American Psychological Association

Recovery to Practice Initiative Curriculum: Reframing Psychology for the Emerging Health Care Environment

8. Interventions II: Evidence Based Practices

NOTE: There are three Interventions modules. They are designed to be used together and are not intended to be used separately or as stand alone modules

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Overview

This is the second of three modules on Interventions. The three modules are designed to be used together; they cannot stand alone as the content of any one is not sufficient to understand or provide Psychosocial Rehabilitation (PSR) interventions.

In Interventions I, the guiding principles that underlie the provision of all PSR services are discussed along with an integrative framework model that can be used to coordinate PSR services. The guiding principles are essential for the successful implementation of the interventions discussed in Interventions II and Interventions III. In Interventions II, interventions that have been proven through empirical research to achieve specific outcomes are presented; these are known as evidence based practices (EBPs). In Interventions III, interventions that have shown promise of achieving specified outcomes are presented; these are known as promising or emerging practices. Interventions III also presents supporting services that are widely acknowledged to be essential services for helping people recover from the effects of serious mental illness.

Importantly, research evidence has been accumulating that an integrated approach that combines multiple interventions within a recovery oriented context may be the most effective approach (Lyman, Kurtz, Farkas, George, Dougherty, et al., 2014; Spaulding & Deogun, 2011) and scholars are increasingly calling for such an integrated, recovery oriented system (Davidson & Chan, 2014). Such an approach must be targeted to the unique needs of each individual including those in forensic and criminal justice systems (Epperson, Wolff, Morgan, Fisher, Frueh & Huening, 2011; Strauss, 2014). In addition, it has become apparent that cognitive impairment is likely at the heart of the functional skill deficits so commonly experienced by people with serious mental illnesses (Harvey, & Penn, 2010) leading to the conclusion that integrated approaches should include cognitive enhancement approaches as a fundamental component (Pfammatter, Brenner, Junghan & Tschacher, 2011; Roder, Mueller & Schmidt, 2011) and underscores the importance of social cognition for improving community functioning. Indeed, some have stated that including cognitive remediation “may result in a magnitude of change that exceeds that which can be achieved by targeted treatments alone” (Pinkham & Harvey, 2013, p. 499).

Notwithstanding the above, each of the EBPs, promising practices, and supporting services are discussed separately in the interventions modules (Interventions II and Interventions III) because as of the publication date of this curriculum, no definitive combination of approaches has been determined to be most effective, although some combination of cognitive therapies (cognitive remediation, social cognition training, cognitive behavioral therapy), supported employment, psychoeducation (client/family approaches, illness management approaches), and social and communication skills training, seems to be most promising. As the research literature evolves, additional interventions, especially those that contain a cognitive or learning component, may be identified as critically important. Furthermore, identification of which interventions work best for whom, under which
conditions, at which stage of illness, and potentially at which age of each individual, may lead to the development of personalized approaches tailored for each individual.

Learning Objectives
At the end of this module you will be able to:

- State at least three reasons why the PORT recommendations are important for the design of mental health service systems
- Identify at least four evidence based PSR services
- Identify at least three key characteristics for each of the identified EBPs
- Identify and discuss at least three conditions important for ensuring success when providing evidence based and other services derived from research
- Describe at least two reasons why psychologists and other practitioners might be resistant to implementing EBPs

Resources
- Lecture Notes
- Required Readings
- Lecture Notes Citations
- Sample Learning Activity
- Sample Evaluation Questions
- Additional Resources

Required Readings


Activities
Complete the following activities:

- Read the lecture notes
• Read the required readings
• Engage in a learning activity related to this module
• Evaluate students’ understanding of this module.
Lecture Notes

People with lived experience of serious mental illness are strongly encouraged to be part of the delivery of the curriculum including being active participants in the delivery of the lecture. Refer to the curriculum Instruction module for additional information.

