

9 NON-VERBAL COMMUNICATION AS A PART OF A PROFESSIONAL INTERACTION IN NORWEGIAN PSYCHOMOTOR ASSESSMENT OF CHRONIC PAIN PATIENT

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9.1 Chronic pain

Chronic or persistent pain is pain that carries on for longer than 12 weeks despite medication or treatment. Most people get back to normal after pain following an injury or operation. But sometimes the pain carries on for longer or comes on without any history of an injury or operation. (NHS 2023) According to the International Association for the Study of Pain (IASP 2023), chronic pain is defined as "pain that persists or recurs for longer than three months."

Long-lasting musculoskeletal pain is characterized by reduced physical function, often linked with anxiety and depression, and with increased risk of developing other health conditions, early retirement, reduced wealth, and social participation, and increased all-cause mortality (WHO 2022).

Pain is an unpleasant sensory and emotional experience which is interpreted through the life history. What is the subjective meaning of pain is essential to understand. Chronic pain affects the whole person. In multidisciplinary holistic rehabilitation, it is essential to take care of the patient's psychological distress. (Ojala et al. 2014)

Factors causing and sustaining long-lasting musculoskeletal pain differ between patients but must be identified in order to target treatment. During physiotherapy, there are multiple factors influencing the treatment outcome. (Dragesund & Oien 2021) Norwegian psychomotor physiotherapy (NPMP) is commonly applied for patients with long-lasting pain and complex health complaints. (Dragesund & Oien 2023)



9.1.1 Chronic Pain and Emotions

Negative emotions and chronic pain are deeply intertwined, each influencing and exacerbating the other. This complex relationship has profound implications for individuals' mental and physical well-being, underscoring the necessity for integrated approaches to treatment that address both emotional and physical aspects of health. (Lumley et al. 2011)

The interplay between negative emotions and chronic pain can be understood through several biological mechanisms. The brain regions involved in emotional regulation, such as the amygdala and prefrontal cortex, overlap with areas that process pain signals, such as the anterior cingulate cortex and insula. This overlap means that emotional states can directly influence pain perception. (Yang & Chang 2019)

Neurotransmitters, such as serotonin and norepinephrine, play crucial roles in both mood regulation and pain modulation. Imbalances in these chemicals can therefore contribute to both depression and heightened pain sensitivity. Additionally, chronic stress associated with negative emotions can lead to prolonged activation of the hypothalamic-pituitary-adrenal (HPA) axis, resulting in inflammatory responses that can worsen pain. (Bonanno 2024)

Chronic pain is a persistent pain lasting longer than three months, often without a clear cause. This enduring discomfort can significantly impact one's quality of life, leading to a cascade of negative emotions such as anxiety, depression, and frustration. These emotions, in turn, can amplify the perception of pain, creating a vicious cycle that is difficult to break. (Lumley et al. 2011)

Depression: Depression is prevalent among those with chronic pain. The constant struggle with pain can lead to feelings of hopelessness and helplessness, which are hallmarks of depression. Conversely, depression can lower pain thresholds, making individuals more sensitive to pain. This bidirectional relationship means that treating depression can sometimes alleviate pain, and managing pain can improve depressive symptoms. (Sheng et al. 2017)

Anxiety: Anxiety often accompanies chronic pain as individuals worry about the cause of their pain, the implications for their future, and their ability to manage daily activities. This heightened state of worry can lead to muscle tension, increased heart rate, and other physiological changes that exacerbate pain. Furthermore, anxiety can lead to avoidance behaviors, reducing physical activity and social interaction, which can further contribute to the severity of pain and the decline in overall health. (Burston et al. 2019)

Anger and Frustration: Chronic pain can also evoke anger and frustration, especially when the pain limits activities and diminishes quality of life. These emotions can create stress responses in the body, such as increased production of cortisol and adrenaline, which can worsen pain perception. Moreover, anger can strain relationships and lead to social isolation, removing critical support systems that might otherwise help in coping with pain. (Dueñas et al. 2016)



9.1.2 Chronic Pain and Fear of Movement

Chronic pain is not just a physical ailment but a multifaceted condition that significantly affects psychological and social aspects of a person's life. One of the most profound psychological impacts of chronic pain is the fear of movement, also known as kinesiophobia. This fear can lead to a debilitating cycle where the anticipation of pain prevents physical activity, further exacerbating the pain and limiting the individual's ability to function. (Mills et al. 2019)

