THERAPIST MANUAL

CCPM-PHYSIOTHERAPY PRACTICE PROTOCOL

THERAPIST MANUAL

CONTENT

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1. Chronic musculoskeletal pain (CMP)

Pain is one of the most burdensome problems of recent time which demands intervention and challenges the health care system. In clinical practice, many consider persistent or recurrent pain for ≥3 months to be a useful definition of the musculoskeletal pain. The new international classification of diseases (ICD-11) categorization identifies chronic musculoskeletal pain in two forms (CMP), the primary and secondary. CMP conditions are multifaceted, and approximately 20% of the adult population lives with severe chronic pain with higher prevalence in women and in lower income groups. Chronic pain is influenced by and interacts with physical, emotional, psychological, and social factors, and a bio psychosocial framework is increasingly applied in clinical practice. Chronic musculoskeletal pain is the main contributor to increased suffering in daily activities, drug consumption and disability leading to more health cost worldwide.

Summary of common problems in musculoskeletal(MSK) pain care according to Lin I et al.,2020 are:

Overuse of imaging: between 25% and 42% of patients with low back pain (LBP) undergo imaging even though its routine use is discouraged and associated with harms. Sixtynine per cent of general practitioners would refer patients for radiography at first presentation of rotator cuff tendinopathy and 82% would refer for ultrasound, despite findings demonstrating a poor relationship of imaging findings with symptoms.

Overuse of surgery: knee arthroscopy for knee osteoarthritis is not recommended, yet its rate of use in the general US population increased from 3% to 4% from 2006 to 2010. The rates of shoulder subacromial decompression and rotator cuff repair have increased markedly even though surgical outcomes are comparable with exercise-based rehabilitation or sham surgery.

Overuse of opioids: the efficacy of opioids for MSK pain management is questionable for both chronic and acute MSK pain conditions. The early use of opioids has been associated with poorer outcomes in LBP care. Although limiting the use of opioids is recommended, there is increasing use and an 'epidemic' of prescription opioidrelated harms.

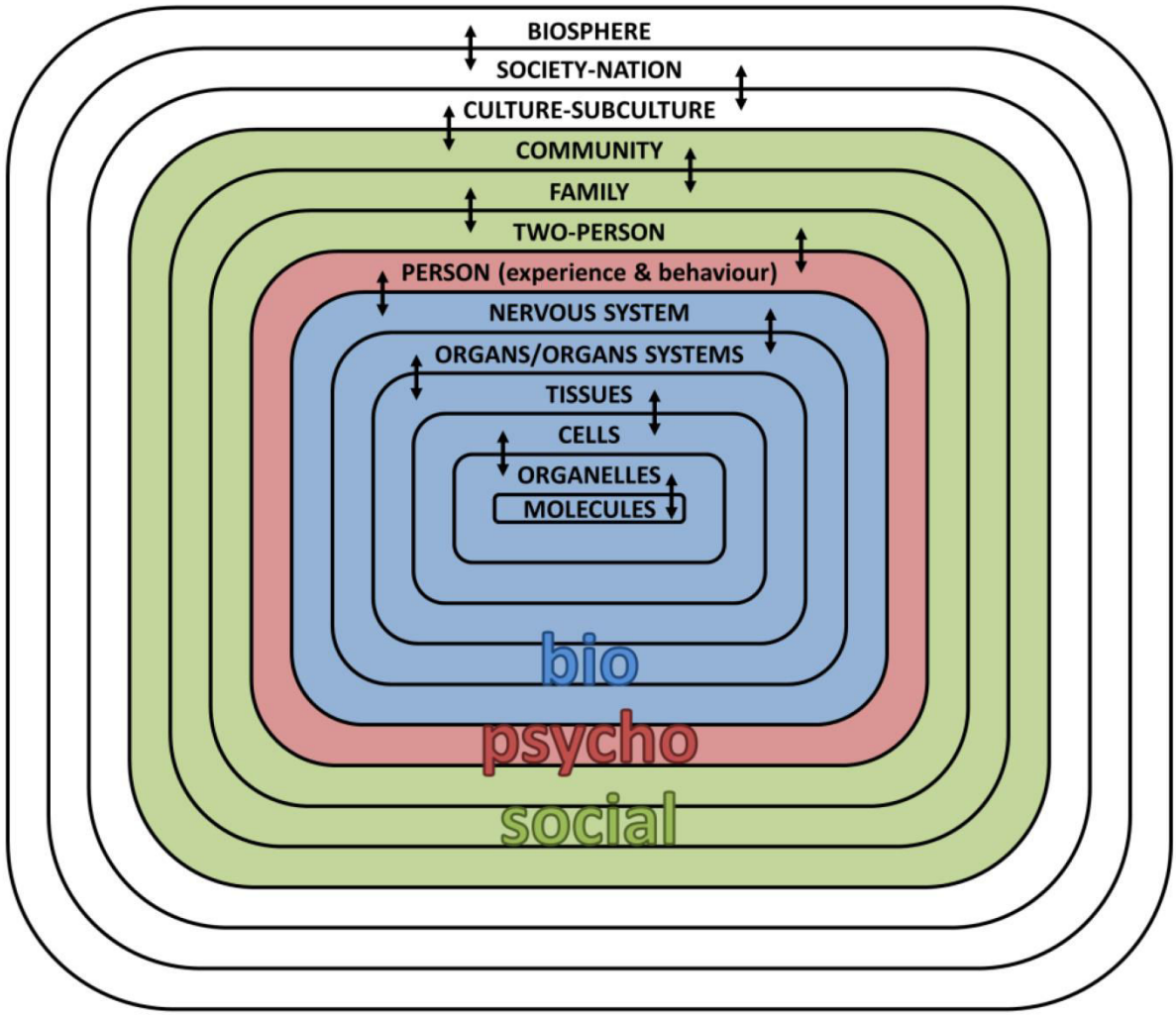
Failure to provide education and advice: these are cornerstones of managing MSK pain conditions, yet only 20% of patients with LBP were given advice and education in a primary care setting.

2. The Bio psychosocial Approach

The bio psychosocial approach was developed at Rochester decades ago by Drs. George Engel and John Romano. While traditional biomedical models of clinical medicine focus on path physiology and other biological approaches to disease, the biopsychosocial approach in our training programs emphasize the importance of understanding human health and illness in their fullest contexts. The biopsychosocial approach systematically considers biological, psychological, and social factors and their complex interactions in understanding health, illness, and health care delivery.The biological component of the model includes factors such as genetics, physiology, and the functioning of various organ systems in the body. The psychological component includes a person's thoughts, emotions, behaviors, and mental

processes. The social component encompasses the impact of cultural, societal, and environmental factors on a person's health and well-being.

According to the bio psychosocial model, health and illness are not solely determined by biological factors but are also influenced by psychological and social factors. For example, a person's mental state and emotional well-being can impact their physical health and vice versa. Similarly, social factors such as poverty, education level, and social support can also have a significant impact on a person's health outcomes. The bio psychosocial model has been widely accepted in healthcare and has helped to shape the way that healthcare professionals approach patient care. It highlights the importance of taking a holistic approach to healthcare, addressing all three components of the model in order to promote optimal health and well-being.



Engel GL: The clinical application of the bio psychosocial model. Am J Psychiatry 1980;137:535-544.

While the biomedical approach takes the reductionist view that all phenomena are best understood at the lowest level of natural systems (e.g., cellular or molecular), the bio psychosocial approach involves the application of the scientific method to diverse biological, psychological, and social phenomena as related to human health as humanistic qualities are highly valued complements.

The bio psychosocial approach to clinical practice insists to:

- Recognize that **relationships are central** to providing health care
- Use **self-awareness** as a diagnostic and therapeutic tool
- Elicit the patient's history in the context **of life circumstances**
- Decide which aspects of **biological, psychological, and social domains** are most important to understanding and promoting the patient's health
- Provide **multidimensional treatment**

References

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3. CMP Management

Chronic musculoskeletal pain management is a complex and multi-disciplinary approach that involves various healthcare professionals to alleviate pain, improve function and enhance quality of life. Effective management of CMP typically requires a multimodal approach that addresses both the physical and psychological aspects of pain It is important to note that chronic musculoskeletal pain management is often a trial-and-error process, as what works for one person may not work for another. A multi-disciplinary approach that considers a patient's unique needs and circumstances is essential for successful pain management. It's also essential to work closely with a healthcare provider to develop a personalized treatment plan and to monitor progress over time.

Consistent recommendations across musculoskeletal (MSK) pain conditions according to Lin I et al.,2020 are:

1. Care should be patient centered. This includes care that responds to the individual context of the patient, employs effective communication and uses shared decision-making processes.
2. Screen patients to identify those with a higher likelihood of serious pathology/red flag conditions.

3. Assess psychosocial factors.
4. Radiological imaging is discouraged unless: i. Serious pathology is suspected. ii. There has been an unsatisfactory response to conservative care or unexplained progression of signs and symptoms. iii. It is likely to change management.
5. Undertake a physical examination, which could include neurological screening tests, assessment of mobility and/or muscle strength.
6. Patient progress should be evaluated including the use of outcome measures.
7. Provide patients with education/information about their condition and management options.
8. Provide management addressing physical activity and/or exercise.
9. Apply manual therapy only as an adjunct to other evidencebased treatments.
10. Unless specifically indicated (e.g. red flag condition), offer evidence-informed non-surgical care prior to surgery.
11. Facilitate continuation or resumption of work

4. Neuro physiological pain education in CMP management

Pain neuroscience education (PNE) is increasingly used as part of a physio therapy treatment in patients with chronic pain. A thorough clinical biopsychosocial assessment is recommended prior to PNE to allow proper explanation of the neurophysiology of pain and the biopsychosocial interactions in an interactive and patient-centered manner. Neurophysiological pain education is a cognitive-behavioral intervention that provides education in pain neurophysiology to change maladaptive illness beliefs, to alter maladaptive pain cognition and to re-conceptualize beliefs about pain. has different formats ranging from intensive one-on-one, small group tutorial type sessions to large group seminars lasting up to three hours. A study in a primary care physiotherapy centre in Switzerland intended to assess the adherence and the feasibility of the PNE sessions in the treatment found to be feasible and significantly reduces pain. Explaining pain is grounded in conceptual change and instructional design theory. It increases knowledge of pain-related biology, decreases catastrophizing, and imparts short-term reductions in pain and disability. It presents the biological information that justifies a bio-psychosocial (BPS) approach to rehabilitation. The topics that may be covered in neurophysiological pain education are:

Understanding how pain signals are transmitted and processed in the nervous system, including the role of sensory neurons, spinal cord, and brain.

