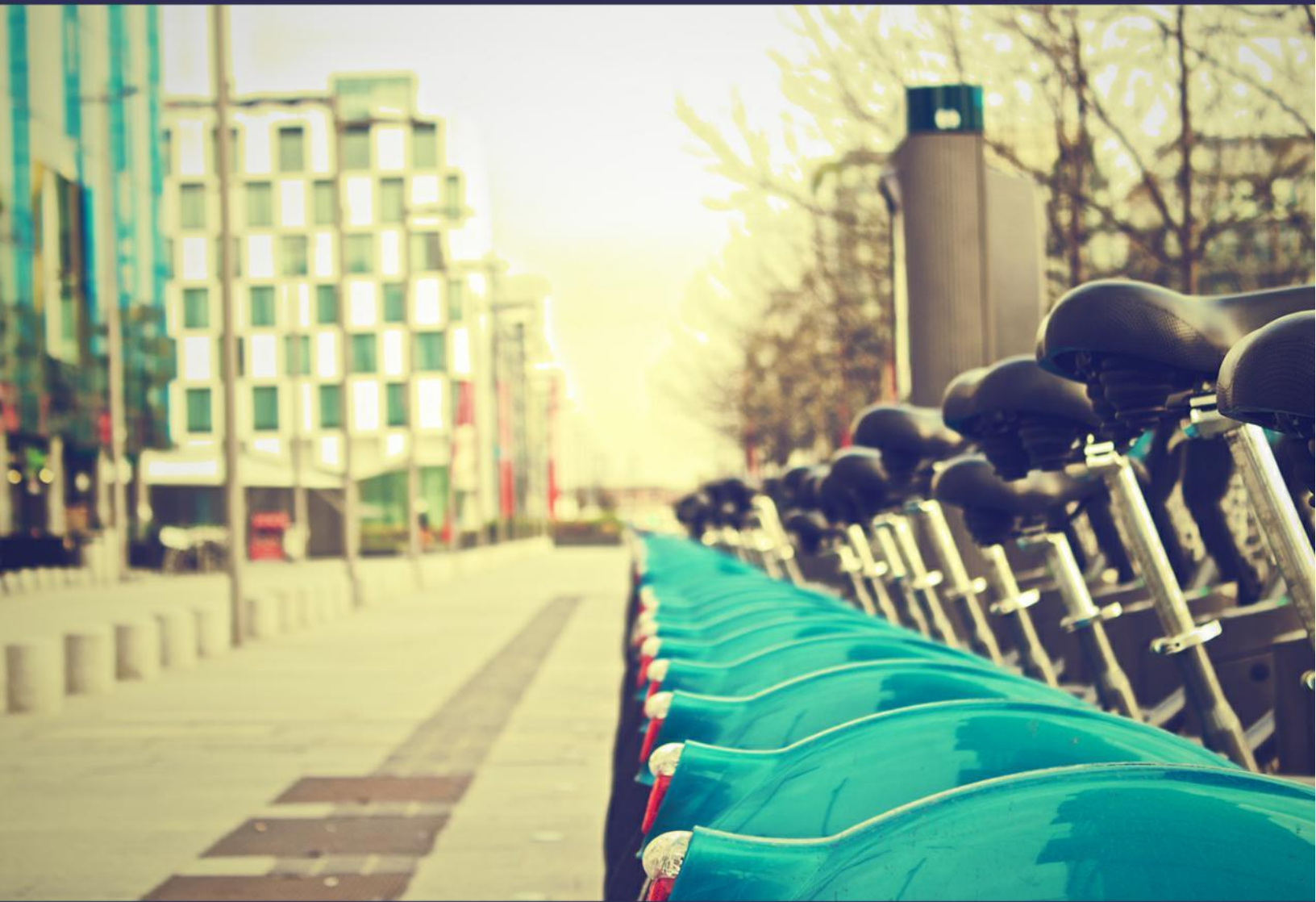


SUPPORTING PHYSICAL ACTIVITY: A GUIDE FOR PEER SUPPORT SPECIALISTS



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Supporting Physical Activity: A Guide for Peer Support Specialists

Individuals who experience mental illness are at greater risk for physical health conditions such as obesity, diabetes, and heart disease. One modifiable risk factor is physical activity participation. There are high rates of sedentary behavior among individuals with mental health conditions, and individuals with lived experience endorse physical activity as a component of treatment. This guide provides an overview of the importance of physical activity, barriers individuals may experience, and strategies to support individuals in their physical activity goals. While this guide can be used as a stand-alone resource, face to face and distance training can also be provided by the Temple University Collaborative on Community Inclusion of Individuals with Psychiatric Disabilities.

Five Lessons & Topics

This guide is meant to enhance peer support specialists' ability to encourage consumers with mental illness to increase physical activity levels. Lessons provide an overview of the benefits of physical activity and the risks associated with inactivity. Each lesson focuses on understanding consumers' needs and techniques that peer support specialists can use to encourage consumers to use personal strengths and interests for the purpose of being more physically active.

The guide is broken into 5 lessons, each focusing on a different topic. Each lesson provides a definition of key terms, an overview of the topic, tips and strategies for peers to support consumers, a case study with reflection questions, and next steps for peers to integrate the topics and skills into their work with consumers. Below is an overview of the lessons described in each session.

Lesson 1 – Sedentary Behaviors & Barriers to Physical Activity

This lesson provides an overview of the prevalence and risks that are associated with sedentary lifestyles, which are common in populations of people who have severe mental illness diagnoses. This lesson lays a foundation for understanding the importance of encouraging physical activity. Risks associated with sedentary lifestyles include cardiovascular disease, obesity, diabetes, metabolic syndrome, decreased quality of life and early mortality.

In an effort to help people to become more physically active, it is important understand what barriers stand in the way. Therefore, the first lesson also covers various barriers, how to recognize them and actions to work toward overcoming them. Barriers to physical activity might include not knowing what opportunities are available, unsafe neighborhoods, medication side-effects, negative self-perception, lack of social support, motivation, money and/or transportation.

Lesson 2 – Benefits of Physical Activity

This lesson includes information about some of the various health benefits of physical activity. Physical health benefits might include improved strength and stamina, increased sleep, achieving and maintaining a healthy weight, and decreased risks for weight related diseases. Mental health benefits can include improvements in mood, motivation, self-esteem, confidence and decreased boredom. Social health benefits occur when activities allow for the development of relationships and opportunities to practice social skills and confidence with other people. Social benefits might include an increased social network for support, encouragement and fun. When we create social ties with people who enjoy similar activities, we are likely to engage in those activities more often. In this way, social ties can also lead to increased physical activity. This lesson also includes methods for helping consumers to understand which benefits are of personal value because these things can become personal motivation to increase physical activity.

Lesson 3 – Evaluating Current Physical Activity Levels and Motivation for Change

Physical activity can be aerobic and/or muscle building. This lesson provides an overview of these types of physical activity, including examples. Facilitators will also discuss recommended amounts of each type of physical activity for optimal health. Throughout this lesson, facilitators will emphasize the importance of activities being enjoyable. Enjoyable activities are more likely to be sustained.

Next, the transtheoretical model of change is described. Each of its 5 components (precontemplation, contemplation, planning, action and maintenance) is described. This conversation includes tips on recognizing which stage a consumer is in and best practices to motivate them to progress toward being more physically active. Motivational interviewing is encouraged as a technique to help consumers find their own reasons for increasing activity levels.

Lesson 4 – Goal Setting and Identifying Action Steps

This lesson offers an overview of goal setting. Ultimate goals are defined as long-term goals and present goals as steps, or objectives, to get to the long-term goal. Peer support specialists are encouraged to help consumers to set goals and plan ways to reach goals. Strategies are offered to help consumers create goals that are specific and measurable. Approach goals are preferred over avoidance goals because research suggests that approach goals are more sustainable and more likely to be achieved. Peer support specialists should remember when encouraging consumers to create ultimate and present goals, to focus on things that are meaningful, in-line with values and enjoyable.

Lesson 5 – Self Monitoring

Self-monitoring is proposed as a means of independence in working toward goals. It can also help to enhance motivation and identify when goals need to be altered. Types of self-monitoring are discussed. These include high-tech fitness monitors, like fitbits and pedometers. It also includes paper forms that participants can use to write their progress and how they felt during activities. Consumers are also encouraged to build and utilize social supports who will help them stay on track with their physical activity goals.

Lesson 1

Physical Activity among People with Mental Health Issues: Behavior and Barriers

Topics

Sedentary behaviors are activities that do not increase energy expenditure substantially above the resting level. These activities include sitting, lying and watching television. Risks associated with sedentary lifestyles include cardiovascular disease, obesity, diabetes, metabolic syndrome, decreased quality of life and early mortality.

Barriers are circumstances or obstacles that prevent people from taking actions. Barriers to physical activity may include not knowing what opportunities are available, unsafe neighborhoods, medication side-effects, negative self-perception, lack of social support, motivation, money and/or transportation. Perceived and experienced stigma also provide barriers to being active in the community.

Application to Practice

People who have mental health diagnoses are more likely to lead sedentary lifestyles than others. They are also more likely to be impacted by associated health complications. It is important for peer support specialists to understand the importance of physical activity and the various barriers that might stand in the way of being active. Some barriers may be directly associated with a diagnoses, like motivation, difficulty processing information and medication side-effects. Other barriers might be related to finances or self-esteem. Peer support specialists should observe consumers for clues of barriers (drowsiness, lack of expressed interests) and have conversations about both interests and potential barriers. Once peer support specialists have an idea of what consumers want to do and things that are standing in the way, they can work together to overcome these barriers.

Tips

- Ask participants about how much screen time (e.g., watching TV, using the computer) they get in an average day
- Ask participants about their daily energy levels
- Ask participants about things that prevent them from being more physically active
- Educate participants about the health risks of sedentary behavior.

Table 1.1 Definitions of Terms in this Section

Term	Definition
Sedentary Behavior	<p>Sitting in one place for an extended period of time. The body is generally in a seated or reclined position.</p> <p>Example: Sharon sits on the couch and watches television for hours at a time. She also spends several hours a day sitting at her computer.</p>
Physical Activity	<p>Any body movement that works muscles and requires more energy than resting.</p> <p>Examples: Walking, lifting weights, swimming, biking, gardening, dancing, yoga</p>
Barriers	<p>Something that prevents access to participation or makes it difficult to participate</p> <p>Example: Mary's barrier to swimming is her negative thoughts and feelings about her appearance. Mary feels out of shape and overweight. She does not want other people to see her in a swim suit, so Mary does not swim.</p>
LTPA	<p>Leisure-time physical activity Exercise, sports, recreation, or hobbies that are not associated with activities as part of one's regular job duties, household, or transportation</p> <p>Example: Mark lifts boxes at work, which is physical activity, but not LTPA. Mark plays football in a social football league on the weekend, which is LTPA.</p>
Metabolic Syndrome	<p>Having at least 3 medical risk factors that increase the risk of developing cardiovascular disease and diabetes.</p> <p>Example: Mel has been diagnosed with Metabolic Syndrome, because she has a low HDL "good" cholesterol level, a large waistline, and high blood pressure. Mel has an increased risk for developing cardiovascular disease and diabetes.</p>
Cardio-vascular disease	<p>Heart disease that involves narrowed or blocked blood vessels that can lead to a heart attack, chest pain, or stroke.</p> <p>Example: Darrin noticed that he was often very short of breath, had a racing heartbeat, and experienced dizziness and chest pain. Darrin went to the doctor and was diagnosed with cardiovascular disease. His doctor said that Darrin should make some lifestyle changes to reduce the buildup of fatty plaques in his arteries or he may have a heart attack.</p>

High rate of sedentary behavior and decreased level of physical activity

An overwhelming percentage of people with mental health conditions experience high levels of sedentary behavior and report lower levels of physical activity than the general population (Ussher, Stanbury, Cheeseman, & Faulkner, 2007). One study focused on physical activity among people with schizophrenia (Lindamer et al., 2008). The participants with schizophrenia

spent less than half the amount of time engaged in physical activity compared to those without schizophrenia (Lindamer et al., 2008). In another study, it was found that 26% of psychiatric outpatients with serious mental illness reported zero leisure time physical activity in the past month. Additionally, 36% of those receiving outpatient services reported physical activity levels that were significantly lower than the recommended amount (Daumit et al., 2005).

Even though many people with mental illness may engage in some regular physical activity, most do not participate in enough physical activity to remain healthy (Jerome et al., 2009). A study conducted by Jerome and colleagues found that only 4% of participants met the physical activity guidelines (Jerome et al., 2009). Age and gender also appears to have a role in physical activity; women are more likely than men to be inactive and older individuals are significantly less active than younger individuals with mental health conditions (Daumit et al., 2005). Therefore, women and older individuals are at even greater risk for the negative effects of sedentary behavior (Daumit et al., 2005).

Negative Impact of sedentary behavior and physical inactivity

A lack of leisure time physical activity among people with serious mental illness is associated with decreased health related quality of life (Vancampfort et al., 2011). Low physical activity participation is a major contributor to the high rate of chronic disease experienced by people with serious mental illness (Scott & Happell, 2011). Chronic disease contributes to the early mortality experienced by this population (Scott & Happell, 2011). Life expectancy of people with serious mental illness is as much as 30 years less than the general population (Colton & Manderscheid, 2006). Cardiovascular disease is the number one cause of the decreased life expectancy among this population (Colton & Manderscheid, 2006; De Hert et al., 2011). Being overweight or obese increases the chance of cardiovascular problems (Daumit et al., 2003). Low cardiorespiratory fitness, due to physical inactivity, is also a significant risk factor for cardiovascular disease (Strassnig, Brar, & Ganguli, 2011). So, being overweight and physically inactive can significantly contribute to cardiovascular disease and the early mortality faced by people with serious mental illness.

Obesity is also associated with other medical problems, such as type 2 diabetes and metabolic syndrome, which are more common in patients with serious mental illness than in the general population (McElroy, 2009). This is most likely due to the fact that people with serious mental illness have been shown to have a higher rate of obesity than the general population (Daumit et al., 2003). Women with serious mental illness have been shown to be two times more likely than the general population to be obese (Daumit et al., 2003). Sedentary behavior has been consistently proven to be associated with obesity (Thorp, Owen, Neuhaus, & Dunstan, 2011). Sedentary behavior has also been shown to be a risk factor for other negative health outcomes, such as cancer, diabetes, cardiovascular disease, symptomatic gallstone disease, and hypertension (Thorp et al., 2011). The high rate of sedentary behavior among people with serious mental illness puts them at an increased risk for many health related complications, including premature death.

Barriers to physical activity among people with mental health issues

Exercise and its benefits are commonly recognized and accepted by people with serious mental (Richardson et al., 2005; Ussher et al., 2007). However, the acceptance and identified importance of physical activity does not appear to translate into participation in physical activity (Ussher et al., 2007). Understanding the barriers to physical activity is an important step to supporting individuals in independent physical activity engagement. The following barriers have been identified in the literature as common barriers experienced by individuals with psychiatric disabilities: Lack of adequate programs and professional support, lack of social support, mental illness symptoms, medication sedation, weight gain, negative self-perceptions, decreased motivation, fear of unsafe conditions, fear of discrimination, and financial and transportation complications.

Lack of adequate programs and professional support

One significant barrier to participation may be the lack of adequate programs available to the mental health population (Richardson et al., 2005). People with psychiatric disabilities may want to participate in physical activities, but don't know where to go or how to start. Mental health centers may offer physical activity programs, but these often fall short and do not address the unique interests and barriers of individual participants. Participants in one study said that they would be more likely to exercise if they were able to talk with an exercise instructor or receive advice from their physicians about how to participate in physical activities (Ussher et al., 2007). While attitudes may be changing as legislators look towards integrated care; historically, the physical health needs have often gone unaddressed by mental health providers or were considered lower priority, so people with mental illness are often unable to discuss their physical health needs with the professionals they see the most (Tse et al., 2011).

Table 1.2 Identifying a lack of adequate programs or professional support

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Uninterested in participating in activities at mental health center • Making negative comments about staff leading physical activities • Avoiding physical activities or making excuses not to participate in strenuous activities • Voicing concerns and questions about physical health • Expresses interest in physical activity but doesn't attend related groups at the mental health center • Being unsatisfied after meeting with mental health provider • Unable to discuss needs or questions with mental health provider
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. Are you interested in participating in any physical activities? 2. Do you know of any physical activity programs you would like to participate in? 3. Do you know where you could look to find information about physical activity programs? 4. Are there any activities you would like to try at the mental health center? 5. Are there any specific reasons you don't want to participate? 6. Do you feel comfortable with the staff leading the physical activities? 7. Could the staff do anything else to help encourage you to participate? 8. Are you concerned about your physical health and your ability to participate? 9. Have you talked to your doctor/mental health provider about your physical health concerns? 10. What would you like to ask your doctor/mental health provider about your physical health? 11. Who else would you like to talk to about your physical health?

Lack of motivation

Another significant barrier that contributes to the lack of physical activity among people with serious mental illnesses is a common mental illness symptom of feeling unmotivated to participate. In one study, a participant explained that it was hard enough to get out of bed, let alone exercise (McDevitt, Snyder, Miller, & Wilbur, 2006). Motivation to engage in physical activity is a barrier for both individuals with and without mental illness. Therefore, it is important to understand if a person is unmotivated to participate in all activities, or if there are certain activities he or she would be more motivated to engage in. Motivation is an important factor for anyone to increase and sustain physical activity. When working with individuals, if you believe motivation is a barrier, try not to assume the individual is lazy or uninterested. It may just take more time to identify the activities in which he or she will be more motivated to engage.

Table 1.3 Identifying a lack of motivation

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Spends a lot of time sleeping • Most activities are sedentary and passive, such as watching television • Does not participate in many or any voluntary activities • Unexpressive and unenthusiastic • Expresses minimal interests in activities • Has a difficult time recalling interests or enjoyment in activities • Avoids participation or situations that may require participation
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. What does your schedule look like on an average day (including sleeping and watching television)? 2. Are you interested in participating in any recreational or leisure activities? 3. Would you like to increase your participation in activities? 4. What recreational or leisure activities have you enjoyed in the past? 5. Have you enjoyed participating in any physical activities in the past? 6. Can you see yourself enjoying participating in physical activities? 7. Do you enjoy watching people play sports on the television? 8. What would help motivate you to participate in physical activities? 9. What stops you from participating in recreation and leisure activities? 10. What thoughts do you have when you think about participating in physical activities?

Fear of unsafe conditions

Fear of unsafe conditions is a barrier to participating in physical activities out in the community. Some participants with serious mental illness have described feeling unsafe when outside in their low income neighborhoods and were afraid of being identified as someone with a mental illness (McDevitt et al., 2006).

Table 1.4 How to identify fear of unsafe conditions

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Avoids activities in community • Expresses negative thoughts about resources or people in the community • Expresses feelings of being unsafe outside • Avoids walking in the neighborhood or being out late in the community • Avoids interacting with or talking to people in the community • Expresses negative feelings or thoughts about what other people in the community think of them
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. Do you enjoy any activities in your community? Can you tell me about them? 2. Where do people go to eat in your community? Where do they exercise or engage in activities? 3. Do you talk to anyone on a regular basis in your neighborhood or community? 4. Do you have any friends in your neighborhood or community? Can you tell me about them? 5. Do you feel safe when walking in your neighborhood or community? Why or why not? 6. Do you feel safe walking home at night? 7. When do you feel safe in your neighborhood? 8. Do you like talking to people when you are walking or shopping in your community?

