

CHAPTER

2

Prevention, Health, and Wellness

Part 1

BASIC CONCEPTS OF PREVENTION

Key Terms and Concepts

Health.

General physical, mental, or spiritual condition of the body

Wellness

A state of good health often achieved through healthy lifestyle **six dimensions** of wellness described by the National Wellness Institute

Social: Interacting and contributing to one's community or environment.

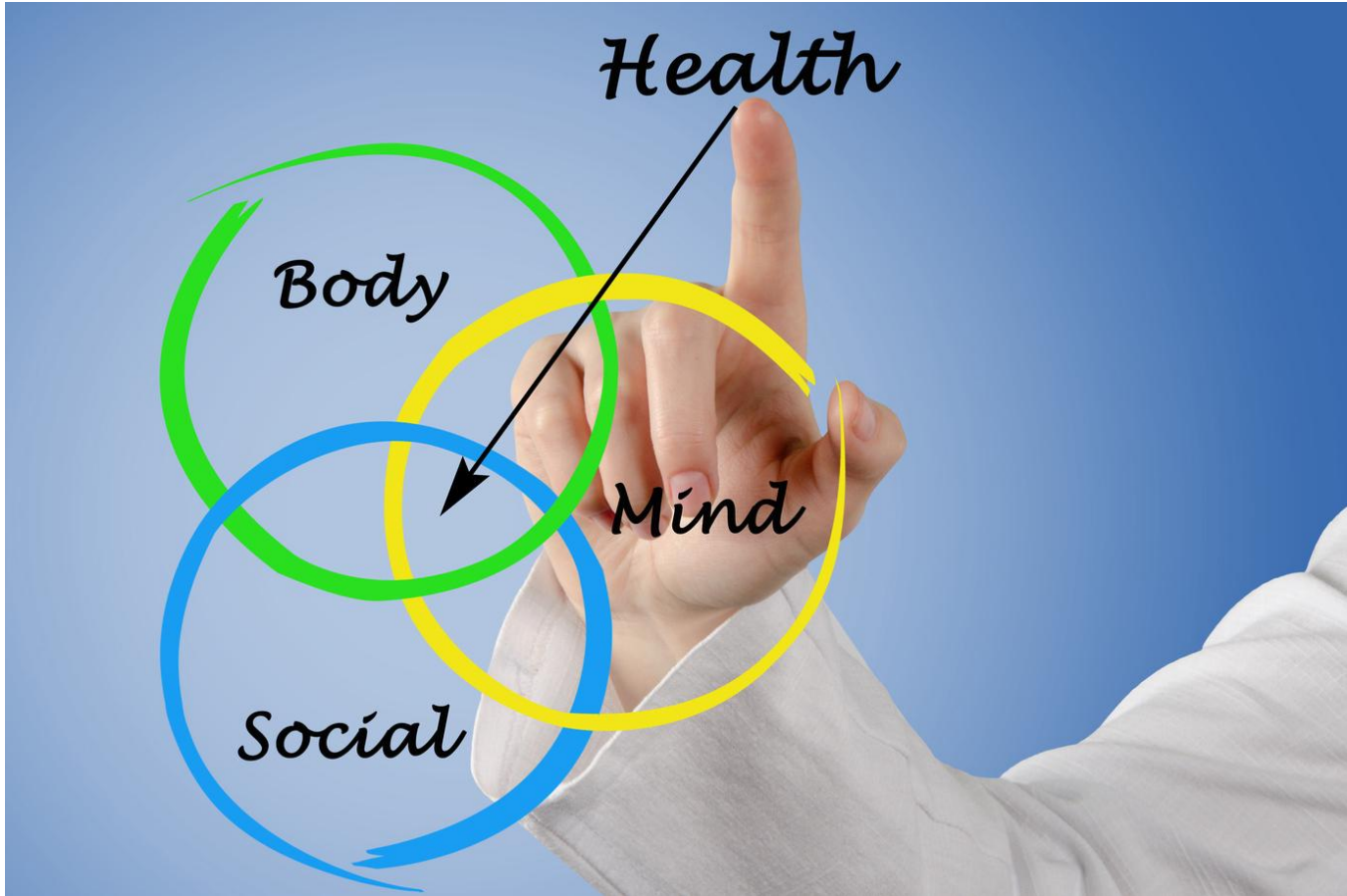
Occupational: "Personal satisfaction and enrichment in one's life through work."