Explaining how pain signals can become amplified or sensitized, leading to increased pain perception and intensity.

Understanding the distinction between acute and chronic pain

The concept of pain as a protective mechanism

Discussing the role of the brain in processing pain signals, including the areas of the brain involved in pain perception, emotion, and cognition.

Explaining the relationship between stress and pain, including the impact of stress on the nervous system and the potential for stress to amplify pain signals

Discussing the impact of beliefs and attitudes about pain on pain perception, including the role of catastrophizing and negative self-talk

The role of medication and other treatments in pain management

Strategies for managing pain, such as mindfulness meditation and cognitive-behavioral therapy

Metaphors can be a helpful way to explain complex concepts in neurophysiologic pain education. Here are some examples of metaphors that may be used in this type of pain education:

Alarm system metaphor: Pain can be compared to an alarm system that is designed to protect the body. When the alarm goes off, it means that there is a potential threat or danger to the body. However, sometimes the alarm system can become too sensitive, and it can trigger pain signals even when there is no actual threat to the body.

Volume Control: Pain perception can be compared to a volume control of a stereo that can be turned up or down. Likewise the perception of pain can be influenced by factors such as stress, anxiety, and attention. By learning to manage these factors, individuals can turn down the "volume" on their pain.

Car warning sign metaphor: Pain can be compared to a warning sign on the dashboard of a car. Just like a warning light on the dashboard indicates that something is wrong with the car, pain can indicate that something is wrong with the body. However, just like the warning light can sometimes be triggered by a faulty sensor, pain can sometimes be triggered by factors that are not necessarily harmful to the body.

Pain as a smoke detector metaphor: Pain can be compared to a smoke detector in a house. Just like a smoke detector alerts us to the presence of smoke, pain alerts us to the presence of potential danger or damage to the body. However, just like a smoke detector can sometimes be triggered by a burnt piece of toast, pain can sometimes be triggered by factors that are not necessarily harmful to the body

Pain fallacies are common misconceptions or misunderstandings about pain that can affect how individuals perceive and manage their pain. Pain fallacies are beliefs or assumptions about pain that are not supported by scientific evidence.

Pain always indicates tissue damage: Pain can also be caused by changes in the nervous system or by psychological factors such as stress and anxiety. For example, chronic pain conditions such as fibromyalgia and chronic back pain are not always associated with tissue damage, but are believed to involve changes in the way the nervous system processes pain signals.

Pain is always proportional to the degree of tissue damage: Studies have shown that the intensity of pain does not always correspond to the severity of tissue damage. For example, people who have experienced amputations can sometimes continue to feel pain in the missing limb, even though there is no longer any tissue damage (phantom limb pain)

Pain is always localized to the site of injury: Referred pain, where pain is felt in areas of the body that are not directly related to the site of injury, is a well-documented phenomenon. For example, people with heart disease may experience pain in their arm or jaw, even though the problem is in their heart.

Pain always has a specific cause: Idiopathic pain, where pain occurs without a clear cause or trigger, is a recognized condition. In some cases, the underlying cause of idiopathic pain may be related to changes in the nervous system or psychological factors.

Pain always responds to medication: While pain medications can be effective in managing pain for some people, not everyone responds to them, and some people may experience unwanted side effects or risks. Additionally, non-pharmacological treatments such as exercise, physical therapy, and cognitive-behavioral therapy have also been shown to be effective in managing chronic pain.

"No pain, no gain": This fallacy suggests that pain is a necessary part of the healing process and that individuals should push through pain to achieve their goals. However, pushing through pain can actually make pain worse and delay healing.

"Pain is all in your head": This fallacy suggests that pain is not a real physical sensation, but rather a psychological or emotional experience. However, pain is a complex and multifactorial experience that involves both physical and psychological factors.

"Pain is a sign of weakness": This fallacy suggests that experiencing pain is a sign of weakness or a lack of resilience. However, pain is a normal and natural response to injury or damage, and experiencing pain does not indicate weakness.

"Pain will go away on its own": This fallacy suggests that pain will always resolve on its own without any intervention. However, chronic pain can persist even after the initial injury or damage has healed, and may require treatment to manage.

Cognitive behavioural approach in CMP management

Cognitive Behavioural approach is one form of psychological therapy. Many studies have proven that Cognitive Behavioural approach to treat chronic pain patients can improve function and quality of life. CBT for chronic pain can be delivered in individual or group therapy sessions and may be combined with other treatments such as medication, physical therapy, or mindfulness-based

therapies It mainly focuses on helping the patient to become their own therapist. The therapist will guide them to practice throughout the session and ask them to develop coping skills outside the sessions. The main principle idea of this technique is our thoughts, emotions, and actions are connected. This statement means that what we feel and think will influence our actions.

CBT for chronic pain typically involves several components. These may include:

Education: Learning about the physiological, psychological, and social aspects of pain can help patients understand the mechanisms behind their pain and how it affects their lives. The therapist will educate the patient about the nature of chronic pain, including how pain signals are processed by the brain and how psychological factors can influence pain perception.

Cognitive restructuring: This may involve challenging negative or unhelpful thoughts about pain and replacing them with more positive or realistic ones. The therapist will help the patient identify and challenge negative thoughts and beliefs about pain, such as catastrophizing (e.g., "This pain will never go away") or overgeneralizing (e.g., "I can't do anything because of my pain").

Behavioral activation: The therapist will encourage the patient to engage in pleasurable and meaningful activities, even if they are limited by pain. This can help improve mood and overall functioning

Relaxation techniques: Learning relaxation techniques such as deep breathing, meditation, or progressive muscle relaxation can help patients manage their pain and reduce stress and anxiety.

Developing coping strategies: The therapist will work with the patient to develop coping strategies to manage pain-related distress, such as relaxation techniques, distraction, and activity pacing (i.e., breaking activities into smaller, more manageable steps).

Goal setting: The therapist will work with the patient to set goals that are meaningful and achievable, such as returning to work or engaging in social activities.

Graded exposure: Gradually increasing the level of activity or movement that causes pain can help patients overcome fear and avoidance of activities that they find painful.

5. Self management strategies in CMP management

A person-centred approach that focuses on self-management and a healthy lifestyle is important to restore and maintain function, to improve participation in the long term, and to provide a management

plan instead of a cure. A majority of the guidelines and recommendations include use of a biopsychosocial framework to guide management including education that supports self-management and resumption of normal activities and exercise, and psychological programmes for those with persistent symptoms.ensure promotion of activity and function, including work participation Strong focus was also placed on addressing patients' biopsychosocial needs. Patient education usually involves clinicians providing disease-specific information, teaching specific disease-related information, and contingency planning. Self-management support focuses on teaching skills that can be generalized and that patients can use to manage their own health conditions independently)The most effective actions to support self-management include providing self- management support for individuals with specific conditions that is integrated into routine health care and interactive online self-management programs. Programs with individual sessions or in a clinical setting might improve adherence. With their expertise in musculoskeletal disorders and the duration of patient contact, physical therapists are ideally positioned to support people with persistent musculoskeletal disorders in their self-management

These strategies focus on empowering individuals with chronic pain to take an active role in managing their pain and improving their quality of life. Some self-management strategies for chronic pain are:

Mindfulness Meditation: Mindfulness meditation involves focusing on the present moment and observing thoughts and feelings without judgment. It has been shown to be effective in reducing the intensity of pain and improving coping with chronic pain

Sleep hygiene: Getting enough sleep is important for managing chronic pain, so establishing good sleep habits can be helpful. This includes things like setting a regular sleep schedule, avoiding caffeine and alcohol before bed, and creating a comfortable sleep environment.

Nutrition: Eating a healthy diet can help to reduce inflammation and improve overall health, which can have a positive impact on pain.

Social support: Connecting with others who understand the challenges of chronic pain can provide emotional support and validation, which can be important for coping with pain.

Mind-body therapies: Practices like Relaxation, yoga, and tai chi can help to reduce pain and improve overall well-being.

Exercise and physical activity: Exercise can help to strengthen muscles, improve flexibility, and reduce pain. Low-impact activities like walking, swimming, and cycling can be especially helpful.

Education: Learning about the causes and mechanisms of pain can help individuals understand how pain works and how to manage it effectively.

Self-monitoring: Keeping a pain diary can help individuals track their pain levels, identify triggers, and monitor the effectiveness of different pain management strategies.

