A Psychologically-Informed Guide to Promoting Physical Activity in Routine Physical Therapy Practice

Clinician Manual Workbook

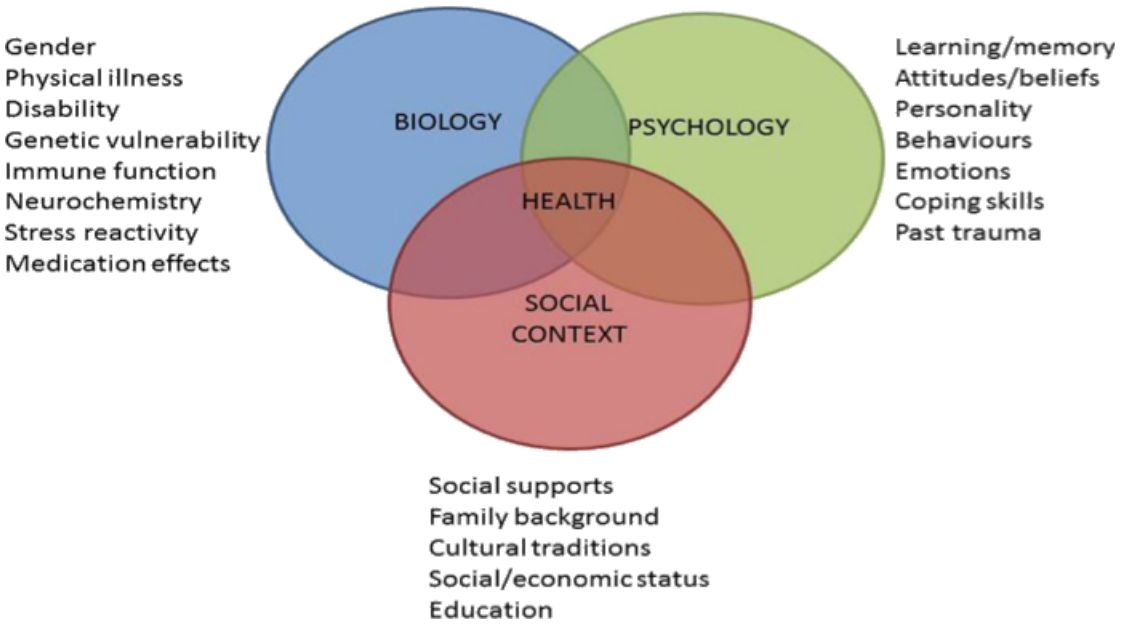

Figure 1. The Biopsychosocial Model[1]

"Psychologically-informed practice, specifically, the integration of cognitive and behavioral focused strategies, as a method of delivery or as adjunct to routine physical therapy care, delivered by physical therapists, is effective at improving psychosocial and clinical outcomes related to pain interference, disability, and general mental and physical health, improving self-efficacy and reducing dysfunctional fear avoidance beliefs with moderate to large effect sizes."

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Background

Defining the Problem

The “whole person” is more than the sum of their ‘parts’ or ‘impairments’, yet individuals are still being treated by clinicians as less than whole. We live in a society which values ‘quick fixes’ and symptom masking over lifestyle-related behavior changes and self-management.To quote the documentary, *Escape Fire,*[2] we have become more of a ‘disease care’ system than a ‘health care’ system. Most current clinical practice guidelines recommend a biopsychosocial perspective when treating patients with musculoskeletal conditions through consideration of the various physical, psychological, social, and lifestyle factors a patient may experience. Although there has been a general shift towards more biopsychosocial and patient-centered approaches, research supports that current training interventions are insufficient for PTs to be comfortable with delivering these types of interventions.[3] To best serve our patients and communities, we must be able to consider the many factors which may influence wellbeing and move beyond strictly biomedical or pathoanatomical explanations.

According to research from the Centers for Disease Control & Prevention (CDC),[4] 6 in 10 adults in the US suffer from a chronic disease and 4 in 10 have been diagnosed with 2 or more. Chronic diseases are the leading cause of death and disability in the U.S., and the leading drivers of the nation’s $3.5 trillion in annual health care costs. Healthy behavior changes are the primary and most effective interventions for addressing disease burden and improving wellness for those suffering from them. Physical activity is well-supported by unequivocal evidence of its positive effects, and appears to be the most important and effective intervention PTs can incorporate into every patient/client plan of care to promote health and wellness.[5] Unfortunately, in a recent sample of outpatient PTs, only 12% reported that they regularly promote physical activity in their practice.[6]

There is a need for more extensive clinical training in biopsychosocial approaches to care, and a need for improved physical activity health promotion in routine physical therapy practice.