Introduction

As described in previous modules, studies over the past several decades have shown that many adults with serious mental illnesses can and do recover when they are provided with supports and services that assist them to gain the skills needed to live a satisfying and productive life. Users of mental health services have consistently said that they want the same things for themselves that every citizen wants: a family, a safe place to live, meaningful activities, adequate income, job satisfaction, and an enjoyable social life. Where children and youth are concerned, the same is true: families seeking services for children with mental health concerns want services that promote the development of competencies, and functional lifetime outcomes (Bellonci, Jordan, Massey, Lieberman, Zubritsky & Edwall, 2012).

For people with serious mental illnesses, attainment of life goals often requires substantial assistance in the form of specially designed psychosocial rehabilitation (PSR) services. While some people with serious mental illness may recover without assistance, many are unable to recover sufficiently to achieve the quality of life that they desire without these specialized services (Silverstein, 2000). Several of these specialized services have been shown in multiple randomized clinical trials to be highly effective; these are known as evidence based practices (EBPs).

It is important to keep in mind that none of the interventions are suggested as a “cure” for serious mental illness. Rather these interventions are a means to inform individuals and their families about the illness and to help individuals achieve the life goals they have for themselves. It is also important to keep in mind that all interventions must be provided within a recovery oriented framework and perspective that is person centered, draws on the strengths and capabilities of the individual, and is oriented to the goals of the person served (Davidson, 2010; Mueser, 2012).

Evidence Based Practices (EBPs)

As discussed in the first module in the Interventions series, we know that services must be guided by the following:

- Recognition that recovery and return to a satisfying and productive life are possible;
- Provision of interventions that are grounded in research and achieve results;
Acceptance that, to the greatest extent possible, those with serious mental illnesses and their families are full partners with the service delivery system and determine the services they will receive.

With this as a foundation, we will now discuss the evidence that supports provision of skills building interventions.

The evidence base supporting use of PSR services for people with serious mental health disorders has developed considerably over the past two decades and is now quite robust. Provision of EBPs, promising practices, and supporting services within an integrated PSR model has been shown to improve the functional capability of individuals with serious mental illnesses and improve outcomes across a broad spectrum of domains when compared with standard care (Patterson & Leeuwenkamp, 2008).

In order for individuals with serious mental illnesses to achieve improved outcomes, a range of clinical interventions is often necessary, ranging from pharmacologic to psychosocial. The recommendations of the Schizophrenia Patient Outcomes Research Team (PORT) are now considered to be the gold standard for guiding mental health treatment for people with serious mental illness. Because of the relevance of the PORT recommendations to this module on Interventions, the following is abstracted from the first update of the PORT study (Lehman, Kreyenbuhl, Buchanan, et al. 2004), and from the most recent update (Kreyenbuhl, Buchanan, Dickerson & Dixon, 2010) of the PORT recommendations:

Since publication of the original Schizophrenia Patient Outcomes Research Team (PORT) treatment recommendations in 1998, considerable scientific advances have occurred in our knowledge about how to help persons with schizophrenia. Today an even stronger body of research supports the scientific basis of treatment. This evidence, taken in its entirety, points to the value of treatment approaches combining medications with psychosocial treatments, including psychological interventions, family interventions, supported employment, assertive community treatment, and skills training. The most significant advances lie in the increased options for pharmacotherapy, with the introduction of second generation antipsychotic medications, and the greater confidence and specificity in the application of psychosocial interventions. Currently available treatment technologies, when appropriately applied and accessible, should provide most patients with significant relief from psychotic symptoms and improved outcomes.

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1 The literature base is well developed for those with psychotic disorders, especially schizophrenia and schizoaffective disorders, but less well developed for bi-polar disorder, clinical depression, personality disorders, and concurrent addictive disorders. While some studies exist, most researchers have assumed that the findings from major studies of individuals with schizophrenia would generalize to others with serious mental illnesses. Due to the paucity of research specific to these disorders, this document likewise assumes to generalize the findings to these populations as well.
opportunities to lead more fulfilling lives in the community (Lehman, Kreyenbuhl, Buchanan, et al. 2004, p. 193).