Spiritual: Finding and living a life that has meaning and purpose.

Physical: Making appropriate nutritional choices and participating in regular physical activity.

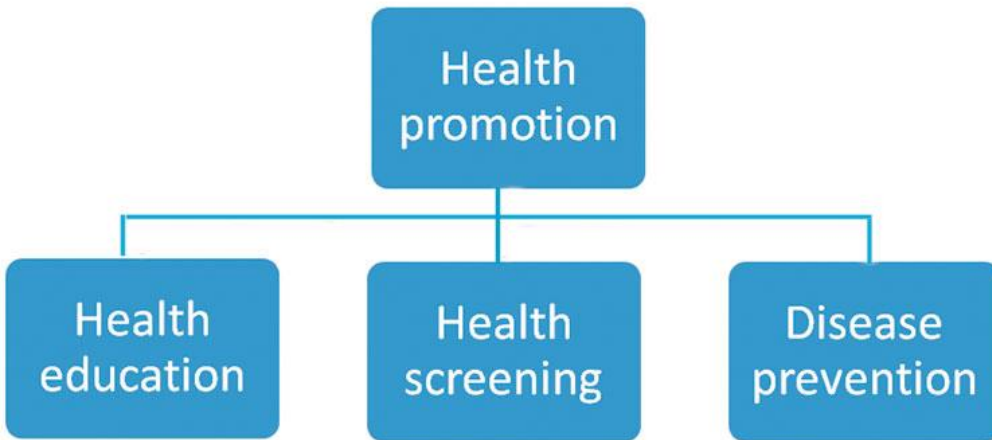
Intellectual: Actively using your mind to develop new skills and learn new information.

Emotional: Accepting and managing our feelings in all personal interactions.



Health promotion

Contributing to the growth and development of health



Health-Related Quality of Life (HRQOL)

- The total effect of individual and environmental factors on function and health status, including physical, psychological, and social components.



Role of Physical Therapy in *Healthy People 2020*

- Physical therapists have a unique role in providing **prevention, health, wellness, and fitness activities** needed to address these concerns, and these activities may take many forms.

Role of Physical Therapy in *Healthy People 2020*

- **Screening**: To identify individuals or groups who would benefit from education, intervention, or referral to an appropriate health-care provider.
- **Education**: Provide information on prevention, health, wellness, and fitness topics.
- **Intervention**: Provide interventions as identified from screening sessions.
- **Consultation**: Providing expertise and knowledge.
- **Critical Inquiry**: Obtaining, synthesizing, and utilizing current research, interpreting data, and/or participating in research.
- **Administration**: Planning, developing, and managing all aspects of a prevention or wellness project including budget, human resources, and space.