Medication sedation

Some medications used in the treatment of psychiatric disorders can make it more difficult for people to participate in physical activities due to medication sedation. One participant with a

serious mental illness explained that starting a new medication causes lethargic feelings and feeling drained (McDevitt et al., 2006).

Table 1.5 How to identify medication sedation

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Expressing feelings of exhaustion • Moving slowly and looking tired • Sleeping enough, but still feeling drained • Lacking energy to participate
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. What medications do you take to help with your mental health? 2. How long have you been taking your medications? 3. Did you notice a change in your energy level once you started taking the medication? 4. How much sleep do you get on an average night? 5. Do you still feel tired after getting a full night sleep? 6. Can you describe your energy level? 7. Do you have enough energy to complete daily tasks? 8. Do you want to participate in more activities than you are now?

Negative self-perceptions

A common barrier to participation in physical activities among people with mental illness is negative self-perceptions. Many people with mental illness experience weight gain, due to medication side effects and lifestyle choices, which can contribute to negative self-perceptions. Negative self-perceptions of physical appearance have been shown to decrease participation in physical activities and increase avoidance of being seen in exercise attire, especially among women (Cole, 2010). Negative self-perceptions of ability to participate in physical activity have been shown to decrease motivation to engage in such activities (Cole, 2010).

Table 1.6 How to identify negative self-perceptions

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Avoids wearing tight or revealing clothes • Expresses feeling uncomfortable being seen exercising, at a gym, or in exercise attire • Avoids participating in skill based activities • Expresses being uncomfortable with ability to participate in activities • Expresses concerns with physical abilities to participate • Expresses feelings of not being good at physical activities • Describes looking silly or incompetent while participating in physical activities
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. Are there any physical activities you would like to participate in? 2. Why do you think you do not participate in them? 3. How would you feel about being seen wearing exercise clothing? 4. Would you wear exercise attire out to go grocery shopping? 5. How do you feel about wearing a bathing suit? 6. Would you wear a bathing suit if you were at the beach? 7. Do you feel comfortable participating in physical activities? 8. What makes you uncomfortable about participating in physical activities? 9. Do you think you are healthy enough to participate in physical activities? 10. Are you confident about your abilities to participate in physical activities? 11. What would prevent you from participating in physical activities? 12. Can you describe what you would look like participating in physical activities? 13. Do you think you would be good at participating in physical activities?

Lack of social support

Additionally, people with mental illness have reported low levels of social support to exercise (Ussher et al., 2007). Not having anyone to participate with has been found to be one of the largest barriers to engaging in physical activity (Gorczynski & Faulkner, 2010). Being alone has been shown to decrease levels of physical activity by 40% (McCormick et al., 2009).

Table 1.5 How to identify lack of social support

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Expressing feelings of being lonely • Expressing feelings of not having anyone to talk to or participate with • Talking about being alone frequently • Rarely talking about friends or family
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. Who do you like hanging out with or talking to? 2. Who do you talk to when you are not feeling well? 3. How often are you alone? 4. Do you have any family in the area? 5. Do you talk to any family members or see any family members on a regular basis? 6. Do you have anyone in your life that you would like to participate in recreation or leisure activities with? 7. Do you live with anyone that you would like to participate in recreation or leisure activities with? 8. Is there anyone in your life that would participate in physical activities with you? 9. Is there anyone in your life that expresses concern about your physical health? 10. Is there anyone in your life that would motivate you to participate in more physical activities? 11. Is there anyone in your life that would like to participate in physical activities with you?

Financial and transportation complications

Cost and transportation issues have also been expressed as barriers to participation in physical activities among people with mental illness (Hodgson, McCulloch, & Fox, 2011). Participation in some physical activities costs more than some people can or think they can afford. Other

physical activities may require participants to figure out alternative transportation modes that are unfamiliar or inaccessible.

Table 1.7 Identifying Financial & Transportation Barriers

How to identify	Strategies used
What does it look like	<ul style="list-style-type: none"> • Avoiding the topic of money • Expressing concern with affording membership to a gym or a community center providing physical activity programs • Expressing concern with spending money on participating in physical activities • Expressing concern with money in general • Expressing concern about transportation in general • Expressing concern about trying to get to the location where the physical activity occurs • Talking about being uncomfortable with public transportation • Expressing concern about paying for public transportation • Expressing unfamiliarity of driving or knowing anyone that drives • Avoiding the topic of transportation and driving
What questions to ask in order to identify it	<ol style="list-style-type: none"> 1. What physical activities would you like to try? 2. Why do you think you have not tried that physical activity? 3. How much do you think it costs to participate in that physical activity? 4. Would you be able to afford participation in that activity? 5. Where do you think you could participate in that activity? 6. How would you get to that location? 7. Do you drive a car or have anyone who would be willing to drive you there? 8. Do you think you could walk or bike there? 9. Are you comfortable with taking the bus or the subway or the train? 10. Do you have a public transportation pass? 11. Do you know how to get a public transportation pass or how much it costs?

Helping to overcome barriers

Individuals who have been trained to be sensitive and supportive about mental health issues are more likely to be able to talk to individuals appropriately about barriers specific to people with mental illness (Gorczynski & Faulkner, 2010). Additionally, peer support specialists are likely to be able to relate with individuals about barriers to physical activity that they have in common. Addressing barriers and confronting negative attitudes about physical activity is an important step towards increasing physical activity (McDevitt et al., 2006). Peer support specialists should focus on practical strategies to overcome barriers, such as finding social support and increasing knowledge, confidence, and motivation (Gorczynski & Faulkner, 2010). Individuals have stated that they need the right kind of leader to help them increase physical activity (Gorczynski & Faulkner, 2010). Peer support specialists are the perfect fit to help individuals by believing in them and motivating without forcing (Gorczynski & Faulkner, 2010). It is important to address barriers experienced by those you work with individually. Understanding barriers and developing strategies to overcome or navigate them will be an essential step in increasing sustainable physical activity participation. In this lesson, the focus was on identifying and understanding barriers. The following lessons will discuss the benefits of physical activity and strategies to set and sustain individual physical activity goals.

Lesson 1: Illustrative Case Example

When Renita was 25 years old, she was diagnosed with Major Depressive Disorder. She had given up taking classes at the community college and lost several jobs over the past few years due to frequent call outs. Renita lived in a small apartment in Philadelphia with her mom. Her mom worked a couple jobs, so Renita was left alone at home most days. She did not have any friends that she talked to on a regular basis and felt uncomfortable socializing with unfamiliar people. Renita had a difficult time getting out of bed and she spend most of her days sleeping, eating, and watching television. She could not find the motivation to engage in any kind of physical activity.

By the time Renita was 30, she was at high risk for developing a series of health problems. Renita's sedentary behavior, lack of physical activity, and poor eating habits had caused Renita to gain a significant amount of weight. Renita had been overweight most of her life, but now she was morbidly obese. Renita's doctor diagnosed her with Metabolic Syndrome, because she had a large waistline, a low HDL "good" cholesterol level, and high blood pressure. Having Metabolic Syndrome meant that Renita was at an increased risk of developing cardiovascular disease and diabetes. Renita's doctor told her she needed to make some lifestyle changes or she may have a heart attack.

Renita understood that she had to do something to change her physical health, but she didn't know how to start. Her doctor said that she should get more exercise, but he didn't offer any suggestions or resources. Renita didn't know who to talk to about physical activities and didn't have any friends who would join her in exercising. She used to love to swim, but the thought of putting on a bathing suit was devastating. In addition, Renita thought she would have a very difficult time swimming due to her weight and recent lack of physical activity. She didn't know

where she would be able to swim anyway. Renita and her mom did not have a lot of money and she thought membership to the YMCA would be too expensive for them. Renita thought that walking would be an easy activity to start, but she didn't feel comfortable walking in her neighborhood alone and was scared of what people would say about her as she walked by. Renita wanted to make some changes, but she needed some help to start.

Lesson 1: Next Steps & Self-Reflection

This lesson covered a lot about understanding barriers to physical activity. Throughout the week, talk with individuals that you work with to try to identify the barriers they experience that prevent participation in physical activity. Discuss with your coworkers about the barriers you discovered and brainstorm strategies to navigate those barriers in order to increase physical activity.

What strategies did you use to assess these barriers?

What did you find to be the most successful strategy to identify individual barriers?

What difficulties did you have identifying individual barriers?

Was it difficult to talk about experienced barriers? If so, why?

Barriers	Experienced Barriers
Lack of programming/professional support	
Motivation	
Unsafe Conditions	
Negative Self-Perception	
Social Support	
Financial/Transportation	

Lesson 1: Resource Links

Facts about Overweight and Obesity

- [Health Effects of Overweight and Obesity](http://www.cdc.gov/healthyweight/effects/index.html)
http://www.cdc.gov/healthyweight/effects/index.html
- [What are overweight and obesity](http://www.nhlbi.nih.gov/health/health-topics/topics/obe/)
http://www.nhlbi.nih.gov/health/health-topics/topics/obe/
- [Who is at risk for overweight and obesity](http://www.nhlbi.nih.gov/health/health-topics/topics/obe/atrisk.html)
http://www.nhlbi.nih.gov/health/health-topics/topics/obe/atrisk.html
- [Obesity rates and sitting](http://activelivingresearch.org/obesity-and-physical-activity-rates-active-gaming-and-sitting-research-summary-slides)
http://activelivingresearch.org/obesity-and-physical-activity-rates-active-gaming-and-sitting-research-summary-slides
- [Treating overweight and obesity](http://www.nhlbi.nih.gov/health/health-topics/topics/obe/treatment.html)
http://www.nhlbi.nih.gov/health/health-topics/topics/obe/treatment.html

Facts about Physical Activity

- [Facts about physical activity](http://www.cdc.gov/physicalactivity/data/facts.html)
http://www.cdc.gov/physicalactivity/data/facts.html
- [How much physical activity do adults need?](http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html)
http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html

Physical Activity and the Environment

- [Negative social environments decreases physical activity](http://activelivingresearch.org/social-environment-research-summary-slides)
http://activelivingresearch.org/social-environment-research-summary-slides
- [How parks and recreation can support diverse and underserved populations](http://activelivingresearch.org/green-places-play-spaces-income-and-race-how-parks-and-recreation-can-support-physical-activity)
http://activelivingresearch.org/green-places-play-spaces-income-and-race-how-parks-and-recreation-can-support-physical-activity
- [Neighborhood safety and walking](http://activelivingresearch.org/neighborhood-safety-and-walking)
http://activelivingresearch.org/neighborhood-safety-and-walking

References

- Cole, F. (2010). Physical activity for its mental health benefits: conceptualizing participation within the Model of Human Occupation. *British Journal of Occupational Therapy*, 73(12), 607-615.
- Colton, C.W., & Manderscheid, R.W. (2006). Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*, 3(2), A42.
- Daumit, G.L., Clark, J.M., Steinwachs, D.M., Graham, C.M., Lehman, A., & Ford, D.E. (2003). Prevalence and correlates of obesity in a community sample of individuals with severe and persistent mental illness. *The Journal of Nervous and Mental Disease*, 191(2), 799-805.
- Daumit, G.L., Goldberg, R.W., Anthony, F.D., Brown, C.H., Kreyenbuhl, J., Wohlheiter, K., & Dixon, L.B. (2005). Physical activity patterns in adults with severe mental illness. *The Journal of Nervous and Mental Disease*, 193(10), 641-646.
- De Hert, M., Schreurs, V., Vancampfort, D., & Van Winkle, R. (2009) Metabolic syndrome in people with schizophrenia: a review. *World Psychiatry*, 8, 15-22
- Gorczyński, P., & Faulkner, G. (2010). Exploring the construct validity of the transtheoretical model to structure physical activity interventions for individuals with serious mental illness. *Psychiatric Rehabilitation Journal*, 34(1), 61-64.
- Hodgson, M.H., McCulloch, H.P., & Fox, K.R. (2011). The experiences of people with severe and enduring mental illness engaged in physical activity programme integrated into the mental health service. *Mental Health and Physical Activity*, 4, 23-29.
- Jerome, G.J., Young, D.R., Dalcin, A., Charleston, J., Anthony, C., Hayes, J., & Daumit, G.L. (2009). Physical activity levels of persons with mental illness attending psychiatric rehabilitation programs. *Schizophrenia Research*, 108, 252-257.
- Lindamer, L.A., McKibbin, C., Norman, G.J., Jordan, L., Harrison, K., Abeyesinhe, S., & Patrick, K. (2008). Assessment of physical activity in middle-age and older adults with schizophrenia. *Schizophrenia Research*, 104, 294-301.
- McCormick, B.P., Frey, G.C., Lee, C.-T., Gajic, T., Stamatovic-Gajic, B., & Maksimovic, M. (2009). A pilot examination of social context and everyday physical activity among adults receiving community mental health services. *Acta Psychiatr Scand*, 119, 243-247.
- McDevitt, J., Snyder, M., Miller, A., & Wilbur, J. (2006). Perceptions of barriers and benefits to physical activity among outpatients in psychiatric rehabilitation. *Journal of Nursing Scholarship*, 38(1), 50-55.
- McElroy, S.L. (2009). Obesity in patients with severe mental illness: overview and management. *Journal of Clinical Psychiatry*, 70(suppl 3), 12-21.
- Richardson, C.R., Faulkner, G., McDevitt, J., Skrinar, G.S., Hutchinson, D.S., & Piette, J.D. (2005). Integrating physical activity into mental health services for persons with serious mental illness. *Psychiatric Services*, 56(3), 324-331.
- Scott, D., & Happell, B. (2011). The high prevalence of poor physical health and unhealthy lifestyle behaviours in individuals with severe mental illness. *Issues in Mental Health Nursing*, 32, 589-597.

- Strasnick, M., Brar, J.S., & Ganguli, R. (2011). Low cardiorespiratory fitness and physical functional capacity in obese patients with schizophrenia. *Schizophrenia Research*, 126, 103-109.
- Thorp, A.A., Owen, N., Neuhaus, M., & Dunstan, D.W. (2011). Sedentary behaviors and subsequent health outcomes in adults: a systematic review of longitudinal studies, 1996-2011. *American Journal of Preventive Medicine*, 41(2), 207-215.
- Tse, J., Chow, E., Sultana-Cordero, R., Titus-Prescott, M., Chiles, R., Cleek, A., & Cleek, E. (2011). Motivation-based interventions for obesity in serious mental illness. *Psychiatric Annals*, 41(10), 473-477.
- Ussher, M., Stanbury, L., Cheeseman, V., & Faulkner, G. (2007). Physical activity preferences and perceived barriers to activity among persons with severe mental illness in the United Kingdom. *Psychiatric Services*, 58(3), 405-408.
- Vancampfort, D., Probst, M., Scheewe, T., Maurissen, K., Sweers, K., Knapen, J., & De Hert, M. (2011). Lack of physical activity during leisure time contributes to an impaired health related quality of life in patients with schizophrenia. *Schizophrenia Research*, 129, 122-127.

Lesson 2

The Benefits of Physical Activity

Topics

Physical Health Benefits of Physical Activity include strength, flexibility and stamina. Other benefits might include weight loss/maintenance and a decrease in potential obesity related diseases. One might also experience decreased fatigue and improved sleep among the many benefits of physical activity.

Mental Health Benefits of Physical Activity that might be experienced by people who have SMI include improved mood, enhanced self-esteem and confidence, reduced stress and a greater satisfaction with life.

Cognitive benefits might include increased ability to concentrate, process information and remember.

Social Health Benefits of Physical Activity include increased opportunities for social connections as people are doing more things. They might also feel pride and higher self-esteem due to being part of a group. Consumers who participate in activities they enjoy are happier and are often considered more enjoyable to be around, which can increase the potential that others will want to spend time with them. This can lead to improved social lives.

Application to Practice

Physical activity offers a variety of benefits to overall health and well-being. Many of these benefits are universal, but can specifically play a positive role in the lives of people who have severe mental illnesses. When peer support specialists understand the variety of health impacts of physical activity, they can work with consumers to identify their personal reasons for increasing physical activity. Through observation, they might also notice that a consumer has a trouble area that might be helped through increased physical activity. Problem areas might include loss of breath when climbing stairs, depressed mood or a lack of friends. When peer support specialists identify these issues, they can inspire conversations about how physical activity can help with overall wellness. As consumers experience the positive aspects of physical activity on areas that are personally meaningful, chances increase that they will continue being active in the future.

Tips

- Educate participants about the physical, mental, and social benefits of physical activity
- Encourage participants to identify which benefits would be most meaningful to them
- Encourage participants to picture a life in which those benefits are experienced; discuss what that life would look like

Table 2.1 Definitions of Terms in this Section

Term	Definition
Sedentary Behavior	<p>Sitting in one place for an extended period of time</p> <p>Example: Sharon sits on the couch and watches television for hours at a time. She also spends several hours a day sitting at her computer.</p>
Physical Activity	<p>Any body movement that works muscles and requires more energy than resting</p> <p>Examples: Walking, lifting weights, swimming, biking, gardening, dancing, yoga</p>
Emotional well-being	<p>A positive sense of being comfortable, healthy, or happy, which enables an individual to be able to function in society and meet the demands of everyday life</p> <p>Example: Jeremy has improved his emotional well-being through exercising more and is now able to cope better with misfortunes that occur in his life</p>
Leisure interests	<p>Activities that one would like to participate in during free time</p> <p>Example: Meredith's leisure interests include gardening, painting, creative writing, and hiking. She participates in all these activities voluntarily and during her free time.</p>
Cancer	<p>A serious disease cause by cells that are not normal and that can spread to one or many parts of the body</p> <p>Example: Kevin was diagnosed with cancer and learned that there was a large tumor growing in his body due to the abnormal cancer cells.</p>
Cardio-vascular disease	<p>Heart disease that involves narrowed or blocked blood vessels that can lead to a heart attack, chest pain, or stroke.</p> <p>Example: Darrin noticed that he was often very short of breath, had a racing heartbeat, and experienced dizziness and chest pain. Darrin went to the doctor and was diagnosed with cardiovascular disease. His doctor said that Darrin should make some lifestyle changes to reduce the buildup of fatty plaques in his arteries or he may have a heart attack.</p>
Diabetes	<p>A disease in which a person has high blood sugar. This can either be due to the body not producing enough insulin or because the body does not respond properly to insulin. Insulin regulates the level of sugar in the body.</p> <p>Example: Megan has diabetes. Her body does not make enough insulin, so her blood sugar is too high. Being overweight has increased Megan's risk for having diabetes.</p>

Benefits for everyone

Increasing literature shows that physical activity results in physical and mental-health benefits among people of diverse populations (Penedo & Dahn, 2005). There is strong evidence supporting that regular physical activity leads to prevention of several chronic diseases, such as cardiovascular disease, cancer, and diabetes (Warburton, Nicol, & Bredin, 2006). Regular physical activity is also associated with a decreased risk of premature death (Warburton et al., 2006). Additionally, engagement in physical activity has been shown to improve mood and emotional well-being (Penedo & Dahn, 2005). The greatest improvements in health status have occurred when the people who are least fit become physically active (Warburton et al., 2006).