6. Comprehensive Chronic musculoskeletal pain management (CCPM) physiotherapy practice protocol

SESSIONS	Education/self management - PROGRAM	Assessment measures	Content of the program	Mode
Session 1	Introduction to CCPM intervention protocol	SUDS, NPQ scoring, Clinical interview form	Mechanism of pain and its effects	PPT presentation
Session 2	Neuro-physiological education	PHQ	BPS Model, Chronic pain cycle	PPT presentation
Session 3	Neuro-physiological education	WHO-BREF QoL	Neuroplasticity, peripheral and central sensitisation	PPT presentation
Session 4	Neuro-physiological education	NPQ scoring, NPRS	summarize NPE ,feed back, discussion METOPHORS	Interactive session with patient
Session 5	Goal setting	Assessment feedback	SMART	Interactive session to find individual specific goal
Session 6	Pacing principles for exercise/ Body	SUDS Walking log	Chronic pain cycle-Overactivity/under activity Hurt Vs Harm	Interactive session to set the goal
Session 7	Relaxation	Relaxation Practice Log	Breathing exercises, progressive muscle relaxation	Demonstration
Session 8	Pleasant activities scheduling	Pleasant activities list, schedule	Guided imagery	Demonstration/ Interactive session with patient
Session 9	Unhelpful thought modification/action plans/Mind	Identification of Automatic thoughts	CBT modeling For chronic pain, Automatic	Interactive session with patient

			negative thoughts identification	
Session 10	Unhelpful thought modification/action plans/Mind	SUDS NPRS	Challenging automatic negative thoughts and coping	Interactive session with patient
Session 11	Distress management/coping skills development/ Emotion	Distress scale	DBT Distress Tolerance Skills: Tip Skill, Stop Skill, and More	Interactive session with patient
Session 12	Sleep	Sleep diary NPRS	Sleep hygiene Instruction Print outs	Interactive session with patient
Session 13	Lifestyle/ Self management	Lifestyle log- weekly activities schedule	Lifestyle- Instruction Print outs	Interactive session with patient
Session 14	Self management	SUDS, Pain self management strategies wheel	Self management INSTRUCTIONS	Interactive session with patients
Session 15	Revision-1/Feedback(1-7 sessions)	GROC, PHQ' WHO-BREF QoL	Group gathering-connecting to other patients	Interactive session with/among patients
Session 16	Revision-2/Feedback(8-14 sessions)	SAPS, Distress scale Implementation outcome measures	-	Interactive session with patients

7. Questionnaires used with scoring instruction and Interpretation

THE CENTRAL SENSITIZATION INVENTORY (CSI)

CSI Inventory (Part A)

Name _____ Date _____

Please circle the best response to the right of each statement.
Key for Scoring: **Never = 0, Rarely = 1, Sometimes = 2, Often = 3, Always = 4**

1. I feel tired and unrefreshed when I wake from sleeping.	Never	Rarely	Sometimes	Often	Always
2. My muscles feel stiff and achy.	Never	Rarely	Sometimes	Often	Always
3. I have anxiety attacks.	Never	Rarely	Sometimes	Often	Always
4. I grind or clench my teeth.	Never	Rarely	Sometimes	Often	Always
5. I have problems with diarrhea and/or constipation.	Never	Rarely	Sometimes	Often	Always
6. I need help in performing my daily activities.	Never	Rarely	Sometimes	Often	Always
7. I am sensitive to bright lights.	Never	Rarely	Sometimes	Often	Always
8. I get tired very easily when I am physically active.	Never	Rarely	Sometimes	Often	Always
9. I feel pain all over my body.	Never	Rarely	Sometimes	Often	Always
10. I have headaches.	Never	Rarely	Sometimes	Often	Always
11. I feel discomfort in my bladder and/ or burning when I urinate.	Never	Rarely	Sometimes	Often	Always
12. I do not sleep well.	Never	Rarely	Sometimes	Often	Always
13. I have difficulty concentrating.	Never	Rarely	Sometimes	Often	Always
14. I have skin problems such as dryness, itchiness, or rashes.	Never	Rarely	Sometimes	Often	Always
15. Stress makes my physical symptoms get worse.	Never	Rarely	Sometimes	Often	Always
16. I feel sad or depressed.	Never	Rarely	Sometimes	Often	Always
17. I have low energy.	Never	Rarely	Sometimes	Often	Always
18. I have muscle tension in my neck and shoulders.	Never	Rarely	Sometimes	Often	Always
19. I have pain in my jaw.	Never	Rarely	Sometimes	Often	Always
20. Certain smells, such as perfumes, make me feel dizzy and nauseated.	Never	Rarely	Sometimes	Often	Always
21. I have to urinate frequently.	Never	Rarely	Sometimes	Often	Always
22. My legs feel uncomfortable and restless when I am trying to go to sleep at night.	Never	Rarely	Sometimes	Often	Always
23. I have difficulty remembering things.	Never	Rarely	Sometimes	Often	Always
24. I suffered trauma as a child.	Never	Rarely	Sometimes	Often	Always
25. I have pain in my pelvic area.	Never	Rarely	Sometimes	Often	Always
Total Each Column					
			Overall Total		

(Mayer TG& Neblett R 2012)

THE CENTRAL SENSITIZATION INVENTORY (CSI)

How can you determine how much Central Sensitization phenomenon (CSP) is contributing to someone's pain? The Central Sensitization Inventory (CSI) may be used to determine severity of CSP. The CSI consists of 25 questions and may be self-administered. Each question may be answered as follows: Never (0 points), Rarely (1 point), Sometimes (2 points), Often (3 points), or Always (4 points). Total points reflect the severity of the CSP. Following is a breakdown of score ranges and the intensity of CSP they represent.

Subclinical: 0 to 29 Mild: 30 to 39 Moderate: 40 to 49 Severe: 50 to 59 Extreme: 60 to 100

FACS

Name:_____ ID #:_____ Date: ____/____/_____

Instructions: People respond to pain in different ways. We want to find out how you think and feel about your painful medical condition and how it has affected your activity level. Please think about how you have been over the past week, and circle one number between "0" and "5" from the scale below to answer each question.

5 = Completely Agree

4 = Mostly Agree

3 = Slightly Agree

2 = Slightly Disagree

1 = Mostly Disagree

0 = Completely Disagree

Over the past week, how much do you agree with these statements about your painful medical condition?	*Completely Agree*	*Mostly Agree*	*Slightly Agree*	*Slightly Disagree*	*Mostly Disagree*	*Completely Disagree*
1) I try to avoid activities and movements that make my pain worse……	5	4	3	2	1	0
2) I worry about my painful medical condition……	5	4	3	2	1	0
3) I believe that my pain will keep getting worse until I won't be able to function at all……	5	4	3	2	1	0
4) I am overwhelmed by fear when I think about my painful medical condition……	5	4	3	2	1	0
5) I don't attempt certain activities because I am fearful that I will injure (or re-injure) myself……..……	5	4	3	2	1	0
6) When my pain is really bad, I also have other symptoms such as nausea, difficulty breathing, heart pounding, trembling, and /or dizziness…..……..……	5	4	3	2	1	0
7) It is unfair that I have to live with my painful medical condition…….……..	5	4	3	2	1	0
8) My painful medical condition puts me at risk for future injuries (or re-injuries) for the rest of my life.……..…	5	4	3	2	1	0

Version 8, Rev. 1/30/2014

Continue…..

Over the past week, how much do you agree with these statements about your painful medical condition?	Completely Agree	Mostly Agree	Slightly Agree	Slightly Disagree	Mostly Disagree	Completely Disagree
9) Because of my painful medical condition, my life will never be the same……	5	4	3	2	1	0
10) I have no control over my pain……	5	4	3	2	1	0
11) I don't attempt certain activities and movements because I am fearful that my pain will increase……..……..	5	4	3	2	1	0
12) It is someone else's fault that I have this painful medical condition……...	5	4	3	2	1	0
13) The pain from my medical condition is a warning signal that something is dangerously wrong with me……...	5	4	3	2	1	0
14) No one understands how severe my painful medical condition is……..	5	4	3	2	1	0

Start each of the following items with this statement: Over the past week, due to my painful medical condition I have avoided the following…	Completely Agree	Mostly Agree	Slightly Agree	Slightly Disagree	Mostly Disagree	Completely Disagree
15) ...strenuous activities (like doing heavy yard work or moving heavy furniture)……..……	5	4	3	2	1	0
16) ...moderate activities (like cooking dinner or cleaning the house)……	5	4	3	2	1	0
17) ...light activities (like going to the movies or going out to lunch)…….……..	5	4	3	2	1	0
18) ...my full duties and chores at home and/or at work……..	5	4	3	2	1	0
19) ...recreation and/or exercise (things that I do for fun and good health)…….	5	4	3	2	1	0
20) ...activities where I have to use my painful body part(s)…	5	4	3	2	1	0

Total Score: _____

Version 8, Rev. 1/30/2014

(Mayer TG& Neblett R 2017)

PAIN SELF-EFFICACY QUESTIONNAIRE – TWO ITEM SHORT FORM (PSEQ-2)

Please rate how confident you are that you can do the following things at present, despite the pain. To indicate your answer circle one of the numbers on the scale under each item, where 0 = not at all confident and 6 = completely confident.

Remember, this questionnaire is not asking whether or not you have been doing these things, but rather how confident you are that you can do them at present, despite the pain.

1. I can do some form of work, despite the pain ("work" includes housework, paid and unpaid work).	**0 1 2 3 4 5 6** **Not at all confident Completely confident**
2. I can live a normal lifestyle, despite the pain	**0 1 2 3 4 5 6** **Not at all confident Completely confident**

(Michael K Nicholas 2015)

Interpretation guide: A person with a score of 5 or less might be considered in need of help with their confidence in functioning in the presence of their pain. A score of 8 or higher reflects a desirable level of pain self-efficacy or confidence in functioning in the presence of pain

Pain Disability Questionnaire

Pain Disability Questionnaire

The Pain Disability Questionnaire is used in Chapter 3 Pain (6th ed, 43-44) and Chapter 17 Spine (6th ed, 599-600). The format provided utilizes a centimeter scale to score, however the size in the *Guides* does not correspond with the same scale. An alternative approach (illustrated below) provides easily administered and scored numerical scales.

Patient Name _____ Date _____

Instructions: These questions ask your views about how your pain now affects how you function in everyday activities. Please answer every question and mark the ONE number on EACH scale that best describes how you feel.