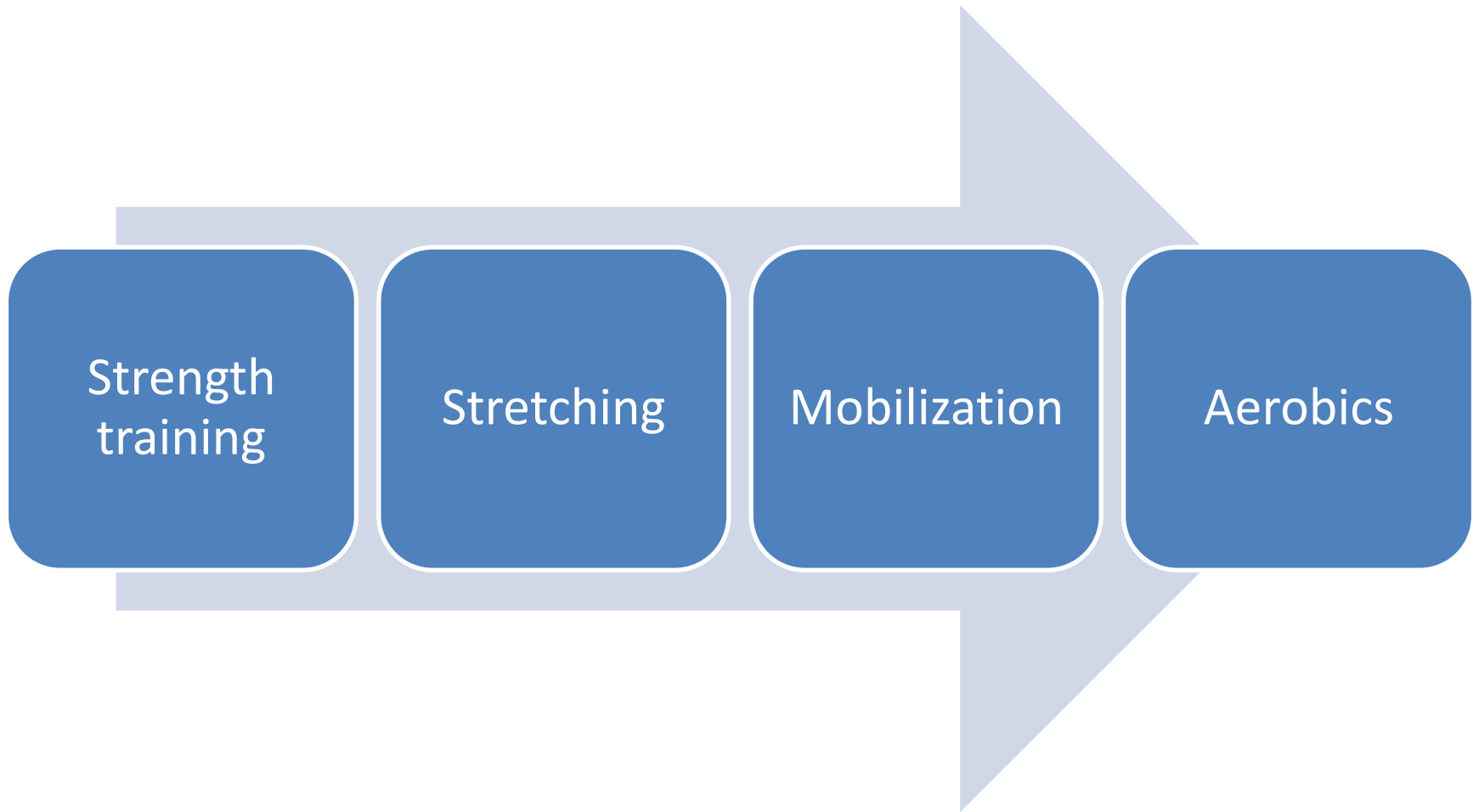
SCREENING



PHYSICAL THERAPIST AS A EDUCATOR



INTERVENTION AND TREATMENT



Types of preventions

- **Primary prevention:** Preventing a target problem or condition in an individual or in a community at risk; for example, developing fitness programs for children to prevent obesity
- **Secondary prevention:** Decreasing the duration and severity of disease; for example, developing resistance programs for individuals with osteoporosis
- **Tertiary prevention:** Decreasing the degree of disability and promoting rehabilitation for individuals with chronic or irreversible diseases; for example, developing fitness programs for individuals with spinal cord injury