Benefits specific to people with mental illness

People with serious mental illness can benefit in multiple ways by adding more physical activity into their lives. Physical activity can improve quality of life by increasing physical health, mental health, and social support (Richardson et al., 2005). Fortunately, exercise is well accepted by people with serious mental illness (Richardson et al., 2005). Physical activity has been reported by this population to be one of the most valued parts of treatment (Richardson et al., 2005). In one study, more than half of the participants with mental illness believed in the benefits of exercise, reported they enjoyed exercising, and said that they wanted to be more active (Ussher et al., 2007). Another study found that participants with mental illness were just as likely as the general population to complete physical activity interventions (Gorczyński & Faulkner, 2010). So, interventions to increase physical activity among people with serious mental illness are possible. Increasing physical activity can largely improve physical and mental health outcomes of people with serious mental illness (Richardson et al., 2005).

Physical Health Benefits

Integrating physical activity programs into psychiatric services can improve the physical health of people with mental illness (Richardson et al., 2005). After 6 months of participation in one physical activity program, participants with mental illness significantly decreased weight and waist circumference (Tse et al., 2011). Weight loss has been proven to significantly reduce the risk of developing an obesity-related cardiovascular disease (Ross & Janiszewski, 2008). Cardiovascular disease is the number one cause of decreased life expectancy among people with serious mental illness (Colton & Manderscheid, 2006; De Hert, Schreurs, Vancampfort, & Van Winkel, 2009). Along with losing weight, decreases in waist circumference can also predict a reduced risk of early mortality (Bigaard et al., 2003). Increasing physical activity often leads to a decrease in waist circumference and an increase in health related fitness (Ross & Janiszewski, 2008).

Table 2.2 Discussing Physical Health Benefits of Physical Activity

How to identify	Strategies used
What do physical health benefits look like	<ul style="list-style-type: none"> • Reduced weight • Decreased waist size • Increased endurance • Ability to be physically active for longer • Decreased fatigue • Improvement in cardiovascular health • Improved ability to breathe after being active • Decreased chest pain
Questions to ask to assess and encourage physical health benefits	<ol style="list-style-type: none"> 1. Would you like to decrease your weight? 2. Do you want to reduce your waist size? 3. Would you like to increase the length of time you can participate in physical activities? 4. Do you think you would benefit from having more energy? 5. Do you get tired easily after participating in physical activities? 6. Would you like to improve your heart health? 7. Have you been diagnosed with cardiovascular disease? 8. Do you have trouble breathing after being physically active? 9. Do you think you would benefit from improving your ability to breathe? 10. Do you experience frequent chest pain? 11. Would you like to reduce the number of times you feel chest pain? 12. Would you like to reduce the severity of your chest pain? 13. Would you like to reduce the severity of your physical health problems? 14. Do you think you can benefit from improving your physical health?

Mental Health Benefits

Including physical activity in mental health services can also contribute to improvements in psychological and social outcomes (Richardson et al., 2005). In one study, people with mental illness reported that they valued mental health benefits of physical activity more than anything else (McDevitt, Snyder, Miller, & Wilbur, 2006). Participants reported that physical activity resulted in feeling more energetic, less stressed, and sleeping better (McDevitt et al., 2006).

One participant said that walking resulted in feeling happy and feeling good about oneself. Another participant reported that he/she felt free from the struggles of work and pain and hardship while participating in physical activities. Additionally, being active was viewed as being involved in life (McDevitt et al., 2006). Seeking a meaningful life is an important part of the growth process among people with mental illness (Iwasaki, Coyle, Shank, Messina, & Porter, 2013). Active participation in leisure can help people cope with stress and feel more actively engaged in life, more satisfied with life, and less bored (Iwasaki et al., 2013).

New research is focusing on increasing physical activity in natural outdoor environments, such as green spaces, wooded areas, beaches, or lakes. (Barton, Griffin, & Pretty, 2012). People with mental illness reported significant changes in self-esteem after participating in outdoor physical activities (Barton et al., 2012). Combining exercise, nature, and social interaction is suggested to help recovery from and management of mental illness (Barton et al., 2012). Nature-based exercise could be used along with traditional treatment in order to improve mood (Barton et al., 2012).

Community-based physical activity may also reduce access barriers or the stigma of engaging at a mental health center. For example, a research study focused on adding a community physical activity program to mental health services for people with serious mental illness (Hodgson, McCulloch, & Fox, 2011). Attending the physical activity program resulted in psychological benefits, such as improving mood and ability to manage symptoms of illness. Attendance also increased sense of independence, increased social interaction, and increased ability to make decisions and manage routines. Participants reported that attending the physical activity program became less challenging over time as they became more comfortable with their physical skills and other participants. Many people with serious mental illness often participate in few meaningful activities, so regular participation in an exercise program can help increase sense of purpose (Hodgson et al., 2011). Participants reported an increased sense of achievement and confidence due to their ability to successfully participate on a regular basis and become part of a group (Hodgson et al., 2011).

Table 2.3 Discussing Mental Health Benefits of Physical Activity

How to identify	Strategies used
What do mental health benefits look like	<ul style="list-style-type: none"> • Feeling more energetic • Feeling less stressed • Sleeping better • Experiencing happy feelings • Feeling good about oneself • Feeling free from struggles • Feeling that life is more meaningful • Enjoying more activities • More satisfied with life • Increased sense of purpose • Increased confidence • Experiencing less boredom • Increased ability to cope with stress • Increased ability to manage symptoms • Increased ability to manage routines • Increased ability to make decisions • Improved mood
Questions to assess and encourage mental health benefits	<ol style="list-style-type: none"> 1. Would you like to feel more energetic? 2. Do you often feel tired? 3. Would you like to reduce the amount of stress you experience? 4. Would you like to increase your ability to deal with stress or other mental illness symptoms? 5. Would you like to feel happy? 6. Would you like to feel good about yourself? 7. Would you like to feel free from your struggles once in a while? 8. Do you think you would benefit from finding more meaning in your life? 9. Would you like to participate in more activities that you enjoy? 10. Would you like to feel more satisfied with your life? 11. Do you think you would benefit from increasing your level of confidence? 12. Do you often experience feelings of boredom? 13. Do you think you could benefit from increasing your ability to manage routines? 14. Do you think you could benefit from increasing your ability to make decisions? 15. Would you like to improve your mood?

Social benefits

Individuals with mental illness are often motivated to participate in physical activities if they think participation may lead to the development of adaptive, reliable relationships (Lloyd et al., 2007). Physical activities that increase social interaction can bring together isolated individuals through shared interests and help them to develop meaningful relationships (Heasman, 2004). Engagement in physical activities can offer individuals the opportunity to become part of a group that shares caring interactions, which can increase quality of life (Lloyd, 2007). According to the new perspective of recovery, caring relationships and peer support are two of the main components to improving hope in individuals with mental illness (Schrack et al., 2012). Social support can also counteract barriers related to mental illness symptoms and motivate individuals to continue participating in physical activities despite difficulties (Bonsaksen, 2011).

Table 2.4 Discussing Social Benefits of Physical Activity

How to identify	Strategies used
What do social health benefits look like	<ul style="list-style-type: none"> • Wanting to participate in physical activities in order to talk to others and develop relationships • Wanting to participate in physical activities that allow individuals to talk with each other • Wanting to participate in physical activities that are social in nature or encourage group interaction • Talking positively about other individuals that participate in chosen physical activities • Feeling confident in being able to overcome barriers to participation after talking to other individuals in physical activity group • Feeling motivated to continue participating in physical activities and interact with other individuals in the group • Feeling included as a part of a group • Feeling comfortable sharing feelings and thoughts with other individuals in physical activity group

How to identify	Strategies used
Questions to assess and encourage social health benefits	<ol style="list-style-type: none"> 1. What would you like to talk about when you interact with people in your physical activity group? 2. Who do you feel comfortable talking with when you participate in physical activities? 3. Do you feel like you are part of the group when you participate in physical activities? Why or why not? 4. What makes you want to continue participating in your physical activities? 5. Do you think you would continue participating in physical activities if you were not able to interact with other people while participating? 6. What do you enjoy about the social interactions you experience during your participation in physical activities? 7. Have you developed any meaningful relationships as a result of participating in physical activities? With who? 8. Are you able to talk about your feelings, thoughts, or interests with other individuals you participate with? How does that make you feel? 9. Do you feel like individuals you participate with care about your feelings and opinions? Why or why not? 10. Do you feel like the individuals you participate with support you to continue participating and overcome barriers to participation? Why or why not?

Benefits specific to diagnosis

Some benefits of physical activity can be especially important to people with specific diagnoses. People diagnosed with depression often have difficulty identifying interests and frequently express decreased enjoyment in activities (Kielhofner, 2008). Increasing regular participation in various physical activities can increase participants' ability to identify healthy leisure interests. Finding a leisure activity that is enjoyable can help participants feel more satisfied with life (Iwasaki et al., 2013). The longer participants stay with an exercise program, the more likely they are to feel better about their abilities to interact with other participants, manage their symptoms, and complete activities (Hodgson et al., 2011). Regular participation in preferred physical activities can help to elevate mood and decrease symptoms of depression (Hodgson et al., 2011; Daumit et al., 2011).

People with schizophrenia also have specific challenges that can be addressed by increasing physical activity. Patients with schizophrenia are more likely to be overweight than the general

population (De Hert et al., 2009). People diagnosed with schizophrenia often gain some weight due to the side effects of antipsychotic drugs (Wu, Wang, Bai, Huang, & Lee, 2007). Dietary control and increased physical activity can help patients with schizophrenia fight against weight gain (Wu et al., 2007). In one study, participants with schizophrenia showed significant benefits after a 6 month intervention. Participants had a controlled diet and engaged in regular physical activity. The intervention led to a significant decrease in body fat, waist size, and hip size (Wu et al., 2007). In addition to improving physical health, participating in physical activity has also been proven to increase the psychological well-being of people with schizophrenia (Holley, Crone, Tyson, & Lovell, 2010). Physical activity can play an important role in improving physical and mental quality of life among people with serious mental illness.

Table 2.5 Diagnostic related benefits

Benefits for individuals with Mood Disorders	Benefits for Individuals with Schizophrenia
<ul style="list-style-type: none"> • Increased ability to identify healthy leisure interests • Feeling more satisfied with life • Feeling better about abilities to interact with others • Increased ability to manage symptoms • Increased confidence in ability to participate in and complete activities • Elevated mood • Decreased symptoms of depression • Decreased fatigue • Increased energy level 	<ul style="list-style-type: none"> • Counteract weight gain side effects of antipsychotic drugs • Decreased body fat • Decreased waist and hip size • Increased psychological well-being • Improved physical quality of life • Improved mental quality of life • Improved ability to manage symptoms • Improved ability to make decisions • Feeling free from struggles • Increased ability to cope with stress • Increased confidence

Lesson 2: Illustrative Case Example

Since being diagnosed with Major Depressive Disorder, Renita had gained a significant amount of weight. As a result, Renita was at increased risk for developing cardiovascular disease and other serious physical health problems. Renita's doctor suggested making some lifestyle changes, including eating healthier and being more physically active.

Renita didn't know where to go for help. She mentioned wanting to be more physically active to her psychologist and he suggested checking out the programs offered at the community mental health center. Renita felt uncomfortable going somewhere that was for people with mental illness and was afraid of being negatively labeled. Her psychologist said that he could arrange for her to meet a peer support specialist that could pick her up and take her over to the community center. Renita said that she wouldn't mind meeting the peer support specialist, but she wasn't quite ready to go over to the community center.

The next week, Renita met Chloe, a peer support specialist. Chloe had also been diagnosed with Major Depressive Disorder and Metabolic Syndrome. Just like Renita, Chloe was interested in becoming more physically active and decreasing her risk for developing serious health problems. Chloe told Renita that she was starting a community based physical activity program and that she wanted to help educate people about the benefits of being more physically active. Renita was interested in learning more about the benefits of physical activity. She asked Chloe what benefits she might experience if she became more physically active. Chloe explained that being physically active could help her to lose weight, which would help her to live longer. Renita

was surprised to learn that people with mental illness had a much shorter life expectancy than the general population. Chloe also explained the mental health benefits of physical activity. She said that people with mental illness have reported that they value the mental health benefits of physical activity more than anything else. Chloe told Renita how physical activity has resulted in participants feeling more energetic, less stressed, and sleeping better. Renita expressed that she would love to feel more energetic. Chloe nodded and said that she understood how Renita felt, because she too felt tired and drained most of the day.

Chloe then explained that increasing physical activity can also increase self-esteem and improve mood. Renita explained how negatively she felt about herself most of the time and how she was almost always in a bad mood. Again, Chloe nodded her head and sympathized with Renita's feelings. Chloe said that engaging in more physical activities has also been shown to increase social interactions and help participants find more meaning in their lives. Renita expressed how she didn't have anyone to exercise with and found most days to be meaningless. Chloe said that she didn't have any friends either before she started going to the community mental health center, but she developed more friendships and found more meaning in her life since she started participating in more activities. Chloe encouraged Renita to join her and some people from the community center on their next walk.

Next Steps & Self-Reflection

Lesson two identified the physical, mental and social benefits of physical activity. Throughout the week, talk with the individuals that you work with about the benefits of physical activity.

What strategies did you use to assess your participants' understanding of physical activity?
Did participants understand that physical activity could enhance their physical, mental, and social health? Have they used physical activity to improve their overall health and well-being?
How did you apply Discussion 2 (The Benefits of Physical Activity) to your work?
Was it difficult to talk about the benefits of physical activity? If so, why?

Physical Activity Benefits	Consumer's Understanding (Before talking with you about Physical Activity)	Educational Opportunities (Information you shared with participants)
Physical Health		
Mental Health		
Social Health		

Lesson 2: Resource Links

Success stories about increasing physical activity

- [Success stories of increasing physical activity](http://www.cdc.gov/physicalactivity/everyone/success/index.html)
<http://www.cdc.gov/physicalactivity/everyone/success/index.html>

Physical health benefits

- [How physical activity benefits health](http://www.cdc.gov/physicalactivity/everyone/health/index.html)
<http://www.cdc.gov/physicalactivity/everyone/health/index.html>
- [Physical activity for healthy weight](http://www.cdc.gov/healthyweight/physical_activity/index.html)
http://www.cdc.gov/healthyweight/physical_activity/index.html

Mental health benefits

- [Exercise and Mental Health](http://www.mentalhealth.org.uk/help-information/mental-health-a-z/E/exercise-mental-health/)
<http://www.mentalhealth.org.uk/help-information/mental-health-a-z/E/exercise-mental-health/>
- [Physical Activity and Wellbeing](http://www.mentalhealth.org.uk/publications/awareness-week-2013-report/)
<http://www.mentalhealth.org.uk/publications/awareness-week-2013-report/>
- [Exercise for Mental Health](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470658/)
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1470658/>
- [The Exercise Effect](http://www.apa.org/monitor/2011/12/exercise.aspx)
<http://www.apa.org/monitor/2011/12/exercise.aspx>

References

- Barton, J., Griffin, M., & Pretty, J. (2012). Exercise-, nature- and socially interactive-based initiatives improve mood and self-esteem in the clinical population. *Perspectives in Public Health*, 132(2), 89-96.
- Bigaard, J., Tjonneland, A., Thomsen, B.L., Overvad, K., Heitmann, B.L., & Sorensen, T.I.A. (2003). Waist circumference, BMI, smoking, and mortality in middle-aged men and women. *Obesity Research*, 11(7), 895-903
- Bonsaksen T. (2011). Participation in physical activity among inpatients with severe mental illness: a pilot study. *International Journal of Therapy and Rehabilitation*, 18(2), 91-99.
- Colton, C.W., & Manderscheid, R.W. (2006). Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Preventing Chronic Disease*, 3(2), A42.
- Daumit, G.L., Dalcin, A.T., Jerome, G.J., Young, D.R., Charleston, J., Crum, R.M., Anthony, C., Hayes, J.H., McCarron, P.B., Khaykin, E., & Appel, L.J. (2010). A behavioral weight-loss intervention for persons with serious mental illness in psychiatric rehabilitation centers. *International Journal of Obesity*, 35, 1114-1123.
- De Hert, M., Schreurs, V., Vancampfort, D., & Van Winkle, R. (2009) Metabolic syndrome in people with schizophrenia: a review. *World Psychiatry*, 8, 15-22
- Gorczynski, P., & Faulkner, G. (2010). Exploring the construct validity of the transtheoretical model to structure physical activity interventions for individuals with serious mental illness. *Psychiatric Rehabilitation Journal*, 34(1), 61-64.
- Heasman, D. (2004). The active advice pilot project: leisure enhancement and social inclusion for people with severe mental health problems. *The British Journal of Occupational Therapy*, 67(11), 511-514.
- Hodgson, M.H., McCulloch, H.P., & Fox, K.R. (2011). The experiences of people with severe and enduring mental illness engaged in physical activity programme integrated into the mental health service. *Mental Health and Physical Activity*, 4, 23-29.
- Holley, J., Crone, D., Tyson, P., & Lovell, G. (2011). The effects of physical activity on psychological well-being for those with schizophrenia: a systematic review. *British Journal of Clinical Psychology*, 50, 84-105.
- Iwasaki, Y., Coyle, C., Shank, J., Messina, E., & Porter, H. (2013). Leisure-generated meanings and active living for persons with mental illness. *Rehabilitation Counseling Bulletin*, 57(1), 46-56.
- Kielhofner, G. (2008). Model of human occupation: theory and application (4th ed.). Baltimore, MD: Lippincott Williams and Wilkins.
- Lloyd, R. (2007). Modeling community-based, self-help mental health rehabilitation reform. *Australasian Psychiatry*, 15 Supplement, S99-S103.
- Lloyd, C., King, R., McCarthy, M., & Scanlan, M. (2007). The association between leisure motivation and recovery: A pilot study. *Australian Occupational Therapy Journal*, 54, 33-41.

- McDevitt, J., Snyder, M., Miller, A., & Wilbur, J. (2006). Perceptions of barriers and benefits to physical activity among outpatients in psychiatric rehabilitation. *Journal of Nursing Scholarship*, 38(1), 50-55.
- Penedo, F.J. & Dahn, J.R. (2005). Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18, 189-193.
- Richardson, C.R., Faulkner, G., McDevitt, J., Skrinar, G.S., Hutchinson, D.S., & Piette, J.D. (2005). Integrating physical activity into mental health services for persons with serious mental illness. *Psychiatric Services*, 56(3), 324-331.
- Ross, R., & Janiszewski, P.M. (2008). Is weight loss the optimal target for obesity-related cardiovascular disease risk reduction? *Canadian Journal of Cardiology*, 24(Suppl D), 25D-31D.
- Schrank, B., Bird, V., Rudnick, A., & Slade, M. (2012). Determinants, self-management strategies and interventions for hope in people with mental disorders: systematic search and narrative review.
- Tse, J., Chow, E., Sultana-Cordero, R., Titus-Prescott, M., Chiles, R., Cleek, A., & Cleek, E. (2011). Motivation-based interventions for obesity in serious mental illness. *Psychiatric Annals*, 41(10), 473-477.
- Ussher, M., Stanbury, L., Cheeseman, V., & Faulkner, G. (2007). Physical activity preferences and perceived barriers to activity among persons with severe mental illness in the United Kingdom. *Psychiatric Services*, 58(3), 405-408.
- Warburton, D.E.R., Nicol, C.W., & Bredin, S.S.D. (2006). Health benefits of physical activity: the evidence. *Canadian Medical Association Journal*, 174(6), 801-809.
- Wu, M., Wang, C., Bai, Y., Huang, C., Lee, S. (2007). Outcomes of obese, Clozapine-treated inpatients with schizophrenia placed on a six-month diet and physical activity program. *Psychiatric Services*, 58, 544-550.

