

SIM 271 Clinical Experience in Athletic Training II

RISK MANAGEMENT AND INJURY PREVENTION

Psychomotor Domain

- 10 Provides supervision and instruction to an individual in the use of commercial weight training equipment.

THERAPEUTIC MODALITIES

Cognitive Domain

- 3 Illustrates the use volumetric and anthropometric measurements to determine the effectiveness of treatment outcomes.
- 17 Describes the physical properties, biophysics, set-up, indications, contraindications, and specific physiological effects associated with the application of electromyogram (EMG) and biofeedback devices.

Psychomotor Domain

- 2 Measures limb edema and effusion using volumetric tank and anthropometric measurements.
- 3 Takes into account patient-specific indications, contraindications, and precautions when applying a specific therapeutic modality (e.g., age, underlying pathology, disease processes).
- 4 Performs appropriate patient preparation and positioning for therapeutic modality application.
- 5 Performs the appropriate set-up for therapeutic modalities.
- 6 Selects and applies appropriate therapeutic modality parameters (e.g., intensity, length of time, duration, frequency), and modifies them as required.
- 7 Operates and applies contemporary therapeutic modalities (electrical stimulating currents, thermotherapy, cryotherapy, diathermy, ultrasound, intermittent compression, cervical and lumbar traction, laser, EMG and biofeedback, soft tissue massage, and other contemporary therapeutic modalities) according to established guidelines.
- 8 Evaluates patient response to therapeutic modalities during and following the application of therapeutic modalities.

THERAPEUTIC EXERCISE

Psychomotor Domain

- 2 Measures the physical effects of injury using contemporary methods (isokinetic devices, goniometers, dynamometers, manual muscle testing, calipers, functional testing) and uses this data as a basis for developing individualized rehabilitation or reconditioning programs.
- 4 Demonstrates the appropriate application of contemporary therapeutic exercises including the following: a. isometric, isotonic, and isokinetic exercise, b. eccentric vs concentric exercise, c. open- vs. closed-kinematic chain exercise, d. elastic, mechanical, and manual resistance exercise, e. joint mobilization exercise, f. plyometrics-dynamic reactive exercise, g. proprioceptive neuromuscular facilitation (PNF) for muscular strength/endurance, muscle

stretching, and improved range of motion, h. exercises to improve neuromuscular coordination and proprioception, i. passive, active, and active-assisted exercise, j. cardiovascular exercise, including the use of stationary bicycles, upper-body ergometer, treadmill, and stair climber, k. aquatic therapy, l. functional rehabilitation and reconditioning, m. sport-specific activity, n. soft tissue mobilization

NUTRITIONAL ASPECTS

Psychomotor Domain

- 1 Accesses and uses information regarding the principles of fluid and electrolyte replacement.
- 2 Applies the principles of nutrition, including the roles of fluids and electrolytes, vitamins, minerals, and ergogenic aids, as they relate to the dietary and nutritional needs of athletes and others involved in physical activity.