This latest update of the PORT recommendations has identified 24 treatment areas that have strong empirical evidence for improving outcomes and which should comprise the basic menu of treatments and services available to all people with schizophrenia. Consistent with the paradigm shift in schizophrenia treatment from a focus on long term disability to one focused on optimism and recovery, the ultimate goal of the Schizophrenia PORT has been to increase the use of evidence based treatments in order to optimize outcomes by reducing illness symptoms and the disability and burden associated with the illness (Kreyenbuhl, Buchanan, Dickerson & Dixon, 2010, p. 100).

Of the 24 treatment recommendations in the updated PORT, 16 relate to pharmacologic treatments and 8 relate to PSR interventions. The 8 PSR interventions are:

...assertive community treatment, supported employment, cognitive behavioral therapy, family-based services, token economy, skills training, psychosocial interventions for alcohol and substance use disorders, and psychosocial interventions for weight management. Reviews of treatments focused on medication adherence, cognitive remediation, psychosocial treatments for recent onset schizophrenia, and peer support and peer-delivered services indicated that none of these treatment areas yet have enough evidence to merit a treatment recommendation, though each is an emerging area of interest (Kreyenbuhl, Buchanan, Dickerson & Dixon, 2010, p. 48).

The following sections of this module discuss the 8 EBPs. The third Interventions module discusses the 4 promising interventions mentioned above and also provides information about services that are highly supportive for people with serious mental illness. Many of the interventions are often combined and frequently overlap, thereby providing reinforcement of the components. Most of the interventions target functions that are needed for success in many areas of life. Despite this broad applicability, the interventions were primarily developed with a particular focus in mind and their effectiveness has been determined based on meeting that particular focus or goal.

**Assertive Community Treatment**

The most well known and researched evidence based practice is assertive community treatment (ACT). Originally developed and researched in the late 1970s (Stein & Test, 1980), ACT has become the cornerstone around which community mental health treatment for those with the most serious mental illness is provided (Dixon, 2000).

Those who receive services from an ACT program are typically those that have not benefited from traditional approaches to providing treatment, although recently the model has been implemented with those experiencing a first episode of psychosis (FEP). Provision
of the ACT model with individuals with FEP resulted in the formation of greater social
networks which may lead to improved clinical outcomes as a result of establishing or
maintaining relationships with family and friends (Tempier, Balbuena, Garety & Craig,
2012).

ACT is designed to help people overcome the challenges they face including difficulties
with basic, everyday activities such as developing and maintaining relationships, caring for
their basic physical needs, maintaining safe and adequate housing, unemployment,
substance abuse, homelessness, and involvement in the criminal justice system. Services
are provided by a multidisciplinary team that should have enough staff so that there is a
comprehensive mixture of expertise and sufficient coverage for the hours of operation. At
the same time, to operate as a team, the team must be small enough to communicate easily
and allow all members to be familiar enough with each consumer’s status so that they can
step in to provide care at any time. A team of 10 to 12 members with a total caseload of 100
persons is suggested, although teams serving a large number of individuals with acute
needs may find that a smaller caseload is needed until the individuals stabilize. The types
of services that are provided and how long those services are provided depend on people's
needs. The team meets each day to discuss how each person is doing and services are
adjusted quickly when necessary. When people need more support, team members meet
with them more frequently. Staff respond to people in the community 24 hours a day, 7
days a week. As people improve, the team decreases their interactions with them, but team
members remain available to provide additional support any time it is needed.

The model has been tested in countries all over the world and the results have been
sustained (Marshall & Lockwood, 1998). ACT is now considered the standard for case
management services for those with the most serious mental illnesses (Bond, Drake, Mueser
& Latimer, 2001; Burns, Fioritti, Holloway, Malm, et al., 2001; Burns & Santos, 1995; Phillips,
Burns, Edgar, Mueser, et al., 2001), and after 30 years, the principles of this model remain
the same. ACT teams have not always included psychologists and the reason for this is not
clear. Psychologists have much to contribute to interdisciplinary efforts such as ACT teams
where varied psychological expertise can make substantial contributions to this highly
effective intervention. A toolkit for implementing ACT can be found at
http://store.samhsa.gov/facet/Professional-Research-Topics/term/Evidence-Based-Practices.

