PSYCHCEs

Psychology of Pain
Symptom Management

Introduction

Pain management in a healthcare setting is a complex task. It involves considering patient-centered preferences, treatment goals, guidelines, and laws from governing bodies. The physical and psychological elements of pain give rise to various psychological responses. Understanding and addressing these responses is crucial. It also underscores the vital role of psychologists intervention in the comprehensive management of pain. Psychologists have a distinct ability to offer support, counseling, and advocacy that play a vital role in pain management. They contribute to making healthcare professionals feel valued and integral to the process.

Section 1: Understanding Pain

Definition of Pain

The International Association for the Study of Pain (IASP) defines pain as an "unpleasant physical and emotional experience associated with actual or potential tissue damage" (Galvez-Sánchez & Montoro, 2022). Pain is described as

- Pain is a personal experience influenced by physical, psychological, and social factors. Understanding this multidimensional nature of pain is crucial for healthcare professionals, as it enhances their knowledge and competence in managing pain effectively.
- Conceptualized from life experiences.
- Known to have adverse effects on functional, social, and psychological well-being.
- Expressed through verbal and other behavioral means.

Galvez-Sánchez and Montor (2022) describe pain as a complex and multidimensional experience. It is characterized by three distinct dimensions: sensory-discriminative (the physical sensation of pain), emotional-affective (the emotional response to pain), and cognitive-evaluative (the cognitive appraisal of pain). Understanding and addressing these dimensions is a significant challenge in pain management.

Key Facts

- The most frequent reason that individuals seek medical care in the U.S. is pain (National Center for Complementary and Integrative Health, 2022).
- In the U.S., a staggering 50 million adults face chronic pain daily. Of those, nearly 20 million adults deal with chronic pain interfering with their daily work or life. This prevalence underscores the urgency and importance of understanding and managing chronic pain in healthcare settings, enhancing the audience's awareness and knowledge.
- An estimated 5% to 35% of children and adolescents experience chronic pain (National Center for Complementary and Integrative Health, 2022).
- According to the U.S. Department of Health and Human Services (2019), the cost of pain can be estimated between $560 billion and $635 billion annually. This significant financial burden further emphasizes the need for effective pain management, fostering a sense of empathy and understanding in the audience.
- According to the World Health Organization (2022), there are approximately 1.71 billion people have musculoskeletal conditions worldwide.

- Musculoskeletal conditions are the leading contributor to disability worldwide, with low back pain being the single leading cause of disability in 160 countries (WHO, 2022).
- Musculoskeletal conditions significantly limit mobility and dexterity, leading to early retirement from work, lower levels of well-being, and reduced ability to participate in society. This can lead to financial strain, social isolation, and a decreased quality of life for individuals with these conditions (WHO, 2022).
- Due to population growth and aging, their is an increase number of people who have reported musculoskeletal conditions and those associated functional limitations is rapidly increasing (WHO, 2022).

Types of Pain

Acute pain has a sudden onset due to an acute injury, illness, or surgical or dental procedures. It is often self-limiting (Open Resources for Nursing, 2021). Examples of injuries and diseases that can cause acute pain include:

- Appendicitis
- Broken bones
- Cuts, bruises, and burns
- Toothache
- Inflammation
- Heart attack
- Kidney stones

- Back injury

Chronic pain lasts or reoccurs for over three months or persists for over a month after an acute injury has healed (Watson, 2022). Examples of chronic pain causes are:

- Migraine headaches
- Cancer
- Arthritis
- Fibromyalgia
- Sickle cell disease
- Spine injuries
- Irritable bowel syndrome

Musculoskeletal

Musculoskeletal conditions are painful limitations in mobility and dexterity that reduce people's ability to work and participate in society. The World Health Organization (WHO, 2022), advises that pain that is experienced in musculoskeletal structures is the most common form of non-cancer pain.

Musculoskeletal include conditions that affect:

- **Joints:** osteoarthritis, rheumatoid arthritis, psoriatic arthritis, gout, spondyloarthritis
- **Bones:** osteoporosis, osteopenia, associated fragility fractures, traumatic fractures
- **Muscles:** sarcopenia

These conditions can also impact various body areas or systems, including regional pain (such as back and neck pain) and widespread pain conditions like fibromyalgia, as well as inflammatory diseases like connective tissue diseases and vasculitis that have musculoskeletal manifestations and amputation as a result of disease or trauma.

Musculoskeletal conditions are the highest contributor to the global need for rehabilitation. They are among the most significant contributors to the rehabilitation services needs of children and also can account for approximately two-thirds of all adults in need of rehabilitation.

In addition:

1. Musculoskeletal conditions frequently occur alongside other noncommunicable diseases, raising the risk of developing additional conditions like cardiovascular disease.
2. People with musculoskeletal conditions are also at higher risk of developing mental health issues.