Kinesiophobia is the irrational and excessive fear of physical movement and activity, resulting from the belief that such activities will cause pain or reinjury. This fear is particularly prevalent among individuals with chronic pain conditions, such as back pain, fibromyalgia, and arthritis. It stems from a heightened sensitivity to pain signals and the anticipation that movement will worsen their condition. (Bordeleau et al. 2022)

The fear of movement can significantly impact a person's mental health. It often leads to anxiety and depression as individuals become increasingly restricted in their daily activities and social interactions. The avoidance of movement and activity can result in feelings of helplessness, frustration, and isolation, further deteriorating their psychological well-being. (Li et al. 2023)

Anxiety and Hypervigilance: Individuals with chronic pain may develop heightened vigilance towards bodily sensations, constantly monitoring for signs of pain. This hypervigilance can lead to increased anxiety, as even minor movements are perceived as potential threats, creating a constant state of fear and apprehension. (Esteve & Camacho 2008)

Depression: The persistent fear of movement can lead to reduced participation in enjoyable activities, social withdrawal, and a decrease in overall life satisfaction. This reduction in activity can contribute to feelings of sadness, hopelessness, and depression, creating a negative feedback loop where the emotional distress further intensifies the perception of pain. (Steger et al. 2009)

The fear of movement can lead to physical deconditioning, where muscles weaken, and joints become stiff due to lack of use. This physical decline can create a paradoxical situation where the very fear that prevents movement leads to conditions that increase pain. (Physiopedia: Kinesiophobia 2024)

Muscle Atrophy: Avoidance of physical activity results in muscle wasting and weakness. Weaker muscles provide less support to the skeletal system, increasing the strain on joints and other structures, which can intensify pain. (Ambegaonkar et al. 2024)

Stiffness and Reduced Mobility: Lack of movement leads to joint stiffness and reduced flexibility. Over time, this can result in decreased range of motion and difficulty performing everyday tasks, further discouraging movement and perpetuating the cycle of pain and fear. (Ambegaonkar et al. 2024)



9.2 Norwegian Psychomotor Therapy

Norwegian psychomotor therapy is an holistic approach to the patient and based on a biopsychosocial model of health. The body was seen first and foremost as an integrated harmonious unit. Symptoms were regarded as an expression of imbalance in the body, a sign that there was something wrong with the body as a whole. When working with the whole-body painful symptoms disappear. (Thornquist & Bunkan 1991)

It is based on the premise that stress resulting from physical, psychological and social situations may have effects on the body. Affecting muscle tension, breathing, <u>posture</u>, flexibility, <u>balance</u>, and movements. During assessment and treatment, all these elements are considered in order to achieve effective management. (Probst & Skjaerven 2017)

Norwegian psychomotor therapy explores the interconnected relationship between the regulation and restriction of muscular tension, breathing, movements, and emotions. Psychologically, muscular tension is understood as a mechanism for regulating emotions. By controlling muscle tension, individuals can manage their feelings. This tension inherently contains an emotional component. We often suppress and reject anything perceived as threatening. Consequently, relinquishing muscular tension is akin to relinquishing control. Releasing this tension requires the courage to acknowledge suppressed emotions. In essence, the act of relaxing tense muscles signifies a willingness to confront and recognize the feelings that have been repressed. (Thornquist & Bunkan 1991)

9.2.1 Norwegian psychomotor assessment

Assessment of a patient allows us to decide whether or not psychomotor therapy is suitable for the individual

Assessment consists parts:

Case history

- An examination of the body: posture, respiration, physical function and reactions
- The patient's reaction to the examination itself

It is preferred that the assessment is made in underwear but if the patient is uncomfortable the physiotherapist can also palpate through clothes. After that the physiotherapist starts the assessment with the posture, movements, and body composition where the order might vary depending on the patient.



The physiotherapist and the patient are making the findings in constant interaction. The emphasis of the assessment is on breathing and movement. The examination takes about a half hour and should not be prolonged.

The physiotherapist is observing through the assessment of the patient's autonomic nervous system reactions, emotional reactions, body awareness and overall sensations arising from the assessment in order for the patient to become aware about them.

CASE HISTORY AND EMPHASIS ON THE PATIENT'S LIFE HISTORY

Natural functions

What sort of physical problems has the patient experienced in life? There is interest in problems associated with musculoskeletal system but all bodily functions: stomach pain, digestive problems, difficulty in sleeping, hormonal disturbances etc. Questions about natural functions that include vegetative and hormonal conditions are important, as they rely useful information about the patient's general state of health balance.

