MET SEMINARS

Fundamentals of Medical Exercise Therapy
Level I
15 contact hours

Brief Overview

While therapeutic exercise is a cornerstone of intervention in clinical practice, a method to precisely dose each exercise is not universally practiced. Well-intentioned clinicians often rely on guesswork to determine the starting resistance for strengthening exercises. This is problematic in that under-dosing, over-dosing, and injury can result. Further, guesswork does not reflect the skill or expertise of rehabilitation professionals.

It is time for a reset.

We must translate evidence-based rehabilitation into daily clinical practice to ensure that all clients receive adequate, intense, and progressive exercise rehabilitation.

Course Content

This 2 day course presents a step-by-step approach for precision therapeutic exercise dosing and delivery within a comprehensive framework for implementing clinical best practice rehabilitation in daily practice within a value-based delivery system. As hands-on professions, practical lab components using real clinical scenarios are mixed with interactive discussion-based lectures for skills that can be applied right away in the clinic. To help therapists build clinical reasoning skills in exercise prescription, therapeutic exercise dosing and delivery are taught with an emphasis on the "why" and "how" rather than on specific exercises. Hands-on skills for the clinical application of hand-held dynamometry in comprehensive assessment, documentation of objective strength measures, and precision exercise dosing are practiced and mastered.

We urge clinicians to move beyond symptom moderation alone, and this course focuses on delivering clinically meaningful improvements to clients in all 4 outcome domains: symptom moderation; impairment correction; subjective functional performance; and objective functional performance. Further, we teach a systematic structure to the order of interventions provided to a client within one session as well as the progression from session to session.

Our framework, the MET MET-odology, is a contemporary development of medical exercise therapy concepts introduced by Oddvar Holten. It does not replace your current treatment practices (the tools in your toolbox), rather it provides structure to them (your very organized toolbox).

Topics: exercise prescription; training principles; biopsychosocial model; hand-held dynamometry; clinical fatigue test; dosing and dosage; concentric, eccentric and isometrics; intra and inter session progression; optimal improvement; 4 outcome domains.

Audience

Physical therapist, Physical therapist assistant, Occupational therapist, Occupational therapist assistant, Athletic trainer

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Objectives
Upon completion of this course the student will:

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- Define 2 guiding principles of the MET MET-odology.

- Identify the 3 contributing factors to clinical best practice.
- List 3 factors for optimal patient improvement.
- Describe 3 tactics for creating patient buy-in.
- Develop 1 treatment plan to achieve meaningful improvements in 4 outcome domains
- Apply the 4 training principles to therapeutic exercise prescription.
- Distinguish clinical muscular fatigue from muscle endurance and exhaustion.
- Operate a hand-held dynamometer (HHD) in 1 biomechanical examination.
- Execute Clinical Fatigue Tests (CFT) in 2 clinical scenarios.
- Recognize 3 dosing zones to achieve an appropriate physiological response.
- Interpret the results of a HHD test for the initial resistance for a CFT.
- Interpret the results of the CFT to appropriately dose 2 therapeutic exercises.
- Design 1 precision therapeutic exercise prescription.

Required Pre-Course Reading

1. Aerts F, Carrier K, Alwood B. Inter-rater Reliability of Sustained Aberrant Movement Patterns as a Clinical Assessment of Muscular Fatigue. The Open Orthopaedics Journal, 2016, 10, 125-134.
2. Booth J, Moseley GL, Schiltenwolf M, et al. Exercise for chronic musculoskeletal pain: A biopsychosocial approach. Musculoskeletal Care. 2017 Dec;15(4):413-421.
3. Brody LT. Effective therapeutic exercise prescription: the right exercise at the right dose. J Hand Ther. 2012 Apr-Jun;25(2):220-31.
4. Khan KM, Scott A. Mechanotherapy: how physical therapists' prescription of exercise promotes tissue repair. Br J Sports Med. 2009 Apr;43(4):247-52.
5. Lorås H, Østerås B, Torstensen TA,3, Østerås H. Medical Exercise Therapy for Treating Musculoskeletal Pain: A Narrative Review of Results from Randomized Controlled Trials with a Theoretical Perspective. Physiother Res Int. 2015 May 25.

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Course Outline

Day 1

07.45 AM	Registration
08.00 AM	Introduction; Background; Pre-course reading discussion; Clinical Scenarios
09.00 AM	The MET MET-odology
10.00 AM	Break
10.15 AM	Optimal Patient Improvement
12.45 PM	Lunch
01.30 PM	From Hand-held dynamometry (HHD) to Clinical Fatigue Test (CFT) - HHD in daily clinical practice - Movement bias tests
03.30 PM	Break
03.45 PM	From HHD to CFT - Muscle-bias tests - Exercise-bias tests
05.30 PM	Adjourn

Day 2

07.45 AM	Check-in
08.00 AM	Therapeutic Exercise dosing / dosage - Clinical neuro-muscular fatigue - Clinical Fatigue Test
10.00 AM	Break
10.15 AM	Therapeutic Exercise dosing / dosage - Dose and physiological response - Dosing guidelines - concentric
12.15 PM	Working Lunch - Clinical Scenarios
01.00 PM	Therapeutic Exercise dosing / dosage - Dosing guidelines - isometric and eccentric
02.00 PM	Revisit Clinical Scenarios (practical interaction)
03.00 PM	Post- course interaction / Q&A
04.00 PM	Adjourn