Module 3

Evidence-Based Interventions

Work & People with Serious Mental Illness

- Number of individuals with serious mental illness that are working is low:
  - 22-40% (Cook, 2006)
  - 17.2% (Salkever et al., 2008)
  - 17.9% (Catie Study, Reinicke et al., 2008)
- Make up 33% of SSI beneficiaries and 28% of SSDI beneficiaries. (Cook, 2006).
- Underemployment is also an issue:
  - Most (70%) of those with college degrees earned less than $10/hour. (Cook, 2002)
  - Average pay is $7.05/hour. (Salkever et al., 2008)
  - Approximately 38% of those with mental disabilities that are working earn near minimum wage. (National Health Interview Survey: Disability Supplement, Kaye, 2002)

Benefits of Work: Central to Identity Formation

- Provides Meaningful Activity
- Promotes Recovery
- Increases Social Relationships
- Enhances Self-Efficacy
Barriers to Employment

- Low educational attainment.
- Lowered productivity.
- Discrimination.
- Poverty.
- Disincentives.
- Shortage of vocational rehabilitation.

Supported Employment

Individual Placement and Support (IPS) Model includes:

- Rapid job search.
- Placement in competitive employment.
- Supports and training on site.
- Coordination of employment and mental health services.
- Counseling on social security benefits.
- Support for as long as necessary.

EBP Supported Employment Tool-Kit: http://store.samhsa.gov/product/Supported-Employment-Evidence-Based-Practices-EBP-KIT/SMA08-4365

Evidence for Supported Employment

- Supported employment is superior to other interventions for following work outcomes:
  - Obtain competitive employment.
  - Hours worked.
  - Job tenure.
  - Earnings.
- Best outcomes when there is high fidelity to the Individual Placement and Support Model.
- Large numbers remain unemployed.

Refer to pages 21-24 in the practice guidelines to learn more about the evidence for supported employment.
Supported Employment Augmented &
with Targeted Populations

Role of Occupational Therapy in
Supported Employment

- Matching individuals' interests and skills with job opportunities.
- Making recommendations related to reasonable accommodations.
- Making recommendations related to job training.
- Implementing programs that augment supported employment.

See the case description of Jose on page 33 in the practice guidelines to learn more about occupational therapy interventions for supported employment.

Knowledge Check

Jim graduated from high school and has two semesters of college credits. He is concerned that his diagnosis of bipolar disorder and limited work history with no employment for the last 7 years will make it hard to find a job. He enjoys animals and would like to pursue some sort of work that would involve animals. Which of the following interventions would be most consistent with supported employment. Select all that apply. Click Submit to check your answer.

A. Placing Jim in a sheltered workshop to develop basic work skills before moving to competitive employment.
B. Job search that quickly focuses on placing Jim in a job that is consistent with his skills and interest in animals.
C. Providing Jim with prevocational counseling focused on developing a resume and working on interview skills and social skills for work.
D. Providing Jim with counseling related to his social security disability benefits so that he can make informed decisions about his work situation.
E. On-the-job, but time-limited, support from a vocational counselor so that Jim does not become too dependent on outside services.

Submit
Goals of Supported Education

Based on supported employment principles:
- Choice of educational experience and setting.
- Supports provided in the natural environment (in the educational setting).

Goals of supported education:
- Attaining a college degree.
- Completing a general equivalency diploma (GED).
- Obtaining a technical training certificate.
- Taking adult education courses at a community college.

Click here for resources on supported education.
Knowledge Check
In supported education, students with serious mental illness are identified by the college's student services and provided with the necessary reasonable accommodations. Click Submit to check your answer.

True
False

Models within Supported Education
Onsite Model:
- Tutoring
- Classroom accommodations
- Campus support groups
- Counseling

Self-Contained Classroom Model:
- Computer training
- Study skills
- Math
- Campus resources

Services provided:
- Individualized basis
- In a group

Evidence for Supported Education
- Fewer studies have examined supported education.
- Two Level I and two Level III studies report promising results.
- Individuals in supported education have better educational outcomes.
- Attendance and participation are associated with better outcomes.
Role for Occupational Therapy in Supported Education

Performance skills:
- Group or individual
- Module-based format

Environmental supports:
- Reasonable accommodations
- Accessing resources

Refer to the case description of Cara on page 32 of the practice guidelines to learn more about occupational therapy interventions for supported education.