Note! There is a close correlation between feelings and vegetative reactions. Stomachache or palpitations when we are worried or nervous. Autonomic disturbance and dysfunction are in general seen as an expression of emotional and mental stress.

Previous injuries and illnesses

No matter what the cause, pain results in reflex muscle tension. It can also result in a poor, ineffective movement pattern. Bad movement habits and ineffective use of the body may therefore be adopted due to negative reflex patterns. Asymmetrical tension and strain can arise because of an injury. Knowledge of a patient's previous illnesses, injuries and surgery is of diagnostic value and being helpful in adjusting treatment dosage.

Note! It is especially important to know what is happening to the respiratory organs.

It is the physical problems that bring the patient to us. And they must come first. Other information, marital problems, difficulties within the family etc. come at a time when contact and confidence are established. It is not only necessary to get information about the patient's life but also how the patient experiences it.

POSTURE

Any posture which is asymmetrical in relation to the central line indicates that there is abnormal tension somewhere in the body. In the ideal posture the tension is balanced between the front and back side of the body equally. The spine curves are adapted according to the position of the lower extremities and pelvis. The position of the upper extremities, shoulders and head has also an effect on the overall posture. Everyone has a personal posture which starts to form itself from childhood. Posture can be affected by physical factors like musculoskeletal injuries and psychological factors like emotions, unprocessed traumas and stress level. Posture can also give information about the patient's overall attitude toward life.



Bunkan has introduced 3 main types of posture according to the

psychological stage. There is evidence that stress and uncertainty of life has an effect on body posture.

- 1. This type of posture is called flexor posture. Common factor is strong contraction of the flexor muscles especially abdominals, inversion of the upper limbs, flexion of the elbows, pronation of the arms, tying hands front, flexion of knees, spine and pelvis, weakness in the lower extremities and holding the breath.
- 2. The second type of posture is collapsed posture. Sometimes it is hard to separate from the flexor position, the main separating factor is that in collapsed posture the muscles are hypotonic and in the flexor they are hypertonic. In collapsed posture the pelvis and head are front relative to the central axel.
- 3. The third type of posture what Bunkan mentions in her book is extension type. There the person is extending him/herself in order to cover the insecurity. This posture can be separated from the ideal posture with muscle tension. As mentioned before, in the ideal posture there is balanced muscle tone between the extensors and flexors but in extended posture there is increased muscle contraction in the extensor muscles.

Note! The position of the legs can give information about the person resources to cope with life from the body-mind point of view and how the person is facing life. In addition, the leg position is affecting the overall posture and that is why it gives the physiotherapist information.

The posture is assessed in the standing, sitting and laying down. It begins by asking the patient to stand in her/his typical standing posture. After that the physiotherapist asks the patient to take the standardized assessment posture where feet are hip width apart, the legs are parallel, knees are straightened and talocrural join is in 90 degrees. The weight should not be on the toes; in the posture, a patient is able to move their toes without changing the posture. The posture is assessed relative to the vertical axis. The vertical axis starts from the atlanto occipital joint, goes through cervix and thoracic junction, cut the lower part of sacrum, middle of the lower limbs until talocrural joint.

The physiotherapist assesses the symmetry and weight distribution of the body from the front, back and lateral direction. After that the physiotherapist is paying attention if there are deviations relation to the central and vertical axis, if there are findings she marks where and how much. Two other important marks are the spine and pelvis: how are the spinal curves (lumbar lordosis, thoracic kyphosis and cervical lordosis) and is the pelvis tilt forwards or backwards.

After assessing the standing posture, the physiotherapist repeats the assessment in the sitting and laying down posture and pays attention if there are changes when the gravitation is eliminated. When the patient is laying down the physiotherapist is paying attention if the legs are separated or tied together, and if the sacrum, shoulder blades and the knees are touching



the mat. If the patient's posture was tense in the standing posture and the patient is able to relax when lying down, it shows that the patient has resources. In the sitting position the physiotherapist is observing how the patient is holding the posture, where the hands are situated and what happens to the spinal curves.

RESPIRATION

The respiration is assessed through the test battery during the posture, movement and muscular consistency assessment. The emphasis is on the movement what happens during the breathing in standing, sitting and laying down posture. The optimal breathing movement is happening in the lower ribs, stomach and sternum is moving slightly up and outwards. The main muscles moving during the inhalation are diaphragm and the outer intercostal muscles. In addition, there is some muscle activation in the upper respiratory muscles in the neck and shoulder but during the optimal breath it is barely seen from outside. During the exhalation the inspiration muscles relax, and the chest cavity goes down and the pressure moves from the chest cavity to the stomach cavity. From outside the abdomen goes slightly inwards during exhalation.

