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A Bioenergetic-Analytical and Phenomenological Approach to Pain Posture, Experience, Expressive Behavior

Ulrich Sollmann

Psychotherapist, Bochum, Germany

Corresponding Author: Ulrich Sollmann; ***Psychotherapist, Bochum, Germany***
Email: sollmann@sollmann-online.de

Qualitative Study

Abstract

The somatic and psychological concepts of pain are expanded to include the perspective of the enactment approach. Pain is therefore now (also) conceptualized as a "5E process": Embodied, Embedded, Enacted, Emotive, and Extended. Pain is therefore, in contrast to a biopsychosocial concept, also understood as a relational and emergent process of finding meaning through an experienced body that is inextricably linked to the world that we shape and that shapes us. This model of understanding is discussed in relation to body psychotherapy, in particular bioenergetic analysis. Specifically, this is related to posture, personal experience, and self-expression under stress.

Keywords: Pain; Bioenergetics; Phenomenology; Enactment; Motility; Fasciae

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Introduction

Pain can be understood in different ways, namely as physical pain and psychological pain. Pain must always be understood as a process of personal experience.

- Physical pain, also known as somatic pain, is an unpleasant sensory sensation that is triggered by tissue damage or a disorder in the body. This can be caused by injury, inflammation, illness, or other physical problems. Physical pain usually serves as a warning signal to protect the body from potential damage. It can be acute or chronic. Acute pain is often short-lived and occurs in response to an external agent, injury, or illness, while chronic pain is persistent and can last for long periods of time.
- Psychological pain, also known as emotional pain or mental pain, refers to the suffering caused by emotional stress, grief, loss, anxiety, depression, or other psychological challenges. Mental pain can also occur as a side effect of physical illness. In contrast to primarily physical pain, psychological pain is not directly attributable to physical damage, but to the way in which people perceive, experience, and process their emotions and thoughts. This pain can be just as severe as physical pain.

Both pain modes can interact with each other, as severe physical pain can also cause psychological distress and vice versa. Being in pain is always an experiential process **.**

Pain concepts

There are various explanatory models for pain. Basically, three models can be distinguished from one another (Benning, 2015; Duncan, 2000):

- The *biomedical understanding of pain* is problematic insofar as it falsely assumes a linear relationship between noxious stimuli and pain, and is often dualistic or reductionist. From this perspective, pain appears to be "anchored" in the brain - causally attributable to pathological changes in the tissue structures or the nervous system itself.
- *Biopsychosocial concepts* refer to the interplay of the three dimensions and yet they ultimately remain reductionist. These concepts draw artificial boundaries between the biological, psychological, and social domains, so that the model is often applied fragmentarily. In addition, the model has a limited theoretical basis, which leads to the perpetuation of dualistic and reductionist beliefs.
- *A* new approach (*An enactive approach to pain)* can be used to understand and treat pain holistically. Taking into account the advances in pain research, coupled with the work of phenomenologists and cognitive scientists, the biopsychosocial model has proven to be inadequate in many respects. Pain is therefore now (also) conceptualized as a "*5E process*": *Embodied, Embedded, Enacted, Emotive, and Extended* (embodied, embedded, enacted/ lived, emotional/felt, and extended). Pain is therefore also understood as a relational and emergent process of finding meaning through an experienced body that is inextricably linked to the world that we shape and that shapes us.

Here is an example: More than 90% of chronic back pain is perceived as non-specific pain. There is no clearly identifiable, definable underlying pathology such as a bone fracture, tumor infection, etc. (Maher, Underwood, & Buchbinder, 2017). This naturally raises many clinical questions for practitioners, as they tend to focus on a physiological or biopsychosocial model, while the patients place themselves and their personal pain experience at the center of communication. Understanding back pain *together* with the patient and not just diagnosing it is therefore the state of the art in pain treatment.

"We are in and of the world." Noë (2009) reflects the essential, complex, and dynamic interdependence. One is not possible without the other. Pain is not primarily in the brain, or in the body, or in the psyche. If one were to locate pain in the brain, one could also say: "The ability to fly is in the wings of the bird." (quoted from Thomas Fuchs, collegial discourse of 28.6.2023 at the Embodiment meeting). Pain is therefore described by the representatives of the 5E model as a "process of unpleasant and distressing sense-making from the perspective of an embedded person attempting to adapt and self-regulate to preserve their embodied identity/existence that is threatened. With this definition, pain is a process, emphasizing its developmental and relational nature" (Stilwell & Harman, 2019).

