SNS COLLEGE OF PHYSIOTHERAPY
COIMBATORE-35

COURSE NAME : BPT., Physiotherapy IV Year
SUBJECT : Rehabilitation
UNIT : I
TOPIC : Therapeutic Techniques
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Introduction

Introduction

Therapeutic techniques are the specific physiotherapy methods and approaches used to restore function, reduce disability, and promote independence. They are applied based on patient needs, stage of recovery, and overall rehabilitation goals.

Introduction

Principles of Therapeutic Techniques

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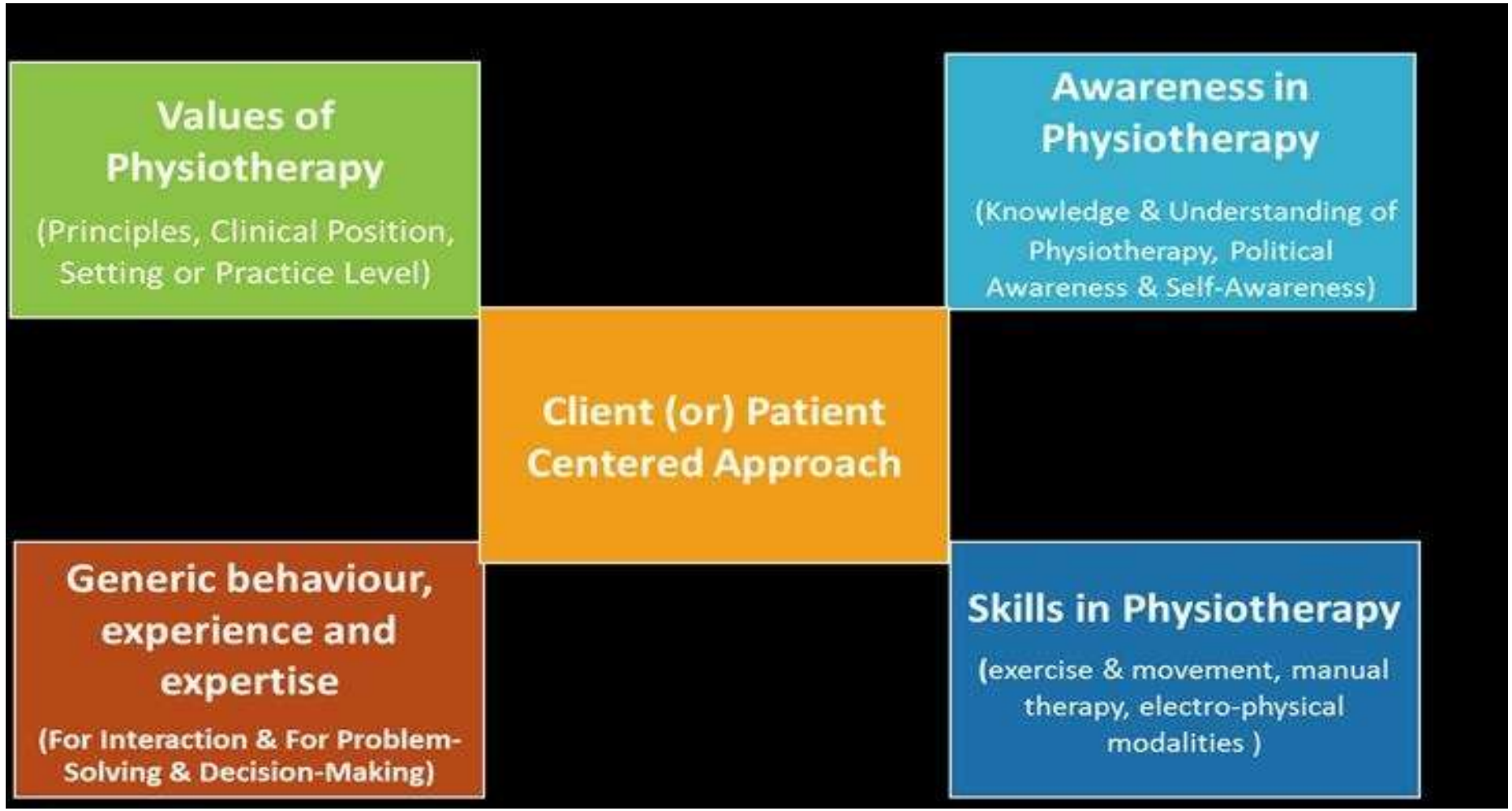
* Patient-centered and individualized
* Begin early, progress gradually
* Aim to restore movement, strength, coordination, balance, and endurance
* Use functional, purposeful activities whenever possible
* Incorporate patient education and home programs
* Monitor for contraindications and complications