When there is disturbance in the breathing pattern the inhalation happens more voluntarily. During the forced inhalation the muscles around nostrils and vocal cords, back extensors, sternocleidomastoid, scalene and pectoralis major and minor contract. That cause movement upwards in the shoulder and chest area. When exhale is done forced, we use abdominals and internal intercostals. This is causing tension and shortening in the abdominal muscles.

Note! Give attention to the breathing posture, respiratory muscles used, flexibility of the thoracic area, respiratory rate and the natural breaks between inhalation and exhalation

FUNCTION

The movement tests give information about the range of motion, muscle function and selfmovement. The tests are connected to the patient's deeper resilience behind the

muscular movement, and it shows the person's ability to adapt to the situation and if one is feeling safe. The test pattern includes main joint movement tests, spinal mobility assessment and movements which show how the patient is able to relax during the passive movement. In addition to those the balance and flexibility is assessed because tensed muscle cause instability in the posture which can lead to musculoskeletal pain.

Functional tests assess body's flexibility and versatility. Functional tests are developed in such a way to give information about holistic qualities. Movement is considered good when it flows freely and is naturally accompanied by other movements throughout the body. If there is blocks to free movement and stretch impulses, there is less harmony between the various parts of the body demanding muscular effort in order to complete movements.

Note! Find out what breaks are applied and what sort of blocks does the individual have.



Relaxed stooped-standing position

Patient stands with body bent forwards, the upper body hanging down as relaxed as possible.

- The arms hang relaxed with the hands over the feet.
- The back has an even curve and neck is relaxed
- The knees are stretched with minimal quadriceps activity.

In this position information is discussed and gathered:

Mobility

- Elasticity in muscles and soft tissue
- Ability to relax and allow the neck to become integrated part of the trunk
- Ability to remain loose in the upper body while legs remain stretched, stable and active

The long-sitting position

The patient sits with legs parallel and stretched out in the front of the body. The muscles on the back of the body are stretched.

How the person adapts to this position. In order to localize and differentiate whether the brakes are in the legs, back or neck, these parts are independently flexed.

Note! Activity in the extensors of the body are part of the "pull yourself together" pattern. Increased tension and static muscle work in the extensor apparatus results in less stretchability over a period of time.

The two functional tests response in person's with a more or less "pull yourself together" attitude. In people with reduced stretching length in the extensor system, we frequently find that the flexor muscles are also shortened. The individual is in other words more or less totally protected and stiff.

Free movements between various parts of the body and isolated muscle contraction and the ability to relax

The patient is standing still, and the physiotherapist is applying little bit force on the sacrum of the patient and then the physiotherapist is observing how is the movement of the whole body: is it stiff or is it wavelike movement. This can show how the patient is letting the movement flow



through the body and the physiotherapist can see the body part where the movement is stopping. The patient is asked to let the movement flow through the body without stopping it. If the patient is losing the balance, it is a sign of a tension somewhere in the body.

The assessment is continuing in the supine position by assessing the passive shoulder join movement in flexion position. Physiotherapist is assessing if the patient can let the hand move freely without assisting the movement or is the patient possibly resisting the movement. If the patient is assisting or resisting the movement, it shows that one is not able to be passive. The passive range of motion assessment continues with hip and knee joint flexion by observing the same principals as in the shoulder joint assessment. The last part of the assessment in supine position is the cervical spine passive flexion and rotation.

The patient is in sitting position. First the patient is asked to lean forwards and curve the spine where the physiotherapist is assessing the position of the head, upper back and middle back. After that patient is asked to straighten the back slowly and the physiotherapist is observing is the movement happening in the whole spine or is there parts which stay stiff. In addition, the physiotherapist is assessing if the pelvis area is staying stable while straightening the spine. Last part in the sitting position is knee lift where the physiotherapist is paying attention on the movement control.

Note! There is a psychological difference between individuals that resist passive movement and those that assist. People that resist have difficulty allowing others to control them. Such a person may have a deep sense of insecurity that emerges in uncontrollable resistance. Resistance seems to be a result of factors such a protest, reservation, anxiety, anger etc. Those that are assisting also express insecurity which would seem to be related to negative "ego feelings"." I am not good enough". "I have to help so as to be appreciated".