1. Does your pain interfere with your normal work inside and outside the home?
Work normally — Unable to work at all
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

2. Does your pain interfere with personal care (such as washing, dressing, etc)?
Take care of myself completely — Need help with all my personal care
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

3. Does your pain interfere with your traveling?
Travel anywhere I like — Only travel to see doctors
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

4. Does your pain affect your ability to sit or stand?
No problems — Cannot sit /stand at all
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

5. Does your pain affect your ability to lift overhead, grasp objects, or reach for things?
No problems — Cannot do at all
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

6. Does your pain affect your ability to lift objects off the floor, bend, stoop, or squat?
No problems — Cannot do at all
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

7. Does your pain affect your ability to walk or run?
No problems — Cannot walk/run at all
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

8. Has your income declined since your pain began?
No decline — Lost all income
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

9. Do you have to take pain medication every day to control your pain?
No medication needed — On pain medication throughout the day
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

10. Does your pain force you to see doctors much more often than before your pain began?
Never see doctors — See doctors weekly
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

11. Does your pain interfere with your ability to see the people who are important to you as much as you would like?
No problem — Never see them
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

12. Does your pain interfere with recreational activities and hobbies that are important to you?
No interference — Total interference
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

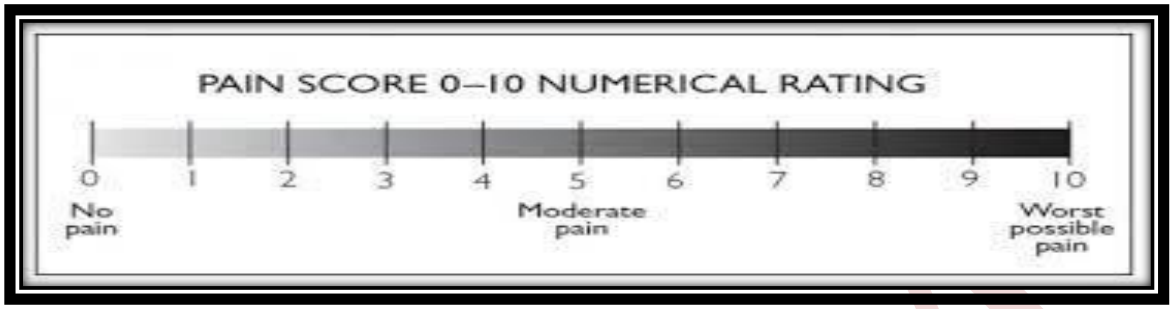
13. Do you need the help of your family and friends to complete everyday tasks (including both work outside the home and housework) because of your pain?
Never need help — Need help all the time
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

14. Do you now feel more depressed, tense, or anxious than before your pain began?
No depression/tension — Severe depression / tension
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

15. Are there emotional problems caused by your pain that interfere with your family, social and or work activities?
No problems — Severe problems
0 ------- 1 ------- 2 ------- 3 ------- 4 ------- 5 ------- 6 ------- 7 ------- 8 ------- 9 ------- 10

Anagnostis C, Gatchel RJ, Mayer TG. The Pain Disability Questionnaire: A New Psychometrically Sound Measure for Chronic Musculoskeletal Disorders. *Spine* 2004; 29 (20): 2290-2302.

NPRS



(Jensen &Macfarland 1993)

DISTRESS SCALE

Kessler Psychological Distress Scale (K10)

Please tick the answer that is correct for you:	All of the time (score 5)	Most of the time (score 4)	Some of the time (score 3)	A little of the time (score 2)	None of the time (score 1)
1. In the past 4 weeks, about how often did you feel tired out for no good reason?					
2. In the past 4 weeks, about how often did you feel nervous?					
3. In the past 4 weeks, about how often did you feel so nervous that nothing could calm you down?					
4. In the past 4 weeks, about how often did you feel hopeless?					
5. In the past 4 weeks, about how often did you feel restless or fidgety?					
6. In the past 4 weeks, about how often did you feel so restless you could not sit still?					
7. In the past 4 weeks, about how often did you feel depressed?					
8. In the past 4 weeks, about how often did you feel that everything was an effort?					
9. In the past 4 weeks, about how often did you feel so sad that nothing could cheer you up?					
10. In the past 4 weeks, about how often did you feel worthless?					

Source: Kessler RC, Barker PR, Colpe LJ, Epstein JF, Gfroerer JC, Hiripi E, et al. Screening for serious mental illness in the general population. *Arch Gen Psychiatry*. 2003 Feb;60(2):184-9.

The Kessler Psychological Distress Scale (K10) [1] is a simple measure of psychological distress. The K10 scale involves 10 questions about emotional states each with a five-level response scale. The measure can be used as a brief screen to identify levels of distress. The tool can be given to patients to complete, or alternatively the questions can be read to the patient by the practitioner.

In the context of injury management, the measure can be provided to the patient where recovery is not proceeding as anticipated (for instance, between weeks four and six), and may highlight the need for more regular review, or referral to a specialist health provider such as a psychologist.

Questions three and six do not need to be asked if the response to the preceding question was 'none of the time'. In such cases questions three and six should receive an automatic score of one.

Scoring instructions

Each item is scored from one 'none of the time' to five 'all of the time'. Scores of the 10 items are then summed, yielding a minimum score of 10 and a maximum score of 50. Low scores indicate low levels of psychological distress and high scores indicate high levels of psychological distress.

Interpretation of scores

The 2001 Victorian Population Health Survey [2] adopted a set of cut-off scores that may be used as a guide for screening for psychological distress. These are outlined below:

K10 Score: Likelihood of having a mental disorder (psychological distress)

- 10 - 19 Likely to be well
- 20 - 24 Likely to have a mild disorder
- 25 - 29 Likely to have a moderate disorder
- 30 - 50 Likely to have a severe disorder

Revised Neurophysiology of Pain Questionnaire		T	F	U
1	It is possible to have pain and not know about it.			
2	When part of your body is injured, special pain receptors convey the pain message to your brain.			
3	Pain only occurs when you are injured or at risk of being injured.			
4	When you are injured, special receptors convey the danger message to your spinal cord.			
5	Special nerves in your spinal cord convey 'danger' messages to your brain.			
6	Nerves adapt by increasing their resting level of excitement.			
7	Chronic pain means that an injury hasn't healed properly.			
8	The body tells the brain when it is in pain.			
9	Nerves adapt by making ion channels stay open longer.			
10	Descending neurons are always inhibitory.			
11	Pain occurs whenever you are injured.			
12	When you injure yourself, the environment that you are in will not affect the amount of pain you experience, as long as the injury is exactly the same.			
13	The brain decides when you will experience pain.			

(Catley et al. 2013)

Answers

Item		T	F	U
1	It is possible to have pain and not know about it.		#	
2	When part of your body is injured, special pain receptors convey the pain message to your brain.		#	
3	Pain only occurs when you are injured or at risk of being injured.		#	
4	Special nerves in your spinal cord convey 'danger' messages to your brain.	#		
5	When you are injured, special receptors convey the danger message to your spinal cord.	#		
6	Nerves adapt by increasing their resting level of excitement.	#		
7	Chronic pain means that an injury hasn't healed properly.		#	
8	The body tells the brain when it is in pain.		#	
9	Nerves adapt by making ion channels stay open longer.	#		
10	Descending neurons are always inhibitory.		#	
11	Pain occurs whenever you are injured.		#	
12	When you injure yourself, the environment that you are in will not affect the amount of pain you experience, as long as the injury is exactly the same.		#	
13	The brain decides when you will experience pain.	#		

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME:_____ **DATE:**_____

Over the last *2 weeks*, how often have you been bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite — being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3
	add columns		+	+

(Healthcare professional: For interpretation of TOTAL, please refer to accompanying scoring card). TOTAL:

10. If you checked off *any problems*, how *difficult* have these problems made it for you to do your work, take care of things at home, or get along with other people?

- Not difficult at all _____
- Somewhat difficult _____
- Very difficult _____
- Extremely difficult _____

(Kurt Kroenke et al.,2001)

PHQ-9 Patient Depression Questionnaire

For initial diagnosis:

1. Patient completes PHQ-9 Quick Depression Assessment.
2. If there are at least 4 ✓s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder

- if there are at least 5 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder

- if there are 2-4 ✓s in the shaded section (one of which corresponds to Question #1 or #2)

Note: Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.
Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

To monitor severity over time for newly diagnosed patients or patients in current treatment for depression:

1. Patients may complete questionnaires at baseline and at regular intervals (eg, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.
2. Add up ✓s by column. For every ✓: Several days = 1 More than half the days = 2 Nearly every day = 3
3. Add together column scores to get a TOTAL score.
4. Refer to the accompanying **PHQ-9 Scoring Box** to interpret the TOTAL score.
5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: add up all checked boxes on PHQ-9

For every ✓ Not at all = 0; Several days = 1;
More than half the days = 2; Nearly every day = 3

Interpretation of Total Score

	Depression Severity
1-4	Minimal depression
5-9	Mild depression
10-14	Moderate depression
15-19	Moderately severe depression
20-27	Severe depression

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Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

		Very poor	Poor	Neither poor nor good	Good	Very good
1(G1)	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2 (G4)	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3 (F1.4)	To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4(F11.3)	How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5(F4.1)	How much do you enjoy life?	1	2	3	4	5
6(F24.2)	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7(F5.3)	How well are you able to concentrate?	1	2	3	4	5
8 (F16.1)	How safe do you feel in your daily life?	1	2	3	4	5
9 (F22.1)	How healthy is your physical environment?	1	2	3	4	5

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		Not at all	A little	Moderately	Mostly	Completely
10 (F2.1)	Do you have enough energy for everyday life?	1	2	3	4	5
11 (F7.1)	Are you able to accept your bodily appearance?	1	2	3	4	5
12 (F18.1)	Have you enough money to meet your needs?	1	2	3	4	5
13 (F20.1)	How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14 (F21.1)	To what extent do you have the opportunity for leisure activities?	1	2	3	4	5

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		Very poor	Poor	Neither poor nor good	Good	Very good
15 (F9.1)	How well are you able to get around?	1	2	3	4	5

The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
16 (F3.3)	How satisfied are you with your sleep?	1	2	3	4	5
17 (F10.3)	How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18(F12.4)	How satisfied are you with your capacity for work?	1	2	3	4	5
19 (F6.3)	How satisfied are you with yourself?	1	2	3	4	5
20(F13.3)	How satisfied are you with your personal relationships?	1	2	3	4	5
21(F15.3)	How satisfied are you with your sex life?	1	2	3	4	5
22(F14.4)	How satisfied are you with the support you get from your friends?	1	2	3	4	5
23(F17.3)	How satisfied are you with the conditions of your living place?	1	2	3	4	5
24(F19.3)	How satisfied are you with your access to health services?	1	2	3	4	5
25(F23.3)	How satisfied are you with your transport?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

		Never	Seldom	Quite often	Very often	Always
26 (F8.1)	How often do you have negative feelings such as blue mood, despair, anxiety, depression?	1	2	3	4	5

Did someone help you to fill out this form?.....

