Integrating Other Theories and Models
Other Models & Theories of Exercise Motivation

- Social Cognitive Theory
- Self-determination Model
- Ecological model
- Behavioral Choice Theory
- Relapse prevention model
Part I

- Social Cognitive Theory

- Self-determination Theory
Basic Premise of Self-efficacy (Social Cognitive) theory

- Self-efficacy is the belief in one’s capabilities to organize and execute the courses of action required to produce a given attainment. 
  - Bandura, 1997

  - Level of self-efficacy arises from a number of sources.
  - One’s level of self-efficacy reflect a belief in personal ability to accomplish a particular task.
  - Higher one’s level of exercise self-efficacy there is greater probability that they will be physically active.
Self efficacy

Professional Beware

“with respect to exercise. If practitioners fail to organize, present, and develop their programs in such a way as to cultivate efficacy beliefs, participants are likely to perceive the activity negatively, become disenchanted, and discouraged, and discontinue.” .......McAuley (1994)

Client’s Persist longer

organizing exercise and physical activity in a manner such that a strong sense of personal efficacy is promoted will result in individuals displaying more positive effect, ...embracing more challenging activities, putting forth more effort, and persisting longer.” .......McAuley (1994)
People are more likely to have increased self-efficacy when their affect is positive rather than negative.

Self Efficacy Sources and Outcomes

- Performance Experiences
- Vicarious Experiences
- Imaginal Experiences
- Verbal Persuasion
- Physiological States
- Emotional States

Self-efficacy Expectancies
Self Efficacy Sources and Outcomes

- Performance Experiences
- Vicarious Experiences
- Imaginal Experiences
- Verbal Persuasion
- Physiological States
- Emotional States

Self-efficacy Expectancies

Behavior
- Choice
- Effort
- Persistence
**Self-efficacy & PA**

- **High level**
  - Are confident about their abilities to overcome barriers to exercising.
  - Amount of effort expended is greater.
  - High belief that PA promotes self-efficacy

- **Low level**
  - Barriers are too great to overcome
  - Expend little effort
  - Low belief that they are capable of mastering an adequate level of PA
Different levels of Exercise Self-efficacy

Self-efficacy

Exercise

Barrier

Schedule

Perceived Behavior Control
Measuring Self-Efficacy—Sample Self Efficacy Scale for Jogging

Using the scale below, circle the number that best represents how confident you are that you can jog each of the following distances during a single session without stopping.

<table>
<thead>
<tr>
<th>NO CONFIDENCE AT ALL</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>EXTREMELY CONFIDENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 1 mile</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>b. 2 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>c. 3 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>d. 4 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>e. 5 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>f. 6 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>g. 7 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>h. 8 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>i. 9 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
<tr>
<td>j. 10 miles</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
</tr>
</tbody>
</table>
Research & Self-efficacy

- Research shows that the level of efficacy beliefs are related to one’s intention to be physically active.

- Confidence in being able to do the activity is related to one’s level of intention to exercise.

- Research shows that when one develops a stronger intention to be physically active that they can fit PA in their schedule and they can overcome barriers.
Self-Determination Theory

- Individuals seek challenges that will satisfy at least one of three psychological needs:
  - Determine one's own course
  - To demonstrate competence
  - For relatedness or social interactions

- Three forms of motivation are capable of driving achievement behaviors to achieve or not achieve these psychological needs:
  - Intrinsic motivation (direction and intensity come from within)
  - Amotivation (lack of motivation/intention)
  - Extrinsic motivation (direction and intensity comes from an outside source)
Continuum of Self-Determination

- **Amotivation**: Absent of motivation about the activity
- **Extrinsic Motivation**: Individual engages in an exercise program solely to receive a reward or avoid punishment
- **Intrinsic Motivation**: One engages in exercise for its own sake or for the pleasure it provides
Diagram of the Self-Determination Theory

Rewards: Good or Bad

- Behavior influenced by rewards.
  - Type and frequency in receiving rewards influences behavior
  - The effect rewards have on our behavior is determined by how we perceive the reward.
    - If the reward promotes information about our competence it increases one’s intrinsic motivation.
    - If the reward convey as means to control one’s behavior it reduces one’s intrinsic motivation.
Motivating one to exercise is based on one’s level of self-determination & Sense of self.