PALPATION OF MUSCULATURE

The assessment is made by palpating the certain muscle groups in laying down position where the gravity is eliminated, and the entire body is relaxed. when palpating the grip is firm in order to feel through the tissues. The main idea behind the muscle consistency

assessment is that tensing the muscles is one of the most common defense mechanisms.

During the palpation the physiotherapist is mainly paying attention on the size of the muscle if there is difference between sides, muscle tension and if the patient is feeling discomfort during the assessment. The physiotherapist is marking with colors on the assessment form is the muscular tension very high or is the tension below the normal

muscle tone. From the picture the physiotherapist can see if the tension or lack of muscle tone is symmetric or affecting only certain muscle groups. When the physiotherapist is doing the palpation, she/he is asking if the patient is feeling the same.



If the findings of the physiotherapist and the feeling of the patient is matching it tells that the patient has good body awareness. Emotional and autonomic nervous system reactions are also marked down.

AUTONOMIC NERVOUS SYSTEM REACTIONS

The autonomic nervous system is divided into parasympathetic and sympathetic division. The autonomic nervous system is connected to our breathing, muscles, posture and movement. It is also regulating the function of many internal organs, the heartbeat for instance. The parasympathetic division is responsible for the "rest and digest" responses and the sympathetic for the "flight and fight" response. The internal organs have nerve branches from both divisions, depending on the nerve message, one of the divisions increase or decrease the activation of the organ in order to maintain the health.

The autonomic nervous system reactions are assessed through all the four main parts of the assessment. Those reactions can tell important information about the alertness of the patient, and about how the person is sensing safety and danger. The reactions are assessed before, during and after the assessment. Those reactions can be for instance: changes in the color of the skin, temperature of the body, swelling, sweating or freezing, smell or changes in the breath. The goal is to create overall picture of the symptoms and make a conclusion regarding on that.

BODY AWARENESS

Body awareness is very crucial part of our resources in life. The more we are aware of our body and the better the body image is the more we have resources. Body awareness means our ability to sense and be aware about our bodies. The awareness from the body parts is crucial for the overall situation, it tells if the patient has connection to the body parts and if they are part of their self-image. The body awareness is assessed through the whole assessment by comparing the findings of the physiotherapist and the patient.

Contraindications for Norwegian psychomotor therapy:

Since a person's ability to adjust (physically and mentally) is central to psychomotor therapy, this does not imply that everyone is bale to profit from this therapy form. Should the examination show inability to adjust, one concludes that the individual is unsuitable for trearment. Physical, psychological and social factors may limit a patient's potential to take advantage of this treatment. (Harjunen, 2020, Thornquist & Bunkan, 1991)



9.3 Non-verbal communication

Nonverbal communication is the transmission of messages or signals through a nonverbal platform such as eye contact, facial expressions, gestures, posture, use of objects, touch and body language.

Non-verbal behaviour forms the major part of communication; responses in interactions are based on the subconscious perception and interpretation of non-verbal messages. Through intuition and experience, most physiotherapists develop the skills necessary to aid their understanding of the behaviour and responses of patients. Increased awareness of non-verbal skills and the importance of their use will enhance both the physiotherapist-patient relationship and the quality of treatment. (Hargreaves 1982)

In physiotherapy, communication that actively involves the patient is seen as the foundation of patient-centered treatment. Research on communication in physical therapy highlights how patients' opportunity to actively participate is often limited by the therapists' focus on biomedical facts and clinical tasks. Physiotherapists' self-awareness around communication and how to get in touch with patients. Good communication is pointed to by patients as important for feeling involved in the treatment process and for their participation (Cooper 2007). In general, the literature on patient centeredness in physical therapy commonly emphasizes the fact that physical therapy practice is heavily rooted in the culture of medicine, and that physical therapists often feel insecure when moving beyond their field of expertise—i.e., the physical body—and communicating with patients about their social and emotional life. (Mudge et al 2014)

Communication is the process of sending and receiving messages to share skills, knowledge and attitudes. Communication is a fundamental clinical skill as it helps to establish the therapeutic relationship between clinicians and their patients. There are many benefits of effective communication in healthcare, including improved health status, functioning and patient satisfaction. (Physiopedia 2023)

Effective communication between patient and provider requires a bidirectional dialogue where each party respects the other. Both parties will be able to:

- 1. exchange information
- 2. speak and listen without interruption
- 3. express opinions
- 4. ask questions for clarity

Non-verbal communication is the expression of information through the body, face or voice. It provides a way to convey emotion and information without using words. It can give the listener additional information, sometimes contradicting the spoken message.