Purpose

The primary focus of this manual is the promotion of physical activity and exercise in our PT patient populations using psychologically-informed models of health behavior change.

Learning Objectives

After reviewing these materials, learners will be able to:

I. Describe what psychologically informed PT practice is and how it can improve the quality & deliverance of physical activity health promotion.
II. Describe strategies that can be utilized to better tailor PA-promoting interventions based on screening results.

III. List barriers to increasing physical activity levels and describe potential ways to overcome these barriers.
IV. Perform a self-reflection on current practices and name 1 or more strategies they are able and willing to implement in their own practice to better promote physical activity in their patients.
V. Identify resources for learning more about psychologically informed strategies and physical activity promoting approaches.

Models & Theories

Many theories underlie the information within this model, including the Social Ecological Model, the Transtheoretical Model Stages of Change, the theory of Self Determination, and Social Cognitive Theory. The Health-Focused PT Practice Model[7] below is a strong summary of the theories included:

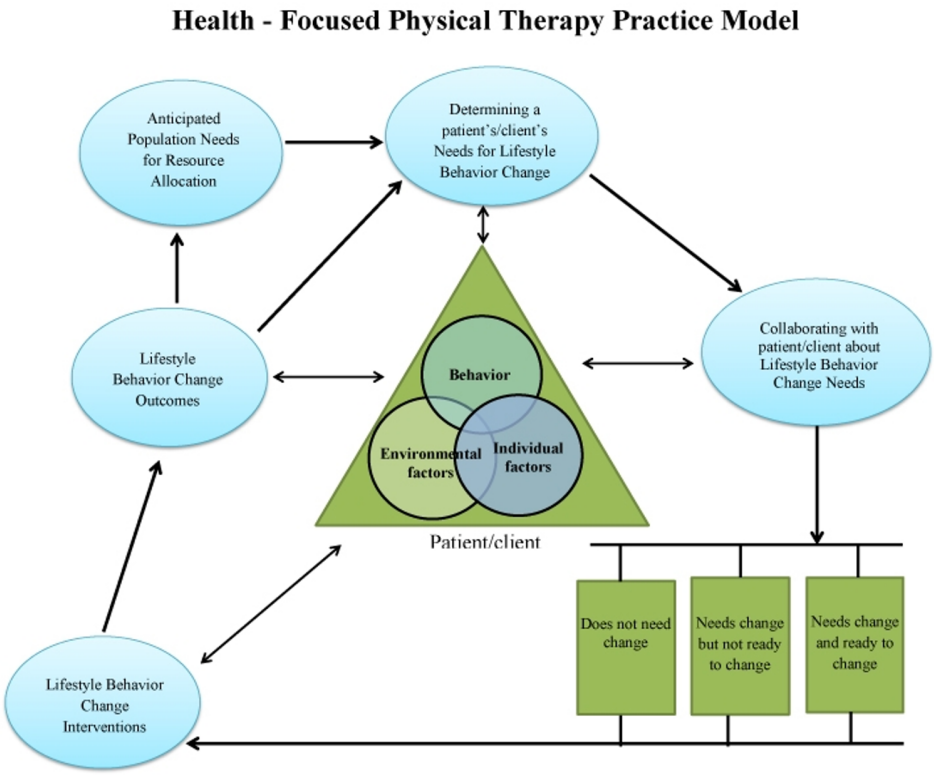

Figure 2. Health Focused PT Practice Model[7]

Note

This is a condensed clinician manual. For more information on any of the content below, including underlying theories and research, please refer to the full guide here: Full Clinician Manual with Background Information

Subjective

The subjective portion of the physical therapy exam is perhaps the most important. The patient should be given the opportunity to tell their story. To facilitate this, the PT should ask open-ended questions, utilize empathetic listening, validate the patient's experience and feelings, and begin to develop an understanding of the patient's goals, motivations, and readiness for change. A psychologically-informed approach comes down to a communication difference. Strategies to make this communication-style change are described below.