Experiencing pain, expressing pain, and communicating about it is and always remains an emergent process that gradually takes on a meaningful form in relation to a counterpart. "*With this perspective the experience of pain cannot be observed or measured, and qualitative pain narrative remains the best available proxy for inferring pain in others*" (Stilwell & Harman, 2019).

Pain can therefore manifest itself in different ways

- On *a sensory level*: The pain can be felt and differentiated, it can be sharp, drilling, dull, and cramp-like.
- On an affective or *emotional level*: The pain attacks, causes anxiety, fatigue, exhaustion, and depression.
- On *a cognitive level*: Pain directs attention, and influences processes of anticipation, interpretation, and understanding.
- On *the behavioral level:* Pain leads to altered behavior and linguistic and non-linguistic expressions (Belot, Michel, Marrimpoey, Phillipe, Rondi, & Fabienne, 2009).
- On *a social level:* Pain isolates us from others.

The different ways of looking at pain also require a corresponding mode of practical approach. Body psychotherapeutic concepts offer a single-centered approach that not only looks at pain in isolation from the body, but also understands it dynamically embedded in the context of emotions, thoughts, and behaviors.

Pain in body psychotherapy and bioenergetic analysis

Body psychotherapy (BPT) concepts always refer to the body as an experiencing body (Due to the respective relevance, I would have to speak sometimes of body, sometimes of "Leib". For reasons of space, this would go beyond the scope of this article. Since the "enacting approach", at least in the English-language literature, speaks of "body", I will use the literal translation "Körper"). For reasons of space, the various BPT concepts cannot be discussed in more detail here (Marlock,Weiss, Revenstorf, 2006)

Pain is fundamentally understood as a complex phenomenon that is closely linked to the body (soma), emotions, psyche, behavior/body expression, and therefore, experience in relationships. "Body" is usually conceptualized as biographically shaped or contextually conditioned and as experiencing.

Central aspects that make up such a characteristic body concept are:

- The body is a body shaped by biographical experience.
- Feelings are related to a counterpart or an experienced situation.
- Emotions are perceived and expressed physically.
- There is interaction between arousal/ experience and body structure/ posture.
- There is interaction between breathing, movement/ posture, and experience.

- Experience is always (also) muscle activity or the interrelationship between tension and relaxation always induces and influences experience.
- Chronic tension patterns/fascial hardening embody/cause experiential (unconscious) resistance behavior.
- Emotional resistance and chronic tension patterns reduce vitality, joie de vivre, self-expression, and self-efficacy.
- Structural experience, behavior, and reaction patterns are revitalized under stress (personal stress profile).
- Traumatic experience is physical anchored.
- Body and mind are integrated.

Such aspects of the understanding of "body" in BPT suggest a conceptual proximity to the above-mentioned 5E concept ("Enacting Approach").

Bioenergetic analysis (BA) has developed differentiated concepts of understanding and treatment practice in this regard (cf. Heinrich-Clauer, 2008)

Here is an example:

The client talked about her pain and severe headaches as well as her specific life situation, which was characterized by intense stress, especially since she had completed her studies as a medical specialist. While talking about and explaining her pain and life situation, the client seemed quite balanced, although she rated her pain at around 85-90 on a scale between 0 and 100.

This was amazing to me as I noticed her gradually changing facial expression as she talked about her pain and her life situation.

I did not go into the emotional or psychological part of the complaints. I asked her how she was able to deal with the pain and integrate such a difficult life situation into her professionally well-performed and demanding job. She answered spontaneously about the stress of the current situation, having unconsciously gotten into the habit of not letting anyone know that she had a headache, that she was in chronic pain and what it felt like to have such a severe headache. Instead, she remained silent and smiled a little, unconsciously sending me a message that I interpreted as "Your turn."

I had the impression that the rigidity of her habit of not opening up emotionally and non-verbally to others would correspond to the intensity of her pain and suffering. Could it be, I wondered, that this compensation made it difficult for her to feel like a "victim of pain", deeply, emotionally, and psychologically affected and burdened by the chronicity? Was she feeling pain, sadness, despair or even anger towards the ongoing torture and self-torture and not opening up emotionally to someone else?

She described the onset and occurrence of the pain in connection with the increasing intensity of stress in her life and work. Especially at that time, she emphasized, she felt a spontaneous impulse or a rigid self-desire not to give in to this pain, but to still focus on her tasks and her duty, the needs of others, her patients, the clinic, and the needs of the next examination, as well as the needs of her superego. And yet, the symptoms, or perhaps it is better to say her symptomatic reactions to the unconscious symptoms "exacerbated" her experience of stress, but she remained silent. No verbalized complaints, but more stiffness in her posture, her back, and the stare at me as therapist.