Lesson 3

Evaluating Physical Activity and Motivation for Change

Topics

Types of Physical Activity:

- 1) Aerobic activities speed up your heart rate, increase breathing and make you sweat.
- 2) Muscle strengthening activities build muscle through moving objects or your own body.

Weekly Physical Activity Recommendation Options:

- 1) 2hrs & 30 minutes of moderate intensity (this will increase heart rate and breathing but not too much to hold a conversation)
 - 2) 1hr & 15 minutes of vigorous intensity (this will increase heart rate and breathing to the extent it causes trouble speaking more than a word or two)
- Another option is to combine moderate and vigorous activities. Physical activity can be done throughout the day but should be executed in at least ten minute bouts. Muscle strengthening activities should be done at least two days per week and target each area of the body.

Transtheoretical Model of Change (5 Stages)

Precontemplation is when one has no intention of making a change. They may even be resistant.

Contemplation is when one is seriously considering a change within 6 months. They may be weighing the pros and cons of change.

Preparation is when one is intending a change in 1 month. They are planning and preparing for change.

Action is when intended behaviors have started.

Maintenance is when a behavior has continued for 6 months. At this point, the new behaviors have become part of a lifestyle.

Motivational Interviewing (MI) techniques can help support progress through the stages of change. MI techniques for peer support specialists include: express empathy, avoid arguing, roll with resistance, support self-efficacy, and develop discrepancy.

Application to Practice

Peer support specialists who understand how much physical activity is recommended can work with consumers to plan activities that will inspire optimal health and well-being. Physical

activity can be achieved in many ways. It is recommended that peer support specialists help participants to identify enjoyable activities to reach recommended physical activity levels. Physical activity includes gardening, playing with pets, dancing and building a snowman. It also includes things we typically think of as physical activity - jogging, sports, and weight-lifting. The idea is that each person has interests and they are more likely to continue with physical activity if they enjoy themselves.

At each stage of the Transtheoretical Model of Change, the counselor plays a different role.

Precontemplation: attempt to create awareness and identify values and beliefs related to physical activity.

Contemplation: motivate, encourage and persuade consumers to identify the benefits and what activities they have enjoyed in the past.

Preparation: Work with participants to set goals and plan specific activities. Remember SMART goals!

Action: Encourage participants. Help them identify and navigate barriers. Be a cheerleader!

Maintenance: Provide encouragement as needed. Let participants know that it's common to move back and forth between action and maintenance, but all activity is better than nothing! MI techniques provide structure for peer support specialists to elicit consumers' own reasons for wanting to change. MI is created on the philosophies of collaboration, evocation and autonomy.

Tips

Express empathy: express understanding of how consumer feels and what consumer is experiencing

Avoid arguing: don't challenge as this may lead to consumer defending current behaviors

Roll with resistance: continue to elicit consumer's own reasons for wanting and not wanting change

Support self-efficacy: highlight accomplishments and the accomplishments of others

Develop discrepancy: help consumers to see the difference between where they are and where they want to be

- Use the IPAQ as a tool or ask participants to keep a record of the previous week's activities to help participants get a sense of their physical activity levels
- Talk with participants about their stage of change and use the suggested tips above based on their stage.
- Use motivational interviewing techniques to help elicit change talk

Table 3.1 Definitions of Terms in this Section

Term	Definition
Moderate-intensity aerobic activity	<p>Physical activity that causes heart rate to increase enough to make a person sweat and make it difficult to sing a song, but still allows a person to talk.</p> <p>Examples: Walking fast, water aerobics, biking with few hills, playing doubles tennis, and pushing a stroller</p>
Vigorous-intensity physical activity	<p>Physical activity that causes hard and fast breathing, significantly increases heart rate, and makes it difficult to say more than a few words without pausing to breathe.</p> <p>Examples: Jogging, running, swimming laps, biking fast or on hills, playing singles tennis, and playing basketball</p>
Muscle strengthening activity	<p>Physical activity that strengthens the muscles of the body</p> <p>Examples: lifting weights, working with resistance bands, doing push-ups and sit-ups, digging and shoveling in the garden, and yoga</p>
Transtheoretical Model	<p>A theory that has been used to assess how ready a person is to change their behaviors</p> <p>Example: Herb is taking steps towards changing his behavior and plans on increasing his physical activity within the next month, therefore he is in the planning stage of change, which is the third stage of change within the Transtheoretical Model.</p>
Motivational Interviewing (MI)	<p>Specific techniques that can be used to help guide conversations in a person-centered way, which has been proven to be successful in leading to increases in specific health behaviors</p> <p>Example: One technique of MI is expressing empathy, which involves showing support and understanding. When Marie was having a conversation with a participant, she acknowledged how hard it must be for him to overcome the many barriers of increasing physical activity.</p>
Self-efficacy	<p>The belief and confidence that you are able to accomplish tasks and achieve goals</p> <p>Example: Roman has low self-efficacy. He does not think he is capable of increasing his physical activity. He thinks his depression, lack of motivation, and physical condition will get in the way of him accomplishing his goal of walking for 20 minutes three times a week.</p>

Recommended Levels of Physical Activity

According to the 2008 Guidelines for Americans, adults should engage in two types of physical activity each week in order to improve health. One type of activity is aerobic activity and another type is muscle-strengthening activities (CDC, 2014). Table 3.2 provides a summary of the physical activity guidelines.

Table 3.2 Physical Activity Guidelines (CDC, 2014)

Guideline options	Description of guidelines
Option 1	2 hours and 30 minutes of moderate-intensity aerobic activity per week (Ex. walking fast, water aerobics, biking with few hills, pushing stroller) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)
Option 2	1 hour and 15 minutes of vigorous-intensity aerobic activity per week (Ex. jogging, running, swimming laps, biking fast or on hills, playing basketball) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)
Option 3	Combination of moderate- and vigorous-intensity aerobic activity per week (Ex. 90 minutes of moderate-intensity plus 30 minutes of vigorous-intensity aerobic activity) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)

Aerobic activities are activities that make you breathe harder and make your heart beat faster. Aerobic activities are often divided into moderate and vigorous intensity levels. Moderate-intensity aerobic activities include walking fast, water aerobics, biking with few hills, playing doubles tennis, and pushing a stroller, among others. You can tell you are engaging in a moderate-intensity aerobic activity when your heart rate is increased enough to make you sweat and it is difficult to sing the words to your favorite song, but you are still able to talk. Vigorous-intensity aerobic activities include jogging, running, swimming laps, biking fast or on hills, playing singles tennis, and playing basketball, among others. You can tell that you are engaged in a vigorous-intensity aerobic activity when you are breathing hard and fast, your heart rate is significantly increased, and you have difficulty saying more than a few words without pausing to breathe. One minute of vigorous-intensity activity is about the same as 2 minutes of moderate-intensity activity, which gives similar health benefits in half the time. Yet, it is important to start with moderate-intensity activities before moving to vigorous activities if one has not been engaged in physical activity recently. Whether engaging in moderate or vigorous intensity aerobic activity, it is important to sustain the activity for at least 10 minutes at a time. The entire time spent engaged in physical activity can be divided into small sections

of 10 minutes or more throughout the day and the week in order to make attaining the recommended amounts of physical activity engagement more manageable. It is recommended that adults should get at least 2 hours and 30 minutes (150 minutes) of moderate-intensity aerobic activity or one hour and 15 minutes (75 minutes) of vigorous-intensity aerobic activity every week. Or, moderate and vigorous intensity activity could be combined, such as 90 minutes of moderate-intensity plus 30 minutes of vigorous-intensity activity per week (CDC, 2014).

In addition to aerobic activity, it is also important to engage in muscle strengthening activities in order to improve overall health. Examples of muscle strengthening activities include lifting weights, working with resistance bands, doing push-ups and sit-ups, digging and shoveling in the garden, and yoga. Muscle strengthening activities should be done at least 2 days a week and should work all the major muscle groups of your body. These include legs, hips, back, chest, abdomen, shoulders, and arms (CDC, 2014).

Assessing Physical Activity

In order to evaluate level of physical activity, the International Physical Activity questionnaire (IPAQ) is an easy assessment tool to use (Appendix A1). While there are some issues with self-report measures, this tool has similar reliability and validity scores with individuals with mental illness as with the general population. Individuals may need some assistance categorizing the types of activities they do. The assessment tool gives examples of each activity to provide some guidance in this area. If they cannot remember their physical activity for the past week, ask them to take the sheet with them and complete the physical activity sheet over the course of the next week. Once completed, ask individuals if the amount of physical activity they recorded on the chart for the week is the usual amount of physical activity they have engaged in over the past month. Calculate the total amount of time spent engaged in each type of physical activity and compare with the recommended amount of physical activity.

There are also a number of technologies that can be used to assess current levels of physical activity. Accelerometers are now built into smart phones, which can track the number of steps a person takes while they are carrying the phone. Pedometers are a similar technology that can be used to assess one's level of physical activity. These are relatively inexpensive (\$3-\$10) and are often available for free through public health departments. While assessing the number of steps does not directly translate to the physical activity guidelines, it does give a concrete number that individuals can aim to increase. On average, adults should be getting at least 10,000 steps per day in order to achieve health benefits.

Evaluating Openness to Change

In order to help individuals to change their behaviors and incorporate more physical activity into their lives, it is helpful to first know how open and ready they are to make a change. A theory that has been used to assess how ready a person is to change their behaviors is called the Transtheoretical Model (Prochaska & DiClemente, 1982; Prochaska & DiClemente, 1983;

Prochaska, DiClemente, & Norcross, 1992). The model explains that there are different stages of change and that there are certain ways to help people move from one stage to another. The first stage is the precontemplation stage. Individuals in this stage have no intention to change their behaviors. If focusing on increasing physical activity, individuals in the first stage do not think that they will increase physical activity in the near future and are often resistant to change. Precontemplators tend to underestimate the benefits of changing their behavior and overestimate the barriers and negative effects of changing their behavior (Norcross, Krebs, & Prochaska, 2011). They often are not even aware that they are making such evaluations, but their beliefs keep them from even considering the possibility of changing.

The second stage is the contemplation stage. Individuals in this stage are seriously considering making a change within the next 6 months. They are weighing the pros and cons of changing their behavior, but have not yet made a commitment to taking action. In terms of increasing physical activity, individuals in the contemplation stage may be assessing how increasing physical activity could help decrease their health risks and improve their mood, but may also cause them to feel inadequate or cost them too much time and money.

The third stage is the preparation stage. Individuals in this stage are intending to take action and change their behaviors within the next month. They have taken steps towards making the change. Individuals preparing to increase physical activity may have taken steps such as finding a gym, asking others to participate in physical activity with them, or talking to therapist about strategies to increase physical activity (Norcross et al., 2011).

The fourth stage is the action stage. Individuals in this stage have modified their behaviors and successfully incorporated new behaviors into their lives. They have engaged in the new behaviors for as little as one day and up to six months. This is seen as the stage in which the change actually occurs (Finnell, 2003). In terms of increasing physical activity, this is the stage in which individuals are going to the gym, using the machines, walking around the block, using the stairs, strengthening their muscles, and taking action versus thinking about taking action. The fifth stage is the maintenance stage. Individuals in the maintenance stage have consistently engaged in their new behaviors for more than 6 months without relapsing. If focused on increasing physical activity, individuals in the maintenance stage have figured out how to make physical activity a part of their everyday lives and have firmly adopted a lifestyle change in which physical activity plays an important role (Finnell, 2003). They have consistently engaged in physical activities for at least 6 months and have not relapsed into a period of sedentary behavior.

While the stages are listed in order from one to five, this does not mean that individuals will necessarily progress through the stages sequentially. Many individuals who are working through the stages of change end up relapsing and regressing to a former stage of change (Norcross et al., 2011). It is important to be prepared for relapse and include preventative strategies within the action plan, which will be discussed a future lesson.

The URICA is an assessment tool that can be used to evaluate one's readiness to change and their related stage. This assessment can be found in appendix A2. While the assessment can

help you determine what stage an individual is in, it is also important to ask questions to better understand consumers' attitudes towards physical activity. Therefore, it is often useful to ask straightforward questions in order to assess each individual's stage of change. Table 3.3 provides some suggested questions along with the associated stages you might use when working with someone to increase physical activity.

Table 3.3 Guided questions to assess stage of change

Topic	Recommended questions
Are you contemplating change?	<ul style="list-style-type: none"> • Would you like to increase your physical activity within 6 months? • When would you like to start increasing your physical activity level? • Do you think increasing your physical activity would be good for you? • Do you plan on increasing your physical activity in the future?
Are you planning for change?	<ul style="list-style-type: none"> • Have you done anything to plan for increasing your physical activity? • Have you looked into joining a gym or accessing any community resources to increase your physical activity? • Have you talked to your therapist or doctor about increasing physical activity? • Have you talked to any friends or family members about engaging in physical activity with you?
Have you taken action?	<ul style="list-style-type: none"> • Have you engaged in any physical activity recently? • Have you increased your amount of physical activity over the past week/month? • Have you participated in any activities that require you to use your muscles or physical energy? • Have you gone to the gym or gone on a walk recently? • Have you taken the stairs instead of the elevator?
Are you maintaining new behavior?	<ul style="list-style-type: none"> • Have you consistently participated in physical activities for over 6 months? • Have you stopped participating in physical activities for any length of time over the past 6 months? • How often have you participated in physical activities over the past 6 months? • What physical activities have you consistently been participating in?

The categorizations of the stages of change are simply a tool to help determine what level of support may be most effective. An individual may exhibit behaviors in more than one stage. Additionally, one does not always move progressively through the stages of change. An individual may move from a higher level to a lower level, or progress very quickly through one stage. Table 3.4 provides an example of someone in each stage; with some specific behavioral characteristics that may be indicative of someone in the respective stage.

Table 3.4 Examples of Individuals in each Stage of Change

Precontemplation	Contemplation	Preparation	Action	Maintenance
Robert does not think increasing his physical activity would help him to feel more energetic. He thinks walking is boring and he would rather sit on his couch and watch television. Robert does not want to talk about the negative effects of sedentary behavior.	Misha thinks that she would like to become more physically active. She explains that physical activity would help her to feel better about herself and less anxious. Yet, she also says that joining a gym might be too expensive and she feels self-conscious in exercise clothes.	Thomas has decided that he is going to start increasing his physical activity next week. He has bought a couple shirts and shorts that he can exercise in and asked his brother to join him in walking every week.	Maria has gone biking two times during the week. She loves how she feels happier after biking and less depressed. Maria plans on continuing to bike every week, but this is the first week she has engaged in physical activity for a long time.	Kyle has changed his lifestyle patterns in order to engage in more physical activity. Every other day for the past year, Kyle has been taking the bus to the YMCA in order to swim some laps. On the days he does not swim, Kyle works on muscle-strengthening activities at home.

Prochaska & DiClemente, 1982; Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992

Motivating movement to next stage of change

It is more effective to help individuals move towards the next stage of change and promote progress towards increasing physical activity after assessing what stage of change they are in. By using specific techniques and strategies specific to their stage of change, it is possible to develop strong relationships with individuals and help motivate them to move to the next stage. When helping others to make a change, many professionals become consumed with the action stage of change. They overlook the fact that individuals may not be ready to take action and push them too much, which leads to resistant behaviors (Norcross et al., 2011). In reality, the majority of individuals are in a stage of precontemplation or contemplation and are either unaware that they have a problem, are resistant to change, or are not ready to take action (Gorczynski & Faulkner, 2010; Norcross et al., 2011). Realistically, taking steps towards the possibility of change and moving from precontemplation to contemplation can be a significant journey in itself (Norcross et al., 2011). It is important to meet individuals where they are along the path of change and tailor motivation techniques in accordance with their individual needs.

Table 3.5 Helping Individuals Progress to the Next Stage of Change

Stage and role	Goals and actions
Pre-contemplation to Contemplation Your role: Nurturing Friend	<ul style="list-style-type: none"> • Increase awareness of specific and general benefits of increasing physical activity • Increase awareness of negative effects of sedentary behavior • Help arouse emotions of facing fears of increasing physical activity or fears related to negative effects of sedentary behavior • Help individuals think of positive images of themselves if they were to increase physical activity
Contemplation to Preparation Your role: Socratic teacher, encouraging student to achieve own insights	<ul style="list-style-type: none"> • Help individuals increase their list of benefits of increasing physical activity • Help figure out how individuals would overcome barriers to increasing physical activity • Help identify physical activities they would enjoy and find meaningful • Help formulate questions about individual's uncertainties and fears about physical activity
Preparation to Action Your role: Experienced coach, provide or review game plan	<ul style="list-style-type: none"> • Help develop an action plan for increasing physical activity • Help individuals identify, contact, and access community resources with physical activity opportunities • Help plan transportation to and from activity centers if necessary • Help identify social supports to help initiate and increase physical activity • Review plan and encourage individuals that the plan is possible to accomplish • Help develop a plan for reinforcing and rewarding physical activity
Action to Maintenance Your role: Consultant, available to provide expert advice and support when needed	<ul style="list-style-type: none"> • Identify factors that may lead to relapse into sedentary behavior • Help develop a plan to prevent relapse into sedentary behavior • Help develop a plan to reinforce consistent physical activity over a set length of time • Encourage individuals to form more relationships with people they meet through physical activity and otherwise who will help encourage them to continue participation in physical activity and will participate with them • Encourage individuals to seek out physical activities that are meaningful, social, and enjoyable and will maintain interest for a long time

Prochaska & DiClemente, 1982; Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992

Motivational Interviewing Techniques

When talking to individuals about their current level of physical activity and their interest in increasing their levels of physical activity, it is important to approach the topics in a specific way in order to promote change. An approach called Motivational Interviewing (MI) has been developed to help guide conversations in a person-centered way, which has been proven to be successful in leading to increases in specific health behaviors (Miller & Rollnick, 1991; Tse et al., 2011). Three philosophies of Motivational Interviewing include collaboration, evocation, and autonomy (Hetch et al., 2005; Miller & Rollnick, 2002). Collaboration means working together with individuals to understand their unique perspectives in a non-judgmental way. Evocation consists of evoking thoughts and feelings about change and discussing factors that could increase internal motivation to change. Autonomy is giving individuals the responsibility of making their own decisions and letting them choose whether or not they are going to change (Hetch et al., 2005).

Specific techniques of Motivational Interviewing that promote these philosophies include expressing empathy, avoiding argumentation, rolling with resistance, supporting self-efficacy, and developing discrepancy (Carey, Purnine, Maisto, & Carey, 2001; Miller & Rollnick, 1991). Expressing empathy is showing support and understanding, such as acknowledging the many barriers of increasing physical activity. Avoiding argumentation involves listening without making challenging statements, which is important in order to develop strong, collaborative relationships. Even if one disagrees with individuals' opinions or statements, it is important to remain non-confrontational. Rolling with resistance also requires listening to thoughts and feelings without challenging individuals' behaviors. It is important to refrain from pushing individuals too hard, but instead allow them to feel that they are making the decisions to change on their own. In order to help individuals make the decision to change, support their self-efficacy. Self-efficacy is the belief and confidence that you are able to accomplish tasks and achieve goals. If individuals do not believe that they will be able to successfully participate in more physical activity, they will not try to increase their physical activity. Support self-efficacy by highlighting their accomplishments in the past or telling them a story about someone similar to them who successfully increased their physical activity. Encourage them throughout the process by guiding them to think about all the small behavioral changes they have successfully made in effort to increase physical activity. Another technique is developing discrepancy. Carefully help individuals understand the difference between their current behaviors and other more desirable behaviors. Encourage them to think about how more desirable behaviors, such as increased physical activity, could have a positive impact on their lives, versus the negative impact of sedentary behavior.