The Bridge Program was developed by occupational therapists, Sharon Gutman and Victoria Schindler.

Knowledge Check

Julie is enrolled in a college course for the first time. The cognitive impairments associated with her schizophrenia make it difficult for Julie to listen to the lectures and take notes at the same time. She is easily distracted and worries that other students are looking at her and talking behind her back. Which of the following practices would be consistent with supported education. Select all that apply. Click Submit to check your answer.

A. Suggest that Julie drop this course so that she doesn’t receive a bad grade on her transcript, increase her medications, and then return to the class when her symptoms are more stable.
B. Provide Julie with a note-taker (which could be a current student taking notes in the class), so that Julie can concentrate on the lecture and then look at the notes on her own later on.
C. Suggest that Julie attend an on campus support group with other students with psychiatric disabilities.
D. Ask the professor to reduce the number of assignments that Julie must complete to successfully pass the course.

Submit

Community Living and Serious Mental Illness

Reasons for targeting community living:
- Living independently but desire a better quality of life.
- Living on own for first time after moving away from home, etc.
- Moving out of homelessness and need supports for independent living.
Areas of Community Living

Community Living Skills Training

Components of Skills Training

1. Identify target behaviors.
2. Break down target behaviors into component parts.
3. Teach skills through demonstration, didactic instruction, and practice.
4. Assign homework to practice skills.
5. Provide regular feedback and reinforcement.

(Bellack, 2004)

Click here to learn more about the UCLA Social and Independent Living Skills Modules.
Knowledge Check

Skills training is best provided in the controlled environment of the clinic so that participants are not overwhelmed with the complexity of the real world. Click Submit to check your answer.

True
False

Submit

Evidence for Community Living Skills Training

- Results of 5 systematic reviews:
  - Two found positive outcomes. (Corrigan, 1991; Dil and Bond, 1996)
  - Three found skills training was not more effective than other interventions. (Filling et al. 2002; Robertson et al. 1998; Tungpunkom & Nicol, 2008)

- Numerous Level I studies find individuals with serious mental illness can learn and retain new skills.

- Schizophrenia Patient Outcomes Research Team (PORT) recommended skills training as an evidence-based practice. (Dixon et al. 2010)
  
  "Substantial evidence indicates that people with schizophrenia can learn a variety of interpersonal and everyday living skills when provided with structured behavioral training that is focused on clearly defined activities, situations, and problems." (p.51)

- Click here to learn more about the Schizophrenia PORT recommendations.

Additional Findings Related to Skills Training

- The longer the duration of the training the better the results. (Dil & Bond, 1996)

- Targeted skills are not generalized to larger role functioning. (Dil & Bond, 1996)

- Generalizability can be enhanced with supports and reinforcement of skill use in natural environments. (Oden et al. 2002)

- Effect of skills training on symptoms is unclear - some studies find improvements. (Oden et al. 2002)

- Other studies do not find an improvement in the reduction of symptoms. (Patterson, 2006)
Role for Occupational Therapy in Skills Training

Occupational therapists can:
- Implement existing skill training programs.
- Develop or enhance skill training programs.
  (Redlich et al. 2006; Brown et al. 2002)

Refer to the case description of Mal on page 34 of the practice guidelines to learn more about occupational therapy interventions for community living.

Knowledge Check

Simple instrumental activities are best taught over several sessions, to ensure integration of learning through repeated practice. Click Submit to check your answer.

True
False

Health & Wellness and Serious Mental Illness

Very serious health issues for individuals with serious mental illness, include:
- Metabolic syndrome (diabetes) rates 4x the national average. (Saari et al. 2005)
- Life expectancy reduced 25 years. (Cotton & Maderich 2008)
- Most common cause of death is cardiovascular disease.

Click here to learn about the SAMHSA 10 by 10 Campaign.
Dimensions of Wellness

- Emotional
  - Coping effectively with life and creating satisfying relationships.
- Environmental
  - Good health by occupying pleasant, stimulating environments that support well-being.
- Intellectual
  - Recognizing creative abilities and finding ways to expand knowledge and skills.
- Physical
  - Recognizing the need for physical activity, diet, sleep, and nutrition.
- Social
  - Developing a sense of connection, belonging, and a well-developed support system.
- Spiritual
  - Expanding our sense of purpose and meaning in life.
- Occupational
  - Personal satisfaction and enrichment derived from one’s work.