What is bioenergetic analysis?

According to its founder Alexander Lowen (1975), bioenergetic analysis is a way of understanding the personality from the body and its energetic processes. The term "bioenergetic analysis" is made up of two main components: Bioenergetics and analysis. The term 'bioenergetics' refers to the idea of energy in the body that is linked to psychological processes, while the term 'analysis' describes the psychotherapeutic approach in which therapist and client explore physical sensations

in order to gain a deeper understanding of emotional and psychological aspects.

These processes, i.e., the production of energy through respiration and metabolism, and the discharge of energy in movement, are fundamental processes of life. How much energy you have and how you use this energy determines the way you respond to a life situation. The more energy you can freely convert into movement and expression, the better you can deal with different situations.

Bioenergetic analysis assumes that the source of impulses, energy, or arousal always works in both directions: the physical, somatic direction on the one hand, and the emotional, psychological direction on the other (Figure 1).

The active opening of the organism to the outside world is fed, as I said, by inner excitement, by unspecific impulses. These impulses themselves push like a movement of energy from the center of the organism to the surface, where they influence the relationship of the organism, the personality, to the outside world, and vice versa, the way in which the outside world exerts its influence becomes the inner source of these impulses. The movement of energy happens from the center (black core) to the periphery and vice versa (Figure 2). If this movement is restricted, in whatever form, this has an effect on the musculature and the fascial structure (red circle).

Body expression and personality reflect our life story, which in turn shows how much support we have experienced and to what extent we have succeeded in allowing vitality to be shaped within us. Life as living life is an energetic process, a process of excitement, charging, tension, relaxation, discharge, and letting go. This energetic model is a way of representing and understanding the execution of life processes.

A person's personality is determined by their vitality, expressiveness, and grace. Vitality and gracefulness as an expression of life depend on the strength of the impulses and the defenses that have been erected to control these impulses. Every person has a specific inner vitality and an individual defense, or control process that is reflected in patterns / structures of muscular tension, fascial hardening, and adhesions and restrictions of movement, and expressive behavior.

Bioenergetic analysis assumes that people want to escape pain and strive for pleasure, satisfaction, and self-efficacy. This orientation is of a biological nature because, from a physical point of view, pleasure promotes life and the well-being of the organism. Pain is usually perceived as a threat to the integrity of the organism. We open ourselves up to life and spontaneously reach for it, while we withdraw, limit ourselves, or even isolate and withdraw when we find ourselves in a painful situation.

Biographical experiences shape the basic structure of the individual. This reflects the embodiment of the individual interplay of arousal/energy flow, and posture. The personal structure shows how much a person can experience and express in an active, vital, and strong way.

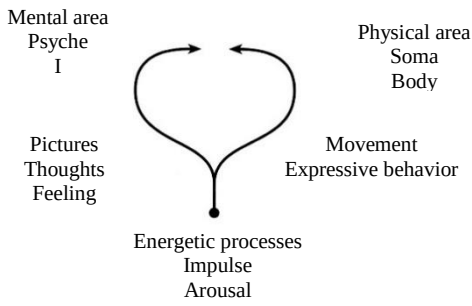

Figure 1. Basic energy concept of Wilhelm Reich

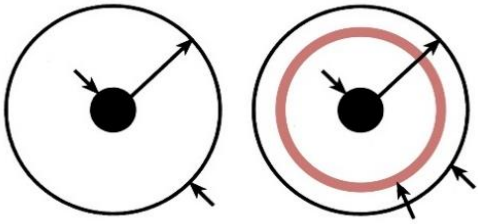

Figure 2. Basic energy concept of Wilhelm Reich

It also shows the personal, emotional, and above all the physical defensive and avoidance behavior, as well as the associated resistance patterns in the form of muscular (chronic) tension, fascial hardening, and restriction of movement or mobility.

The person is the respective body. It is formed energetically in the excitation process. Its respective form is the expression and source of the vitality shaped by life history. Breathing plays a central role as the key to the body's energy metabolism. It is closely linked to muscle activity and the human experience. When the feeling changes, the breathing changes and vice versa. Breathing is largely a muscular activity. A change in breathing is therefore also expressed in a change in muscle activity and vice versa.