How long did it take to fill this form out?.....

Do you have any comments about the assessment?

.....

.....

(WHO BREF 1996)

Domain	Facets incorporated within domains
1. Physical health	Activities of daily living Dependence on medicinal substances and medical aids Energy and fatigue Mobility Pain and discomfort Sleep and rest Work Capacity
2. Psychological	Bodily image and appearance Negative feelings Positive feelings Self-esteem Spirituality / Religion / Personal beliefs Thinking, learning, memory and concentration
3. Social relationships	Personal relationships Social support Sexual activity
4. Environment	Financial resources Freedom, physical safety and security Health and social care: accessibility and quality Home environment Opportunities for acquiring new information and skills Participation in and opportunities for recreation / leisure activities Physical environment (pollution / noise / traffic / climate) Transport

For office use only

	Equations for computing domain scores	Raw score	Transformed scores*	
			4-20	0-100
Domain 1	(6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 2	Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26) ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		
Domain 3	Q20 + Q21 + Q22 ☐ + ☐ + ☐	=		
Domain 4	Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25 ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ + ☐	=		

Table 4 - Method for converting raw scores to transformed scores

DOMAIN 1		
Raw score	Trasnformed scores	
	4-20	0-100
7	4	0
8	5	6
9	5	6
10	6	13
11	6	13
12	7	19
13	7	19
14	8	25
15	9	31
16	9	31
17	10	38
18	10	38
19	11	44
20	11	44
21	12	50
22	13	56
23	13	56
24	14	63
25	14	63
26	15	69
27	15	69
28	16	75
29	17	81
30	17	81
31	18	88
32	18	88
33	19	94
34	19	94
35	20	100

DOMAIN 2		
Raw score	Trasnformed scores	
	4-20	0-100
6	4	0
7	5	6
8	5	6
9	6	13
10	7	19
11	7	19
12	8	25
13	9	31
14	9	31
15	10	38
16	11	44
17	11	44
18	12	50
19	13	56
20	13	56
21	14	63
22	15	69
23	15	69
24	16	75
25	17	81
26	17	81
27	18	88
28	19	94
29	19	94
30	20	100

DOMAIN 3		
Raw score	Transformed scores	
	4-20	0-100
3	4	0
4	5	6
5	7	19
6	8	25
7	9	31
8	11	44
9	12	50
10	13	56
11	15	69
12	16	75
13	17	81
14	19	94
15	20	100

DOMAIN 4		
Raw score	Transformed scores	
	4-20	0-100
8	4	0
9	5	6
10	5	6
11	6	13
12	6	13
13	7	19
14	7	19
15	8	25
16	8	25
17	9	31
18	9	31
19	10	38
20	10	38
21	11	44
22	11	44
23	12	50
24	12	50
25	13	56
26	13	56
27	14	63
28	14	63
29	15	69
30	15	69
31	16	75
32	16	75
33	17	81
34	17	81
35	18	88
36	18	88
37	19	94
38	19	94
39	20	100
40	20	100

The short form Patient satisfaction scale

1. How satisfied are you with effect of the treatment? તમેતમારીસારવારનીઅસરથીકિટલાસંતુષ્ટછો? Very satisfied (ખૂબજસંતોષ). 0 Satisfied (સંતોષ). 1 Neither satisfied nor dissatisfied. 2 (નતોસંતુષ્ટકેઅસંતુષ્ટ). Dissatisfied (અસંતુષ્ટ). 3 Very dissatisfied (ખૂબજઅસંતુષ્ટ). 4	2. How satisfied are you with the explanation (doctor/ other health professional) has given you about the results of your (treatment / care)? સારવારનાપરિણામો (ડોક્ટર) વિશેતમનેઆપેલસમજૂતીથી તમેસંતુષ્ટછો? Very satisfied (ખૂબજસંતોષ). 0 Satisfied (સંતોષ). 1 Neither satisfied nor dissatisfied. 2 (નતોસંતુષ્ટકેઅસંતુષ્ટ). Dissatisfied (અસંતુષ્ટ). 3 Very dissatisfied (ખૂબજઅસંતુષ્ટ). 4
3. The (doctor/ other health professional) was very careful to check everything when examing to you? તમનેતપાસતીવખતેડોક્ટરબધુંતપાસવામાંખૂબજકાળજી રાખતાહતા? Strongly agree (પુરીરીતેસહમત). 0 Agree (સહમત). 1 Not sure (ચોક્કસનથી). 2 Disagree (અસહમત). 3 Strongly disagree (પુરીરીતેઅસહમત). 4	4. How satisfied were you with the choices you had in decision affecting your healthcare? તમારી હેલ્થકેરને અસર કરતા નિર્ણયમાં તમે જે પસંદગીઓ કરી હતી તેનાથી તમે કેટલા સંતુષ્ટ છો? Very satisfied (ખૂબજસંતોષ). 0 Satisfied (સંતોષ). 1 Neither satisfied nor dissatisfied. 2 (નતોસંતુષ્ટકેઅસંતુષ્ટ). Dissatisfied (અસંતુષ્ટ). 3 Very dissatisfied (ખૂબજઅસંતુષ્ટ). 4
5. How much of the time did you feel respected by the (doctor/ other health professional)? તમનેડોક્ટરદ્વારાકેટલોસમયઆદરમળ્યો? All of the time (બધાસમય). 0 Most of time (મોટાભાગનોસમય). 1 About half of the time (અડધોસમય). 2 Some of the time (થોડાસમય). 3 None of the time (કોઈસમયનથી). 4	6. The time you had with the (doctor/other health professional) was to short? તમારીડોક્ટરસાથેનોસમયઓછોહતો? Strongly agree (પુરીરીતેસહમત). 0 Agree (સહમત). 1 Not sure (ચોક્કસનથી). 2 Disagree (અસહમત). 3 Strongly disagree (પુરીરીતેઅસહમત). 4
7. Are you satisfied with the care you received in the (hospital/clinic)? શુંતમેહોસ્પિટલમાતમનેમળેલીકાળજીથીસંતુષ્ટછો? Very satisfied (ખૂબજસંતોષ). 0 Satisfied (સંતોષ). 1 Neither satisfied nor dissatisfied. 2 (નતોસંતુષ્ટકેઅસંતુષ્ટ). Dissatisfied (અસંતુષ્ટ). 3 Very dissatisfied (ખૂબજઅસંતુષ્ટ). 4	

Scoring:

Interpreting Scores

The literature on patient satisfaction shows that between 70-90% of patients are satisfied with their health care. This should be kept in mind when interpreting SAPS scores. In general, SAPS scores can be interpreted as follows:

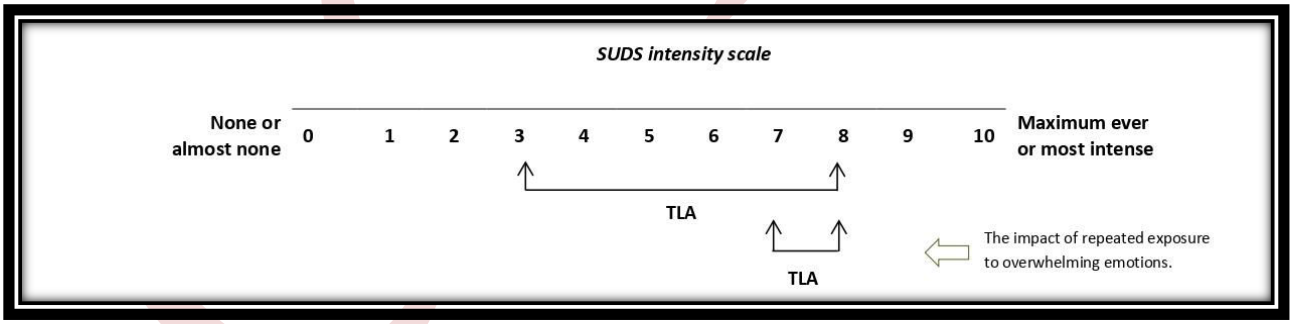
- 0 to 10 = Very dissatisfied. To obtain a score in this range, a person must have indicated that they are dissatisfied or very dissatisfied on four or more items. Any patient obtaining scores in this range is indicating that their health care has failed them badly and that they are in need of urgent help.
- 11 to 18 = Dissatisfied. To obtain a score in this range, a person must have indicated that they are dissatisfied or very dissatisfied on at least two items (i.e. two aspects of their health care), or that they have refused to endorse being very satisfied on any item. Patients obtaining scores in this range are indicating health care failure in several areas of their health care and are in need of help in these areas.
- 19 to 26 = Satisfied. To obtain a score in this range, a person must have indicated that they are very satisfied or satisfied on over half SAPS items (4/7). These patients should be asked about those areas of health care they found unsatisfactory and efforts made to improve such areas.
- 27 to 28 = Very satisfied. To obtain a score in this range, a person must have indicated they are very satisfied or satisfied on all seven SAPS items. These patients are indicating that all aspects of their health care have met or exceeded their expectations.

In a recent study (Sansoni et al., 2011) the average score for all patients receiving incontinence treatment (N = 139) was 21.96 (SD 4.85); for females it was 21.75 and for males it was 23.09.