Establishing a Strong Therapeutic Alliance

The Therapeutic Alliance describes the working, collaborative relationship between the patient or client and the PT. A strong therapeutic alliance is associated with better and longer-term outcomes. Common features include: trust, open-ended questions, empathetic & reflective listening, nonjudgement, and an individualized treatment plan that considers goals and values.

Identifying Stages of Change

The Transtheoretical Model (TTM) uses the below stages to identify where a person may be with regard to carrying out a health behavior change. Someone in the action stage is ready to make a change, and is open to the strategies below. We want to move people from the precontemplation & contemplation stages into preparation and action. This can be accomplished through motivational interviewing techniques.

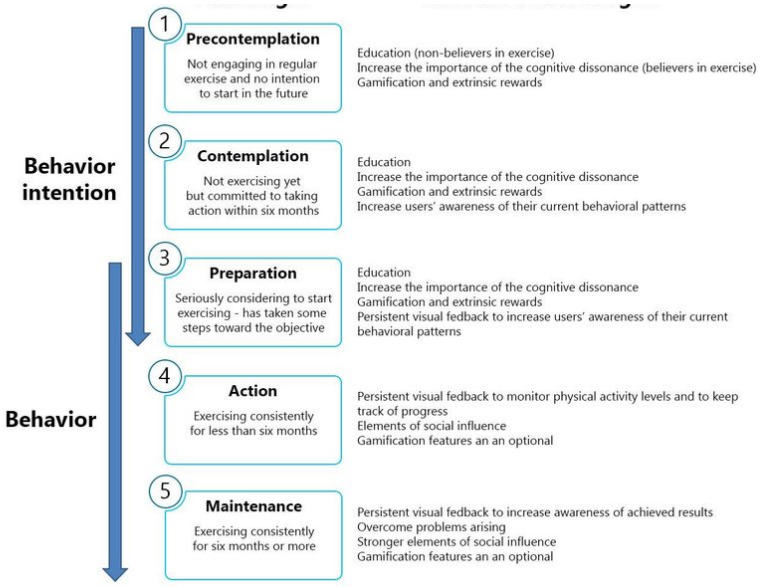

Figure 3. Transtheoretical Model Stages of Change[8]

On the next page, we will discuss the basics of motivational interviewing, a technique which can be used to help facilitate the move into and through the preparation and action stages. Though this can technically be considered an *Intervention*, this communication style may begin in the patient interview, so is discussed here for the purposes of this manual.

Basics of Motivational Interviewing

Motivational interviewing is a method of communication which helps to emphasize, guide, and motivate change. It is **useful for** building a strong therapeutic alliance and for facilitating healthy behavior change by moving people from the contemplation & precontemplation stages into the action stage.

Below is the **O.A.R.S.** technique, a technique originally discussed by Miller and Rollnick,[9] which provides a framework for use of motivational interviewing, along with some examples I created of how to put this into practice.

O	**O**pen-ended questions	"What would it look like for you to be more physically active?" "Tell me about a time in your past when you were physically active."
A	**A**ffirmations	"I appreciate your honesty and effort with self-reflection." "I understand that starting a new routine can be daunting and I want to recognize the hard work you have been putting in."
R	**R**eflections	"I am hearing that you are concerned about getting injured during exercising." "It sounds like you are feeling a bit overwhelmed about how to increase your activity levels."
S	**S**ummarization	"Here is what I understand so far. Let me know what I have missed, if anything..." "So I am hearing that you have been wanting to do X, but that you are having a hard time finding time to fit that into your schedule. Is that right?"

Figure 4: O.A.R.S. Model- Adapted from Miller and Davis

Everyone is working towards some kind of goal all the time, even if it isn't explicit. Our job is to facilitate that however we can.

On the next page, we will discuss another strategy for improving self-efficacy and facilitating change: establishing an internal locus of control.

Establishing an Internal Locus of Control

To increase self-efficacy and facilitate health behavior change, we must promote a sense of ownership, choice, and self-initiation. We can do this by: offering choices in types of physical activity, helping to find activities the patient enjoys, and helping relate interventions to patient values, life goals, and lifestyles. Beyond these strategies, an internal locus of control is based in patient education. Below are some examples I have created.

"To make a change… someone first has to understand that change is possible" -M.M.