Here is an example: If you are angry, you can feel how anger burns up in the upper part of your body and "charges your arms, face, and eyes with excitement". Your collar can become too tight. If a person is so angry that they see red, their retina has actually been flooded with blood. However, anger can also be experienced as cold and white, in which case, the individual becomes "pale with rage". This is due to a constriction of the peripheral blood vessels, which prevents the blood from reaching the surface of the body. There is also "dark anger", in which the sensation is overlaid by a dark cloud of hatred, which can manifest itself in a building, overwhelming feeling of anger inside the body.

Motility

These emotions, feelings, and sensations are the perceptions of the inner movements of the "energetic body" connected to its natural rhythms and vibrations. These "inner movements" are referred to as the body's motility. You can observe this well in a baby if you follow the constant play of movements like waves on a lake. These are caused by inner impulses and forces without being subject to arbitrary influence.

Our voluntary movements always have an involuntary component, namely the above-mentioned basic motility of the organism. The involuntary component, which is integrated into the voluntary activity, is based on the liveliness or spontaneity of our actions and movements. If it is missing or reduced, the body's movements appear mechanical and lifeless. The emotional element of an expressive movement goes back to the involuntary component, i.e., the component that is removed from conscious control. The combination of conscious and unconscious components leads to movements that are emotionally colored and at the same time represent coordinated, targeted actions.

If therapy is to do justice to these effects, it is essential to intensify the experience of the body, differentiate body awareness, encourage spontaneous body expression, and raise awareness of the "personal body".

Life-historical imprint of the body

The life-historical diversity of individual experiences and the diversity of the resulting patterns of posture and/ or tension in the body find their psychological expression in the personality structure. As a psychological component, it corresponds to the form and mobility of the body, and is functionally identical to it. It is very resistant to all changes and external influences. The entire tension and posture pattern in the organism regulates the strength and use of the body's energy. It is therefore impossible to fully understand a person's energy dynamics without the concept of this personality structure.

The restricted mobility and excitability of the body cause new emotional problems in the future, which (could) conflict with the demands of adult life. If the fearful situation from childhood is not resolved and the experience is repressed, the physical "hardening" ("freezing", "stiffening", "inflexibility", etc.) usually remains. People therefore try to avoid repeating such painful situations. They contain themselves, reduce the extent to which they can feel joy in life and develop.

Posture/body structure (under stress)

Whereas in earlier times it may have been possible to decide quickly between attack and flight in order to "save one's own skin", this has become more complex, and therefore, more difficult in the course of civilization. A child is born into a social context. It brings with it a basic physical and energetic endowment. The child's initially diffuse physical sensations, the basal affects, are developed into feelings, ideas, thoughts, and behavior in the course of the early parent-child relationship. This happens in a specific social and cultural context.

This relationship is a dialog between the child's physical expressions and the parents' response. This results in the formation of certain behavioral patterns, development, and differentiation, inner images, cognitive ideas, and feelings, and the specific functional and structural expression of the body. This is expressed in posture, movement, facial expressions, voice, breathing, digestion, etc. Posture and movement as motility are the source, cause, and condition of experience/feeling on the one hand. On the other hand, motility reflects experience and feeling. Physical expression always meets the impression of the other person in communicative events. "Posture, expressive behavior, movement, and personality structure" correspond functionally.

Every external stress (stressor) causes a physical state of tension (anxiety) that usually subsides when the stress ends. However, it is often the case that people remain in a chronic unconscious state of tension as a result of their life experience, even when the causal stress (stressor) has passed. The decisive factor in this case is that the person understands the situation individually (unconsciously), interprets and assesses it emotionally and ultimately cannot cope with the situation satisfactorily or appropriately. The person senses this. This, however, can often be perceived consciously by the other person in such a situation through the perception of posture, expressive behavior, and movement.

Stress experience and coping with stress depend to a large extent on the changed perception of oneself and the environment. Stress is therefore not only a consequence, but also the cause of stress. A stress-inducing situation is usually perceived as a threat/anxiety. You experience this state as if you have lost your familiar balance. If you can recognize and influence the phenomena that cause you stress, this leads to a reduction and ultimately to the disappearance of the stress.

However, if a person feels as if they have been thrown off their inner balance and experiences the stressful situation as a threat to their personality, they cannot easily

escape the experience of stress as they remain psychologically and experientially triggered, and fixated on the anxiety that has been triggered.