Somatic Pain

Somatic pain starts in the skin, muscles, fascia, joints, tendons, bones, subcutaneous tissue, and mucous membranes (Watson, 2022). There are many causes of this type of pain, such as:

- Minor burns, cuts, abrasions, and bruises
- Bone and joint injuries, such as fractures, strains, and sprains
- Muscle strain
- Connective tissue conditions, such as arthritis

- Bone cancer
- Dental abscess

Somatic pain includes:

- Burning
- Tearing
- Ripping
- Stabbing
- Aching
- Sharp
- Throbbing

Somatic pain is usually localized, and patients can pinpoint its origin, but it can sometimes radiate to nearby areas.

Neuropathic Pain

Neuropathic pain starts in the central or peripheral nervous system. It may be caused by (Colloca et al., 2017):

- Nerve damage from diabetes, cancer, or cancer treatments
- Fibromyalgia
- Amputation and phantom limb pain

Neuropathic pain includes:

- Stinging

- Prickling
- Electrical
- Pins and needles
- Tingling
- Shooting

Neuropathic pain is less likely than visceral pain to result in autonomic symptoms. It may be triggered or intensified by non-painful stimuli, such as a light touch or cold air. Patients often feel pain along the nerve path rather than at a single focal point. For instance, pressure on the sciatic nerve causes pain that can run through the hips, buttocks, legs, and feet.

Visceral Pain

Visceral pain starts in the organs or supporting structures (Watson, 2022). Patients may find it hard to pinpoint the location of visceral pain. It is often widespread and can radiate to other areas. Some causes of visceral pain are

- Bladder infection
- Constipation
- Gallstones
- Pancreatitis
- Heart attack
- Kidney stones

Visceral pain includes:

- A heaviness

- Deep in the muscle tissue
- Cramping of the muscles
- Squeezing and pressure
- Pain is “coming in waves” (Watson, 2022)

Unlike somatic and neuropathic pain, visceral pain may cause secondary autonomic symptoms, such as:

- Increase in sweating
- Experiencing nausea
- Changes in heart rate and blood pressure
- Feelings of anxiety
- A sense of impending doom

Section 2: Pain Assessment

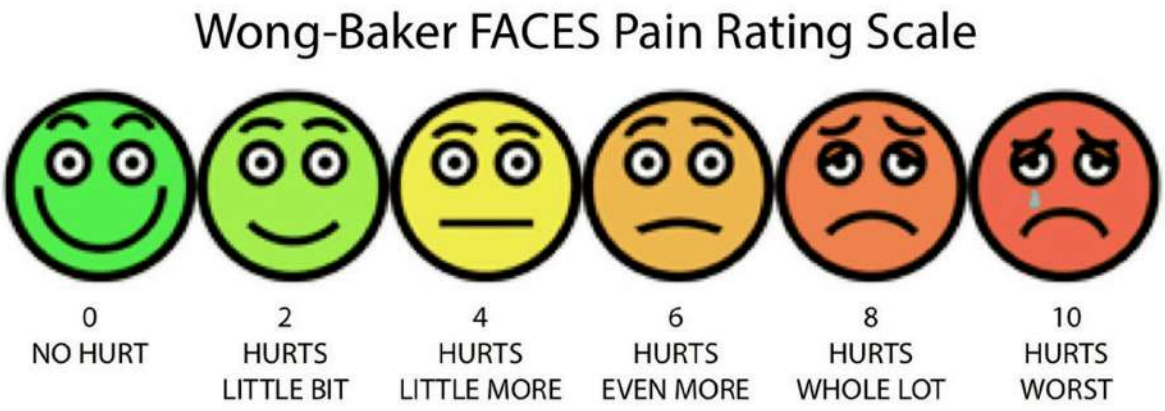
The intervention of chronic pain should be from a biopsychosocial perspective. As pointed out, chronic pain is a condition characterized by physiological and biological correlates, modulated by emotions, personality factors, and coping styles and related to different psychological behaviors (Galvez-Sánchez & Montoro, 2022). In addition to these factors, the evolution and prognosis of chronic pain are affected not only by social factors but also by cultural factors (i.e., socio-economics, social support, educational level, work-related situation, etc.). Consequently, the treatment based on a multidisciplinary approach can be the most effective in chronic pain assessment and management.

Pain Scales

Pain scales can help identify the level of intensity, which is critical for selecting the right pain relief strategy, such as medication dose and intervention type. Pain intensity is how muscular pain feels to the person experiencing it. It is also essential for gauging a patient's response to pain relief interventions.

Numerical pain scales can be used to assess various dimensions of pain. Patient age and physical, emotional, and cognitive status are factors that help determine the right tool.

The Wong-Baker FACES® Pain Scale



The FACES® pain rating scale uses images or faces that range from a smile to a painful, crying expression. These types of graphic scales can be used for adults and children with limited literacy or developmental abilities. Patients can be asked to choose the face that best describes how strong their pain feels at the time of assessment.