Prevention activities

Screening Risk Assessment

Health Promotion, Wellness, and Fitness

| | |
|----------------------|--|
| Scoliosis | Education: Information flyer for parents on identification and treatment for idiopathic scoliosis. |
| Obesity | Intervention: Develop exercise/fitness program for overweight teens and adults. |
| Osteoporosis | Education: Develop community education programs related to osteoporosis (importance of exercise, reducing falls in the home). Administration: Develop resistance and weight-bearing exercise class for individuals with osteoporosis. |
| Falls | Critical Inquiry: Complete a literature review and identify the most appropriate measures of fall risk. Intervention: Develop exercise program to increase strength, balance, and coordination in older adults. |
| Work site assessment | Consultation: Work with human resource department of a company to identify ways to reduce workplace injuries. Educate: Educate company on proper body mechanics, work station redesign. |

IDENTIFYING RISK FACTORS

- Preparticipation screenings
- Risk assessments



PREPARTICIPATION SCREENINGS

Activity Prescreening Questions

1. Have you ever been diagnosed with a heart condition?
2. Have you ever been advised that you should only do physical activity under the direction of a physician?
3. Do you experience chest pain when you do physical activity?
4. Have you experienced chest pain during this past month when not physically active?
5. Have you been diagnosed with arthritis or osteoporosis, or experienced increased pain in your joints when physically active?
6. Are you currently taking prescription drugs for blood pressure or a heart condition?
7. Do you ever lose your balance or lose consciousness?
8. Are you aware of any condition that would prohibit you from doing physical activity?

RISK ASSESSMENTS

BOX 2.2 Risk Factors for Coronary Artery Disease and Osteoporosis

Coronary Artery Disease Risk Factors

- Family history
- Cigarette smoking
- Hypertension
- Hypercholesterolemia
- Impaired fasting glucose level
- Obesity
- Sedentary lifestyle

Osteoporosis Risk Factors

- Bone mineral density score of -2.5 or less
- Postmenopausal
- Caucasian or Asian descent
- Family history
- Low body weight
- Little to no physical activity
- Smoking
- Prolonged bed rest
- Prolonged use of corticosteroids

Determining Readiness to Change

- Once the pre-participation screenings and risk assessments are completed and specific programs for an individual are developed, **it is important to know whether the person is ready to change.**



Behavioral Change Theories

- Social cognitive theory
- Health belief model
- Transtheoretical model

Social cognitive theory

- The social cognitive theory (SCT) looks at the belief systems of individuals.
- An individual must believe that he or she can change a particular behavior and that **changing that behavior will lead to the desired outcome**

Social cognitive theory

- For example, a patient may want to lose weight. In addition to the desire to change the behavior causing the increased weight, the patient needs to believe that he or she is capable of succeeding (self-efficacy) and that the out-come will improve his or her health.

The health belief model (HBM)

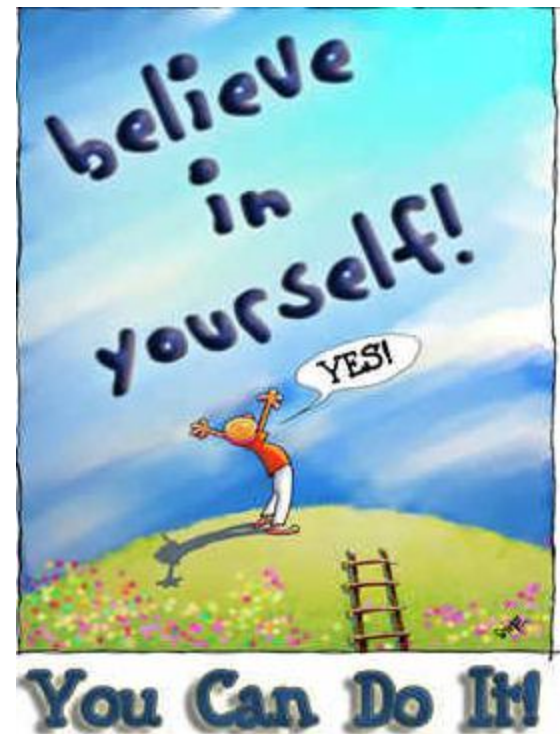
- The health belief model (HBM) is based on several factors
- First, an individual must have sufficient concern about developing an illness (**perceived threat**).
- Next, the individual needs to believe that by following the health recommendations it is possible to achieve the desired outcome (**perceived benefits**) at an acceptable cost (perceived barriers).