Internal Locus of Control	External Locus of Control
"I am going to focus on what I can control." "I know that I can learn how to be more physically active." "I make things happen." "My passion & hard work can help me reach my goals." "I take responsibility for my failures and will try better next time."	"I don't have any control, why did this have to happen to me? I'm just unlucky." "This is just how I was born. No one in my family exercises." "Things happen to me." "There is nothing I can do about this." "It's not my fault!"

Figure 5. Internal vs External Locus of Control

Screening for Physical Activity and Other Health Behaviors

This information is crucial for establishing baselines, determining current stage of change, identifying motivation, and guiding goal setting and interventions. This may have some crossover with some of the information discussed in the *Objective* section below. It all begins with asking one question:

"Are you physically active?"

Other questions to follow up with include:

"What does a normal day look like for you?"
"What does your exercise routine look like?"
"What do you normally enjoy doing? What do you want to get back to doing?"
"What would being more active look like for you?"

This is also a great time to include screening for other health behaviors, including sleep, stress management, emotional wellbeing, eating habits, social support, and substance use.

Objective

The objective portion of the physical therapy exam is likely to look similar to what you may normally think of, but with the inclusion of specific screening tools or outcome measures.

Outcome Measures to Consider

OSPRO Yellow Flag (YF) Questionnaire[10]

- Similar accuracies between forms: 17 item (85%), 10 item (81%), 7 item (75%)
- The Academy of Orthopaedic Physical Therapy offers a free scoring tool
- *3 domains:*
    1. Negative Mood (psychological distress, cognitive distortions)
    2. Fear Avoidance (maladaptive beliefs)
    3. Positive Affect/Coping (self-efficacy, locus of control, acceptance)

Patient Specific Functional Scale (PSFS)[11]

- A reliable & valid measure that can be utilized for individualized goal-setting & tracking. Allows patients to see change over time.

Patient-specific activity scoring scheme (Point to one number):

0 1 2 3 4 5 6 7 8 9 10

Unable to perform activity

Able to perform activity at the same level as before injury or problem

(Date and Score)

Activity	Initial					
1.						
2.						
3.						
4.						
5.						
Additional						
Additional						

Total score = sum of the activity scores/number of activities
Minimum detectable change (90%CI) for average score = 2 points
Minimum detectable change (90%CI) for single activity score = 3 points

PSFS developed by: Stratford, P., Gill, C., Westaway, M., & Binkley, J. (1995). Assessing disability and change on individual patients: a report of a patient specific measure. Physiotherapy Canada, 47, 258-263.

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Other Considerations:

- Baselines are important. Consider utilizing some performance measures or aerobic capacity testing to get a baseline of physical fitness.
- Performance-based measures that align with patient-reported goals may be useful for tracking meaningful change and can be used as encouragement for the patient to “beat their scores”

Assessment

The goal of the assessment is to establish a big picture view of the patient and to match subjective and objective information to choice strategies and interventions. This looks like the following:

Problem → **Strategies** → **Specific Interventions**

The stage of change will guide the communicative strategies you employ. Motivational interviewing is a strategy which can be used to help facilitate the move into the 'preparation' & 'action' stages. See some examples I have created below of what this looks like in action.

Presence of Fear-Avoidance or other Maladaptive Beliefs	Education & Graded Exposure	• Educate on hurt vs harm & debunk maladaptive beliefs (pain neuroscience) • Build activity tolerance over time through interval training • De-emphasize pain with use of relaxation techniques
Low Self-Efficacy +/or external locus of control	Motivational Interviewing & Graded Activity	• Use motivational interviewing to emphasize self-efficacy • Start with goals and activities which guarantee early success • Validate & celebrate incremental progress • Teach self-management strategies to self-manage activity & pain • Relate past successes & patient values to future goals "You've done this before"
Low Levels of Motivation	Motivational Interviewing & Value Based Goal Setting	• Use motivational interviewing to emphasize how current behaviors align with patient values and encourage change behaviors • Educate on ways physical activity can improve wellbeing & introduce simple strategies that guarantee early successes • Relate patient values to goals through use of PSFS

Figure 6. Matching Issues to Interventions

On the next page, we will discuss some other interventions that are useful. The three primary components of a behavior change program include education, the explicit prescription of physical activity with appropriate grading, and self-management strategies such as goal setting and problem solving.