Exercise programs where the client learns, masters the activity, and experiences satisfaction motivate the client to exercise.

Activities that are highly meaningful; people will invest effort and energy toward.

Meaning is associated to choice or an activity (actual or perceived control).
Part II

- Ecological Theory
- Behavioral Choice Theory
- Relapse Prevention Model
Ecological Models

- Individuals bear responsibility for engaging in healthful behaviors.

- Other levels of influence on healthful behaviors also exist:
  - Physical environment
  - Community
  - Society
  - Government
Ecological Model

- One’s behavior is influenced by forming relations with each other and with the physical environment.
- We form systems by how we react to one another and physical environment which is called a ecosystem.
Each person is significantly affected by interactions among overlapping ecosystems:
**Microsystem:**

- Immediate systems in which people interact.
- Environments where people might be physically active or where they might receive support for being physically active such as workplace, parts, or home.
Mesosystem

- Interaction take place in the mesosystem.
- Interactions occur between fitness specialists and members within a club
**Exosystem**

- All external systems that influence the microsystem
- e.g. UMD recreational director influence on access to the center influences the physical activity that takes place on campus.
Macrosystem

Larger sociocultural context in which a person resides; encompasses all other systems. It includes the cultural values, economic system, and social conditions. Example would be the neighborhood or UMD in which one is physically active.
A Ecological Model for Physical Activity

- Community agencies and groups can influence policies that will provide supportive physical activity environments
- More supportive environments will lead to greater physical activity among community members
- For example:
  - Improve availability of and access to facilities and programs
  - Support active transportation (walking, biking)
Examples

- Three 10 minutes fitness breaks where employees are engaged in moderate intensity exercise daily.

- Tuition reduction for students who attend and participate in physical fitness classes, use the physical fitness facility, and bike or walk to school.

- No TV’s or DVD players in dorm rooms; only TV’s are located in Health centers or exercise machines that when used initiates the TV viewing.

- Library services occur on multi-floors with stairs; elevators can only be used by disabled people.

- Health care insurance is reduced for people who bike or walk to work.

- Shopping stores require the clients to walk all over the store to find clothing or food items.

- Build bike and walking paths that are connected to parks and shopping areas.

- Mass transit services that include free bike carriages.
Social-Ecological Model

Limitations of the Ecological Models

- Environmental and policy changes can take a long time and a lot of money to implement.
- Simply building fitness facilities does not mean that people will automatically become more physically active.
- Educational and incentive programs to motivate people can be expensive and time consuming.
Behavioral Choice Theory

- All about making good decisions
  - People have a choice in being sedentary or being active

- People make good decisions if they have options available to them from which they can choose from.
  - Sedentary and exercise activities must be enjoyable
  - Usually engage in enjoyable activities daily

- People need to believe they are free to choose to be active and be forced.

- People want their sedentary behavior to lead to a speed change...
Relapse Prevention Model

- The major problem facing the PFT is relapse of their client.
- Relapse is a period of time where the client stopped exercising for a long period of time.
- Lapse is a brief period (e.g., few days) where the client stops exercising or being physically active.
- Relapse and lapses results in **abstinence violation effect**.  
  - People have tendency to give up all together.
- We need to develop relapse interventions
  - Plan for relapse
  - Develop a relapse program
  - Set goals
  - Educate the client to alternative ways to exercise due to travel, work, or vacations.
Models & theories are practical because they:

1. Direct attention to key factors to target change in one’s exercise behavior
2. Provide indication of processes most susceptible to change
3. Have demonstrated validity, that is, interventions based on these models work!
4. Provide a basis for detecting why an intervention succeeded or failed!
5. Theory based interventions are more successful!!!
Importance of Theories

- Allow us to better understand and predict physical activity behavior.

- Give us a scientifically validated blueprint from which to formulate effective behavioral interventions.

- Enable us to organize exercise behavior variables in a coherent manner.