It includes a wide range of physical signs such as:

- facial expressions / gestures
- body language / posture
- eye contact
- shrugging
- pointing

Individual and cultural differences can impact non-verbal communication as different cultures and people may have different norms and conventions for non-verbal cues. (Physiopedia 2023)

9.3.1 Intercultural differences in non-verbal communication

Non-verbal communication, encompassing gestures, facial expressions, posture, eye contact, and other forms of body language, plays a critical role in human interactions. However, its interpretation can vary significantly across different cultures. Understanding these intercultural differences is essential for effective communication in a globalized world.

Gestures

Gestures are a common form of non-verbal communication, but their meanings can differ dramatically between cultures.

- Hand Gestures: A gesture as simple as a thumbs-up can have varied interpretations. In many Western cultures, it is a sign of approval or a job well done. However, in parts of the Middle East and South America, it can be seen as offensive. Similarly, the "OK" sign (a circle formed with the thumb and index finger) is positive in the United States but considered rude in some Mediterranean and South American countries.
- Nodding and Shaking Head: In most Western cultures, nodding typically signifies agreement, and shaking the head indicates disagreement. Conversely, in some parts of India and Bulgaria, a side-to-side head tilt can mean agreement, which might be confusing for those unfamiliar with these cultural norms.

Facial Expressions



While some facial expressions are universal, such as smiles indicating happiness and frowns indicating displeasure, the context and extent of their use can vary.

- Smiling: In many Asian cultures, smiling is not just a sign of happiness but also used to mask discomfort or embarrassment. In contrast, Western cultures often interpret smiling strictly as a sign of friendliness or happiness.
- Eye Contact: Eye contact norms vary widely. In Western cultures, maintaining eye contact is often seen as a sign of confidence and attentiveness. However, in many Asian, African, and Middle Eastern cultures, prolonged eye contact can be seen as confrontational or disrespectful, especially when directed towards authority pictures.

Posture and Proximity

Posture and the use of personal space can also convey different messages across cultures.

- Posture: In the United States, a relaxed posture might be perceived as a sign of ease and comfort. However, in Japan, where formality is highly valued, a straight and formal posture is expected in most social interactions.
- Personal Space: Proxemics, the study of personal space, reveals significant cultural differences. In Latin American and Middle Eastern cultures, people tend to stand closer together when conversing, which is a sign of warmth and friendliness. In contrast, Northern Europeans and North Americans generally prefer more personal space and standing too close can be perceived as intrusive or aggressive.

Touch

Touch is another non-verbal cue with varying interpretations.

- Handshakes and Greetings: In the United States and much of Europe, a firm handshake is a common greeting and a sign of confidence. In contrast, in some Asian cultures, a gentle handshake or a bow is more appropriate. In India, the traditional greeting is the Namaste, a slight bow with hands pressed together, which conveys respect.
- Public Display of Affection: In many Western cultures, light touches such as handshakes, hugs, and pats on the back are common and acceptable. However, in many Muslim-majority countries, public displays of affection, even between close friends, are frowned upon.

Silence

Silence can also carry different meanings across cultures.



- Silence as Respect: In Japan and Finland, silence is often used as a sign of respect and contemplation. People might pause before responding to show they are thoughtfully considering what has been said. In contrast, in the United States, prolonged silence can be perceived as awkward or indicative of disagreement.
- **Communication Style:** Cultures with high-context communication styles, such as those in Asia and the Middle East, rely more on non-verbal cues and the context of the message rather than the words themselves. In contrast, low-context cultures like the United States and Germany prefer direct and explicit verbal communication, where words are the primary carriers of meaning.

Understanding intercultural differences in non-verbal communication is crucial for fostering effective and respectful interactions in our increasingly interconnected world. Recognizing and adapting to these differences can help prevent misunderstandings, build stronger relationships, and facilitate smoother communication across cultural boundaries. As globalization continues to bring diverse cultures into closer contact, cultivating cultural sensitivity and awareness becomes ever more important for personal, social, and professional success. Reynolds, S., & Valentine, D. (2004)

9.4 Cooperation with psychiatrists/psychologists

Physiotherapists receive many patients for psychomotor therapy who do not first see the connection between their physical and emotional/social problems. The aim of psychomotor therapy is give the patients better contact with their emotional life. When there are changes in the body and respiration is released, the patient registers a deeper contact with feelings.