Additional techniques are listed in Table 3.6 (Carey et al., 2001; Miller & Rollnick, 1991). The names of the techniques, definitions of the techniques, and examples of how to use the techniques are given to help promote thought about how to approach similar conversations using the concepts of Motivational Interviewing.

Table 3.6 Motivational Interviewing Techniques and Examples

Name of Technique	Description	Example
Simple reflection	Paraphrase an individual's statement in order to clarify the individual's thoughts and feelings.	<p>Individual: I don't think I will ever be able to exercise more, because I am overweight, tired all the time and I think I would look silly exercising.</p> <p>You: It sounds like you think it would be difficult for you to start exercising more.</p> <p>Individual: Yea, I'm just so out of shape. I don't remember the last time I tried to do something physical. I don't even know if I could do anything, I'm so overweight.</p> <p>You: So being out of shape is a major barrier for you when you start thinking about exercising</p>
Double-sided reflection	Highlights the individual's competing thoughts or attitudes and helps to clarify the problem.	<p>Individual: I think I would feel better if I were more physically active. Like we talked about, I would feel better in my head and in my body. But, I don't have that much money and I think it would cost a lot to participate in physical activities. And I think it would take a lot of time out of my day.</p> <p>You: If I understand correctly, you know you would feel better if you were more physically active, but you think it would take too much time and money to participate in physical activities</p>
Amplified reflection	Exaggerates the individual's statement to help individual re-examine statement and consider a different perspective.	<p>Individual: I don't think watching TV is such a bad thing.</p> <p>You: So you don't think watching TV can affect your health negatively.</p> <p>Individual: Well, I guess when I get stuck watching a show it makes it harder to get up and do anything else.</p>

Name of Technique	Description	Example
Affirmation	Enhance individual's confidence by giving positive feedback, especially when the individual is expressing low self-efficacy.	Individual: I wanted to walk for a mile yesterday, but I got tired really fast and I had to stop and turn around before I walked to the half way point. You: I remember when it was difficult for you to even walk half a mile. It's great that you got out and walked yesterday. It was really hot out too, that must have made the walk even more difficult.
Requesting Elaboration	Encourage the individual to talk more about change-related themes, such as successes, confidence, ambivalence, and barriers.	Individual: I called my sister and she said that she would like to walk with me once a week You: That sounds like a great plan. Was it difficult calling her? Individual: A little You: How so? Individual: Well, I didn't know how to bring it up at first and I thought that she might not want to spend time with me You: But she said that she would want to walk with you? Individual: Yea. You: How does that make you feel? Individual: I'm happy and a little scared. You: Why do you think you're scared? Individual: What if she walks with me and I don't know what to say? You: Do you think that there is a way to figure out what to talk about with your sister before your walks? Individual: Maybe I could make a list before the walks about things that we are both interested in.
"Columbo" Technique	Request for the individual to "educate" you about a topic or statement. This will help the individual feel more in control and can help the individual add more complex thoughts to a previous statement.	Individual: People who I see exercise just seem like such elitists. You: I'm not sure I understand... Individual: It just seems like they have nothing better to do, or nothing to worry about. They seem like they have all the money in the world to buy special exercise clothes and equipment and join a gym. But I'm not like them.

Name of Technique	Description	Example
Summary Statements	Review key points of conversation and provide the opportunity for the individual to respond by accepting, rejecting, or elaborating upon the summary.	You: So you would like increase your physical activity, because it will help you to feel better about yourself and more motivated to make other changes in your life, but you don't know who would exercise with you. It might be scary to ask any of your co-workers to walk with you on a regular basis, because you don't know them that well and you don't know how much you can actually walk. Also, you don't think you would want to walk on rainy days or days that you are feeling really sad and you would feel bad if you had to cancel your walk with someone else. But you don't want to walk alone and you don't think that you would commit to walking consistently if you didn't have someone else to walk with. Does that sound about right?
Resolving Resistance	Avoid taking on the role of change-advocate or pushing too hard for the individual to change. Help the individual feel that he/she is making the choice to change.	You: Was our conversation about physical activity helpful? Individual: I think I understand now why you have been pushing me to exercise You: I hope I haven't been pushing you to exercise, because that's not my intention. It's your choice whether you want to participate in physical activity or not. Individual: Yea, I guess it's just helpful to talk it out. I know it's up to me. And now I can see why I should be more physically active.

Carey, Purnine, Maisto, & Carey, 2001; Miller & Rollnick, 1991

Lesson 3: Additional Resources

Physical Activity Guidelines

- [How much physical activity do adults need?](http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html)
http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html
- [Physical Activity and Health](http://www.cdc.gov/physicalactivity/everyone/health/index.html)
http://www.cdc.gov/physicalactivity/everyone/health/index.html

Assessing Physical Activity

- [Measuring Physical Activity Intensity](http://www.cdc.gov/physicalactivity/everyone/measuring/index.html)
http://www.cdc.gov/physicalactivity/everyone/measuring/index.html
- [Target Heart Rate and Estimated Maximum Heart Rate](http://www.cdc.gov/physicalactivity/everyone/measuring/heartRate.html)
http://www.cdc.gov/physicalactivity/everyone/measuring/heartRate.html
- [Step It Up—Tips to Pump Up Your Workout](http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Step-It-Up---Tips-to-Pump-Up-Your-Workout_UCM_456763_Article.jsp)
http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Step-It-Up---Tips-to-Pump-Up-Your-Workout_UCM_456763_Article.jsp

Transtheoretical Model of Change

- [Client Behavior Change: A key to Personal Trainer Success](http://www.theptdc.com/2012/04/client-behavior-change-a-key-to-personal-trainer-success/) (Understanding the transtheoretical model)
http://www.theptdc.com/2012/04/client-behavior-change-a-key-to-personal-trainer-success/
- [Chapter 8 Illness Prevention and Health Promotion: Changing Behaviour](http://phprimer.afmc.ca/Part3-PracticeImprovingHealth/Chapter8IllnessPreventionAndHealthPromotion/Changingbehaviour)
http://phprimer.afmc.ca/Part3-PracticeImprovingHealth/Chapter8IllnessPreventionAndHealthPromotion/Changingbehaviour

Motivational Interviewing

- [Motivational Interviewing](http://www.motivationalinterview.org/): http://www.motivationalinterview.org/
- [MI Basics](http://www.motivationalinterview.org/quick_links/about_mi.html): http://www.motivationalinterview.org/quick_links/about_mi.html
- [Frequently Asked Questions](http://www.motivationalinterview.org/quick_links/faq.html): http://www.motivationalinterview.org/quick_links/faq.html
- [People Know When We Believe in Them: The Four Principles of Motivational Interviewing](http://homeless.samhsa.gov/resource/people-know-when-we-believe-in-them-the-four-principles-of-motivational-interviewing-47908.aspx)
http://homeless.samhsa.gov/resource/people-know-when-we-believe-in-them-the-four-principles-of-motivational-interviewing-47908.aspx

Lesson 3: Illustrative Case Example

At the end of their first meeting, Renita decided that she would like to meet again with Chloe, her peer support specialist, and start talking about becoming more physically active. Renita was not ready yet to visit the community mental health center, so they met at the park to talk. During their second meeting, Chloe was prepared to help Renita along her path of increased physical activity. First, Chloe asked Renita to fill out the Physical Activity Recording Worksheet based on her physical activity engagement over the past week. Renita struggled to think of any physical activities she had participated in, so Chloe asked some questions to help jog Renita's memory. She asked if Renita had done any work around the house, such as cleaning or laundry or gardening, or if Renita had walked anywhere recently. Chloe also assured Renita that it was ok if she wanted to take the worksheet home and fill it out over the next week if necessary. Renita said that she did not need to take the worksheet home and that she was embarrassed at the minimal physical activity she had participated in over the past week. Chloe empathized with Renita's feelings and explained that they were going to try to work on changing that and increasing her physical activity. Chloe and Renita looked over the few physical activities Renita had participated in and compared the amount of physical activity Renita was getting to the amount recommended for adults. Chloe explained that she was not showing Renita the recommended amounts to make her feel bad, but was instead giving Renita some information so she could start thinking about changing her behavior to become healthier mentally and physically.

Chloe then asked Renita some questions to figure out what stage of change Renita was in and how open she was to increasing her physical activity. Chloe asked if Renita would like to increase her physical activity within the next 6 months. Renita said that she would like to start as soon as possible. Chloe asked if Renita had done anything to plan for increasing her physical activity or talked to any friends or family members about engaging in physical activity. Renita said that Chloe was the only person she talked to about increasing her physical activity, but she wanted to talk to her mom about walking with her or joining the YMCA. Renita also said that she was almost ready to meet some other people from the community mental health center and was thinking about joining their walking group. Chloe decided that Renita was in the contemplation stage and ready to move to the planning stage. In order to help Renita move to the next stage, Chloe knew it would be important to help Renita figure out how to overcome barriers, such as her uncertainties and fears about physical activity. Chloe helped Renita formulate questions about her barriers to physical activity and they worked together to find solutions and answers. Chloe and Renita also made a list of benefits of physical activity specific to Renita that would help motivate her to continue on the path of change.

Throughout the meeting, Chloe used Motivational Interviewing techniques, such as expressing empathy, avoiding argumentation, and supporting self-efficacy. Chloe expressed empathy when discussing the barriers that Renita listed that prevented her from engaging in physical activity. She agreed that depression made it difficult to get out of bed or off the couch. When Renita said it would cost too much to join the YMCA, Chloe avoided arguing with Renita about how the YMCA could actually be an affordable option for Renita. Instead of disagreeing, Chloe chose to

wait to tell Renita about the discounted prices at the YMCA for low income families and decided that they could visit the YMCA at a less sensitive time to figure out what kind of plan Renita would qualify for. Chloe also supported Renita's self-efficacy by talking about her own successes in overcoming similar barriers and highlighting Renita's positive efforts towards making a change.

1. How did Chloe support Renita to fill out the Physical Activity Recording Worksheet?
2. How did Chloe figure out what stage of change Renita was in?
3. What other Motivational Interviewing techniques could Chloe have used while talking with Renita? Please explain how she would use these techniques.

Lesson 3: Next Steps & Self-Reflection

This lesson focused on various types of physical activities, recommended amounts of physical activity, the stages of change and methods to increase participants' motivation. Throughout the week, use these topics to initiate conversations with the individuals that you work with.

Were you able to explain to your consumers how they could meet the physical activity guidelines?
Did you find understanding the Stages of Change helpful when working with your consumers? In what ways?
Did you find Motivational Interviewing techniques helpful? In what ways?
How have you applied knowledge from the first three weeks of this Physical Activity class to your work with your participants? What would help you to use this class information more regularly?

Stages of change

Stage your participants were in - How do you know?	How did you respond?
Precontemplation	Precontemplation
Contemplation	Contemplation
Preparation	Preparation
Action	Action
Maintenance	Maintenance

Motivational Interviewing

In what ways did you to use this technique?	What did you do? How did consumers respond?
Express Empathy	Express Empathy
Avoid Arguing	Avoid Arguing
Rolling with Resistance	Rolling with Resistance
Supportive Self-Efficacy	Supportive Self-Efficacy
Developing Discrepancy	Developing Discrepancy

References

- Carey, K.B., Purnine, D.M., Maisto, S.A., & Carey, M.P. (2001). Enhancing readiness-to-change substance abuse in persons with schizophrenia: a four-session motivation-based intervention. *Behavior Modification*, 25(3), 331-384.
- Centers for Disease Control. (2014). Physical Activity Guidelines. Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>.
- Finnell, D.S. (2003). Use of the Transtheoretical Model for individuals with co-occurring disorders. *Community Mental Health Journal*, 39(1), 3-15.
- Gorczynski, P. & Faulkner, G. (2010). Exploring the construct validity of the Transtheoretical Model to structure physical activity interventions for individuals with serious mental illness. *Psychiatric Rehabilitation Journal*, 34(1), 61-64.
- Hecht, J., Borrelli, B., Breger, R.K.R., DeGrancesco, C., Ernst, D., Resnicow, K. (2005). Motivational interviewing in community-based research: experiences from the field. *Annals of Behavioral Medicine*, 29, 29-34.
- How much physical activity do adults need? (2014). Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>
- Miller, W., Rollnick, S. (1991) *Motivational Interviewing: Preparing people to change addictive behavior*. New York: Guilford.
- Miller, W., Rollnick, S. (2002) *Motivational Interviewing: Preparing people for change*. New York: Guilford.
- Norcross, J.C., Krebs, P.M., & Prochaska, J.O. (2011). Stages of change. *Journal of Clinical Psychology: In Session*, 67(2), 143-154.
- Prochaska, J.O., & DiClemente, C.C. (1982) Transtheoretical therapy: towards a more integrative model of change. *Psychotherapy: Theory, Research and Practice*, 19(3), 276-288.
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change of smoking: toward an integrative model of change. *Journal of Counseling and Clinical Psychology*, 51, 390-395.
- Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change. *American Psychologist*, 47, 1102-1114.
- Tse, J., Chow, E., Sultana-Cordero, R., Titus-Prescott, M., Chiles, R., Cleek, A., & Cleek, E. (2011). Motivation-based interventions for obesity in serious mental illness. *Psychiatric Annals*, 41(10), 473-477.

Lesson 4

Goal Setting and Identifying Action Steps

Topics

Ultimate goals are the big picture goals to be achieved in the long-term. They answer the question what do you want to achieve?

Present goals are also known as objectives or action steps. They are achieved in the short-term. Generally, several present goals are achieved in an effort to reach ultimate goals.

Goals should be SMART for best potential to achieve results.

- S** – Specific (Clearly state what you want.)
- M** – Measurable (How will you know when it is accomplished?)
- A** – Achievable (Is this possible at this time?)
- R** – Relevant (Does it fit with priorities?)
- T** – Timely (When will this be accomplished?)

Application to Practice

Peer support specialists can play a big role in helping consumers identify and plan their physical activity goals. Identifying goals may be difficult for consumers, especially when they have no experience in directing their own plans. Peer support specialists might ask what they want in their life or what they'd like to be different. They might help consumers to identify activities of interest by asking what the consumer has done for fun in the past and/or present and what the consumer hopes to do in the future. The counselor might offer a list of suggested activities to inspire conversation about the pros and cons of each.

After an ultimate goal is selected, the counselor can help consumers identify and plan present goals that can be achieved. Planning requires answering many questions about each action step. Questions might include: What are the expected benefits? Where will I do this? When will I do this? Do I need to purchase clothing or objects to do this activity? How much money will I need to budget? How will I get to the activity? Who might want to do this with me?

When collaborative effort is placed into finding activities that are personally meaningful instead of simply directing the consumer to try things, it can help the consumer to feel empowered to continue planning for him/herself in the future. Goal identification and planning is a skill that can transition into other life areas.

Also remember, that for many, just considering goals is a big step. Small goals might be all that a person is capable of at this time. Goals might be scary and/or challenging. The counselor's support role is very important in providing encouragement. Be sure to celebrate big and little steps.

Tips

- Work with participant's current dissatisfaction to help set positive goals; use their complaints as a starting point for setting positive goals

- Set both long-term (ultimate) goals and short-term (present) goals. These may also be called goals and action steps
- Help participants identify personally meaningful benefits for their goals and actions steps
- Encourage enjoyable activities! Exercise can be fun!
- SMART goals!
- Celebrate all steps in the process. Start small in order to develop self-efficacy and belief in personal success

Table 4.1 Definitions of Terms in this Section

Terms	Definitions
Ultimate Goal	Long term goal that an individual wants to accomplish Example: Keah lives a sedentary lifestyle. She does not remember the last time she participated in physical activity. Her long term goal is that she will be able to walk to the grocery store and back with a bag of groceries, but right now she has a difficult time walking half a block and the grocery store is one mile away. Keah believes it will take her a long time to accomplish her long term goal and she will set smaller goals in the meantime.
Present Goal	A small, realistic, measurable, and specific short term goal that an individual wants to accomplish Example: Keah's long term goal is to walk to the grocery store and back with a bag of groceries, but her present goal is to walk halfway down the block to Mr. Hardy's mailbox and back to her house 5 times a week.
Self-efficacy	The belief and confidence that you are able to accomplish tasks and achieve goals Example: Renee has high self-efficacy. She thinks she is capable of increasing his physical activity through small steps and goals. She is confident that she will be able to walk for at least ten minutes 5 days a week and eventually reach her goal of walking at least 30 minutes 5 days a week.
Pros	Favorable or advantageous reasons Example: Louis has listed that the Pros to playing Frisbee will be making friends, feeling more energetic, and losing weight.
Cons	Unfavorable or disadvantageous reasons Example: Louis has listed that the Cons to playing Frisbee will be the cost of participating in a league and sore muscles
Action Plan	A specific plan that describes when, where, and how an individual will increase their desired behaviors Example: Judy has decided that she wants to increase her physical activity through swimming. She has developed an action plan that will help her follow through with swimming. Her action plan defines where and when she will swim, how she is going to get there, how long it will take, how much it will cost, who she is going to go with, and how she will overcome the barriers to participation.

Setting Goals

When setting goals with individuals, it is important to first understand what they want to accomplish through changing their behaviors. What personal benefits do they want to achieve through increasing their physical activity? What benefits do they want to attain specific to physical and mental health? Identifying outcomes that are valued by each individual can help create a clearer picture of how to set goals in a way that will promote increased physical activity (McDevitt et al., 2006). If individuals are able to experience their desired outcomes, such as feeling more energetic, losing weight, or increasing positive moods, through increased physical activity, they are more likely to continue participating in physical activities in the future (Porter, 2009). Therefore, setting goals that will lead to physical and mental benefits specific to each individual is important in order to ensure long term personal success and continual participation.

Individuals will be additionally motivated to participate and sustain participation if the activities are personally meaningful (Porter, 2009). Therefore, identifying activities that are interesting, enjoyable, and meaningful to individuals is an important part of the goal setting process. Individuals with mental illness may have a difficult time coming up with activities they find interesting or meaningful activities due to depressed moods and decreased enthusiasm for activities, so they may require additional support (Cole, 2010). In order to help individuals identify interests, ask them about activities they have participated in previously, even if it was a long time ago or for a short period of time. If they cannot come up with any activities they have participated in, ask about activities their friends or family members have enjoyed. In addition, offer suggestions of physical activities that you have found personally fulfilling and meaningful or make suggestions based on other individuals' experiences. Looking through magazines with individuals that focus on mainstream physical activities or offer alternative activities such as yoga, hiking, gardening, or martial arts may also help stimulate interests and ideas.