Principles of Therapeutic Techniques



Techniques and Applications

Techniques and Applications

a. Joint Mobilization

* Purpose: restore joint range of motion, reduce stiffness, relieve pain
* Methods: passive oscillatory movements, sustained stretches, Maitland/Kaltenborn grades
* Applications: post-fracture stiffness, arthritis, post-immobilization

Techniques and Applications

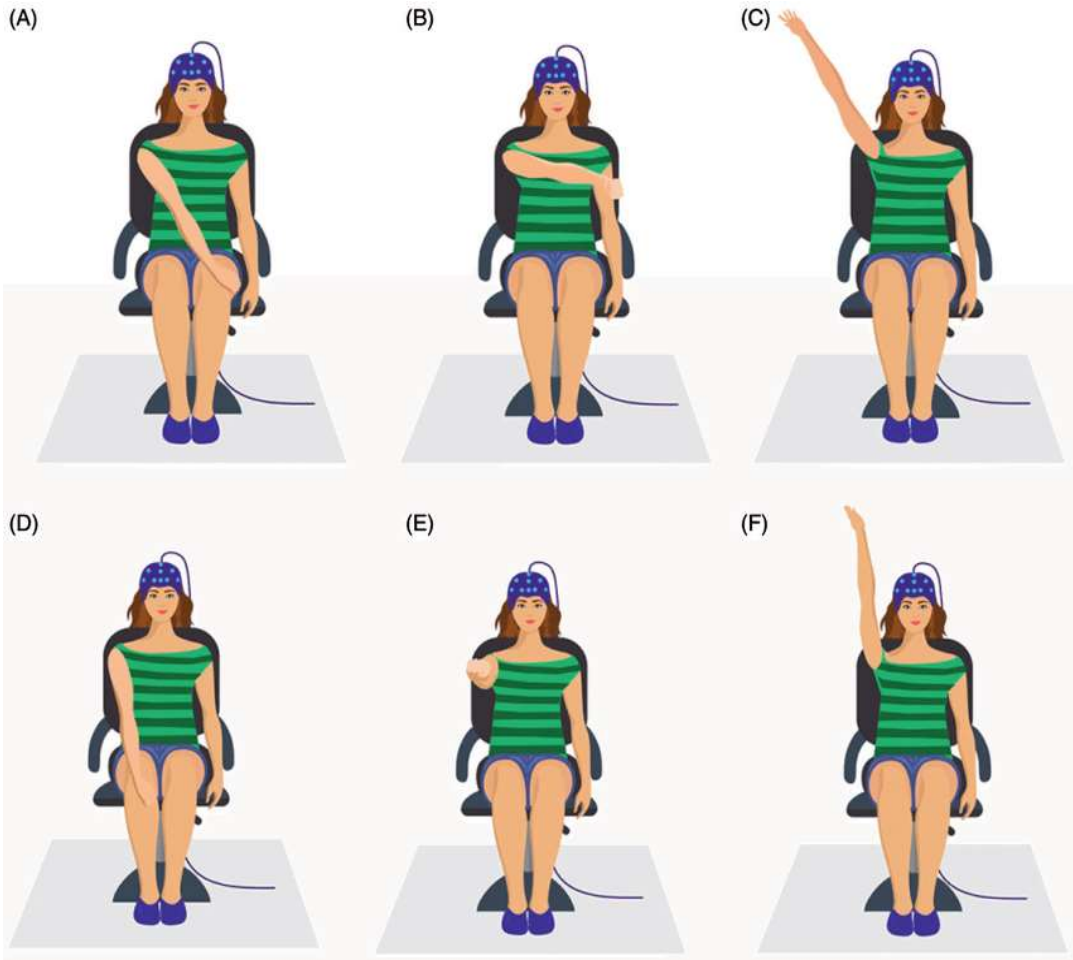
Techniques and Applications

b. Reducing Spasm

* Techniques: gentle stretching, positioning, relaxation, hydrotherapy, cryotherapy
* Applications: spasticity after stroke, spinal cord injury, cerebral palsy

c. Assisting Weak Muscles

* Facilitation techniques: tapping, quick stretch, PNF patterns
* Use of biofeedback and electrical stimulation
* Applications: post-stroke hemiparesis, peripheral nerve injuries.