If conflicts and emotions start becoming a problem, or treatment comes to a standstill, then the question of psychotherapy becomes to relevant. Usually psychomotor therapy and psychotherapy are used in combination. The psychomotor therapy, when followed immediately by psychotherapy, is most effective.

If the patient's life is full of conflicts, then maybe psychotherapy alone will prove sufficient for a while. It is rarely necessary to discontinue psychomotor therapy altogether because it can be used to stabilize the patient. In the other words, help the patient to stand on his own feet, so that he finds it easier to look face reality.

When considering emotional crises, the use of sedatives and antidepressant drugs can be useful for limited period of time.



References:

Ahlsen, B. & Nilsen, A. 2022. Getting in touch: Communication in physical therapy pactice and the multiple functions of language. Front. Rehabil. Sci. Volume 3 - 2022 | <u>https://doi.org/10.3389/fresc.2022.882099</u>

Ambegaonkar JP, Jordan M, Wiese KR, Caswell SV. Kinesiophobia in Injured Athletes: A Systematic Review. Journal of Functional Morphology and Kinesiology. 2024; 9(2):78. <u>https://doi.org/10.3390/jfmk9020078</u>

Australian Physiotherapy Association. 2023. Respecting boundaries. https://australian.physio/inmotion/respecting-boundaries.

Bonanno M, Papa D, Cerasa A, Maggio MG, Calabrò RS. Psycho-Neuroendocrinology in the Rehabilitation Field: Focus on the Complex Interplay between Stress and Pain. Medicina. 2024; 60(2):285. <u>https://doi.org/10.3390/medicina60020285</u>_

Bordeleau M, Vincenot M, Lefevre S, Duport A, Seggio L, Breton T, Lelard T, Serra E, Roussel N, Neves JFD, Léonard G. Treatments for kinesiophobia in people with chronic pain: A scoping review. Front Behav Neurosci. 2022 Sep 20;16:933483. doi: 10.3389/fnbeh.2022.933483. PMID: 36204486; PMCID: PMC9531655.

Burston JJ, Valdes AM, Woodhams SG, Mapp PI, Stocks J, Watson DJG, Gowler PRW, Xu L, Sagar DR, Fernandes G, Frowd N, Marshall L, Zhang W, Doherty M, Walsh DA, Chapman V. The impact of anxiety on chronic musculoskeletal pain and the role of astrocyte activation. Pain. 2019 Mar;160(3):658-669. doi: 10.1097/j.pain.000000000001445. PMID: 30779717; PMCID: PMC6407811.

Cooper K, Smith BH, Hancock E. 2007. Patient-centredness in physiotherapy from the perspective of the chronic low back pain patient. Physiotherapy. 94:244–52.

Dragesund, T. & Oien, A. 2023. Norwegian psychomotor physiotherapy: A scoping review. https://www.fysioterapeuten.no/fagfellevurdert-fysioterapi-psykomotorisk-fysioterapi/norwegian-psychomotor-physiotherapy-ascoping-review/146142_

Dragesund, T. & Oien, A. 2021. Developing self-care in an interdependent therapeutic relationship: patients' experiences from Norwegian psychomotor physiotherapy. PHYSIOTHERAPY THEORY AND PRACTICE <u>https://doi.org/10.1080/09593985.2021.1875524_</u>

Dragesund T, Kvåle A. Study protocol for Norwegian Psychomotor Physiotherapy versus Cognitive Patient Education in combination with active individualized physiotherapy in patients with long-lasting musculoskeletal pain–a randomized controlled trial. BMC musculoskeletal disorders. 2016 Dec;17(1):1-9

Dueñas M, Ojeda B, Salazar A, Mico JA, Failde I. A review of chronic pain impact on patients, their social environment and the health care system. J Pain Res. 2016 Jun 28;9:457-67. doi: 10.2147/JPR.S105892. PMID: 27418853; PMCID: PMC4935027.

Esteve, Rosa & Camacho, Laura. (2008). Anxiety sensitivity, body vigilance and fear of pain. Behaviour research and therapy. 46. 715-27. 10.1016/j.brat.2008.02.012.

 Harjunen, E. 2020. ROBE - Resource oriented body examination - workshop for physiotherapy students. Bachelor thesis.

 Satakunta
 university
 of
 Applied
 Sciences.

 https://www.theseus.fi/bitstream/handle/10024/780689/Harjunen
 Emilia.pdf?sequence=2&isAllowed=y
 Sciences.