Functional pain scales assess the impact of pain on a patient's physiological, emotional, and social functioning. They are mainly used to determine treatment needs for patients with chronic pain. They include several behavioral and physical

indicators of pain and are a more thorough exam. Examples include The Brief Pain Inventory and the Multidimensional Pain Inventory. Numeric rating scales allow patients to rate their pain intensity from 0 to 10, with 0 which indicates “no pain” and 10 representing the “worst pain imaginable.”

Nonverbal pain scales can be used to assess pain in patients who are nonverbal or unable to self-report pain symptoms. Family members may be a good source for helping identify the presence of pain and intensity in nonverbal patients. However, when they are not available, healthcare professionals can use these tools to observe behaviors and physiological markers of pain.

Open Resources for Nursing (2022) lists the following scales for patients who are nonverbal include the following:

- The CRIES Scale, which stands for crying, requires increased oxygen administration, vital signs, expression, and sleeplessness and is used in intensive care settings with newborns from 32 weeks gestation to 6 months of age.
- The face, legs, activity, cry, and consolability, or FLACC Scale, is used to assess acute pain in children ages six months to five years.
- The COMFORT Behavior Scale can be used to assess pain in sedated or unconscious children from birth to adolescence.
- The Pain Assessment in Advanced Dementia is a scale that can be used to assess pain in patients with advanced dementia.
- The Pediatric Pain Profile includes 20 items to assess pain in children ages 1 to 18 years with severe intellectual disabilities.
- The Adult Nonverbal Pain Scale and the Behavioral Pain Scale may be used to assess pain in adult patients who cannot speak.

NOTE: Numerical pain scales should NOT be used as the sole measure for pain assessment. Healthcare professionals should not use a patient's physiological indicators of pain alone. The scale should serve as a general guide for other psycho-social factors.

Pain Assessment

For effective pain management, pain assessments should be done often using the same standardized format based on the patient's health status, needs, and abilities (Open Resources for Nursing, 2022). Pain should be reassessed promptly after pain interventions to gauge the patient's response and identify adverse effects. Self-reports of pain are the best way to assess pain in those who are verbal (Watson, 2022).

A pain assessment helps determine pain:

- History
- Duration
- Location and intensity of pain
- Quality
- Impact on physical, mental, somatic, and social functioning

Pain History

A pain history should include the following (Dydyk & Grandhe, 2022):

- Pain duration in quantitative measurements
- Chronic or new-onset pain and its physical, emotional, and social effects, along with helpful and unhelpful pain control methods

- Any previous factors to the cause of pain
- How the patient copes with pain
- Cultural and religious preferences about pain treatments
- The presence of any substance use disorders and mental health disorders that may affect pain, such as:
    - Paranoia
    - Depression
    - Anxiety
    - Psychosis
    - Fear

During the pain history, the patient should be asked when the pain started and how long it has lasted. Then, ask about events that correspond with when the pain started or may have caused the pain, such as other symptoms that started simultaneously, injuries, or changes in physical activity. The quality of pain is expressed by how the patient describes it, which may help identify the primary cause. This is important because pain responds to different treatments based on the cause.

Section 3: Pharmacological and Non-Pharmacological Treatments for Pain

Pharmacological Treatment

Pain relief should be based on the type and duration of pain and the drug's potential benefits and risks. Most pain relief is effective for nociceptive pain that is due to injury but less for neuropathic pain due to damage or dysfunction of the nerves, spinal cord, or brain. Relief should consider the pain type, duration, and the drug's benefits and risks. While most pain relievers work well for nociceptive pain (caused by injury), they are less effective for neuropathic pain resulting from nerve, spinal cord, or brain damage (Watson, 2022). The ultimate aim is to treat the underlying concern and alleviate the pain.

Pain-relieving drugs can be categorized into three groups:

- Nonopioid: These medications do not contain opioids.
- Opioid (narcotic): These drugs include opioids.
- Adjuvant: These medicines are primarily used to treat other conditions like seizures or depression but can also provide pain relief.

Nonopioid Pain Relievers

A variety of nonopioid pain relievers can effectively manage mild to moderate pain and, in some cases, severe pain when tolerated. These medications are preferred for pain treatment due to their lower likelihood of causing physical dependence.

Examples of non-opioid drugs used for mild to moderate pain include:

- Ibuprofen

- Acetaminophen
- Asprin
- Indomethacin
- Naproxen
- Ketorolac
- Diclofenac

Examples of topical analgesics include:

- Capsaicin cream
- Diclofenac topical gel
- lidocaine cream
- lidocaine patches

These topical analgesics may have few risks of side effects and are effective for many types of pain, such as:

- Back pain
- Muscle pain
- Joint pain
- Arthritis
- Neuralgia from shingles

Adjuvant Drugs

Adjuvant pain medications are drugs that have pain-relieving properties, although they are designed or intended for other uses. Below are some examples (Watson, 2022):

Anti-seizure drugs help treat neuropathic pain and headache syndromes.

