocial perspective, which is intended to encompass the influence of various factors with regard to the patient's experience of health (Engel, 1977), will not in itself reveal the possible function of symptoms. Knowledge and understanding of the patient's interpretation and management of their living conditions and life events will be crucial.

Life experiences that mask themselves in unexplained pain may include traumas: physical injuries or violations of personal integrity. Keywords for this are abuse, threats, bullying, manipulation or rejection. Loss, neglect, unreasonable work pressures, unpredictable working

conditions and overwhelming care responsibilities are other examples of life experiences that we now know are integrated in the body, with structural and functional changes in biology. The expression “pathogenetic life circumstances” summarises this (Vogt, Ulvestad, Eriksen and Getz, 2014).

The traces of such experiences most often manifest at a pre-reflective level of consciousness, as anxiety or depression, but also as pain, difficulty in concentrating, sleep disorders and digestive problems. Physiotherapists will be able to observe prolonged, raised bodily activation, with an effect on cardiac rhythm, blood pressure, respiration and muscle tone.

We are familiar with this activation as a physiological response to stress and a feeling of discomfort and danger. We also know that if the danger is physical, specific and external, the response is the same as when the danger is a threat to or an actual violation of the person’s integrity (Kirkengen and Thornquist, 2012). The physiological stress response is intended to trigger expedient behaviour, the purpose of which is to protect life and health. Expedient behaviour may in some cases mean engaging in combat, in other cases fleeing, but a third possibility is to “play dead.” The latter involves dissociation, or a separation of body and self. Dissociation may also be a necessary and appropriate survival strategy in certain cases, but if it persists as a pattern when the real danger has passed, it becomes very difficult to preserve one’s status as an integrated and whole human being. Knowledge of traumatic events and circumstances in the patient’s life is crucial in order to understand bodily reactions and interpretive habits.

When traumatic experiences are not necessarily the cause, a persistently elevated bodily state of alert, a fight or flight mode, will wear on the body’s resources. Over time this can overtax and impoverish the body’s natural adaptation systems (Kirkengen and Ulvestad, 2007). Studies show that apart from pain and exhaustion, signs of disease may appear at cellular, hormonal and tissue level, vulnerability to infections, inflammation and pathological cell division (Kirkengen and

Ulvestad, 2007). The affliction is an expression of an existence under threat, a body that has become its own opponent.¹

Several authors have investigated the conditions of women's bodies, and seen how women in particular have internalised expectations, demands and attitudes towards themselves and their lives (Lilleås and von der Fehr, 2011). Social inheritance and cultural norms such as perfectionism can establish themselves as automated thoughts and bodily habits that are inconsistent with the needs of the organism.

Young people form an apparently growing patient group who, in addition to their experience of pain, fatigue, anxiety and depression, tell of self-loathing and self-destructive behaviour (Bonvanie et al., 2015). These represent an explicit form of waging war on one's own body, by directly counteracting the organism's attempt to ensure its own welfare.

DISCUSSION

Clinical implications in a semiotic perspective

It is an obvious goal for physiotherapists to alleviate patients' suffering, but equally important is to render them capable of self-help in the longer term. The latter is considered particularly urgent in the treatment of MUPS. Positive clinical encounters with this patient group require first and foremost that physiotherapists raise their awareness and deepen their own understanding of the body. According to Nicholls and Gibson, the body as a philosophical and theoretical construct has not been a topic for physiotherapists. They claim that "Physiotherapists have a paradoxical relationship to the body, which is ubiquitous in practice but absent in theory" (2010, p.498). The challenges related to MUPS reflect this. Little attention is paid to the body as a self-conscious and self-preserving biological organism in an evolutionary perspective. In order to communicate knowledge about the body as a purposeful biological organism governed by its own experience and evolutionary knowledge, physiotherapists themselves must assimilate this insight. The need for

¹ Kirkengen and Thornqvist (2012) examine this in the context of autoimmune disease.

revision is also now being expressed within the ranks of evidence-based medicine, with a new focus on context and individualism through meaningful dialogue (Greenhalgh and Maskrey, 2014).

A further element in a semiotic approach will be a conscious focus on the meaning aspect of symptoms. When the significance of a symptom (cf. Matthis) has been examined as thoroughly as possible in a medical sense, an investigation of its meaning becomes important. This means that the physiotherapist must acquire an understanding of the patient's experience, thoughts, notions and expectations with regard to the symptom, as well as the feelings related to it. Insight into this enables an understanding of the symptom in light of the patient's learning and life history, and of the current situation as it stands. A dialogue that seeks to identify the meaning of the pain is based on the idea that the solution to the problem lies with the patient him/herself, not with the physiotherapist or doctor, and that the possible function of the signs will emerge through the conversation. In this context we have referred to the function of self-referential signs as warnings and reminders, but what the warning actually implies will be specific to the individual. Using the physiotherapist's knowledge and understanding of the experiencing body, the patient can be guided into an awareness-raising process in which negative interpretive habits can be revealed and broken.