After identifying meaningful physical activities, the next step is to help individuals develop a series of goals that are in line with their interests and desired outcomes. Setting an ultimate goal will help individuals focus on the big picture and the valuable outcomes they may be able to accomplish after successfully increasing physical activity over an extended period of time. Once an ultimate goal has been set, work with individuals to develop present goals that are small and short term. Setting smaller attainable goals will help individuals develop self-efficacy, a belief that they can achieve their goals (McDevitt et al., 2006). If present goals are too big, individuals may doubt their abilities and give up on reaching their goals. Support individuals to look at their current levels of activity and figure out what a present realistic goal would be in terms of increasing physical activity.

Smaller, more achievable goals will help individuals stay on track towards attaining their ultimate goals (Martinez, 2004). Setting a series of smaller goals will help individuals to understand that goal setting is a long term process that requires continual adjustment and focus on the present goal (Martinez, 2004). Individuals can also use present goals to monitor their progress and assess how well they are doing in terms of increasing physical activity

(Martinez, 2004). In order to assess their progress, it is important for individuals to write down their goals in specific and measurable terms. Specific and measurable goals will help individuals to view their progress objectively without having to question whether or not they have attained their goals. Ultimate and present goals can be recorded on the Goal Setting Worksheet. Table 4.2 provides an example of a well written and a poorly written goal.

Table 4.2 Goal Examples and description

Good Example	Bad Example
Walk for at least 15 minutes per day 5 days per week	Walk more
This is a good example because it is specific and measureable. This goal lists the specific activity (walking) the individual wants to engage in. It also lists the specific amount of time (15 minutes) and specific amount of days (5 days per week) the individual wants to walk. The goal is measureable, because the individual can measure the amount of time walked in order to attain the 15 minute goal. When the individual is able to walk comfortably for 15 minutes 5 days per week, he/she may want to make the goal even more specific by adding the speed at which he/she wants to walk, which could be measured by how many steps the individual takes per minute.	This is not a good example because it is not specific or measureable. It does list the specific activity (walking) the individual wants to engage in, but it does not list a specific time or amount of days one wants to engage in this activity. The goal is not measureable, because there is no time or distance to compare the present amount or desired amount of walking to. "More" is not a specific measurement. In order to make this goal better, the individual needs to include more details about the length of time he/she wants to be engaged in the activity or the distance he/she is striving to walk. Help to develop a better goal by asking how long the individual thinks he/she usually walks during the week and how much he/she would like to increase that distance, amount of time per day, or amount of days per week.

After defining goals, it is important to ensure that the advantages of the activity will outweigh the disadvantages of the activity (Gorcynski & Faulkner, 2010). Help individuals to revisit the discussion about personal benefits they want to attain through increasing physical activity. Will the goals they have set help them to attain the physical and mental benefits they have identified as valuable outcomes? Will attaining their goals be interesting and meaningful through participating in the physical activities they have selected? What are the disadvantages of participating in such activities? Identifying pros and cons often begins with a conversation. Table 4.3 provides some suggested questions to help explore the individuals' perspective of advantages and/or disadvantages of physical health related goals.

Table 4.3 Strategies to address pros and cons

Type of Strategy	Example Questions
To assess Pros (advantages)	<ul style="list-style-type: none"> • What mental health benefits will you attain through participating in this activity? • Will participating in this activity be interesting or personally meaningful? • Do you think you will form any meaningful relationships through participation in this activity? • What physical health benefits will you attain through participating? • Do you feel confident about your abilities to reach your goals?
To assess Cons (disadvantages)	<ul style="list-style-type: none"> • Will participating in this activity be convenient for you? • How much time will the activity take? • How will you be travelling to the activity location? • How much will it cost to participate in the activity? • How much energy will it take to participate? • Do you feel confident in your abilities to participate in this activity?

Identifying Action Steps and Developing an Action Plan

After setting goals and determining that the advantages of an activity outweigh the disadvantages of an activity, it is then time to start taking steps towards participating in the activity and developing an action plan. An action plan is a specific plan that describes when, where, and how an individual will increase their desired behaviors, such participating in a selected physical activity (Anshel, 2013).

Planning for Success

One of the first steps in developing an action plan is to help individuals identify what skills are necessary for participating in the activity and how they can get training to help them participate if needed. It is important for individuals with mental illness to focus on strategies to overcome participation barriers due to lack of knowledge and confidence in participation (Gorczynski & Faulkner, 2010). Help individuals gain necessary skills by looking up rules or techniques pertaining to the activity on the internet, in the library, at a fitness center, or at a community center. Assist individuals to identify what else they need to do in order to prepare for participating in the activity. Help them figure out what clothing and equipment they will need to in order to participate and where they can purchase appropriate materials if necessary. It is imperative for individuals to be engaged in the preparation and planning process, so they can develop skills that support increased participation in other physical activities in the future (Martinez, 2004).

Part of the process is to help individuals identify community resources and locations where they can participate in their selected activities. Help them to search for resources and locations through the internet, newspapers, local advertisements or websites, community centers, and learning centers. Once individuals have decided where they will be participating in the activity, help them figure out their transportation to the location and the cost of participation. Also help them to identify what they will need to bring, how to register for the activity if necessary, and if they will need to plan for any special accommodations or support. Then, assist individuals to calculate how much time the activity will require and decide what days of the week will be most convenient to participate. Integrating an activity into daily and weekly routines will help individuals incorporate the new activity into their lifestyles without too much thought (Cole, 2010). If individuals are able to fit the new activity into their schedules without disrupting their regular routines, they will be more likely to participate in the activity (Cole, 2010).

After individuals have identified where and when they will be participating, it is then important to support them with their action plan through implementing strategies to increase social and personal support, increase self-efficacy, overcome barriers, and maintain focus (Gorczyński & Faulkner, 2010). Encourage individuals to think about whom they could ask to participate in the activities with them or who they might meet through their participation. Adults with mental illness are more motivated to initiate participation in activities if they think they will develop adaptive and reliable relationships through activity engagement (Lloyd et al., 2007). Social support can also counteract barriers related to mental illness symptoms throughout participation and motivate continual engagement in activities (Bonsaksen, 2011). Sustained engagement in physical activities will offer individuals the opportunity to attain physical activity goals.

Encouraging Continued Participation

Attainment and mastery of physical activity goals will help to increase individuals' self-efficacy, their belief and confidence in their abilities to accomplish tasks (Bandura & Adams, 1977). High self-efficacy has consistently been shown to be strongly related to increased participation in physical activities (McNeill et al., 2006; Trost et al., 2002). Individuals who are more confident in their abilities to participate are more likely to engage in physical activity with higher frequency and intensity and continue participating until they have reached their goals (Bandura & Adams, 1977; McNeill et al., 2006; Raepsaet et al., 2010). Therefore, it is important to work with individuals to increase self-efficacy in order to foster increased levels of participation and successful achievement of goals. Increasing self-efficacy can be facilitated by developing strategies that help individuals focus on their successes and accomplishments. One strategy is to share positive behavioral changes and efforts with friends, family members, peers, support staff, or other influential people who consistently offer praise and positive reinforcement in response to individuals' achievements. By sharing their successes, individuals will be able to focus on their accomplishments and experience rewarding conversations that reinforce their healthy behaviors. Research has shown that social support is associated with positive changes in self-efficacy and increased levels of physical activity (Olander et al., 2013).

Another strategy is to develop a self-reward system that specifies how individuals will reward their own behaviors when they attain specific goals (Martinez, 2004). Some rewards could even inspire increased enjoyment of physical activities. Inspirational rewards include putting money aside to buy new equipment or clothes that enhance participation (Examples: bicycle, gym bag, running shoes, or athletic shorts), purchasing new music or musical equipment to listen to while exercising, planning a trip that involves being physically active and using new skills or strengths, and organizing a celebratory get-together of family and friends who have been supportive along the journey towards increased physical activity (Mayne, n.d.).

Another way to increase self-efficacy is to help individuals believe that they can overcome barriers in order to achieve their physical activity goals. Discuss potential barriers with individuals and develop strategies for overcoming those barriers. Specifically addressing barriers may help individuals overcome their low expectations for participating in physical activities, which are common among adults with mental illness (Bentall et al., 2010; Cunningham, 1988). Decreasing individuals' low expectations and increasing positive expectation of participation can strongly predict increased engagement in physical activities. Positive perceptions of physical activity participation and increased self-efficacy have been shown to predict future engagement in physical activities (Parschau et al., 2013).

In conclusion of the action plan, help individuals refocus on their smaller, more achievable present goals and review the benefits individuals hope to achieve through increased participation in physical activities. Individuals are more likely to follow through with their action plans if they believe they are capable of accomplishing their goals and that activity participation will be beneficial (Cole, 2010; McDevitt et al., 2006). Please use the Goal Setting Worksheets in order to help individuals define their action steps and create a concrete action plan that will help them attain their goals and increase their participation in physical activity.

Lesson 4: Illustrative Case Example

Renita and Chloe decided that Renita was ready to start planning for increasing her physical activity. They started planning by setting goals that Renita wanted to achieve. Chloe asked Renita what personal benefits she wanted to achieve through increasing her physical activity. Renita said that she wanted to lose weight, decrease the possibility of having a heart attack, increase her motivation to get out of bed, sleep better at night, and improve her mood. Renita said she would also like to meet some new people and possibly develop some healthy relationships. Knowing Renita's desires helped Chloe gain a bigger picture of what Renita wanted to accomplish and helped Chloe assist Renita to create goals that were in line with the benefits she wanted to achieve. She would help Renita create goals that would help her lose weight, increase her physical health, improve her sleeping patterns, improve her mood, and promote socialization with new people.

Chloe knew that if Renita engaged in activities that were enjoyable and meaningful, Renita would be more likely to continue participating in those activities. In order to help Renita identify meaningful physical activities, Chloe asked Renita about activities she participated in previously. Renita talked about how much she used to love swimming and moving through the water. Chloe asked Renita if there were any other activities she thought she might enjoy, but Renita could not think of anything else. Chloe asked Renita if any of her friends or family members participated in any enjoyable physical activities. Renita said that her Aunt Marie loved to garden and maybe she would want some help because she was getting older and not able to move around as well. Renita also remembered that her friend Jerome always talked about hiking through the park and thought that sounded like fun. She thought looking at the trees and birds around the park might make her feel better.

Chloe said that she thought they were ready to start developing goals in line with her interests. The first goal they focused on was to participate in walking through the park. Chloe said that her walking group walked through the Wissahickon Park on Saturdays for an hour and on Wednesdays for 30 minutes. She said that Renita was welcome to join them as much as she wanted. Renita said that she would eventually like to walk both days with the group, but she did not think she would be able to walk for a whole hour yet. Chloe helped Renita to develop an ultimate goal of walking both days with the group and a present goal of walking every Wednesday for 30 minutes with the group. They also decided that she should choose another day during the week to walk for at least 30 minutes with her mom in order to increase her endurance.

In order to help Renita reach her goals, Chloe said that they should develop an action plan that described when, where, and how Renita would increase the amount of walking she engaged in. They decided that Renita would need to buy some new clothes and shoes that were appropriate for walking and that she could purchase some cheap clothing down the street at the Salvation Army store. They figured out that Renita's mom could drop her off on her way to work at the meeting point every Wednesday for the group walk and that Chloe could drive her back to her house after they were finished walking. Chloe said that Renita should plan to bring

water with her, and Renita said that she should be able to find a couple water bottles at her house that she could fill up before the walk. Chloe said that she should plan to meet at in the parking lot at 8:00am and made sure that Renita knew exactly where she was talking about. Chloe said she did not need to arrive early, but to make sure she was not late, so they could get started right away.

Renita decided that the best day she could walk with her mom would be Monday evenings, since her mom usually only worked one job on Mondays and would have enough energy to walk. She decided that they could walk after dinner so it was not too hot. Renita also decided that she would cook dinner and clean up afterwards in order to help her mom feel more motivated to go for a walk with her. The plan was to walk for at least 30 minutes every Monday night. She thought the biggest barrier to walking would be that she would feel tired after eating a meal and not have the motivation to get off the couch. In order to overcome that barrier, Chloe and Renita figured out that Renita could cook something light so she didn't feel weighed down after eating and she and her mom could eat their dinner at the kitchen table instead of on the couch in front of the TV, so they wouldn't get sucked into watching a show or too comfortable to move.

Chloe asked how Renita thought she could help motivate herself to stick to reaching her goals and motivated to follow through with her action plan. Renita said that she would enjoy sharing how long she walked with her mom on Mondays with the group she met with on Wednesdays, especially Chloe. Chloe said that she would be sure to reward her accomplishments with praise and asked Chloe if there were any other ways she planned on rewarding herself for her positive efforts. Renita said that she was going ask her mom to set aside a little bit of money for every week she was able to accomplish her goals so that they could eventually go shopping together for new walking clothes. Chloe and Renita also found an App that the walking group could use that would track the amount of miles they walked on Chloe's phone and donate money to an animal shelter for every mile. Renita said that she loved animals and she hoped to adopt a dog one day when she had the money to afford one. Chloe said suggested that Renita might want to save up some money as a reward for reaching her goals so that she could adopt a dog. Chloe said that having a dog might inspire Renita to walk even more frequently.

Application Questions:

1. Why did Chloe ask Renita what benefits she wanted to achieve through increasing her physical activity?

2. How did Chloe find out about activities that Renita might be interested in participating in?

3. How did Chloe help plan for increasing Renita's self-efficacy and motivation for sticking to her action plan?

Goal Setting Worksheets

Select one Ultimate Goal & Make it SMART!	
Ultimate Goal:	
Specific: <ul style="list-style-type: none"> • What will I want to accomplish? • What benefits do I want to achieve by accomplishing this goal? • Who will be involved? • Identify a location. • How will you overcome barriers? 	
Measurable: <ul style="list-style-type: none"> • How will I know when I've reached this goal? • How will I measure this goal? 	
Achievable: <ul style="list-style-type: none"> • Think about what action steps are necessary to achieve this goal and if it's possible for to do this at this time. • Are there other things that need to be completed before making this goal a priority? • Are there any reasons you cannot achieve this goal? 	
Relevant: <ul style="list-style-type: none"> • How important is this to me? • Does it fit into the life I want for myself? 	
Time-framed: <ul style="list-style-type: none"> • Is this a long-term or short-term goal? • How long will it take for me to complete this goal? 1 month, 6 months, 5 years? • What can I do each day or each week to get closer to this goal? 	
Ultimate goal:	

Objectives to reach goal (Present Goals):	Time Frame
1.	
2.	
3.	
4.	
5.	
6.	

* You may have more or less objectives than the six boxes here.

Individualized Activity Reminders	Description
What	Identify the physical activity the participant is working towards
Expected Benefits	After talking about benefits with the consumer, write the one's that are most meaningful to the individual here.
Where	Where will the individual participate in the activity?
Costs	Are there any financial costs, time costs, or other meaningful costs that he or she identified?
Other Factors	Is there other relevant information about this activity that needs to be noted? Examples may include identifying the transportation route or bus number, what items to bring in order to participate, who the individual would like to invite to participate with him or her, among others.
How Often	How often does he or she want to participate? 3x/week; or every Wednesday? This may be determined by the individual's needs and/or the availability of the activity.

Individualized Activity Reminders	Description
What	
Expected Benefits	
Where	
Costs	
Other Factors	
How Often	

References

- Anshel, M.H. (2013). A cognitive-behavioral approach for promoting exercise behavior: the disconnected values model. *Journal of Sport Behavior*, 36(2), 107-129.
- Bandura, A. & Adams, N.E. (1977). Analysis of self-efficacy theory of behavioral change. *Cognitive Therapy and Research*, 1(4), 287-310.
- Bentall, R.P., Simpson, P.W., Lee, D.A., Williams, S., Elves, S., Brabbins, C., Morrison, A.P. (2010). Motivation and avolition in schizophrenia patients: the role of self-efficacy. *Psychosis*, 2(1), 12-22.
- Bonsaksen T. (2011). Participation in physical activity among inpatients with severe mental illness: a pilot study. *International Journal of Therapy and Rehabilitation*, 18(2), 91-99.
- Cole, F. (2010). Physical activity for its mental health benefits: conceptualizing participation within the Model of Human Occupation. *British Journal of Occupational Therapy*, 73(12), 607-615.
- Cunningham, M.R. (1988). What do you do when you're happy or blue? Mood, expectancies, and behavioral interest I. *Motivation and Emotion*, 12(4), 309-331.
- Gorczynski, P. & Faulkner, G. (2010). Exploring the construct validity of the Transtheoretical Model to structure physical activity interventions for individuals with serious mental illness. *Psychiatric Rehabilitation Journal*, 34(1), 61-64.
- Lloyd, C., King, R., McCarthy, M., & Scanlan, M. (2007). The association between leisure motivation and recovery: A pilot study. *Australian Occupational Therapy Journal*, 54, 33-41.
- Martinez, R. (2004). Promoting physical activity through goal setting strategies. *ProQuest Social Sciences Premium Collection*, 17(4), 25-26.
- Mayne, D. (n.d). Ideas for Rewards for Exercising. *Demand Media*. Retrieved from <http://healthyliving.azcentral.com/ideas-rewards-exercising-1830.html>.
- McDevitt, J., Snyder, M., Miller, A., & Wilbur, J. (2006). Perceptions of barriers and benefits to physical activity among outpatients in psychiatric rehabilitation. *Journal of Nursing Scholarship*, 38(1), 50-55.
- McNeill, L.H., Wyrwich, K.W., Brownson, R.C., Clark, E.M., & Kreuter, M.K. (2006). Individual, social environmental, and physical activity among black and white Adults: a structural equation analysis. *Annals of Behavioral Medicine*, 31(1), 36-44.
- Olander, E.K., Fletcher, H., Williams, S., Lou, A., Turner, A., & French, D.P. (2013). What are the most effective techniques in changing obese individuals' physical activity self-efficacy and behaviour: a systematic review and meta-analysis. *The International Journal of Behavioral Nutrition and Physical Activity*, 10(29).
- Parschau, L., Fleig, L., Koring, M., Lange, D., Knoll, N., Schwarzer, R., & Lippke, S. (2013). Positive experience, self-efficacy, and action control predict physical activity changes: a moderated mediation analysis. *British Journal of Health Psychology*, 18, 395-406.
- Porter, H.R. (2009). Developing a Leisure Meanings Gained and Outcomes Scale (LMGOS) and exploring associations of leisure meanings to leisure time physical activity (LTPA) adherence among adults with type 2 diabetes. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 70(6), 3469.

- Raepsaet, J., Knapen, J., Vancampfort, D., & Probst, M. (2010) Motivation to physical activity in non-psychotic psychiatric inpatients. *International Journal of Psychosocial Rehabilitation*, 15(1), 51-59.
- Trost, S.G., Owen, N., Bsuman, A.E., Sallis, J.F., & Brown, W. (2002). Correlates of adults' participation in physical activity: Review and update. *Medicine and Science in Sport and Exercise*, 34(12), 1996-2001.

Lesson 5

Self-Monitoring, Reviewing Progress, and Natural Supports

Topics

Self-monitoring logs allow consumers to record activities as they accomplish them. Logs can be on paper, on a computer or more technical items such as pedometers, Fitbits and phone activity tracking apps.

Natural supports are people who informally and without being paid offer encouragement and motivation for people with disabilities to function within their communities. They may be friends, family or neighbors. They may be people who attend the gym or volunteer with the consumer.