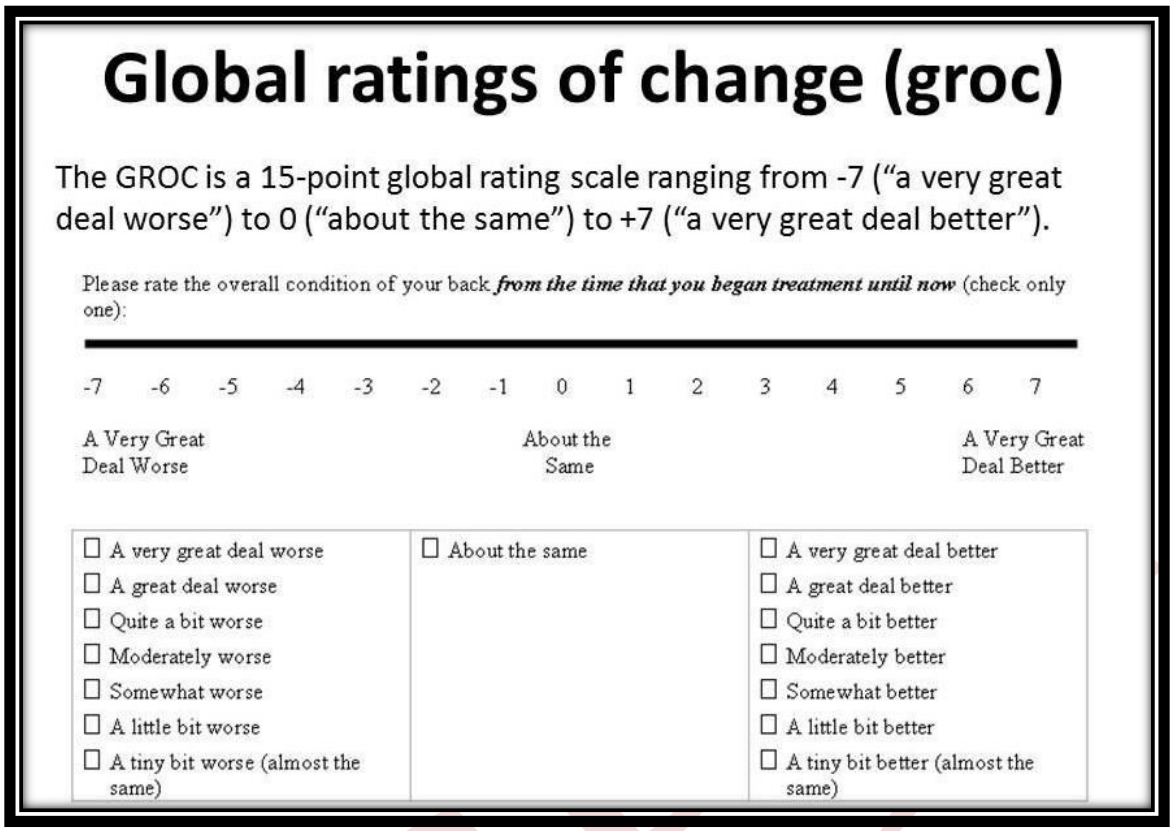
(Hawthorne et al.,2006)

Subjective units of Distress scale (intensity of your feeling during pain)

Please rate the intensity of your feelings and other internal experiences, such as anxiety, anger, agitation, stress or other feelings due to this pain illness on the following scale



.(Joseph Wolpe 1969)



Global ratings of change (groc)

The GROC is a 15-point global rating scale ranging from -7 ("a very great deal worse") to 0 ("about the same") to +7 ("a very great deal better").

Please rate the overall condition of your back ***from the time that you began treatment until now*** (check only one):

-7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7

A Very Great Deal Worse — About the Same — A Very Great Deal Better

☐ A very great deal worse	☐ About the same	☐ A very great deal better
☐ A great deal worse		☐ A great deal better
☐ Quite a bit worse		☐ Quite a bit better
☐ Moderately worse		☐ Moderately better
☐ Somewhat worse		☐ Somewhat better
☐ A little bit worse		☐ A little bit better
☐ A tiny bit worse (almost the same)		☐ A tiny bit better (almost the same)

(Jaeschke R et al., 1989)

Implementation measures for CCPM

1. Acceptability of Intervention Measure (AIM)

A. The CCPM protocol meets my approval (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ મારી મંજૂરીને પૂર્ણ કરે છે.)	1	2	3	4	5
B. The CCPM protocol is appealing to me (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ મને આકર્ષક લાગે છે.)	1	2	3	4	5
C. I like the CCPM protocol (મને પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ ગમે છે.)	1	2	3	4	5
D. I welcome The CCPM protocol. (હું પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ સ્વીકારું છું.)	1	2	3	4	5

2. Intervention Appropriateness Measure (IAM)

A. The CCPM protocol seems fitting (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ યોગ્ય લાગે છે.)	1	2	3	4	5
B. The CCPM protocol seems suitable. (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ યોગ્ય લાગે છે.)	1	2	3	4	5
C. The CCPM protocol seems applicable. (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ લાગુ કરી શકાય છે.)	1	2	3	4	5
D. The CCPM protocol seems like a good method. (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ સારી પદ્ધતિ જેવી લાગે છે.)	1	2	3	4	5

3. Feasibility of Intervention Measure (FIM)

A. The CCPM protocol seems implementable (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ અમલમાં મૂકે તેવું લાગે છે)	1	2	3	4	5
B. The CCPM protocol seems possible. (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ શક્ય લાગે છે.)	1	2	3	4	5
C. The CCPM protocol seems doable. (પીડા વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ શક્ય લાગે છે.)	1	2	3	4	5
D. The CCPM protocol seems easy to be done. (પેઈન વ્યવસ્થાપન વ્યૂહરચના પ્રોટોકોલ કરવું સરળ લાગે છે.)	1	2	3	4	5

Scoring:

Response Scale:
1 = Completely disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Completely agree

Scoring Instructions: Scales can be created for each measure by averaging responses. Scale values range from 1 to 5. No items need to be reverse coded.

(Weiner et al.,2017)

Walking / Activity log

Activity	***Baseline***	***Frequency(times /days/week)***	***Pacing (add 10%) every day or week***	***Day or week1***	***Day or week2***	***Day or week3***	***Day or week4***
Eg: Walking	***15 minutes***	***Twice daily***	***16.5 minutes***				
Sitting							
Lifting							
Jogging							
Gardening							
Exercise							

Lifestyle log

Put a tick if followed or mark a cross if not.

Healthy life style	**Monday**	**Tuesday**	**Wednesday**	**Thursday**	**Friday**	**Saturday**	**Sunday**
Regular exercise- Low-impact exercises such as walking, swimming, and yoga							
Physically active							
Balanced diet: Eating a healthy diet rich in fruits, vegetables, lean proteins, and whole grains can help reduce inflammation and promote overall health.							
Adequate sleep							
Quit smoking							
Maintain a healthy weight							
Physical therapy							
Stay hydrated: Drinking plenty of water							
Beverages and drinks							

Sleep diary

Daily Sleep Diary

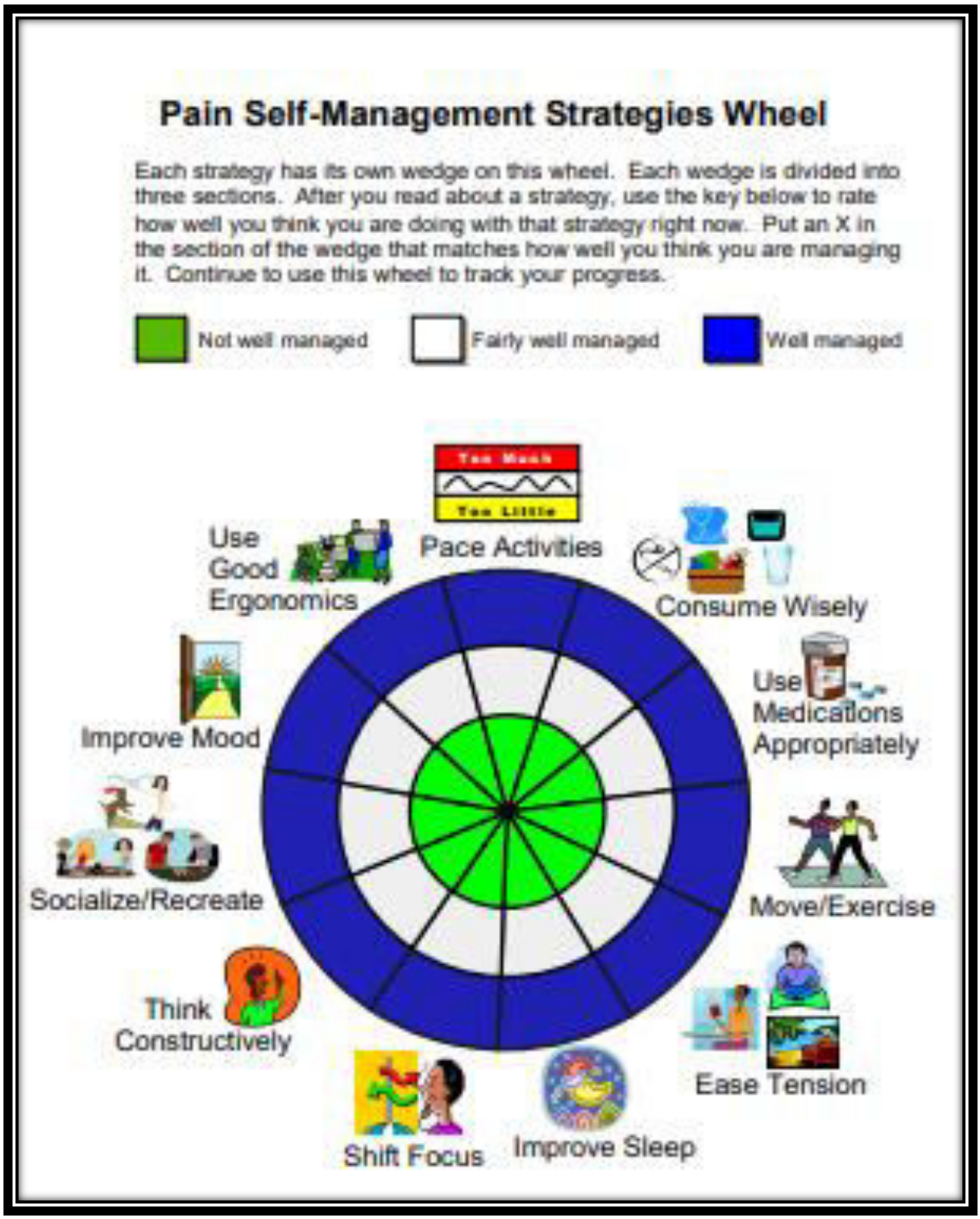
Complete the diary each morning ("Day 1" will be your first morning). Don't worry too much about giving exact answers, an estimate will do.