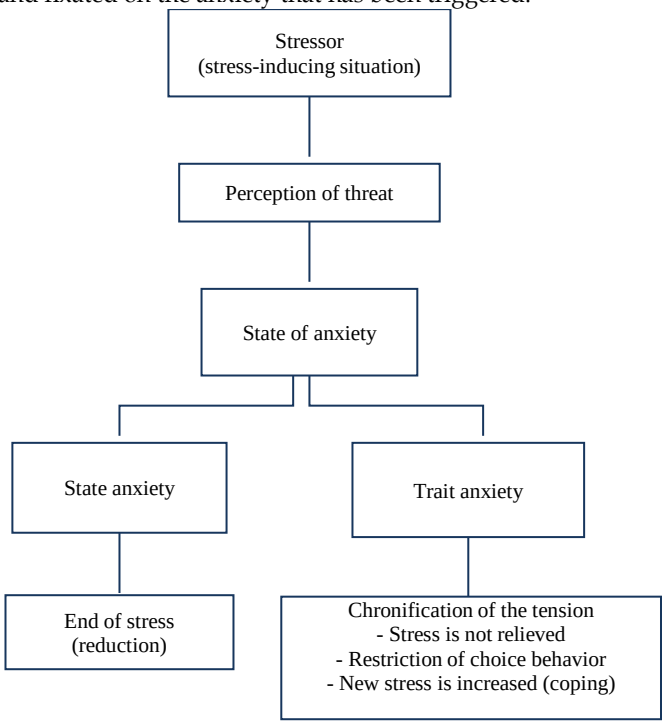

Figure 3. Stress model

The experience of stress is then more of a "trait anxiety" because the stress feels like: "It's happening to me again.", "I cannot escape the stress again and again." or "Now it is got me again."

Stress profile and stress competence

The personality structure goes hand in hand with a typical form of conflict/crisis management (stress profile). This profile thus provides information about the personal stress experience, recurring stress problems typical for the individual and the way in which the individual copes with stress in terms of emotional "survival".

The stress profile is often very resistant to external influences and our own efforts to change. On the one hand, the personal stress profile itself often is not conscious. On the other hand, you cannot escape the almost automatic revitalization caused by stress.

Tension and emotion

Every physiological expression of the body has a meaning, the quality of the handshake, the posture of the body, the way it breathes, the way it moves, etc. If this expression is fixed and has become a way of life, it tells the story of past experiences, conflicts, encounters with people, and survival strategies. Interpreting the fixed physiological postures and working on the chronic muscular tension, fascial hardening and adhesions, breathing blockages, and impairments to the flow of movement opens up a new dimension of reality. For example, there are people who conceal their anxiety through an exaggerated expression of courage, which manifests itself in a "frozen" physical posture: The shoulders are square, the chest is "puffed

out", and the stomach is drawn in. The legs are stiff, the gaze is directed far ahead instead of looking at where the next step will take place. The person is unaware that their posture is an "emotional defense" against fear as long as they cannot drop their shoulders, relax their chest, and let go of their stomach. Once the muscular tension and the impaired breathing have been released, the fear and its life history often come to the fore.

In this respect, 3 principles of action can be defined in more detail:

1. Every restriction of mobility is both the result and the cause of emotional difficulties.

2. Any restriction of natural breathing is both a result and a cause of anxiety. The difficulty of breathing deeply and freely under emotional stress is the physiological basis for the experience of anxiety in such stressful situations. The unity and coordination of physiological responses therefore depends on the integration of the breathing movement on the one hand, and the opposing movement of the whole body on the other. The physiological functions of the individual can therefore be improved insofar as breathing and mobility are "freed" from the restriction of chronic tension and blockage.

3. Each of these limitations can be accompanied by the experience of pain:

- Chronic, structural tension, hardening, etc.
- Reactivation of the individual stress profile
- Emotional self-reduction, withdrawal, psychological defense, etc.
- Possible indirect effects on the organism as a whole.

Basically, embodied affect modes in the sense of personal expressive behavior can be used diagnostically as follows:

- Posture, mobility, and facial expression
- Motoric, dynamic action tendencies
- Physiological reactions
- Sound of the voice
- Embodied expression
- Physically expressed, (un)conscious experience
- Embodiment expressed by semantics
- Physically expressed scene between oneself and others

Function of the fasciae

The importance of fascia is increasingly being recognized in medicine and in the field of movement science. After all, they play an important role in various health problems and movement disorders. A better understanding of the functions of fascia can help us to better understand various medical conditions, and develop therapeutic approaches that target fascia**.**

Fascia is a type of connective tissue in the body that plays an important role in supporting, connecting, and communicating between different body structures. The basic function of fascia is to wrap, support, and protect tissues and organs in the body. Here are some of the main functions of fascia:

1. *Support*: Fasciae serve as a structural foundation that holds tissues and organs together in the body. They support the shape and strength of organs and muscles.
2. *Separation and isolation*: Fasciae separate different muscle groups, organs, and other anatomical structures from each other. This enables a clear demarcation and organization of the different parts of the body.
3. *Mobility:* Fasciae enable the movement of muscles, tendons, and joints by acting

as a lubricating layer. They reduce friction between the tissues and enable smooth movements.