- Gabapentin
- Pregabalin

Antidepressants have been found to be effective in the treatment of diabetic and chemotherapy-induced neuropathic pain, fibromyalgia, and chronic musculoskeletal pain (Watson, 2022), including:

- Duloxetine
- Venlafaxine
- Milnacipran

To alleviate pain, a local anesthetic like Lidocaine can be injected into the skin resulting from an injury or neuropathic pain. Local anesthetics can also be administered around nerves to block pain.

Low doses of Ketamine (an anesthetic) are sometimes given intravenously in a hospital to people who have complex regional pain syndrome when other treatments are ineffective (Watson, 2022).

Opioid Pain Relievers

Opioids, whether natural or synthetic, bind to specific receptors in the central nervous system, producing an agonist effect. They are also known as narcotics, a term initially used for any psychoactive substance inducing sleep. Opioids have

both analgesic (pain-relieving) and sleep-inducing effects, which are distinct from each other. Some opioids used for pain relief have both agonist and antagonist properties. Chemically related to morphine, opioids can be extracted from poppies or synthesized in a laboratory (Watson, 2022).

Physicians often prescribe opioids for short-term management of severe pain, such as post-injury or post-surgery pain. However, due to side effects and the risk of misuse or addiction, patients are typically transitioned to non-opioid pain relievers as soon as possible. Opioids are not recommended for chronic pain treatment unless in end-of-life care.

Opioids should not be the first choice for pain relief unless the patient has (Centers for Disease Prevention, 2024):

- Severe acute pain
- Cancer-related pain
- Severe pain at the end of life

When considering the use of an opioid prescription, individuals should balance the benefits of improved function and quality of life against potential risks. Prescriptions should specify the minimal effective dose of a short-acting opioid, administered for the shortest duration necessary to achieve adequate pain control and enhance function and quality of life.

Examples of opiates include:

- Fentanyl
- Oxymorphone
- Hydromorphone
- Levorphanol

- Methadone
- Oxycodone
- Morphine
- Tapentadol
- Hydrocodone
- Vicodin
- Norco
- Percocet
- Percodan
- Demerol
- Pethidine
- Codeine
- Tramadol
- Lavdanum (Opium Tincture)

Risks of Using Opiates

Healthcare providers should assess and discuss a patient's risk for opioid-related harms. Psychologists can also educate and discuss these risks with their clients . Incorporating Naloxone into the patient's comprehensive pain management p lan is a key risk mitigation strategy. Psychologists should have access to Nalox one tosupport patients at high risk for opioid overdoses or accidental overdoses.

Opioid Use Disorder (OUD)

Prolonged opioid use can lead to physical dependence, potentially resulting in unsupervised opioid abuse. This misuse may culminate in addiction to one or more types of opioids. Opioid use disorder manifests as compulsive, prolonged self-administration of opioid substances—either without a legitimate medical purpose or in doses significantly exceeding the necessary amount for treating an existing medical condition. A physical dependence that can lead to the abuse of opioids not under the supervision of medical care. This abuse can result in addiction to one or more types of opioids. Opioid use disorder encompasses signs and symptoms characterized by compulsive, prolonged self-administration of opioid substances. These opioids may be used without a legitimate medical purpose or, if another medical condition necessitates opioid treatment, in doses significantly exceeding the required amount for that condition.

The American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders established the criteria for a diagnosis of OUD, which is a problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

1. Opioids are often taken in larger amounts or over a more extended period than was intended.
2. There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
3. A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
4. Craving or a strong desire or urge to use opioids.
5. Recurrent opioid use failing to fulfill significant role obligations at work, school, or home.

6. Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
7. Important social, occupational, or recreational activities are given up or reduced because of opioid use.
8. Recurrent opioid use in situations in which it is physically hazardous.
9. Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
10. Tolerance, as defined by either of the following:
    a. A need for markedly increased amounts of opioids to achieve intoxication or desired effect.
    b. A markedly diminished effect with continued use of the same amount of an opioid.
    c. Note: This criterion is not considered to be met for those taking opioids solely under appropriate medical supervision.
11. Withdrawal, as manifested by either of the following:
    a. The characteristic opioid withdrawal syndrome (refer to Criteria A and B of the criteria set for opioid withdrawal).
    b. Opioids (or a closely related substance) are taken to relieve or avoid withdrawal symptoms

Individuals with Opiate Use Disorder develop conditioned responses that precipitate profound psychological changes. These responses can contribute to a relapse that is challenging to extinguish and often persists long after detoxification

from opiates, underscoring the necessity for comprehensive treatment of Opiate Use Disorder.

Section 4: Emotions and Pain

Chronic pain's psychosocial burdens encompass significant functional limitations, impacting physical functioning, daily living activities, sleep quality, recreational activities, and employment. Social consequences may extend to marriage, family dynamics, relationships, intimacy, and sexual activity, potentially resulting in social isolation, loss of familial roles, and stigma.