Application to Practice

Peer support specialists can work with consumers to identify self-monitoring logs that work best for the consumer. Through self-monitoring, the consumer has a way to review what PAs they have done both immediately after the activity and at later times. They can easily see the progress they have made. This process of holding the responsibility for both completing and recording their activities can enhance self-efficacy and increase the likelihood that consumers will continue working toward goals.

Natural supports provide consumers with motivation to continue with physical activity goals. They make experiences more meaningful and enjoyable. Peer support specialists can help consumers to identify natural supports by talking about important people in the lives of consumers and by processing activities with a focus on who participated alongside consumers and the feelings they inspired.

Tips

- Use one of the self-monitoring worksheets or develop your own to help participants monitor progress
- Help participants learn how to use the self-monitoring worksheet
- Celebrate all successes, and encourage continued participation even when setbacks occur
- Help participants connect to natural supports. Family/friends who may be interested in physical activity; meeting new people while participating in physical activity
- Help participants set up personal reminders and self-reward systems

Table 5.1 Definitions of Terms in this Section

Term	Definition
Self-Monitoring	<p>Personally tracking one's own behaviors in order to assess progress towards a goal</p> <p>Example: Cooper used self-monitoring by recording how many minutes he walked every day. At the end of the week he added up the total amount of minutes he walked during the course of the week and compared that amount to his goal of walking a total of 150 minutes per week.</p>
Self-efficacy	<p>The belief and confidence that you are able to accomplish tasks and achieve goals</p> <p>Example: Paul has high self-efficacy. He understands how to record his physical activity on the worksheet and is looking forward to using over the next week.</p>
Present Goal	<p>A small, realistic, measurable, and specific short term goal that an individual wants to accomplish</p> <p>Example: Raj's present goal is to participate in 20 minutes of muscle strengthening activities 2 times per week.</p>
Action Plan	<p>A specific plan that describes when, where, and how an individual will increase their desired behaviors</p> <p>Example: Je'Juan has decided that she wants to increase her physical activity through biking. She has developed an action plan that will help her follow through with biking. Her action plan defines where and when she will bike, how she is going to get there, how long it will take, how much it will cost, who she is going to go with, and how she will overcome the barriers to participation.</p>
Moderate-intensity aerobic activity	<p>Physical activity that causes heart rate to increase enough to make a person sweat and make it difficult to sing a song, but still allows a person to talk.</p> <p>Examples: Walking fast, water aerobics, biking with few hills, playing doubles tennis, and pushing a stroller</p>
Vigorous-intensity physical activity	<p>Physical activity that causes hard and fast breathing, significantly increases heart rate, and makes it difficult to say more than a few words without pausing to breathe.</p> <p>Examples: Jogging, running, swimming laps, biking fast or on hills, playing singles tennis, and playing basketball</p>

Term	Definition
Muscle strengthening activity	Physical activity that strengthens the muscles of the body Examples: lifting weights, working with resistance bands, doing push-ups and sit-ups, digging and shoveling in the garden, and yoga
Motivational Interviewing (MI)	Specific techniques that can be used to help guide conversations in a client-centered way, which has been proven to be successful in leading to increases in specific health behaviors Example: One technique of MI is expressing rolling with resistance, which involves listening to individuals' thoughts and feelings without challenging individuals' behaviors. Marie persistently talked about how she did not want to engage in physical activities because she did not like going to the gym. Instead of arguing with Marie about how the gym was not the only place Marie could engage in physical activity, Melina listened to Marie's concerns. When Marie was finished, Melina offered suggestions about physical activities that Marie could participate in outside of a gym environment.
Natural Supports	Individuals who informally and without being paid support a person with a disability to function within their community Example: Honey has many natural supports within her community. Her sister drives her to and joins her in a dance class once a week. Her next door neighbor comes over to garden twice a week. Two ladies from Honey's church walk with her once a week around Main Street.

Self-Monitoring Progress

It is important for individuals to be able to self-monitor their own physical activity. First of all, they are the only ones who will be able to keep track of their daily physical activity. Others will not be able to monitor their behaviors every day, so it is important for them to learn how to record their own physical activity independently. Secondly, it is helpful for individuals to be a part of the process of monitoring progress towards achieving their goals. Charting their activities makes the process more tangible and helps individuals learn responsibility for their own actions (Martinez, 2004). It is more likely that individuals will follow through with attaining their goals if they are responsible for recording their own progress (Martinez, 2004). Self-monitoring will give individuals a sense of independence and control, which has been shown to increase participation in activities among adults with mental illness (Raepsaet, Knapen, Vancampfort, & Probst, 2010).

Self-monitoring may also help increase individuals' self-efficacy, the belief that they can achieve their goals. Self-efficacy has been shown to be the most consistent factor related to increased participation in physical activities (McNeill et al., 2006; Trost et al., 2002). Research interventions have shown that keeping records of physical activity can increase feelings of self-

efficacy and help individuals maintain physical activity participation over an extended period of time (Gleeson-Kreig, 2006; Izawa et al., 2006). Therefore, individuals who increase their self-efficacy through self-monitoring are more likely to engage in increased levels of physical activity and achieve their physical activity goals through sustained participation (Bandura & Adams, 1977; Gleeson-Kreig, 2006; McNeill et al., 2006; Raepsaet et al., 2010).

The Self-Monitoring Physical Activity Log will help individuals accurately record their physical activity and assess their progress from week to week. Ask individuals to fill out the activity log after completing a physical activity or at the end of each day, whichever is more convenient for the individual. Recording the physical activity shortly after it has been completed will help increase the accuracy of the recording (Sternfeld & Goldman-Rosas, 2012). Previous research has noted inaccuracies in self-reported data due to waiting too long to recall information and overestimating the amount of physical activity (Schuna, Johnson, & Tudor-Locke, 2013). Ensure individuals that they will have time to reach their goals and it is more important for them to record accurate information about their progress rather than inaccurately reporting data just so it appears they have reached their goals. Explain that they will not be judged based on whether or not they have reached their goals during future meetings. The data will be used to assess their progress and help guide how to best provide assistance towards reaching goals, such as discussing further how to overcome barriers, or readjusting goals to become more realistic.

Before leaving individuals to self-monitor their physical activity, make sure they understand the Self-Monitoring Physical Activity Log and how they will record information on the sheet. If they feel competent in recording their physical activity, their self-efficacy will increase and they will be more likely to use the worksheet (Raepsaet et al., 2010). First review individuals' goals and help them to record their goals at the top of the worksheet. Then review the individuals' action plans and discuss how they will be achieving their goals throughout the next week. Next, discuss what information will be recorded in each box and use examples if necessary. Explain that more than one activity can be recorded in a box if they participate in more than one activity during that day. Time spent participating and type of activity should be recorded for each activity listed. Check for understanding by asking questions based on their goals about how they will record their information.

Review the meaning of each type of activity (moderate-intensity aerobic, vigorous-intensity aerobic, and muscle strengthening). Explain how they can use the abbreviations (MIA, VIA, and MS) to save room for recording data. Also explain that an aerobic activity may be part moderate-intensity and part vigorous-intensity and discuss how to record that information on the worksheet. Discuss what type of activity individuals think they will be participating in during the week based on the goals they have set for themselves. Use examples based on their goals to check for understanding.

Explain that questions about the Self-Monitoring Physical Activity Log may come up during the week and assure individuals that it is standard to review the worksheet during the next meeting in order to discuss questions and work together to make modifications if necessary.

Table 5.2 Ensuring participants understand their goals

Topic	Recommended questions
Goals and Action Plan	<ul style="list-style-type: none"> • What are your present goals? • What are your goals for this week? • What days do you plan on participating in physical activity? • Where will you be participating in the physical activity? • Do you have your transportation worked out for participating in the physical activity? • Do you have all the equipment and clothing you need for participating?
Name of Activity	<ul style="list-style-type: none"> • What are the names of physical activities you plan on participating in this week? • Are there any other physical activities you may participate in this week? • Can you write the name of two physical activities in one box? • Is it ok to write down that you participated in more than one physical activity during one day?
Time Spent Participating	<ul style="list-style-type: none"> • How much time do you think you will participate in each activity? • How will you keep track of how long you participated? • Should you include the time you spend resting or taking a break during the physical activity?
Type of activity	<ul style="list-style-type: none"> • What physical activities will you participate in this week will be labeled as moderately-intense aerobic activities? • Do you think that part of your aerobic activity can be moderately-intense and part of your activity can be vigorously-intense? • How would you record the activity type of an aerobic activity that was both moderate-intensity and vigorous-intensity? • What is an example of a muscle strengthening activity you think you will be participating in this week? • How will you calculate the total amount of different activity types for the entire week? • Where will you record the total amount of different activity types on your self-monitoring sheet?

How to Review and Discuss Progress

When meeting with individuals to review their progress, it is important to first ask them if they had any difficulty filling out the Self-Monitoring Physical Activity Log and if they have any questions or concerns about recording their physical activity. Work with individuals to answer any questions and resolve any concerns. If their issues concerning the worksheet are resolved,

individuals will feel more comfortable and competent about filling it out and will be more likely to continue using it in the future (Raepsaet et al., 2010).

Individuals may be emotional about the progress they have made over the past week, especially if they did not reach their goals. Make sure to be sensitive to their feelings and remain non-judgmental. Use Motivational Interviewing techniques (as discussed in Lesson 3), such as expressing empathy, avoiding argumentation, and supporting self-efficacy to discuss progress in a nonthreatening, person-centered way (Carey, Purnine, Maisto, & Carey, 2001; Miller & Rollnick, 1991). Praise individuals for their efforts to increase their levels of physical activity and their abilities to self-monitor their progress. Gently develop discrepancy between the goals that they wanted to achieve and the progress they actually made over the course of the week.

Use the Goal Setting Worksheets to compare the present goals to the progress made towards each goal over the past week. Use the same worksheet to record whether or not individuals have reached their goals over the past week or made any progress towards their goals compared to the previous week. Then work with individuals to assess whether or not the present goals need to be adjusted. The amount of time spent engaged in a physical activity may need to be increased if the individual has been continually successful in reaching the present goal. The amount of time may need to be decreased in order to make the goal more realistic and attainable if the individual is struggling to reach the present goal each week. In addition to adjusting goals, it might be helpful to work on adjusting action plans in order to help individuals reach the goals they are struggling to attain. Discuss with individuals the barriers they have encountered during the week that have prevented them from reaching their goals and develop an action plan to overcome these barriers, such as planning to participate in the activity during a different day of the week or an alternate location.

In conclusion, review the total time each individual spent participating in the different types of activity (moderate-intensity aerobic, vigorous-intensity aerobic, or muscle strengthening). Compare these totals to the physical activity recommendations discussed in Lesson 3 and listed below in the table. Discuss with individuals whether or not they think they should develop an additional physical activity goal in order to get closer to reaching recommended levels of physical activity. For example, after reviewing the total time spent engaging in various physical activities, it may become apparent that an individual spent zero time engaged in muscle strengthening activities. As a result, it may be necessary to discuss adding a present goal that includes increasing muscle strengthening activities.

Table 5.3 Physical Activity Recommendations (CDC, 2014)

Option	Description
Option 1	2 hours and 30 minutes of moderate-intensity aerobic activity per week (Ex. walking fast, water aerobics, biking with few hills, pushing stroller) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)
Option 2	1 hour and 15 minutes of vigorous-intensity aerobic activity per week (Ex. jogging, running, swimming laps, biking fast or on hills, playing basketball) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)
Option 3	Combination of moderate- and vigorous-intensity aerobic activity per week (Ex. 90 minutes of moderate-intensity plus 30 minutes of vigorous-intensity aerobic activity) AND 2 or more days of muscle-strengthening activities per week (all muscle groups: legs, hips, back, abdomen, chest, shoulders, and arms)

Utilizing Natural Supports

Natural supports have been defined as individuals who informally and without being paid support a person with a disability to function within their community (Duggan & Linehan, 2013). Natural supports can include immediate and extended family members, friends, neighbors, and community members (Duggan & Linehan, 2013). Research suggests that people with disabilities often have less natural supports and have difficulty forming supportive social relationships that could help them increase their participation in community-based activities (Duggan & Linehan, 2013). Therefore, it is important to help adults with mental illness to form supportive social relationships and encourage the utilization of natural supports to increase activity participation within the community. Motivation for change is most beneficial within communities of belonging rather than isolated homes or within individual treatment sessions (Lloyd, 2007). Communities offer opportunities for encouragement, stimulation, and meaningful life experiences (Lloyd, 2007). Activities within the community offer participants the experience of being part of a group that shares caring interactions, which can increase quality of life (Lloyd, 2007).

Adults with mental illness are also more motivated to participate in activities if they think participation may lead to the development of adaptive, reliable relationships (Lloyd et al., 2007). Social support can not only promote initial engagement in activities, but can also motivate individuals to continue to participate over an extended period of time (Bonsaksen, 2011). Multiple studies have determined that social support is positively related to participation in physical activities (Anderson-Bill et al., 2011; McNeill et al., 2006; Molloy et al., 2010; Trost et al., 2002; Wilcox et al., 2009). One study explains that increased social support is related to

higher levels of competence, autonomy, and feelings of belonging, which can lead to increased perceptions of self-determination (George et al., 2013). Increasing perceptions of self-determination means that individuals feel that they are more in control of their lives and feel that they have an increased ability to choose and act upon their wants and needs. The study explains that increased perceptions of self-determination can increase individuals' intentions to participate in physical activities (George et al., 2013). Therefore, increasing social support may lead to increased participation in physical activities due to increased perceptions of self-determination.

Natural supports may be able to offer the social support necessary to increase participation in physical activities among adults with mental illness and increase their quality of life through participation in meaningful community-based physical activities and positive social interactions. Various strategies have been identified that increase the likelihood of developing natural supports. One technique is to identify family and friends who are able to support an individual to achieve personal goals, such as increasing physical activity (Duggan & Linehan, 2013). Help individuals to list family and friends in their lives who may be willing to support them. Then encourage individuals to discuss how they think each natural support on their list would specifically be able to help. Maybe someone would be able to assist with transportation while another person could co-participate in an activity. One friend may like to go to the gym with the individual, while another natural support would like to garden with the individual. Maybe one family member is really good at encouragement and an individual could check in weekly with that person and share positive progress.

In addition to current natural supports, encourage individuals to think of how they could find more people to support them in achieving their goals. They may want to seek out supportive peer relationships with individuals who are going through a similar process. Peer support is unique, because it involves individuals with shared disabilities providing support to each other (Duggan & Linehan, 2013). Peers can work together to achieve their goals and overcome similar barriers to increasing physical activity. Help individuals make contact and connections with other adults with mental illnesses through community centers, advocacy groups or outreach programs. Encourage them to seek out individuals with similar physical activity interests, so they can participate together.

In addition to forming natural supports with other adults with mental illness, encourage individuals to think of other people who could support them to increase physical activity. Individuals may be able to find support through religious organizations, learning centers, community centers, fitness centers, or local colleges. Help individuals to contact places of potential support and identify people who can become natural supports. Individuals may also be able to form natural supports less formally through participating in a physical activity with others. Participation in social physical activities has the potential to bring together isolated individuals through a shared interest in order to develop meaningful relationships (Heasman, 2004). Encourage individuals to be open to new relationships and help individuals to identify new natural supports as they continue to participate in new activities. As the list of natural

supports grows, help individuals identify how each person will be able to specifically support individuals to reach their goals of increased physical activity.

Lesson 5: Resource Links

Self-Monitoring Physical Activity

- [Exploring Goal-setting, Rewards, Self-monitoring, and Sharing to Motivate Physical Activity](http://www.smunson.com/portfolio/projects/swellness/gpl-pervasivehealth-final.pdf)
http://www.smunson.com/portfolio/projects/swellness/gpl-pervasivehealth-final.pdf
- [Self-Monitoring—The Way to Successful Weight Management](http://www.obesityaction.org/educational-resources/resource-articles-2/weight-loss-surgery/self-monitoring-the-way-to-successful-weight-management)
http://www.obesityaction.org/educational-resources/resource-articles-2/weight-loss-surgery/self-monitoring-the-way-to-successful-weight-management
- [Self-Monitoring of Physical Activity: Effects on Self-efficacy and Behavior in People with Type 2 Diabetes](http://hlth315alifornia.pbworks.com/f/10991587848212171504.pdf)
http://hlth315alifornia.pbworks.com/f/10991587848212171504.pdf
- [The Science of Self-Monitoring](http://www.idealit.com/fitness-library/science-self-monitoring-0)
http://www.idealit.com/fitness-library/science-self-monitoring-0

Motivation and Exercise Rewards

- [How to Motivate Physical Activity: Are rewards the key?](http://blog.zamzee.com/2012/07/24/how-to-motivate-physical-activity-are-rewards-the-key/)
http://blog.zamzee.com/2012/07/24/how-to-motivate-physical-activity-are-rewards-the-key/
- [Exercise Rewards](https://www.exerciserewards.com/)
https://www.exerciserewards.com/
- [Rewards and Perks: Healthy Rewards for a Healthier You!](http://www.cooportunityhealth.com/Member/RewardsandPerks)
http://www.cooportunityhealth.com/Member/RewardsandPerks
- [Exploring Goal-setting, Rewards, Self-monitoring, and Sharing to Motivate Physical Activity](http://www.smunson.com/portfolio/projects/swellness/gpl-pervasivehealth-final.pdf)
http://www.smunson.com/portfolio/projects/swellness/gpl-pervasivehealth-final.pdf
- [Celebrating Your Fitness Success](http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Celebrating-Your-Fitness-Success_UCM_462210_Article.jsp)
http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Celebrating-Your-Fitness-Success_UCM_462210_Article.jsp

Fitness Apps

- [5 Awesome Fitness Apps That Offer Rewards](http://www.washingtonian.com/blogs/wellbeing/fitness/5-free-awesome-fitness-apps-that-offer-rewards.php)
http://www.washingtonian.com/blogs/wellbeing/fitness/5-free-awesome-fitness-apps-that-offer-rewards.php
- [WoofTrax: Take Your Walk for a Dog](http://www.wooftrax.com/)
http://www.wooftrax.com/

Natural Supports

- [Don't Work Out Alone—Fitness Peer Support](http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Dont-Work-Out-Alone---Fitness-Peer-Support_UCM_462207_Article.jsp)
http://www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/StayingMotivatedforFitness/Dont-Work-Out-Alone---Fitness-Peer-Support_UCM_462207_Article.jsp
- [Natural Supports & Community Connections](http://www.arcind.org/supports-services/natural-supports-community-connections/)
http://www.arcind.org/supports-services/natural-supports-community-connections/
- [Natural Supports](http://tucollaborative.org/pdfs/Toolkits_Monographs_Guidebooks/relationships_family_friends_intimacy/Natural_Supports.pdf)
http://tucollaborative.org/pdfs/Toolkits_Monographs_Guidebooks/relationships_family_friends_intimacy/Natural_Supports.pdf

Lesson 5: Illustrative Case Example: Self-Monitoring Progress

After Renita and Chloe decided upon Renita's present goals and defined her action plan, Chloe said that Renita would be in charge of monitoring her own progress. Chloe explained that Renita would be the only one who was able to keep track of her daily activities and that she would be independently responsible for writing down how much physical activity she engages in each week. Chloe showed Renita that Self-Monitoring Physical Activity Log and explained how to fill it out. She explained that it would be best if Renita filled out the log right after completing the activity or at the end of each day in order to increase the accuracy of the recording. Chloe said that it was important that Renita recorded her physical activities as accurately as possible and that she would not judge Renita negatively if she was unable to reach her goals. Chloe explained that the data would help guide her to further assist Renita to overcome barriers and readjust goals if necessary.