Your Name_____ The date of Day 1_____

	Enter the Weekday (Mon, Tues, Wed, etc.)	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
1	At what time did you go to bed last night?							
2	After settling down, how long did it take you to fall asleep?							
3	After falling asleep, about how many times did you wake up in the night?							
4	After falling asleep, for how long were you awake during the night in total?							
5	At what time did you finally wake up?							
6	At what time did you get up?							
7	How long did you spend in bed last night (from first getting in, to finally getting up)							
8	How would you rate the quality of your sleep last night? 1 2 3 4 5 V. Poor V. Good							

(Kevin Morgan, Beverley David, Claire Gascoigne 2007)

Pain self management strategies wheel



Richard Wanlass, Ph.D. & Debra Fishman, Psy.D. UC Davis Health 2018

Relaxation Practice Log

Practice two times in a day.
One before bed time is preferable
Rating Scale: (please rate your relaxation on a 10 point scale)

0---------- 10
Not at all relaxed Completely relaxed

Day /Date	Before relaxation	After relaxation	Practicing Time	Difficulties/comments

Pleasant activities list & Schedule

Start with 2 or 3 easy activities- (Value, pleasure and Mastery)				
Go for a walk	Listen to music	Read a newspaper or magazine	Take a bath	Sit in the sun
Go to a park	Laugh	Go to the library	Volunteering for a cause	Read a book
Visit a museum	Call a friend or family member	Have a picnic	Go sightseeing	Spend time with friends
Get a massage	Play a board game	Sudoku or a crossword puzzle	Going to the beach or pool	Traveling to a new place and exploring
Look at old photos	Cooking	Play a musical instrument	Drawing or doodling-painting	Dancing-Garba
Play a sport	Jogging or running	Gardening	Swimming	Yoga/meditation
Watch a movie	Write in a journal	Work on a puzzle	Recall a happy memory	Trying a new hobby or activity
Simply taking time to relax and do nothing.	Spending time with pet animal	Martial arts	Exercising	Learning a new skill or language
Flying kites	Going to clubs	Planning parties	Going out to dinner	Going to the beauty parlor
Watching children play	Eating a favorite food	Playing softball with partner or children	Reading maps	Watching wild animals
Wearing new clothes	Counseling someone	Saying prayers	Having houseguests	Shopping

Daily Activity Diary

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
7am to 9am							
9am to 10am							
10am to 11am							
11am to 12pm							
12 to 1							
1 to 2							
2 to 3							
3 to 4							
4 to 5							
5 to 6							
6 to 7							
7 to 8							
8 to 9							
9 to 10							

Automatic negative thoughts identification

Automatic negative thoughts	Identification (Yes/no)
Catastrophizing: Believing that the pain is unbearable and will never go away, leading to feelings of hopelessness and helplessness. Assuming the worst possible outcome of the pain, such as "This pain will never go away and I will never be able to do the things I love again."	
Mind-reading: Assuming that others are judging or pitying the individual for their pain, such as "Everyone is looking at me and thinking I'm weak."	
Overgeneralization: Believing that because the pain is present now, it will always be present, leading to feelings of despair.	
Personalization: Believing that the pain is a reflection of personal failure, leading to feelings of guilt and shame. Blaming oneself for the pain, such as "This is all my fault, I should have taken better care of myself."	
All-or-nothing thinking: Believing that the pain is either completely present or absent, without any middle ground, leading to feelings of frustration and disappointment. Seeing things in black and white terms, such as "If I can't do everything I used to do, there's no point in doing anything at all."	
Fortune-telling: Predicting negative outcomes without evidence, such as "I know this pain will only get worse and I'll never be able to enjoy life again." “ My radiological findings are indicating danger”	
Emotional reasoning: Believing that the pain reflects the reality of the situation, such as "I feel so much pain, so this must be a terrible injury." Believing that the pain is proof of negative emotions or feelings, leading to feelings of depression and anxiety.	

8. Articles to read

Physiotherapy practice in persistent chronic musculoskeletal pain

Chronic pain is defined as persistent nociception that lasts for more than three months. The new international classification of diseases (ICD-11) categorization identifies two forms of chronic musculoskeletal pain (CMP), the primary and secondary. Chronic musculoskeletal pain is a condition or state of an individual that is not caused by a specific disease. Chronic secondary musculoskeletal pain is a symptom of a larger condition somewhere else in the body that produces persistent nociception attributable to local or systemic reasons. It can be caused by inflammation, structural abnormalities, or the biomechanical implications of nervous system abnormalities[1,2]. The fact that the incidence appears to have risen in recent years due to the impact of many variables such as changes in environmental exposure and other psychosocial risk factors, indicated that CMP is of high concern[3]. Pain sensitization, fear-avoidance, cognitive distortions, melancholy, sleep difficulties, exhaustion, worry, pain catastrophes, and distress from the psychosocial dimensions of health all may contribute to chronic musculoskeletal pain, according to the literature and recent evidence. At this point, the major issue is to do very focused research to identify these risk factors and develop preventative measures[4,5]. Chronicity and disability are linked to low mood, somatization, and negative health attitudes about the causes and prognosis of chronic musculoskeletal pain, as well as societal beliefs[6]. There is moderate evidence that a multidisciplinary approach is more successful than notreatment or other active treatments at reducing pain in the short term in the management of chronic musculoskeletal pain. Chronic pain, by definition, cannot be treated or cured in the conventional biomedical sense; rather, the patient in pain must be provided with the skills necessary to manage their long-term discomfort to an acceptable level. It is vital to give equal attention to the psychosocial complaints which usually invariably accompany long-term pain.

Interdisciplinary programmes that are well-structured are useful, but they are expensive, timeconsuming, and difficult to administer. Interventions have a role to play in the management of chronic pain and should be included in a multidisciplinary treatment approach. Many common combination therapies require more study to be validated to get implemented in clinical practice [7, 8, 9].Prior to therapy, a full clinical biopsychosocial evaluation is suggested, and treatment sessions are layered with interactive and patient-centred biopsychosocial interactions. It is also more advantageous to have a thorough understanding of the neurophysiology of chronic pain. The biopsychosocial approach to exercise prescription for CMP takes into account of both the patient's requirements and the clinician's abilities. Aerobic and resistance exercise studies have produced evidence in favour of exercise for CMP, while there is substantial ambiguity about how to effectively apply the findings to exercise prescription. One of the most important aspects of the clinical decision-making process in pain treatment is to consider the patient's experience of pain. Moreover providing evidence-based exercise prescription for CMP and a multimodal rehabilitation programme is more successful than standard therapy [10, 11].

Numerous approaches and sub grouping systems for CMP have been presented in an attempt to cope with this complexity; nevertheless, they have been criticised for being one dimensional and reductionist, and for failing to improve results. According to Draft – NICE guideline 2020, there was insufficient evidence on the effectiveness of pain management programmes, no evidence on social interventions for

chronic pain, the committee made recommendations on psychological therapy and how they might affect practice, there was insufficient evidence on manual therapy, and there were no electrical physical modalities. Physical therapists may benefit from incorporating core behavioural psychology and neuroscience into their practice [12, 13]. Individuals with persistent musculoskeletal pain may benefit from generic self-management programmes, which have a lot of promise. Core competencies in self-management should be taught in a range of practices. Attitudes, self-efficacy, social influence, knowledge, and skills, as well as biomechanical, psychological, and individual components, should be targeted in terms of controlling the condition [14, 15]. The health care provider must be knowledgeable about the contributions of biological, psychological, and social/environmental factors to pain problems as part of the implementation of requirements of the biopsychosocial approach in physiotherapy practice. Despite the fact that the core elements of CMP have been identified, a shift in the health care practiceparadigm is difficult for the provider. It also necessitates a significant amount of organisational support as well as a significant shift in the country's healthcare practices. The caring provider's prescription behaviour must modify and conform to current pain management recommendations. In the management of chronic musculoskeletal pain, transformational, multi modal or multi-dimensional physiotherapy treatment regimens are the need of the hour. The purpose of providing treatment sessions in a healthcare setting should be for physiotherapists to consider their competencies as one of the superior management tools[16, 17, 18].

In conclusion, when it comes to chronic musculoskeletal pain treatment in the day-to-day clinical practice of physiotherapy, there is a gap in the practise and delivery of evaluation and therapies. According to the literature and current findings, there might be a variety of different psychosocial variables that contribute to persistent musculoskeletal pain. However, today's physiotherapy sessions are exclusively biomedical in nature, with psycho-social concerns receiving little attention and care. As a result, in today's world, building a comprehensive biopsychosocial evaluation and intervention protocol model for the management of chronic musculoskeletal pain patients in physiotherapy clinical practice is essential.

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The role of pain neuroscience education in the management of chronic musculoskeletal pain: a physiotherapeutic approach

Introduction Chronic pain is defined as persistent nociception that lasts longer than three months. Sometimes this pain can be the sole primary complaint and requires extra attention and supportive care from expert professional service providers. The new International Classification of Diseases (ICD) categorizes chronic pain disorders into 7 different groups, including chronic musculoskeletal pain (CMP) as one of the categories [1]. In the course of an illness or injury, CMP may occur. It is, however, more than just a symptom; it is a distinct medical illness with its own medical description and classification [2]. Chronic musculoskeletal pain According to the new ICD-11 classification, which introduces a new conceptualization of the concept of chronic musculoskeletal pain, two types of chronic musculoskeletal pain were proposed in which the primary chronic musculoskeletal pain is a condition or state of an individual not occupied by a specific classified disease as a cause. Chronic secondary musculoskeletal pain is a symptom that arises from an underlying condition in another part of the body that leads to persistent nociception due to local or systemic causes. It can be caused by inflammation, structural abnormalities, or biomechanical implications of nervous system illnesses [1, 3]. CMP is widely distributed; approximately 13.5% to 47% of the general population suffers from chronic musculoskeletal discomfort. Moreover ,the fact that the prevalence appears to have grown in recent years as a result of many variables, such as changes in exposure to environmental and other risk factors, has surely increased. And the key difficulty at the moment is to do very concentrated research to identify these risk variables and create preventive solutions [4]. Pain neuro science education (PNE) Poor advice from healthcare professionals, especially the physiotherapists solely biomedical, in their clinical practice regarding movement, radiological findings, exercises and the benefits of electro therapeutic modalities may affect the mood and cognitive psychological dimensions of chronic musculoskeletal pain patients, leading to incorrect conceptualization of pain perceptions and enhancing fear avoidance and pain catastrophizing behaviour [5-8]. Pain neuroscience education (PNE) is a cognitive-behavioral intervention that informs pain neurophysiology in order to transform maladaptive sickness beliefs, alter maladaptive pain cognition, and re-conceptualize pain beliefs [9]. PNE comes in a variety of styles, ranging from rigorous one-on-one and small group tutorial sessions to three-hour big group lectures. Pain explanation is based on conceptual change and instructional design philosophy. It improves pain-related biological knowledge, reduces catastrophizing, and provides short-term pain and disability relief. It discusses the biological evidence that supports a biopsychosocial approach to rehabilitation [6]. Bio psychosocial assessment and PNE Psychological, social, and environmental variables all have a role in the onset, management, and treatment of chronic pain. A biopsychosocial assessment paradigm can assist in identifying the distinct contributions of several levels of physical, cognitive, emotional,