Psychological Responses

Fear, worry, and helplessness can trigger physiological responses by activating the sympathetic nervous system, the body's "fight or flight" response. Chronic stress activation, characterized by feelings of helplessness and hopelessness as opposed to coping, can have profound implications for health, such as cardiovascular issues, immune system dysfunction, and even sleep disturbances, such as insomnia or disrupted sleep patterns, similar to pain mechanisms in social rejection contexts (Landmark et al., 2024).

Psychological morbidity can include depression, anxiety, anger, loss of self-esteem, or guilt or shame for the impact on the family; economic consequences include healthcare cost potential for disability and last workday (Landmark et al., 2024).

Relationship burden factors and pain indicate that relationship dynamics significantly influence pain management and self-care. This is attributed to the guilt and fear associated with the impact of pain on their relationships.s the impact on their relationships.

Various factors, including thoughts, beliefs, memories, attentional processes, emotions, context, environment, social and family influences, sociocultural factors, and coping behaviors, play a role in both the creation and alleviation of pain (Zoffness, 2024).

Chronic Pain Cycle of Emotions

The chronic pain cycle begins with reduced physical activity, triggering negative emotions, subsequent avoidance, and distress. These changes in experience impact thinking and behavior, perpetuating the pain in a negative spiral. (Utah State University, 2023).

Picture source: https://extension.usu.edu/heart/research/cognitive-behavioral-therapies-for-chronic-pain-management

Section 5: Evidenced-Based Practices, Complementary and Alternative Therapies

To be successful in treatment, patients must be informed of the physical and psychosocial responses to living with chronic pain. The partnership in their

informed consent will allow them to commit to the treatment and achieve better results.

Galvez-Sánchez & Montoro (2022) suggest that it is crucial:

1. to establish clear and realistic therapeutic goals to motivate patients and increase their adherence to treatment,
2. to promote a good therapeutic alliance or rapport between the patient and the therapist,
3. to help patients to understand their responsibility in the treatment process and
4. to ensure they are aware of the relevance of their implication to change the perspective from helplessness and despair to self-efficacy and personal self-control over the disorder

Cognitive Therapy

Cognitive behavioral therapy, biofeedback, relaxation therapy, and individuals and groups have proven effective in treating chronic pain (Utah State University, 2023). Cognitive therapies for chronic pain focus on teaching active problem-solving techniques to manage pain and mitigate its impact on overall quality of life. Some critical cognitive therapies for chronic pain include:

- Relaxation training
- Cognitive restructuring
- Mindfulness
- Behavioral activation

- Pacing

Cognitive therapy for pain symptoms helps decrease the negative thoughts and emotions that can cause an increase in pain.

Cognitive Behavioral Therapy for Chronic Pain

Cognitive Behavioral Therapy for Chronic Pain (CBT-CP) is a biobehavioral, evidence-based treatment for chronic pain that effects physiological changes via cognitive, emotional, behavioral, and lifestyle changes (e.g., sleep, nutrition, exercise). CBT-CP is distinct from CBT for depression, anxiety, and other conditions. CBT-CP is recommended as a first-line treatment by the CDC, Joint Commission, Pain Task Force of the Academic Consortium for Integrative Medicine and Health, Institute of Medicine (now Academy), National Institute for Health Interagency Pain Research Coordinating Committee (Zoffness, 2024).

CBT-CP modifies negative thoughts, emotions (such as stress, anxiety, sadness, and anger), physical sensations, and unhelpful coping behaviors that sustain the cycle of chronic pain

The goals of treatment are to modify the following:

1. Unhealthy thinking patterns;
2. Negative emotions;
3. Physical factors like muscle tension and sympathetic nervous system (SNS) hyperactivity;
4. Unhelpful coping behaviors; examples include inactivity, isolation, and avoidance.
5. Lifestyle factors that encompass sleep, nutrition, and exercise

Scientific research indicates that addressing the components of the biopsychosocial cycle disrupts the neurophysiological processes responsible for pain initiation and maintenance, resulting in improved functioning, reduced pain, and diminished suffering (Zoffness, 2024).

Acceptance and Commitment Therapy (ACT)

Mindfulness-based stress reduction programs and acceptance and commitment therapy serve as alternative interventions to cognitive-behavioral treatment for managing chronic pain in patients.

When individuals attempt to accept pain, their pain intensity decreases, and their mental health improves. Acceptance of pain symptoms is one of the aims of Acceptance and Commitment Therapy, which is a contextually focused form of cognitive-behavioral psychotherapy. It utilizes mindfulness and behavioral activation to enhance patients' psychological flexibility, enabling them to engage in positive, values-based behaviors even amidst complex thoughts, emotions, or sensations. ACT encompasses six core processes: acceptance, presence, cognitive defusion, self as context, values, and committed action. Unlike traditional cognitive behavior therapy, ACT encourages individuals to accept and confront their pain. Based on this, individuals are motivated to discover their self-worth and pursue positive actions aligned with their values to achieve their life goals and values (Ye et al., 2024).