Techniques and Applications

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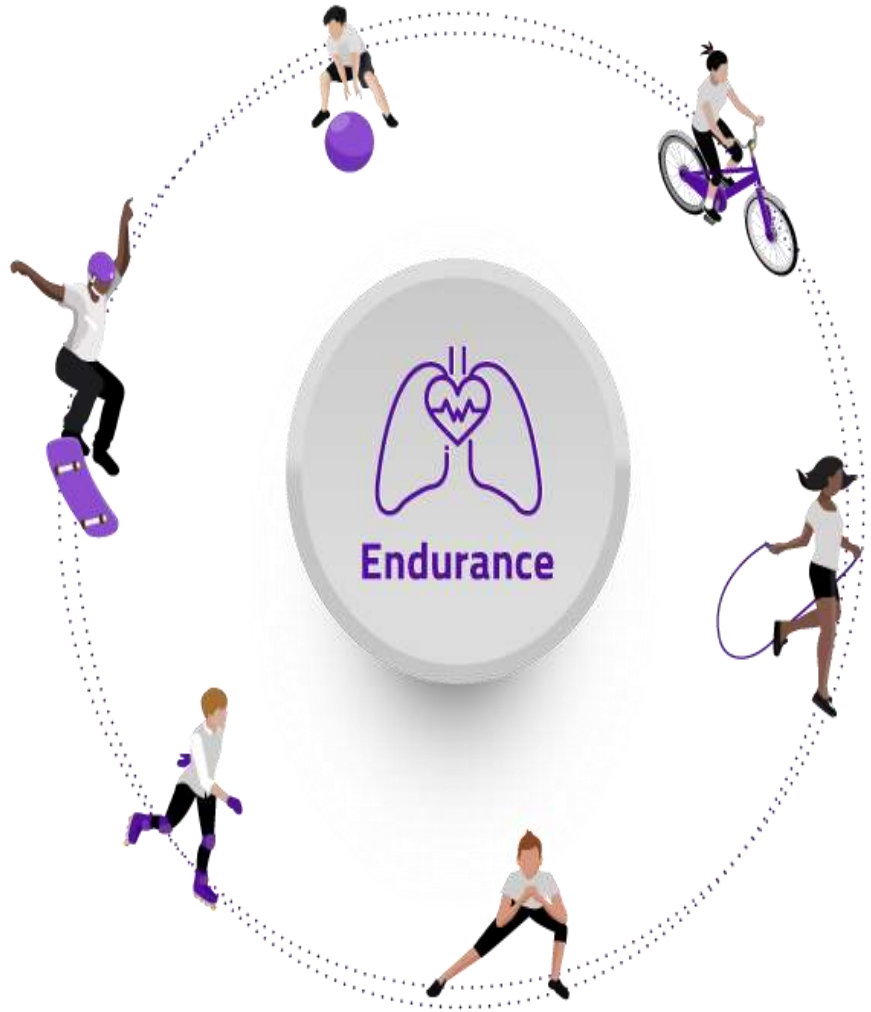
d. Increasing Endurance

* Progressive aerobic training: walking, cycling, treadmill
* Interval training for cardiopulmonary patients
* Monitoring with pulse, BP, Borg's scale of exertion



Techniques and Applications

Techniques and Applications

e. Muscle Re-education after Muscle Transfer Surgery

* Aim: train the transferred muscle to perform new function
* Example: tendon transfer in radial nerve palsy
- Techniques: repeated practice, functional activities, biofeedback

f. Strengthening Muscles

* Types: Isometric, Isotonic (concentric/eccentric), Isokinetic
* Progressive resistance exercise (PRE)
* Applications: post-fracture rehab, osteoarthritis, muscular weakness

Techniques and Applications

Techniques and Applications

g. Improving Coordination

* Techniques: Frenkel's exercises, PNF patterns, task-specific training
- Applications: cerebellar disorders, multiple sclerosis

h. Improving Balance

* Static balance: standing on stable surface, tandem standing
* Dynamic balance: reaching, stepping, wobble board
* Applications: elderly fall prevention, vestibular dysfunction, stroke rehab

Techniques and Applications

Techniques and Applications

i. Gait Training

* Pre-gait activities: weight shifting, stepping in parallel bars
* Gait training with aids: crutches, walker, canes
* Advanced training: ramps, stairs, uneven surfaces
* Applications: post-amputation, SCI, orthopedic conditions, neurological rehab

Physiotherapy Precautions

* Avoid overexertion in cardiopulmonary patients
* Prevent joint overstretching in unstable joints
* Respect pain limits during exercise
* Monitor vitals in high-risk patients