Barriers to Health and Wellness

Barriers that interfere with wellness for people with serious mental illness:
- Live below poverty line.
- Lack access to quality health care.
- Experience medication side effects.
- Present lifestyle concerns, including:
  - High smoking rates.
  - Inadequate nutrition.
  - Lack of physical activity.
  - Sleep problems.

Knowledge Check

In general, people with serious mental illness have more physical health and wellness concerns than individuals in the general population. Click Submit to check your answer.

True
False
Interventions to Promote Health & Wellness

Types of interventions:

- Development of many initiatives and programs.
- Target specific areas of health and wellness.
- Focus on general health and wellness.

Weight Loss

Factors associated with effective weight loss programs:

- Lasts at least 3 months.
- Addresses nutrition and physical activity.
- Includes education and activity-based approaches.

Click here to access the full SAMHSA report.

Nutrition and Exercise for Weight Loss and Recovery (NEW-R) is available for free download.

Exercise to Improve Mood

Four studies examined the efficacy of exercise for improving mood with the following findings:

1. Increase in activity and exercise associated with a decrease in anxiety and depression. (Dunn, Trivedi & O’Neal, 2001)
2. Higher dose of exercise was more effective than a low dose in decreasing depression. (Dunn et al, 2003)
3. Aerobic exercise decreased depression in adults with serious mental illness. (Hutchinson, Skirhar & Cross, 1999)
4. An outdoor adventure program decreased depression and anxiety in adults with serious mental illness. (Kelley, Coursey & Selby, 1997)
Action over Inertia Intervention

Action over Inertia:
- Developed by occupational therapists.
- Improves occupational balance and increases occupational engagement.
- Administered individually over 12 weeks, using a workbook.
- Participants spent more time in meaningful activity a day.

(Peterson & Krupa, 2011)

Purchase the workbook through the Canadian Association of Occupational Therapy.

Interpersonal and Social Rhythm Therapy (IPSRT)

IPSRT features:
- Based on evidence that exacerbations of manic episodes in bipolar disorder are associated with disruptions in routines. (Mahoff-Schwartz et al. 1998)
- Works to establish and maintain basic social rhythms (e.g., getting out of bed, eating meals, first contact with others, etc.).
- Participants in IPSRT had a longer remission time than individuals in a control condition. (Frank et al. 2005)

Wellness Recovery Action Planning (WRAP)

WRAP is a self-management program for serious mental illness:
- Create daily maintenance plan.
- Identify triggers and early warning signs.
- Recognize when things are getting worse.
- Establish a crisis plan. (Copeland, 1997)

Evidence indicates:
- Increase sense of hope.
- Decrease in symptoms.
- More prepared to manage problems. (Palmer et al. 2011; Good et al. 2010)
Role for Occupational Therapy in Wellness

- Training in physical and mental health with holistic focus.
- Developing and implementing wellness programs.
- Adapting existing wellness programs.
- Making modifications as necessary:
  - Address cognitive impairments in materials.
  - Recognize limited resources.
  - Recognize unique concerns.
  - Address medication requirements.
  - Create strategies to ensure maintenance.

Refer to the case description of Gerald on page 36 of the practice guidelines to learn more about occupational therapy interventions for health and wellness.

Knowledge Check

Lisa has frequent bouts of depression. When depressed she finds it difficult to get out of bed, sometimes misses work, and avoids contact with others. Which of the following wellness strategies has research to support its efficacy? Select all that apply. Click Submit to check your answer.

A. Regular aerobic exercise.
B. Engagement in positive and meaningful activity.
C. Sensory integration.
D. Daily dose of St. John’s Wort.