Ma et al. (2023) published findings in their systematic review and meta-analysis that ACT is effective and comparable to, if not better, some other available active treatments for chronic pain.

Complementary and Alternative Therapies

An integrative and holistic approach to treatment for pain should include both complementary and alternative therapies. The difference between the two approaches:

- If a non-mainstream approach is used with conventional medicine, it's considered "**complementary**."
- If a non-mainstream approach is used instead of conventional medicine, it's considered an "**alternative**."

According to the NCCIH Clearinghouse (2021), Complementary approaches can be categorized based on their primary therapeutic delivery method. This includes:

- **Nutrition** (e.g., herbs, special diets, dietary supplements, and probiotics)
- **Psychological** (e.g., meditation and mindfulness or mindfulness-based stress reduction)
    - **Meditation**, with a history spanning thousands of years, originated in Eastern traditions. The term encompasses diverse practices that promote mind-body integration and contribute to overall well-being. (National Center for Complementary and Integrative Health, 2022). Certain meditation techniques require focusing on specific sensations, such as breath, sound, visual imagery, mantras, or repeated phrases. Mindfulness meditation involves staying present without judgment.

      The National Center for Complementary and Integrative Health (2022) indicates that meditation and mindfulness practices offer potential health benefits and can enhance overall well-being. Recent research explores their effectiveness in managing anxiety, stress,

depression, pain, and withdrawal symptoms from substances like nicotine, alcohol, or opioids

- **Mindfulness-based stress reduction (MBSR)** is An evidence-based complementary and integrative health approach for alleviating chronic pain (Harris et al., 2023). MBSR is usually administered in a group format. Although many forms of meditation, such as transcendental meditation, are rooted in religion and spirituality, MBSR focuses on improving an individual's awareness and acceptance of their physical and psychological experiences.
- Harris et al. (2023) identify that MBSR teaches individuals to self-regulate pain and related co-morbidities by developing nonjudgmental awareness and acceptance of emotions, thoughts, and sensations. MBSR can increase coping skills for pain conditions such as low back pain, multiple sclerosis, and rheumatoid arthritis. MBSR may also decrease pain intensity and fatigue, and improve sleep quality and overall physical functioning.

- **Physical** (e.g., massage, spinal manipulation)
- **Combinations such as psychological and physical** (e.g., yoga, tai chi, acupuncture, or relaxation techniques) or psychological and nutritional (e.g., mindful eating)
  - **Yoga** is a mind-and-body practice rooted in ancient Hindu culture. It incorporates stretching, breathing, and meditation. Yoga is therapeutic for several chronic pain conditions, including back pain. There have been some reports of increased pain with yoga, but it is generally considered safe, especially when done in a group setting.

- **Tai chi** is a Chinese martial art which balances the forces of yin and yang through slow movements and meditation. It strengthens the core muscles and has long-term benefits for individuals with chronic pain due to osteoarthritis and other musculoskeletal conditions. Tai chi is safe and can be done in a group setting or through guided video instruction.

- **Acupuncture**, an ancient Chinese medical practice, involves inserting fine needles into the skin to address health issues. These needles can be manipulated manually or stimulated with electrical currents (electroacupuncture). Originating from traditional Chinese medicine over 2,500 years ago, acupuncture has gained global popularity since the 1970s. It is commonly used for pain management, including back, joint, and neck pain. Research suggests its effectiveness for various pain conditions, such as osteoarthritis-related knee pain and postoperative discomfort. Additionally, acupuncture may alleviate joint pain that is associated with the use of aromatase inhibitors in breast cancer patients (National Center for Complementary and Integrative Health, 2022).

- The National Center for Complementary and Integrative Health (2022) describes relaxation techniques as practices that helps bring about the body's "relaxation response," which is characterized by slower breathing, lower blood pressure, and a reduced heart rate. The relaxation response is the opposite of the stress response.

  Different types of relaxation techniques include:

  - **Progressive Relaxation:** Also called progressive muscle relaxation, it entails deliberately tensing various muscles in the body and subsequently releasing the tension.