Transtheoretical model

- The transtheoretical model (TTM) looks at the **stages required to make changes**.
- There are **five stages** of change:
 1. **Precontemplation**—no intention of making any changes within the next 6 months
 2. **Contemplation**—intends to make changes within the next 6 months
 3. **Preparation**—has begun to take steps toward making the desired change in behavior and plans to make the changes within the next 30 days
 4. **Action**—has changed the behavior for less than 6 months
 5. **Maintenance**—has changed the behavior for more than 6 month

Additional Factors Affecting the Ability to Change

- Motivation.
- Self-efficacy



Part 2

DEVELOPING AND IMPLEMENTING A PROGRAM

Developing and Implementing a Program

Steps to Develop and Implement Prevention, Health, Wellness, and Fitness Programs

Step 1: Identify a Need

Step 2: Set Goals and Objectives

Step 3: Develop the Intervention

Step 4: Implement the Intervention

Step 5: Evaluate the Results

Step 1: Identify a Need

- Identify the target audience
 - Children
 - Adults
 - Older adults
 - Industry/business
 - School system
 - Community
 - Specific population (e.g., individuals with Parkinson's disease)

Step 2: Set Goals and Objectives

- Identify the purpose of the program
- Identify the goals to be achieved
 - Screening
 - Education
 - Exercise program
- Identify the objectives of the program

Steps to Develop and Implement Prevention, Health, Wellness, and Fitness Programs

Step 3: Develop the Intervention

- Screenings: Identify valid and reliable right tools to use for the screening
- Education: Develop the program including handouts for participants
- Exercise: Develop the plan for each class
- Logistics
 - Secure a location for the program
 - Consider parking and access to the facility
 - Determine the time and length of the program
 - Determine the number of people who can attend based on the space
 - Identify who will do the program (self or with assistance)
 - Develop the presentation/program; include handouts for the participants
 - Develop a budget; determine costs and charge to the participants

Step 4: Implement the Intervention

- Recognize that even with the best of plans it is important to be adaptable and to be prepared for the unexpected

Step 5: Evaluate the Results

- For an educational session, ask the participants to evaluate the program. Consider an additional follow-up assessment.
- For an exercise class, record baseline data and assess progress during the program and at the end.
- Ask participants to evaluate the exercise program.
- Ask for feedback on what could be done to improve the program (e.g., different time, smaller class, longer sessions).

Additional Considerations for Developing Prevention, Health, and Wellness Programs

- specific to the goals of the individual..... Specific principles and procedures for resistance training and aerobic exercise training.
- For children,For older adults.....
- If screenings are conducted, handouts with the results and with follow-up recommendations should be given to the participants.
- Hand outs for children & older adults.
- Limit terminologies.... pictures of exercises
- Consider the time commitment for you and the participants and the cost involved.

Lists issues related to exercise adherence.

| Poor | good |
|--|--------------------------------|
| Poor or limited leadership | Effective leadership |
| Inconvenient time of class or program | Positive reinforcement |
| Injury | Part of regular routine |
| Boredom with exercise | No injury |
| Poor individual commitment | Enjoyment—fun—variety |
| Unaware of any progress being made | Social support from group |
| Poor family support— disapproval | Regular updates on progress |
| | Family approval |

THANKS

Developing and
Implementing a Program

OSTEOPROSIS

- Assignment
- You are a physical therapist and you have recently graduated your studies. You have knowledge that strength training and weight bearing exercises increase bone density and prevent from osteoporosis and fracture from falling.
- Pakistan osteoporosis association consult to you to develop and implement a program for osteoporosis (strength training and exercise plane) for local women.
- How you will start and implement step by step?