Each and every symptom will have a meaning, irrespective of whether the signs are self-referential or point to a causal explanation, explained or unexplained symptoms. The meaning that pain has for the patient will colour his/her experience of it and the way in which the patient relates to it. At the same time, the life situation of the patient and his/her roles in life will be decisive: active sportsperson, new employee, mother of small children, pensioner? Back pain, regardless of the cause, will have a different meaning for an active sportsperson than for a pensioner. In both cases it is essential to gain an insight into this, providing a better opportunity to approach the patient where he/she is, mentally and emotionally. In this way, we can come to an understanding of what drives and motivates the patient, i.e. what is at stake for the individual.

In line with the distinction between the significance of the symptom and its meaning, there is a third point in the clinical approach we argue for here: the differentiation between causes and

reasons. Various reasons may exist alongside well-defined, verifiable causes. Personality factors such as vulnerability and disposition may be both underlying and maintaining reasons, while disease or injury may be triggering and appear as causally related signs. Living conditions and serious life events can presumably be underlying, maintaining and triggering. Thus in many cases both types of indices appear in parallel; however, the self-referential signs, which perhaps reflect reasons to a greater degree, require a different insight and a different approach. In other words, various complex access points exist to a condition of MUPS, and the exit points are highly individual. Evidence-based medicine as we know it will fall short here, based as it is on the average person. It will be crucial for the physiotherapist, in liaison with the patient, to attempt to sort through this complex picture in order to see associations and understand the origin and development of the pain. It will then be possible to explain the unexplained, or at least make some progress, not only based on medical premises, but also existentially.

A semiotic model can integrate various types of knowledge

Unexplained pain is rarely perceived as a meaningful sign in the service of the organism, in the way that we see it. The meaning aspect of signs runs the risk of being overlooked in the solution and action-oriented therapist's focus on repair. But should pain, irrespective of what it may be an expression of, be alleviated in every situation? In contrast to aetiological signs, self-referential signs do not call for an external solution, such as medication or surgery, or physiotherapy directed at symptoms. Relief of unexplained symptoms may undermine important premises for change, lead to overtreatment and render the condition more entrenched.

Many physiotherapists are concerned with, and now receive training in, cognitive forms of treatment. They communicate knowledge of the associations between experience, interpretation and perception of pain. A cognitive approach is highly relevant and is encompassed by a semiotic perspective, whereby the patient is guided towards raising his/her awareness of automatic patterns of thought and action and, as von der Fehr expresses it, "is helped towards a constructive doubt" (von der Fehr, 2008).

Also recent research in pain physiology forces us to re-evaluate traditional understandings of the mechanisms and perception of pain. It appears that nociception occurs continually at unconscious, subconscious and pre-conscious levels, as an ongoing bodily defence mechanism (Baliki and Apkarian, 2015). Again, these mechanisms can be understood as the body's sign-based internal communication. At the moment in which the pain is consciously experienced, it is a final product of interpretation, at both a peripheral and central level, and the result of the interaction and influence of various cerebral networks, based on learning and adaptation.

A survey of various factors, in accordance with the biopsychosocial model, will help to obtain an overview and an insight into the patient's situation. However, unless attention is paid to interpretation as a crucial factor in learning and adaptation, a deeper understanding of the patient's lived experience may be lost. Nor will the biopsychosocial model enable the physiotherapist to differentiate between different types of sign – the causally related and the self-referential. As we have seen, these occur in a complex interplay, and will mutually affect each other. The former can, in the best case scenario, be alleviated by means of evidence-based knowledge and practice. The latter requires an approach that extends beyond, but may include, both the biopsychosocial model and evidence-based medicine.

CONCLUSION

Various narratives lie concealed behind life and disease histories. In the interpretation of subjective reality, thought and behaviour can establish themselves as bodily habits that conflict with the organism's attempts to maintain a dynamic balance. From a body-logic and evolutionary perspective, it seems reasonable that the organism notifies or warns itself of dysfunctional conditions and inexpedient behaviour, as it does in cases of acute and transient pain. The understanding of self-referential signs is most important here.

A semiotic model offers a conceptual framework into which the physiotherapist's knowledge and understanding of the body and its symptoms can be placed. As a meta-theory it will encompass and integrate knowledge from disciplines that are all relevant in the encounter with the

interpretive body: biology and neuroscience, psychology and sociology. In this context, the biopsychosocial model can help to provide a structured, holistic overview of significant factors in the patient's life and health. However, in order to understand the individual on the body's premises, as a biological mechanism saturated with experience, the person's meaning-making activity must be explored.

In accordance with neurobiological knowledge, the dichotomies of body/mind, objective/subjective are set aside, making it possible to free ourselves from the restrictive effects of dualism and biomedicine on health science's thinking, language and practice. Doctors and physiotherapists are provided with a basis for differentiating various types of bodily signs and integrating knowledge from different philosophies of science in their approach to the patient. Greater attention to first-person experience includes the patient in a manner that removes an unnatural separation between the patient and the affliction. This means both acknowledging patients and making them accountable, which we believe will enable constructive clinical encounters.

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