Interventions

> *"Not every patient needs the psychological focus, but every patient will still benefit from being told they are doing well. People often do things because they are told to or because they think they should, but they often don't understand why. Validation, recognition, and education are key." -M.M.*

Educational Strategies

With many patients, education is the first step, and one which persists throughout the plan of care. The main communicative difference to be made here is to take the time to help the patient understand the "why" and to reinforce this over time. Learning takes repetition & follow-up. Changing beliefs takes even more repetition & follow-up.

Simpe, brief statements can often be the most impactful. For example:

- "Stand Up, Sit Less, Move More, More Often."
- "Motion is lotion."
- "The best posture is your next posture."

Finally, be sure you have a base of patient education materials available in multiple formats & languages.

Here are some resources to get you started:

1. NCHPAD - Building Healthy Inclusive Communities The National Center on Health, Physical Activity, & Disability
2. Current Guidelines for physical activity
3. Physical Activity – CDC website great learning link for patients
4. National Council on Aging Map of Programs
    a. Evidence-Based Falls Prevention for Older Adults Programs
5. Health for Older Adults Various resources for each domain of health & wellbeing
6. Foundational Learning and Key Articles Other learning links
7. Tame The Beast — It's time to rethink persistent pain Pain Neuroscience Education video

On the next page, we will discuss strategies for increasing physical activity levels & tolerance. To be effective, we must start small, emphasize incremental progress, and guarantee early successes. We can accomplish this through Graded Exposure or Graded Activity.

Graded Exposure or Graded Activity

"Re-define winning. It does not take a big change to make a big difference over time."

Guaranteeing early success and emphasizing incremental progress will help improve self-efficacy and create a more sustainable lifestyle change long-term. Here are some strategies & examples you can try:

Self-management strategies for grading activity	"I want RPE around 6-7 (or 'medium') while you are doing this. But, if your pain/symptoms increase more than 2 points from where you started (10 pt scale), then ease off of the intensity!"
Find ways to integrate PA into daily routines	● Go for a 10-30 minute walk before or after meals. This can help improve sugar & insulin metabolism. ● Any time you stand up from sitting, do it 2 more times. ● Get off the bus a few stops early. ● Take the stairs instead of elevators. ● Park farther away in parking lots. ● Set timers for every 30 min while working. When it goes off, move for 1 min (dance, walk, move!). This improves blood flow & metabolism.
Emphasize social support for accountability & improved self-efficacy	● Recommend community resources ● Schedule daily walks with friends or group dog walks ● During the kid's sports practice, recruit other parents to go walk around
Track & Encourage Progress	● Use tracking sheets ● Recommend activity trackers ● Have pedometers to loan or give out

Figure 7. Graded Exposure & Graded Activity

On the next page, we will move on to the "Plan" section, where we will discuss Value Based Goal setting. We will then finish up with what happens after the session, and will discuss monitoring, follow-up, and referral to other providers or to community resources.

Plan

Value-Based Goal Setting

1. Help the patient identify values and meaning:
    a. What are you doing when you feel most powerfully that “this is what I am meant to be doing”?
    b. What brings you joy? What are you passionate about?
2. Connect these values to participation-level goals in conjunction with findings from the objective exam.
    a. Patient Specific Functional Scale (PSFS) including findings from PT exam.
3. Share a copy of their plan of care & goals.
    a. You can include tracking sheets with this, as adjunct materials enhance patient adherence long-term.

Here are some links to assist you with Value Based Goal Setting:

- Value Clarification Handout Values, Goals, and Action Planning for Physical Activity and Exercise: Physical Therapist - Client Handout
- Value Clarification Activity- Card Sorting Value Clarification Resource: Physical Therapist – Client Handout

After the Initial Evaluation

Follow Up

- Provide follow-up phone calls, emails, or check-ins between sessions or even after discharge at 1 week, 1 month, 3 months, and 6 months to improve accountability and help problem-solve if needed.
- Schedule a maintenance check-up visit at 6 months or 1 year, or consider adopting a yearly wellness-visit or annual exam for your patients.
- Be sure to follow up each session, inquire how the patient is doing with goals & HEP, and reinforce learning points. Save time for questions and action planning for the next week.

Monitoring Adherence

Changing actions & beliefs takes repetition! When checking in, don’t forget to...