Before Chloe and Renita ended their meeting, Chloe made sure that Renita understood every part of the Self-Monitoring Physical Activity Log. She knew that Renita would be more likely to fill out the worksheet if she felt confident about her abilities to use it. Chloe reviewed Renita's present goals with her and asked her questions about when, where, and how she would be achieving her goals for the week. Renita remembered that she still needed to purchase some clothes and shoes in order to participate in the walking activities. Chloe said that she would time their group walk and asked Renita how she would keep track of how long she walked with her mom. Renita said that her mom always wore a watch, so she would look at what time they started the walk and monitor the time throughout the walk to make sure they walked at least 30 minutes every Monday evening. Chloe and Renita decided that if Renita needed to take a break during the walk, she would not include the time spent taking a break when recording the total amount of time that she walked.

Chloe and Renita also reviewed the types of activities she would be participating in and discussed the definition of moderate-intensity aerobic activities, vigorous-intensity aerobic activities, and muscle strengthening activities. They decided that walking would probably be a moderate-intensity aerobic activity and discussed how Renita could test this by monitoring her heart rate, trying to talk or sing while walking, and evaluating how much she sweats during the activity. Chloe asked Renita if she had any more questions about filling out the worksheet. Renita said she thought she understood everything. Chloe said that questions might come up during the week and that it was ok if she was not sure how to record something. Chloe said to record the information to the best of her ability and that they would discuss any of Renita's questions or concerns during their next meeting or during their group walk on Wednesday. Chloe said that a few of the other people in the walking group also filled out the same worksheet during the week and they could help answer some of her question or give her tips about how to record physical activity information.

Application Questions:

1. Why is it important for Renita to Self-Monitor her physical activity?
2. How did Chloe make sure that Renita would feel confident about filling out the Self-Monitoring Physical Activity Log?
3. What other questions could Chloe ask to make sure that Renita would be successful in filling out the Self-Monitoring Physical Activity Log?

Next Steps & Self-Reflection

This lesson presented information about self-monitoring. Throughout the week, consider ways to monitor your own physical activity levels so that you can better understand how you might help participants.




Did you use a physical activity self-monitoring sheet? What did you find? Were you more or less physically active than usual? Did the chart encourage you to be more physically active?

If you did chart your own physical activity, which type of chart worked best for you? What did you like about it? What didn't you like about it?

What strategies do you think would help you to be more physically active? How can this help your ability to support your participants?

Physical Activity Monitoring Worksheets/Self-Monitoring Physical Activity Log

There are a number of physical activity monitoring worksheets available. A few examples are provided here. You may find that some worksheets work better with different participants, or that you want to tailor one of these to meet the unique needs of someone with whom you are working. To download the worksheets discussed below and for links to others, [visit this website](http://www.liveactivetemple.com/tracking-your-progress/): www.liveactivetemple.com/tracking-your-progress/

Date	Treadmill	Bike	Weights	Notes
				
	Speed _____	Speed _____	Exercise _____	
	Time _____	Time _____	Weight _____	

Example 1

This first example includes images and is simplified for easy use. The images and information collected could change based on exercise interests and goals. For example, if users were not interested in running, it could be replaced with walking and the information collected could be amount of time spent walking and location of walk, such as in the park or through a mall. The notes section is included for independent processing of feelings, strengths utilized and challenges to prepare for in the future.

NAME: _____		DATE: _____	
Monday		This Week:	This Month:
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Example 2

The Loose Scheduling Weekly Calendar allows the user to schedule and monitor goals both for a specific day and loosely to be completed during a week. Goals that are specific to a day might include an exercise class that is only offered on Tuesdays at noon. Loosely scheduled goals

might include things that can be done at any time, like walking along a nature trail. Often when people plan to walk a mile on Monday, they feel that they've already failed for the week if they miss this walk. By loosely scheduling goals, one can complete things early or catch up later when they have time.

Fitness Chart		Goals for this week:					Date:
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Breakfast							
Lunch							
Dinner							
Snacks							
Drinks							
Scale	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5
Cardio (Walk, Dance, Treadmill, Bike, Run...)							
Strength (Weights, Core)							
Stretch							
Time							
Scale	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5	1--2--3--4--5

Example 3

The final example is a weekly fitness chart designed so that the user can review their weekly dietary and exercise habits. At the top of the page, the user has the option to create a goal for the week. Goals might include, increasing daily walks from 1 mile to 1.5 miles and/or eating 3 fruits and vegetables each day. This chart requires more writing than the first example and it captures more information. There are also sections to rate daily and weekly achievements. Often, when someone falls off the wagon once, maybe by eating potato chips or missing a workout, they feel that they have screwed up everything and therefore give up until next week. This rating scale allows the user to see that they have had good days too. Focusing on positive achievements is good for morale and continued motivation.

Various options are available to fit the needs for each person who is interested in tracking goals and successes. By charting successes, users have the ability to reflect on what is working and to celebrate accomplishments. Charting challenges allows one to see where they need increased focus and possibly outside help and resources. When recommending worksheets be sure to consider the needs of the user and tracking resources that will allow them to be successful.

References

- Anderson-Bill, E.S., Winett, R.A., & Wojcik, J.R., (2011). Social cognitive determinants of nutrition and physical activity among-web-health users enrolling in an online intervention: The influence of social support, self-efficacy, outcome expectations, and self-regulation. *Journal of Medical Internet Research*, 13(1), e28.
- Bonsaksen T. (2011). Participation in physical activity among inpatients with severe mental illness: a pilot study. *International Journal of Therapy and Rehabilitation*, 18(2), 91-99.
- Carey, K.B., Purnine, D.M., Maisto, S.A., & Carey, M.P. (2001). Enhancing readiness-to-change substance abuse in persons with schizophrenia: a four-session motivation-based intervention. *Behavior Modification*, 25(3), 331-384.
- Duggan, C. & Linehan, C. (2013). The role of 'natural supports' in promoting independent living for people with disabilities; a review of existing literature. *British Journal of Learning Disabilities*, 41, 199-207.
- George, M., Eys, M.A., Oddson, B., Roy-Charland, A., Schinke, R.J., & Bruner, M.W. (2013). The Role of self-determination in the relationship between social support and physical activity intentions. *Journal of Applied Social Psychology*, 43(6), 1333-1341.
- Gleeson-Kreig, J.M. (2006). Self-monitoring of physical activity: effects on self-efficacy and behavior in people with type 2 diabetes. *The Diabetes Educator*, 32(1), 69-77.
- Heasman, D. (2004). The active advice pilot project: leisure enhancement and social inclusion for people with severe mental health problems. *The British Journal of Occupational Therapy*, 67(11), 511-514.
- How much physical activity do adults need? (2014). Retrieved from <http://www.cdc.gov/physicalactivity/everyone/guidelines/adults.html>
- Homma, S., Sone, M., Kurose, I., Homma, R., & Nagare, T. (2012). Clinical efficacy of a telemedicine program for lifestyle modification involving self-monitoring of health status, and patient compliance with it. *Ningen Dock*, 27(1), 97-102.
- Izawa, K.P., Watanabe, S., Oka, K., Osada, N., & Omiya, K. (2006). Effect of self-monitoring approach during cardiac rehabilitation on exercise maintenance, self-efficacy, and physical activity over a 1-year period after myocardial infarction. *Japanese Journal of Physical Fitness and Sports Medicine*, 55(Suppl.), S113-S118.
- Lloyd, R. (2007). Modeling community-based, self-help mental health rehabilitation reform. *Australasian Psychiatry*, 15 Supplement, S99-S103.
- Lloyd, C., King, R., McCarthy, M., & Scanlan, M. (2007). The association between leisure motivation and recovery: A pilot study. *Australian Occupational Therapy Journal*, 54, 33-41.
- Martinez, R. (2004). Promoting physical activity through goal setting strategies. *ProQuest Social Sciences Premium Collection*, 17(4), 25-26.
- McNeill, L.H., Wyrwich, K.W., Brownson, R.C., Clark, E.M., & Kreuter, M.K. (2006). Individual, social environmental, and physical activity among black and white Adults: a structural equation analysis. *Annals of Behavioral Medicine*, 31(1), 36-44.
- Miller, W., Rollnick, S. (1991) *Motivational Interviewing: Preparing people to change addictive behavior*. New York: Guilford.

- Molloy, G.J., Dixon, D., Hamer, M., & Sniehotta, F.F. (2010). Social support and regular physical activity: does planning mediate this link? *British Journal of Health and Psychology*, 51(4), 859-870.
- Raepsaet, J., Knapen, J., Vancampfort, D., & Probst, M. (2010) Motivation to physical activity in non-psychotic psychiatric inpatients. *International Journal of Psychosocial Rehabilitation*, 15(1), 51-59.
- Schuna, J.M, Johnson, W.D., & Tudor-Locke, C. (2013). Adult self-reported and objectively monitored physical activity and sedentary behavior: NHANES 2005-2006. *International Journal of Behavioral Nutrition and Physical Activity*, 10(1), 126-146.
- Sternfeld, B. & Goldman-Rosas, L. (2012). A systematic approach to selecting an appropriate measure of self-reported physical activity or sedentary behavior. *Journal of Physical Activity and Health*, 9(Suppl1), S19-S28.
- Trost, S.G., Owen, N., Bsuman, A.E., Sallis, J.F., & Brown, W. (2002). Correlates of adults' participation in physical activity: Review and update. *Medicine and Science in Sport and Exercise*, 34(12), 1996-2001.
- Wilcox, S., Dowda, M., Dunn, A., Ory, M.G., Rheaume, C., & King, A.C. (2009). Predictors of increased physical activity in the Active for Life Program. *Preventing Chronic Disease*, 6(1), A25

Summary:

Next Steps & Self-Reflection

These 5 chapters covered a lot of information. While the lessons focused on how you can support consumers who have physical activity goals, as a peer, it is also important to consider your own physical activity goals. The following questions will help guide your own self-exploration as well as strategies to support the individuals with whom you work.

Lesson 1 – Barriers

What types of barriers do you face in your physical activity?

What types of barriers might your participants face? How can you support them? Consider finances, motivation, skills/abilities, environment, social support, transportation, knowledge of what is available.

Lesson 2 – Benefits of Physical Activity

What types of benefits would you like to achieve through physical activity? What are some of the benefits you've experienced?

What types of benefits might encourage your participants to be more physically active? Consider physical, mental and social benefits.

Lesson 3 – Guidelines for Physical Activity, Stages of Change, Motivational Interviewing

What could you do to meet the guidelines for physical activity? Where would you put yourself on the stages of change toward increased physical activity?

Are you comfortable using Motivational Interviewing techniques with consumers? How could you determine the stage of change your participants are in?

Lesson 4 – Goal Setting

Have you selected physical activity goals and action steps for yourself? Does knowing this information help you to make better decisions about being physically active?

How have you helped your participants to set their own goals and action steps? Do you feel they are benefitting from a greater understanding of what they want for themselves?

Appendix A:

International Physical Activity Questionnaire

August 2002

Short last 7 days self-administered format
For use with young and middle-aged adults (15-69 years)

The International Physical Activity Questionnaires (IPAQ) comprises a set of 4 questionnaires. Long (5 activity domains asked independently) and short (4 generic items) versions for use by either telephone or self-administered methods are available. The purpose of the questionnaires is to provide common instruments that can be used to obtain internationally comparable data on health-related physical activity.

Background on IPAQ

The development of an international measure for physical activity commenced in Geneva in 1998 and was followed by extensive reliability and validity testing undertaken across 12 countries (14 sites) during 2000. The final results suggest that these measures have acceptable measurement properties for use in many settings and in different languages, and are suitable for national population-based prevalence studies of participation in physical activity.

Using IPAQ

Use of the IPAQ instruments for monitoring and research purposes is encouraged. It is recommended that no changes be made to the order or wording of the questions as this will affect the psychometric properties of the instruments.

Translation from English and Cultural Adaptation

Translation from English is supported to facilitate worldwide use of IPAQ. Information on the availability of IPAQ in different languages can be [obtained here](http://www.ipaq.ki.se) at www.ipaq.ki.se. If a new translation is undertaken we highly recommend using the prescribed back translation methods available on the IPAQ website. If possible please consider making your translated version of IPAQ available to others by contributing it to the IPAQ website. Further details on translation and cultural adaptation can be downloaded from the website.

Further Developments of IPAQ

International collaboration on IPAQ is on-going and an *International Physical Activity Prevalence Study* is in progress. For further information see the IPAQ website.

More Information

More detailed information on the IPAQ process and the research methods used in the development of IPAQ instruments is [available here](#) at www.ipaq.ki.se and Booth, M.L. (2000). *Assessment of Physical Activity: An International Perspective*. Research Quarterly for Exercise and Sport, 71 (2): s114-20. Other scientific publications and presentations on the use of IPAQ are summarized on the website.

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the **last 7 days**. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1. During the **last 7 days**, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

_____ days per week

☐

No vigorous physical activities

➔ **Skip to question 3**

2. How much time did you usually spend doing **vigorous** physical activities on one of those days?

_____ hours per day

_____ minutes per day

☐

Don't know/Not sure

Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

3. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ days per week

☐

No moderate physical activities

➡ **Skip to question 5**

4. How much time did you usually spend doing **moderate** physical activities on one of those days?

_____ hours per day
_____ minutes per day

☐ Don't know/Not sure

Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

5. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ days per week

☐ No walking

➡ **Skip to question 7**

6. How much time did you usually spend **walking** on one of those days?

_____ hours per day
_____ minutes per day

☐ Don't know/Not sure

The last question is about the time you spent **sitting** on weekdays during the **last 7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the **last 7 days**, how much time did you spend **sitting** on a **week day**?

_____ hours per day
_____ minutes per day

☐ Don't know/Not sure

This is the end of the questionnaire, thank you for participating

Appendix B:

Stages of Change Assessment

Exercise: Stages of Change (Continuous Measure)

Please use the following definition of exercise when answering these questions:

Please enter the number in the box that indicates how strongly you agree or disagree with the following statements.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Undecided
- 4 = Agree
- 5 = Strongly Agree

Regular Exercise is any planned physical activity (e.g., brisk walking, aerobics, jogging, bicycling, swimming, rowing, etc.) performed to increase physical fitness. Such activity should be performed 3 to 5 times per week for 20-60 minutes per session. Exercise does not have to be painful to be effective but should be done at a level that increases your breathing rate and causes you to break a sweat.

1. As far as I'm concerned, I don't need to exercise regularly.
2. I have been exercising regularly for a long time and I plan to continue.
3. I don't exercise and right now I don't care.
4. I am finally exercising regularly.
5. I have been successful at exercising regularly and I plan to continue.
6. I am satisfied with being a sedentary person.
7. I have been thinking that I might want to start exercising regularly.
8. I have started exercising regularly within the last 6 months.
9. I could exercise regularly, but I don't plan to.
10. Recently, I have started to exercise regularly.
11. I don't have the time or energy to exercise regularly right now.
12. I have started to exercise regularly, and I plan to continue.
13. I have been thinking about whether I will be able to exercise regularly.
14. I have set up a day and a time to start exercising regularly within the next few weeks.
15. I have managed to keep exercising regularly through the last 6 months.
16. I have been thinking that I may want to begin exercising regularly.
17. I have lined up with a friend to start exercising regularly within the next few weeks.
18. I have completed 6 months of regular exercise.
19. I know that regular exercise is worthwhile, but I don't have time for it in the near future.

- 20. I have been calling friends to find someone to start exercising with in the next few weeks.
- 21. I think regular exercise is good, but I can't figure it into my schedule right now.
- 22. I really think I should work on getting started with a regular exercise program in the next 6 months.
- 23. I am preparing to start a regular exercise group in the next few weeks.
- 24. I am aware of the importance of regular exercise but I can't do it right now.

Scoring

Precontemplation (non-believers in exercise) items: 1, 3, 6, 9

Precontemplation (believers in exercise) items: 11, 19, 21, 24

Contemplation items: 7, 13, 16, 22

Preparation items: 14, 17, 20, 23

Action items: 4, 8, 10, 12

Maintenance items: 2, 5, 15, 18

Factor Loadings

Precontemplation Non-Believer Items

Item	PCA	CFA
1	.804	.650
3	.752	.744
6	.822	.898
9	.784	.757

Precontemplation Believer Items

Item	PCA	CFA
11	.825	.749
19	.861	.810
21	.901	.858
24	.873	.871

Contemplation Items

Item	PCA	CFA
7	.821	.779
13	.834	.759
16	.911	.912
22	.911	.922

Preparation Items

Item	PCA	CFA
14	.699	.693
17	.908	.831
20	.901	.830
23	.712	.686

Action Items

Item	PCA	CFA
4	.748	.817
8	.867	.680
10	.833	.536
12	.732	.882

Maintenance Items

Item	PCA	CFA
2	.923	.884
5	.900	.888
15	.939	.947
18	.928	.931

References

- Marcus, B.H., Selby, V.C., Niaura, R.S., & Rossi, J.S. (1992). Self-efficacy and the stages of exercise behavior change. *Research Quarterly for Exercise and Sport*, 63, 60-66.
- Reed, G.R. (1994). Measuring stage of change for exercise behavior change, URICA-E2. Unpublished Dissertation.

Dissertation Abstract

This project set out to continue the development and refinement of the URICA-E2, an instrument to measure stage of change for regular exercise based on the Transtheoretical Model of Behavior Change.

In Study One, the URICA-E2 which is a proportionate measure of stage of change, was analyzed using Principal Component Analysis and refined into a 24-item instrument capturing not five, but six stages of change: Precontemplation-Non Believer (PCN), Precontemplation-Believer (PCB), Contemplation (C), Preparation (P), Action (A), and Maintenance (M). The standardized

scale scores from the URICA-E2 were clustered and seven profiles were found. They duplicated the six stages and added a seventh which was tentatively named Ambivalent (ABV).

In Study Two, a series of models were tested using Confirmatory Factor Analysis in order to better understand the relationship between the stage constructs. Nine models were tested: two types of simplex, four types of circumplex, and three types of punctuated equilibrium. A circumplex model, where the strongest relationships were found among the stages which are adjacent, alternate, and opposite, was found to nearly mimic the exercise data. This supports the very common experience of people frequently relapsing and frequently restarting regular exercise.

Study Three sought confirmation of the URICA-E2 by validating it against three short form staging algorithms, the Decisional Balance instrument, the Confidence instrument, and a measure of hours of exercise. The Single Question Algorithm was found to outperform the other algorithms. The profiles of the URICA-E2 demonstrated the classic crossover of pros with cons around the Preparation stage. Confidence was seen to rise across the profiles.

In conclusion, it was found that the URICA-E2 is a multipurpose tool, well worth the effort required to use it. What other instrument could give you six stages of change, seven profiles, and show a circumplex to be the best way to describe the relationship between the stages? For the times that demand a shorter staging instrument, the Single Question Algorithm has proved to be an instrument of choice. It has the advantage of simplicity, ease of administration, and it performs as well as if not better than its five question counterpart.

Reference:

University of Rhode Island. (n.d.). Exercise: Stages of change (continuous measure). Retrieved from <http://web.uri.edu/cprc/exercise-stages-of-change-continuous-meas>