- **Autogenic Training:** Through a series of mental exercises involving relaxation and ideas that an individual suggests to themselves (autosuggestion). Making the suggestions allows the individual to focus on their body's relaxation experience.
- **Guided Imagery or "Visualization":** Involves creating mental images of objects, scenes, or events associated with relaxation or calmness. The goal is to evoke a similar soothing feeling within your body.. Visualization involves imagining a peaceful scene or positive outcome.
- **Biofeedback-Assisted Relaxation:** An individual learns how to recognize and manage how their body responds through feedback usually provided by an electronic device. The electronic device lets them see how their blood pressure, heart rate, or muscle tension changes when feeling stressed or relaxed. Biofeedback helps people learn to control physiological responses (e.g., muscle tension).
- **Self-Hypnosis:** During self-hypnosis programs, people learn to produce a relaxation response when prompted by a phrase or nonverbal cue (called a "suggestion") that they create.
- **Breathing Exercises:** For breathing exercises, an individual might focus on taking slow, deep breaths, which is also called diaphragmatic breathing.
- **Distraction and Engaging Activities:** Engage in activities that bring enjoyment in order to divert attention away from the pain. Some examples include reading, listening to music, or watching movies.

- **Social Support:** Connect with friends, family, or support groups. Social interactions can provide emotional relief and reduce feelings of isolation.
- **Pacing and Rest:** Break tasks into smaller segments to avoid overexertion. Balance activity with rest.
- **Positive Self-Talk:** Challenge negative thoughts related to pain. Replace them with positive affirmations.
- **Maintain a Pain Diary:** Track pain levels, triggers, and coping strategies. Adjust as needed.

Other complementary therapies can include:

- Energy therapies
- Animal-assisted therapy
- Aromatherapy
- Temperature therapies, including heat and cold compresses
- Cannabidiol (CBD)
- Traditional healers
- Ayurvedic medicine
- Traditional Chinese medicine
- Homeopathy
- Naturopathy

Section 6: The Psychologists Role

Psychologists provide essential services to patients living with pain. They are crucial in a multidisciplinary team approach to care that is effective when working with clients. Psychologists understand the holistic nature of treating clients and fo cus on the physical, emotional, spiritual, and cognitive factors. They understand the psychosocial variables that have a central role in pain management.

Interventions

Specific interventions for working with patients include:

Assessment and Collaboration

- Conduct comprehensive assessments to understand the pain experience, including its intensity, location, duration, and impact on daily life.
- Collaborate with healthcare professionals, psychologists, and other specialists to create a multidisciplinary care plan.
- Contribute to the care plan using a shared decision-making model that considers evidence-based clinical practices and aligns with the client's goals and values.
- Complete thorough screenings and assessments to assess the risk of opioid use disorder and identify the need for additional addiction support.

Psychoeducation

- Educate clients about chronic pain, its causes, and potential treatments.
- Help clients manage expectations and cope with the emotional aspects of pain.

Advocacy and Empowerment

- Advocate for pain management resources, such as physical therapy, occupational therapy, and pain clinics.
- Apply a humanistic approach to honor subjective experiences and apply a strengths-based perspective.
- Empower clients to actively participate in their pain management by setting realistic goals.

Social Support and Coping Strategies

- Provide effective care coordination and ongoing follow-up for individuals with pain comorbidities and high social needs. These factors can create barriers to accessing care
- Encourage patients to build a support network of family, friends, and community resources.
- Teach coping skills, stress reduction techniques, and mindfulness practices.

Addressing Social Determinants of Health

- Recognize that poverty, housing instability, and food insecurity can exacerbate pain.
- Connect patients with social services and resources to address these determinants.

Trauma-Informed Care

- Understand that chronic pain may be linked to past trauma.
- Approach clients with empathy, sensitivity, and trauma-informed practices.

Remember, each individual's experience of chronic pain is unique, so psychologists need to tailor their interventions to meet specific t reatment goals.

Ethics

Ethics in pain management is a critical aspect of psychological practice, given the profound impact that chronic pain has on an individual's physical, emotional, and psychological interventions, thus necessitating a deep understanding of ethical considerations to ensure patient-centered care. Ethical principles such as autonomy, beneficence, non-malefiance, and justice guide psychologists in navigating complex treatment option, and potential outcomes. Beneficence and non-maleficence require psychologists to recommend interventions that are evidence-based and to avoid treatments that may cause more harm than good. The ethical principle of justice emphasizes equitable access to pain management resources, addressing disparities in care that may arise due to socio-economic factors.

Moreover, psychologists must be vigilant about potential ethical dilemmas, such as managing confidentiality within their interdisciplinary teams, and being cautious of dual relationships that course impair their objectivity. As pain management often intersects with opioid use, psychologists are also faced with ethical challenges surrounding opioid dependency, advocating for balanced approaches that consider both psychological and physiological aspects of pain. The integration of ethical standards is essential for promoting trust, safeguarding patient welfare, an ensuring the delivery of effective, compassionate care.

Ethical Dilemmas

Psychologists encounter several ethical dilemmas in pain management. Here are some key challenges:

Undertreatment of Pain

- Balancing pain relief with concerns about opioid misuse or addiction.
- Promoting effective pain management while safeguarding patient well-being.

End-of-Life Pain Management

- Navigating complex decisions about pain relief for terminally ill patients.
- Ensuring comfort and dignity while respecting patient autonomy.

Elderly Patients

- Addressing age-related biases and stereotypes.
- Advocating for effective pain management in older adults.