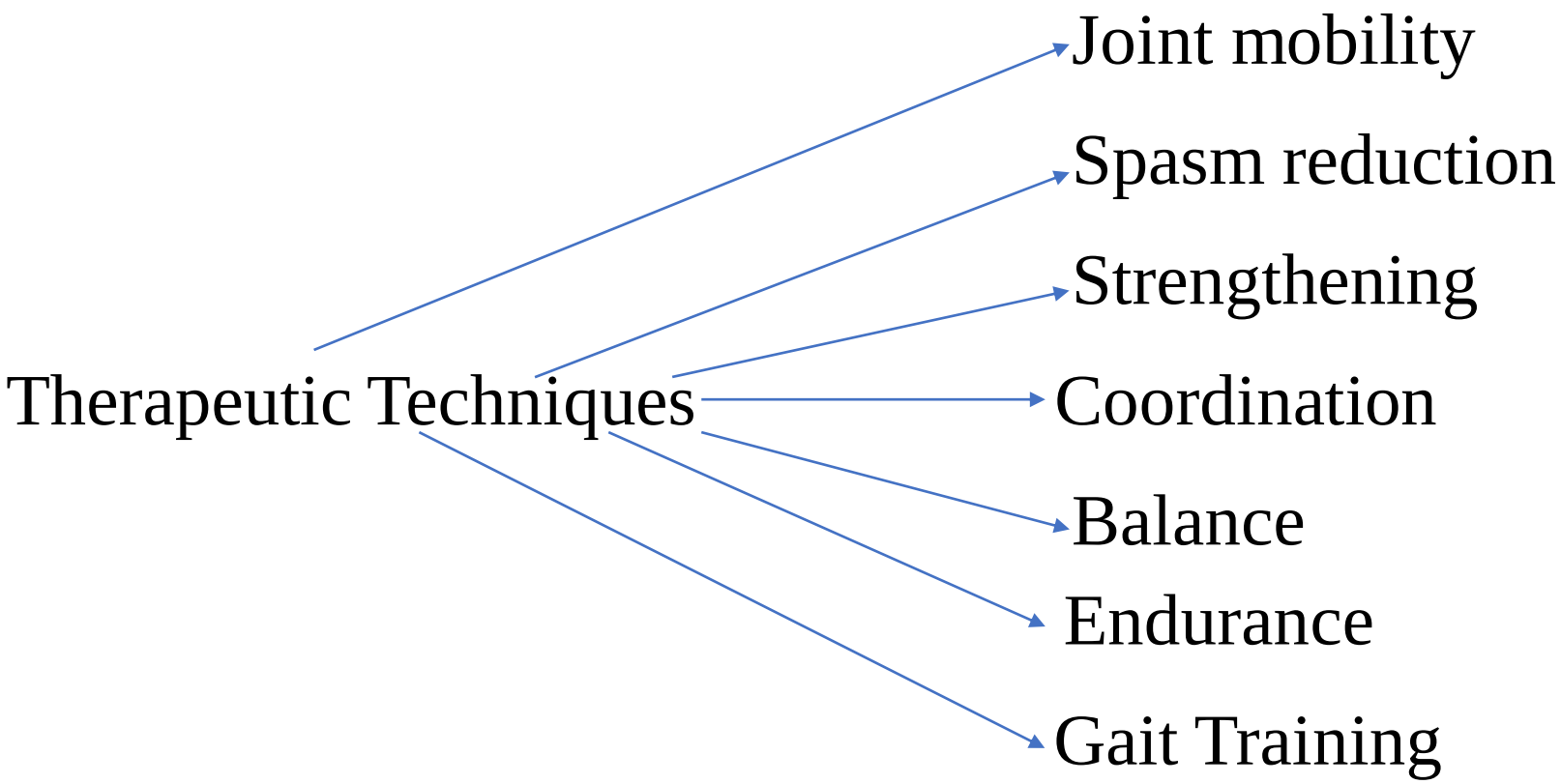
Case Example

Case Example

* Patient: 45-year-old female, post-stroke with left hemiplegia
* Rehab plan:

  * Joint mobilization for stiff shoulder
  * Spasticity reduction with positioning
  * Muscle facilitation for weak dorsiflexors
  * Gait training with cane
  * Balance training for safe mobility

Summary


Therapeutic Techniques
Joint mobility
Spasm reduction
Strengthening
Coordination
Balance
Endurance
Gait Training