- Validate their struggles
    - “It sounds like you really have a lot on your plate! That must be hard. It makes sense with all that going on that you would have some trouble trying to fit in something new.”
- Ask open ended questions to help them problem solve & overcome barriers
    - “What would it look like for you to overcome these barriers?”
    - “What is a reasonable amount of X activity you could do?”
    - “What can you do today, tomorrow, this week?”
    - “What do you feel like is keeping you from doing x?”
- Don’t tell them what to do right out, help them come up with the right answer for them

Referral

Spend some time learning about your own community resources, such as:

- Local parks
- Community & Recreation Centers
- Traditional & low-cost gyms
- Alternative style gyms (dance, martial arts, pilates, yoga)
- Pro-bono clinics
- Free educational classes & clinics
- Adaptive sport opportunities
- Evidence Based Programs

Having a strong referral network is crucial to one's ability to provide multidisciplinary care. Below is a list of many of the providers you may come in contact with to help guide you as you continue to grow your own network.

Health Care Multidisciplinary Team Member

Medical Team:	***Allied Health:***	***Mental Health & Social Services:***	***Other Providers:***
Medical Doctor (MD) Doctor of Osteopathy (DO) Nurse Practitioner (NP) Physician's Assistant (PA) Certified Nursing Assistant (CNA) Registered Nurse (RN) Orthopedic Surgeon Neurologist Cardiologist Dermatologist Podiatrist Gastroenterologist Physiatrist/ Physical Medicine & Rehabilitation Physician Psychiatrist Optometrist	Physical Therapist PT Assistant Occupational Therapist OT Assistant Speech Language Pathologist	Psychiatrist Clinical psychologist Clinical counselor Social Workers	Registered Dietitian, Nutritionist Chiropractor (DC) Athletic Trainer Personal Trainer, Strength Coach, Performance Specialist Prosthetist Pharmacists

Additional Resources:

Ospro-YF Assessment Tool[10]

OSPRO-YF ASSESSMENT TOOL

Negative Mood Domain

Over the last 2 weeks, how often have you been bothered by any of the following problems?

	Not at All	Several Days	More Than Half the Days	Nearly Every Day
1. Poor appetite or overeating*†	0	1	2	3

Read each statement and circle the appropriate number to the right of the statement to indicate how you generally feel.

	Almost Never	Sometimes	Often	Almost Always
2. I am content	1	2	3	4
3. Some unimportant thoughts run through my mind and bother me*	1	2	3	4
4. I am a hotheaded person*†	1	2	3	4
5. When I get mad, I say nasty things	1	2	3	4
6. It makes me furious when I am criticized in front of others	1	2	3	4

Fear-Avoidance Domain

Circle the number next to each question that best corresponds to how you feel.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
7. I wouldn't have this much pain if there weren't something potentially dangerous going on in my body*†	1	2	3	4

Using the following scale, please indicate the degree to which you have these thoughts and feelings when you are experiencing pain.

	Not at All	To a Slight Degree	To a Moderate Degree	To a Great Degree	All the Time
8. I can't seem to keep it out of my mind*†	0	1	2	3	4

Circle the number from 0 to 6 to indicate how much physical activities affect your current pain.

	Completely Disagree						Completely Agree
9. Physical activity might harm my painful body region	0	1	2	3	4	5	6
10. I cannot do physical activities which (might) make my pain worse*†	0	1	2	3	4	5	6
11. My work is too heavy for me*†	0	1	2	3	4	5	6

Use the rating scale below to indicate how often you engage in each of the following thoughts or activities.

	Never						Always
12. During painful episodes it is difficult for me to think of anything besides the pain	0	1	2	3	4	5	6

Positive Affect/Coping Domain

Please rate how confident you are that you can do the following things at present, despite the pain.

	Not at All Confident						Completely Confident
13. I can live a normal lifestyle, despite the pain	0	1	2	3	4	5	6

Please rate the truth of each statement as it applies to you.

	Never True						Always True
14. It's OK to experience pain*	0	1	2	3	4	5	6
15. I lead a full life even though I have chronic pain*	0	1	2	3	4	5	6
16. Before I can make any serious plans, I have to get some control over my pain	0	1	2	3	4	5	6

Please rate your degree of certainty in performing various tasks during rehabilitation based on the following statements.

	I Cannot Do It										Certain I Can Do It
17. My therapy no matter how I feel emotionally*†	0	1	2	3	4	5	6	7	8	9	10

Abbreviation: OSPRO-YF, Optimal Screening for Prediction of Referral and Outcome cohort yellow flag assessment tool.

**Items included in the 10-item version.*

†*Items included in the 7-item version.*

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