Resource Allocation

- Allocating limited resources (e.g., medications, therapies) equitably.
- Balancing individual expectations with community resource availability

Cultural Competence

- Understanding diverse cultural beliefs about pain.
- Delivering care that respects cultural preferences while maintaining evidence-based practices.

Culture and Diversity Factors

Cultural factors significantly influence how individuals perceive, express, and manage pain. These factors encompass beliefs, values, practices, and social norms. Cultural beliefs about the meaning and significance of pain can affect perceptions and coping mechanisms. For instance, in some cultures, stoicism is valued, leading individuals to underreport pain. Cultural norms can determine whether people express pain openly or suppress it, impacting their willingness to seek medical assistance. Additionally, different cultures have distinct ways of expressing pain and distress through both verbal and non-verbal cues. Cultural practices like meditation, prayer, or traditional healing techniques may also affect pain tolerance. Furthermore, cultural differences can influence the treatment approaches for acute and chronic pain.

Health Disparities

There are health disparities that persist among racial and ethnic groups, including African Americans, Latinos, American Indians, and Alaska Natives. To mitigate these disparities, a comprehensive approach is essential to include:

Holistic Care Continuum

- Recognize that health disparities result from complex interactions between psychosocial and health factors.
- Implement a continuum of care that spans prevention, diagnosis, treatment, and follow-up.
- Facilitate the effective communication between patients and healthcare providers.

Culturally Competent Services

- Develop intervention programs that are culturally and linguistically appropriate.
- Review services to meet the unique needs of specific consumer populations.
- Address cultural beliefs, practices, and preferences to enhance engagement and outcomes.

Racial and ethnic disparities in their health and health care persist in the United States, reflecting longstanding structural and systemic inequities rooted in historical racism and discrimination (Ndugga et al., 2024). Here are some key points:

Health Coverage Disparities

- Despite improvements over time, nonelderly American Indian or Alaska Native (AIAN), Hispanic, Native Hawaiian, or Pacific Islander (NHPI), and Black individuals remain more likely to be uninsured compared to White individuals.
- Access to health coverage remains unequal across racial and ethnic groups.

Health Care Quality Disparities

- Racial and ethnic minority groups can experience disparities in both access to care and healthcare quality.
- These disparities include the effectiveness of treatment, timeliness, patient safety, and preventive screening.

Social Determinants of Health

- Beyond access to healthcare, broader social and economic factors called social determinants of health play a significant role.

- Social factors such as economic status, education, neighborhood environment, and provider bias contribute to health disparities.

Ongoing Efforts

- Ongoing efforts are underway to reduce or eliminate racial and ethnic healthcare disparities.
- Addressing social determinants and promoting equity are essential steps toward achieving better health outcomes for all.

To tackle health disparities, there needs to be a vast, comprehensive approach that involves policy reforms, community engagement, and cultural competence in healthcare delivery. Addressing health inequities takes a community approach. Steps to promote awareness and education about health inequities:

Community Education and Awareness

- Educating community members about health disparities, social determinants of health, and the experience of systemic racism is crucial.
- Raising awareness helps empower individuals to advocate for change.

Access to Resources

- Communities can create or enhance access to healthcare facilities, nutritious food, mental health services, and safe recreational spaces.
- Collaborating with local organizations and government agencies can improve resource availability.

Promoting Health Literacy

- Community programs can focus on health literacy, ensuring that residents understand preventive measures, treatment options, and available services.

- Clear communication and culturally sensitive materials are essential.

Addressing Social Determinants

- Communities can work to reduce disparities related to housing, education, employment, and income.
- Advocacy for policies that address these determinants is essential.

Community-Based Interventions

- By engaging community members in designing and implementing health programs can lead to more effective interventions.
- Tailoring solutions to local needs fosters ownership and sustainability.

Advocacy and Policy Change

- Community members can advocate for policies that promote equity, such as affordable healthcare, anti-discrimination laws, and improved social services.
- Grassroots efforts can drive systemic change. Often, grassroots efforts are driven by social workers.

By integrating psychosocial and health considerations and providing culturally sensitive services, psychologists can work toward reducing health disparities acr oss diverse communities. Collective action at the community level contributes significantly to reducing health inequities.

Section 7: Conclusion

What is known about pain today is increasingly complex. The physical and psychological elements of pain create psychological responses that are becoming

more researched. Psychologically, it is debatable whether depressive symptoms are a consequence of the feelings from coping with pain or if depression is the result of chronic pain. Therefore, patients' preferences, cultural factors, and beliefs must be acknowledged when discussing treatment options fo
r pain. Psychologists benefit from learning about pain because it equips them to assess and advocate for critical patient care. The benefits o
f understanding the multi- dimensional aspects of pain help psychologists collabo
rate with other professionals to provide holistic support. Psychologists are integ
ral in providing dire ct services or referrals for resources in pain management.

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