Herrala, H., Kahrola, T. & Sandström, M. 2010. Psykofyysinen ihminen.

Helsinki: WSOYpro OyHargreaves, S. 1982. The relevance of non-verbal communication in physiotherapy. Aust J Physiother. 28 (4):19-22.

Härkönen, U., Muhonen, M., Matinheikki-Kokko, K., Sipari, S. 2016. Psykofyysinen fysioterapia kuntoutusmuotona. Kuntoutuksen vaikutukset ja hyödyt asiakas- ja ammattilaiskokemusten sekä kirjallisuuskatsauksen valossa. KELA. Työpapereita 97/2016

International Association for the Study of Pain. 2023.Definitions of chronic pain syndromes. <u>https://www.iasp-pain.org/advocacy/definitions-of-chronic-pain-syndromes/</u>



Li L, Sun Y, Qin H, Zhou J, Yang X, Li A, Zhang J, Zhang Y. A scientometric analysis and visualization of kinesiophobia research from 2002 to 2022: A review. Medicine (Baltimore). 2023 Nov 3;102(44):e35872. doi: 10.1097/MD.000000000035872. PMID: 37932995; PMCID: PMC10627652.

Lumley MA, Cohen JL, Borszcz GS, Cano A, Radcliffe AM, Porter LS, Schubiner H, Keefe FJ. Pain and emotion: a biopsychosocial review of recent research. J Clin Psychol. 2011 Sep;67(9):942-68. doi: 10.1002/jclp.20816. Epub 2011 Jun 6. PMID: 21647882; PMCID: PMC3152687.

Mills SEE, Nicolson KP, Smith BH. Chronic pain: a review of its epidemiology and associated factors in population-based studies. Br J Anaesth. 2019 Aug;123(2):e273-e283. doi: 10.1016/j.bja.2019.03.023. Epub 2019 May 10. PMID: 31079836; PMCID: PMC6676152.

Mudge S, Stretton C, Kayes N. 2014. Are physiotherapists comfortable with personcentred practice? An autoethnographic insight. Disabil Rehabil. 36:457–63.

Nicholls, D. & Gibson, B. 2010. The Body and Physiotherapy. Physiotherapy Theory and Practice, 26(8):497–509. DOI: 10.3109/09593981003710316

NHS. 2023. Chronic pain. https://www.nhsinform.scot/illnesses-and-conditions/brain-nerves-and-spinal-cord/chronic-pain

Ojala, T., Häkkinen A., Karppinen, J., Sipilä, K., Suutama, T., Piirainen, A. 2014. Chronic pain affects the whole person – a phenomenological study. Disabil Rehabil, Early Online: 1–9. OI: 10.3109/09638288.2014.923522

Physiopedia.2024. Kinesiophobia. https://www.physio-pedia.com/Kinesiophobia

Physiopedia. 2023. Modes of communication. https://www.physio-pedia.com/Modes_of_Communication_

Physiopedia. 2023. Psychomotor Physical Therapy. https://www.physio-pedia.com/Psychomotor Physical Therapy

Probst, M. & Skjaerven, L. (edit.) 2017. Physiotherapy in mental health and psychiatry. A scientific and clinical based approach. Elsevier

Reynolds, S., & Valentine, D. (2004). Guide to cross-cultural communication. Pearson Prentice Hall.

Sheng J, Liu S, Wang Y, Cui R, Zhang X. The Link between Depression and Chronic Pain: Neural Mechanisms in the Brain. Neural Plast. 2017;2017;9724371. doi: 10.1155/2017/9724371. Epub 2017 Jun 19. PMID: 28706741; PMCID: PMC5494581.

Steger MF, Kashdan TB. Depression and Everyday Social Activity, Belonging, and Well-Being. J Couns Psychol. 2009 Apr;56(2):289-300. doi: 10.1037/a0015416. PMID: 20428460; PMCID: PMC2860146. Thornquist, E. & Bunkan, H. 1991. What is Psychomotor therapy. Norwegian University Press

WHO. Musculoskeletal conditions. Key facts 2022 [Available from: <u>https://www.who.int/news-room/fact-sheets/detail/musculoskeletal-conditions</u>

Yang S, Chang MC. Chronic Pain: Structural and Functional Changes in Brain Structures and Associated Negative Affective States. Int J Mol Sci. 2019 Jun 26;20(13):3130. doi: 10.3390/ijms20133130. PMID: 31248061; PMCID: PMC6650904.