behavioural, and environmental aspects to the overall clinical evaluation and conceptualization [10, 11]. A biopsychosocial approach to assessing and treating chronic pain is both clinically and economically effective [12]. Prior to PNE, a complete biopsychosocial evaluation is advised in the therapeutic context to make the therapy session more engaging and patient-centered. Using this method, the practitioner may categorise patients and personalise the course of therapy, including PNE, to individual CMP patients [13]. Current evidences on pain neuroscience education The current evidence strongly supports the use of PNE for chronic musculoskeletal (MSK) disorders in terms of pain modulation and improving patient knowledge of pain, enhancing movement and function by changing the perception of disability, reducing psychosocial factors, and further minimising healthcare utilisation MSK [14, 15]. The patients with chronic low back pain (CLBP) who received PNE underwent varying levels of reconceptualization, which appeared to be related to the perceived benefits, such as pain, disability and psychological distress reported by the patient [16, 17]. According to the current evidence, a balanced approach that combines PNE with manual therapy and physical exercise can be seen as meeting or perhaps enhancing patient expectations and refreshing or sharpening body schema maps within the brain, leading to better outcomes in patients with chronic low back pain [18]. PNE education in isolation may have low benefit, but the combination of guided purposeful exercise with PNE may have a positive influence on therapeutic outcomes [19]. A home exercise program may provide value addition in improving back performance [20]. Therefore, these concepts should be viewed through an educational lens to create a patient needs-based model of physiotherapy care [21]. When compared to normal routine sessions, multidimensional physiotherapy, including PNE, was attainable and dramatically reduced pain in the short term [22]. Conclusion The inclusion of feasible pain neuroscience education preceded by bio psychosocial assessment sessions against the regular advice based, clinician dominated and passive physiotherapy care for chronic musculoskeletal pain management practice may produce better clinical outcomes compared to standard sessions.

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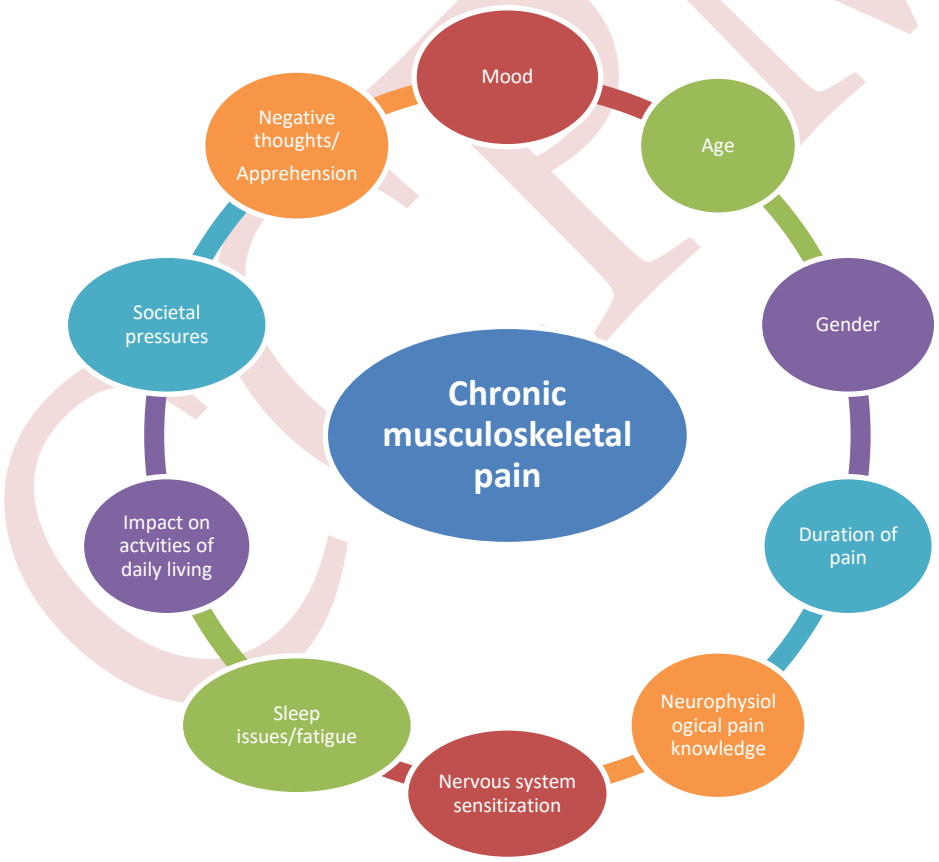
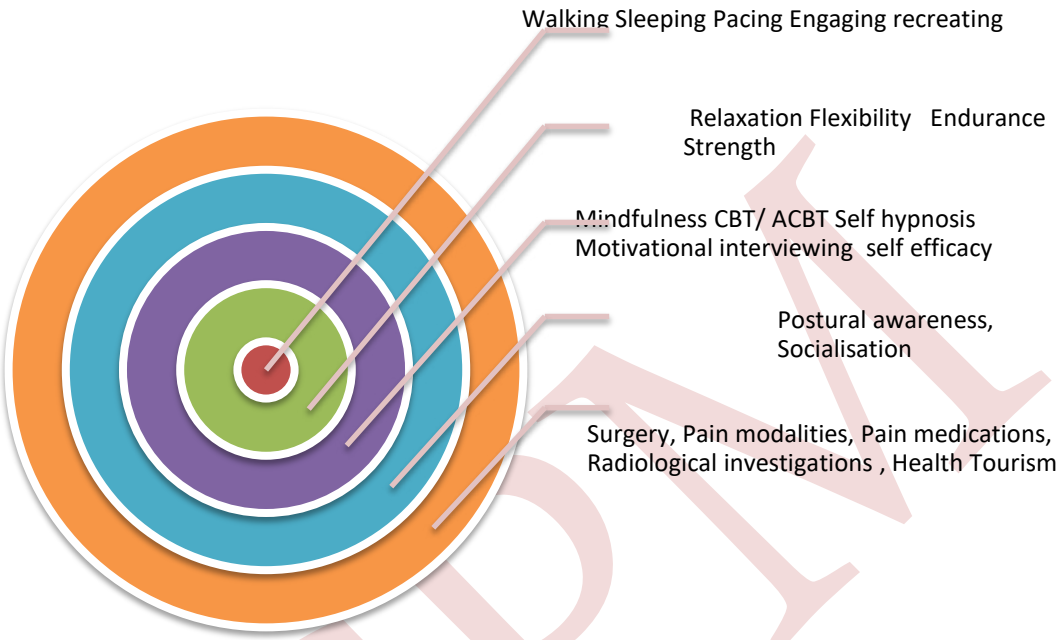
9. Chronic musculoskeletal pain & management Wheel





10. Links for further reading

1. American Chronic Pain Association (ACPA):https://www.theacpa.org/
2. National Institute of Neurological Disorders and Stroke (NINDS) - https://www.ninds.nih.gov/Disorders/All-Disorders/Chronic-Pain-Information-Page
3. American Pain Society (APS):: https://americanpainsociety.org/
4. National Institute on Drug Abuse (NIDA): https://www.drugabuse.gov/drug-topics/opioids/pain-management
5. PainEDU.org: PainEDU is an educational website that offers evidence-based information and resources on chronic pain management. They provide articles, videos, and interactive learning modules: https://www.painedu.org/
6. American Chronic Pain Association (ACPA): https://www.theacpa.org/
7. American Academy of Pain Medicine (AAPM): https://painmed.org/
8. American Pain Society (APS): https://americanpainsociety.org/
9. National Institutes of Health (NIH) - Pain Management: https://www.nih.gov/research-training/medical-research-initiatives/pain-management
10. Centers for Disease Control and Prevention (CDC) - Managing Chronic Pain: https://www.cdc.gov/chronicpain/index.html

11. Mayo Clinic - Chronic Pain: https://www.mayoclinic.org/symptoms/chronic-pain/basics/when-to-see-doctor/sym-20050921
12. Cleveland Clinic - Chronic Pain: https://my.clevelandclinic.org/health/diseases/12036-chronic-pain
13. Stanford University - Division of Pain Medicine: https://med.stanford.edu/pain.html
14. British Pain Society: https://www.britishpainsociety.org
15. Pain Management Network - Chronic Pain: https://painmanagementnetwork.org/
16. American Psychological Association (APA) - Chronic Pain and CBT: https://www.apa.org/topics/chronic-pain/cognitive-behavioral
17. The Journal of Pain - Psychological Therapies for the Management of Chronic Pain (Review): https://pubmed.ncbi.nlm.nih.gov/28300683/
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19. Harvard Health Publishing - Cognitive Behavioral Therapy for Chronic Pain: https://www.health.harvard.edu/mind-and-mood/cognitive-behavioral-therapy-for-chronic-pain
20. Pain Research Forum - Cognitive Behavioral Therapy: https://www.painresearchforum.org/educational-resources/cognitive-behavioral-therapy
21. Pain Management - Cognitive Behavioral Therapy for Chronic Pain (CBT-CP) - VHA Pain Management (va.gov)
22. International Association for the Study of Pain | IASP (iasp-pain.org)