4. *Force transmission*: Fasciae play an important role in the transmission of forces within the body. They enable the efficient transmission of muscle strength and support the stability of the body.
5. *Protection*: Fasciae protect sensitive structures in the body, such as nerves, blood vessels and organs, from external influences or injuries.
6. *Sensory function*: Fasciae are rich in nerve endings that transmit information about tension, pressure, and movement in the body to the nervous system. This sensory information is important for the perception and control of movement.

Fasciae can harden, stick together, or twist if they are subjected to too much stress, lack of exercise, overload, or trauma. These changes promote pain, among other things. The numerous pain receptors that are stimulated by the changes in the tissue are often perceived as pain. Pain is also encouraged as the smooth functioning of the muscles is disrupted when the fascia hardens.

The interplay between muscles, fascia, and skeleton as key structural areas in the body is worth noting. For example, tension headaches can start at the lower back and rise upwards. Everything in the body is interconnected. The fasciae are the communication organ for this. Adhesions make the fasciae harder to move, they lose their elasticity and stability, which in turn can lead to multi-local pain.

The entire musculoskeletal system is connected to the fasciae. If the fascia loses its function, muscles, ligaments, tendons, and joints are also affected. Pain can therefore occur in all anatomical structures, whereby a fascia can be the cause. Micro-tears and adhesions in the fascia affect the nerve cells located in the connective tissue. The nerve cells are irritated by the changes in tension. The information is transmitted from the nerve cells via the spinal cord to the central nervous system. The coordination between nerves and muscle cells is impaired when these nerve cells are irritated. Our movements become less efficient. This leads to postural restraint and poor posture. If certain movements are avoided, the fasciae stick together even more. The result is a vicious circle.

This view of pain as a complex experiential process suggests that the individual interplay of adhered fascia and pain brings with it bodily, structural effects of the disturbed interplay of fascia and muscles and vice versa causes pain:

- The pain is diffuse and widespread.
- Stretching and extension are difficult or accompanied by "unclear" pain.
- Movement sequences or specific, familiar movements can only be performed with pain.
- If pain occurs more on one side of the body, this is an indication of a disorder as described above.
- The pain often occurs with a delay after injury, traumatization, etc.
    - Scarred tissue (external or internal) promotes the interacting effect.
- If no other causes of pain can be found, it can be assumed that the fasciae and muscles are not working properly together.

How can you recognize fascia symptoms?

- Fascia symptoms often occur sometime after an injury.
- If the discomfort is on one side of the body, this is a typical indication of a fascia problem.
- Movement reduces the pain.

- The pain is rather extensive.
- The pain is unclear.
- Stretching and straightening is difficult.
- Scars and tattoos lead to fascia symptoms.
- There has been no diagnosis.

Initial results of researches help to confirm the function of such an approach (see Marlock et al., 2006; Schleip, 2020), and yet there is still much to be done here.

Conclusion

Posture, experience, and personal expressive behavior not only reflect the quality and degree of conscious pain experience, but are also a source for the development of pain. Such a diagnostic view of pain makes it possible to include the personal experience and the related experiential process in a special way.

In this respect, it can justifiably be assumed that body psychotherapeutic concepts of understanding are well suited to adequately take into account the 5E concept, i.e., the "enactive approach to pain". Bioenergetic analysis has developed a holistic model of understanding, diagnosis, and treatment in this respect. It remains to be seen how further research and clinical-body psychotherapeutic practice will underpin such a perspective in a more differentiated and well-founded way.

It will also be exciting to have a dialog between the concepts described above and the concepts of traditional Chinese medicine. Such a dialog could enable a transcultural understanding of pain. Such a dialog would also promote the possibility of finding culturally determined differences on the one hand. On the other hand, this would open up the opportunity to find similarities and agreement, even if these are initially hidden in different terms and a different language or way of expression.

Conflict of Interests

Authors have no conflict of interests.

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