Cognition and Serious Mental Illness

Common cognitive impairments:
- Slowed processing speed.
- Reduced selective attention.
- Diminished working memory.
- Impaired higher order executive functions. (Green, 2006)

Differences in cognitive impairments across diagnoses:
- Schizophrenia and bipolar disorder - more enduring.
- Depression - tends to improve with remission of symptoms. (Graff-Hegn, Johnson & Benedict, 2006)
Impact of Cognitive Impairments on Occupational Performance

- Cognitive impairments are more detrimental than positive and negative symptoms with regards to occupational performance. (Green, 2006)
- Impact of cognition impairments on occupational performance:
  - Interferes with skill acquisition necessary to carry out occupations.
  - Leads to an avoidant coping style regarding the environment and others.
  - Prevents development of a strong sense of self. (Lysaker & Buck, 2007)

Intervention: Cognitive Remediation

Cognitive remediation involves:
1. Targeting improvement of basic cognitive skills.
2. Improving cognition to facilitate acquisition of occupational performance skills.
3. Using graded computer and paper and pencil activities on area of impairment.

Evidence for Cognitive Remediation

1. Some systematic reviews found no benefits. (Pilling et al. 2002; McGrath & Hayes, 2006)
2. A meta-analysis found medium effect sizes for improvement in cognition and psychosocial functioning. (McDermott et al. 2007)
3. Randomized controlled trials found:
   - Improvements in cognitive skills.
   - Less evidence for generalization to occupational performance. (Kohler et al. 2001; Wykes et al. 2008; Kurz et al. 2007; Litschumayer et al. 2008)
4. Combining cognitive remediation with skills training may lead to better generalization. (Rodin et al. 2002; Bland et al. 2006)
Knowledge Check

Cognitive remediation most likely results in what positive outcome? Click Submit to check your answer.

A. Enhanced occupational performance.
B. Reduction of symptoms.
C. Improved attention and memory skills.
D. Improved social skills.

Submit

Intervention: Cognitive Adaptation Training (CAT)

- Adapt the environment to compensate for cognitive impairments
- Assess to identify if issues related to apathy (initiating activity), disinhibition (attention), or both.
- Put strategies in place to cue, sequence behaviors, or eliminate distractors. (Velligan et al. 2000; 2006)

Evidence for Cognitive Adaptation Training (CAT)

Two randomized controlled trials found CAT superior to control groups in areas of:

- Symptoms
- Adaptive functioning
- Relapse rates
- Use of available supports (Velligan et al. 2000; 2006)
Intervention - Errorless Learning

Errorless learning includes:
- Teaching new content or skills that compensate for cognitive impairments, especially memory impairments.
- Preventing participant from making mistakes during the learning process.
- Interfering with the encoding of incorrect information.
- Learning information like names and skills like ADLs and work tasks.

Evidence for Errorless Learning

- First study:
  - Investigate the efficacy of word learning in individuals with schizophrenia with and without memory impairments.
  - Errorless learning was effective for both groups but memory impaired received more benefit. (O’Carrol et al. 1999)
- Second study:
  - Errorless learning resulted in better outcomes than conventional instruction for job tasks.
  - Individuals with memory impairments benefitted most. (Kern et al. 2002)

Role of Occupational Therapy in Cognitive Interventions

Occupational therapists can:
- Promote generalization of cognitive remediation through real world activities.
- Adapt environments to reduce cognitive demands.
- Utilize errorless learning principles when teaching new information or skills.

Refer to the case description of Stanley on page 35 of the practice guidelines to learn more about occupational therapy interventions for cognitive impairments.
Knowledge Check

Match the correct cognitive intervention on the right to the occupational therapy strategy on the left. Click Submit to check your answers.

1. Using repetition and mastery to teach someone how to send a text message.
   - a. Cognitive remediation
   - b. Cognitive adaptation training
   - c. Errorless learning

2. Working on decision-making skills while choosing products from a grocery store shelf.

3. Creating a simplified recipe for a favorite meal.

Submit

Implications for Occupational Therapy Research and Education

Develop manualized interventions or fidelity measures.

Augment practice guidelines with new evidence.

OT not played major role in evidence for mental health practice.

Conduct research that compares interventions.

Include evidence-based practices in OT education.

The Evidence-Based Practitioner

Using the practice guidelines and other resources will:

- Increase your confidence in clinical decision making.
- Provide better options when collaborating with clients.
- Enhance your communication with other team members.

Congratulations on completing Using the Occupational Therapy Practice Guidelines for Adults with Serious Mental Illness!

To continue, complete the course summary and click EXAM on the left side of the screen.