**Supported Employment**

Along with assertive community treatment, supported employment (SE) is one of the most
researched and validated interventions available. The most widely implemented version of
supported employment is known as individual placement and support (IPS) and this term
has become practically synonymous with supported employment, although the EBP is
known as supported employment.

Strong outcome data exist to support the efficacy of this EBP for persons with serious
mental illnesses (Becker, Whitley, Bailey & Drake, 2007; Bond, Drake, Mueser, et al., 1997).
Supported employment is a place and train model which uses the principle of on the job training as its cornerstone. This means that individuals with mental health disorders learn how to find and keep regular, real world jobs in the community and are provided with continuous support to assist them to achieve success. Outcomes for supported employment have been shown to be much better than for traditional approaches and this finding has been replicated in several countries (Burns, Catty, Becker, Drake, et al., 2007; Catty, Lissouba, White, et al., 2008; Corbiere, Lanctot, Lecomte, Latimer, et al., 2010; Harry, van Busschbach, Stant, van Vugt, Weeghel & Kroon, 2014; Heffernan & Pilkington, 2011; Hoffmann, Jäckel1, Glauser & Kupper, 2012; van Erp, Femke, Giesen, van Weeghel, et al., 2007; Wong, Chiu, Tang, Mak, et al., 2008).

One of the most comprehensive reviews of the research was a Cochrane review completed in 2001. This review of eighteen randomized controlled trials found that supported employment was superior to programs that offered pre-vocational training (Crowther, Marshall, Bond & Huxley, 2001). A more recent review of twelve systematic reviews and seventeen randomized controlled trials of the individual placement and support model of supported employment also found consistently positive results (Marshall, Goldberg, Braude, Dougherty, Daniels, et al., 2014). As a result, the model is now recommended as the intervention of choice for those who want to work.

Programs that have implemented evidence-based supported employment find that fewer crises occur because individuals are focused on using their strengths, developing their lives in the community, and managing their illness more independently, which leads to enhanced self esteem and sense of self worth. The comprehensive and coordinated planning that occurs with supported employment leads to fewer crises, less chaos, and more structure, and the on-going support of the employment specialist, whose caseload is generally no more than 25 individuals, provides the help often needed to sustain employment (Bond, Becker, Drake, et al., 2001; Burns, Catty, White, Becker, et. al., 2009).

Additionally, research has found that when supported employment is combined with other mental health services in a highly integrated model of service delivery, employment rates for those with serious mental illness can be more than double that of those who receive supported employment without additional services and individuals achieve significantly higher earnings and remain employed for longer periods (Cook, Lehman, Drake, et al., 2005; Cook, Leff, Blyler, et al., 2005). Cognitive remediation has recently been paired with supported employment in several studies and found to enhance the effects of supported employment (Bell, Choi, Dyer & Wexler, 2014; Lindenmayer, McGurk, Mueser, Kahn, et al., 2008; McGurk, Mueser & Pascaris, 2005).

The essential principles of supported employment are:

- Focus on competitive employment
- Rapid job searches
- Jobs tailored to individuals
• Time-unlimited follow-along supports
• Integration of supported employment and mental health services
• Zero exclusion criteria (that is, no one is screened out because they are not thought to be ready).

A toolkit for implementing supported employment can be found at http://store.samhsa.gov/facet/Professional-Research-Topics/term/Evidence-Based-Practices.

One issue that remains to be resolved for any work program is the effect that added income can have on disability payments. Thus, although supported employment can assist an individual to become successful in the work environment, the individual may choose to not work or to work for a limited number of hours in order to avoid risking loss of disability and other benefits.

Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT) is a form of psychotherapy that uses education and behavioral shaping techniques to help individuals learn to think more rationally, and learn to act differently based on this more rational thinking. It is a combination of cognitive therapy which teaches rational thinking skills, and behavioral therapy which teaches behavioral skills. There can be a range of therapeutic approaches that are included under the rubric of CBT. CBT is not aimed specifically at eliminating symptomatology, i.e., changing either positive or negative symptoms, although the severity of these may be reduced. Rather it is aimed at helping those with serious mental illness learn to manage their illness better by learning to challenge their irrational thoughts and act differently. Thus, rather than “making the demons go away”, it can be thought of as learning to “manage the demons”. Medication may provide a useful assist in the management of symptomatology.

CBT is considered to be an integral component of most mental health treatment systems and is present in many mental health treatment systems around the world. Much research has supported its efficacy (Butler, Chapman, Forman & Beck, 2006; Cather, Penn, Otto, et al., 2005; Dickerson, 2000; Dickerson & Lehman, 2006; Garety, Fowler & Kuipers, 2000; Gould, Mueser, Bolton, et al., 2001; Granholm, Loh, Link & Jeste, 2010; Haddock, Barrowclough, Tarrier, et al., 2003; Kavanagh & Mueser, 2001; Pfammatter, Junghans & Brenner, 2006; Scott, 2001; Wykes, Steel, Everitt & Tarrier, 2008).

Specialized CBT for Psychosis

Recently, specialized applications of CBT for psychosis (CBTp) have also been developed and tested, with positive results (Lecomte, Leclerc, Corbiere, Wykes, Wallace & Spidel, 2008; Morrison & Barrett, 2010; Rector & Beck, 2001; Wykes, Steel & Tarrier, 2008; Zimmerman, Favrod, Trieu & Pomini, 2005). Research is currently underway to determine the effect of CBTp for individuals experiencing recent onset psychosis and those considered in the prodrome phase or at ultra high-risk of developing psychosis.
CBTp treatment is aimed at psychotic symptoms but treatment also targets anxiety, low mood, self-esteem, etc. There is strong emphasis on development of the therapeutic alliance focused on understanding the client’s experience of psychosis in order to normalize this experience and facilitate willingness to discuss symptoms, experiences, and impact of the experience on functioning. Treatment can be provided individually or in a group setting (Mueser, Deavers, Penn & Cassisi, 2013). Client engagement, recognition of possible cognitive deficits, acceptance of suspiciousness that might arise and willingness to be flexible are key (Morrison & Barrett, 2010; Mueser, Deavers, Penn & Cassisi, 2013).

A recent meta-analysis reinforced the previously found positive outcomes for CBTp, finding that CBTp was more effective for reducing positive symptoms, while social skills training was more effective for reducing negative symptoms (Turner, van der Gaag, Karyotaki & Cuijpers, 2014).

**Family Based Services (also known as Family Psychoeducation)**

Along with assertive community treatment and supported education, family psychoeducation is one of the most researched and validated interventions. Family based services or family psychoeducation, is the process of providing education and coping skills for people with lived experience of serious mental illnesses and their families. Family psychoeducation is generally provided in multi-family groups but can also be offered in single family formats. Multi-family formats have the added benefit of allowing for the development of social support systems. Consent of the individual with the illness is always required. Information about the person’s illness is provided along with information for both consumer and family about recognizing the onset of symptoms, coping with behavioral changes, effects of medication, and communication skills. Family psychoeducation is a treatment modality that utilizes the consumer and family as partners in the provision of the service, not as objects of the treatment modality and whose primary focus is on the needs and desires of the consumer (Miklowitz, George, Richards, Simoneau, et al., 2003).

The effectiveness of family psychoeducation has consistently been documented. Studies undertaken in several different countries over the past two decades have shown remarkable success in reducing rates of relapse (Dixon, McFarlane, Lefley, Lucksted, et al., 2001; Fristad, Goldberg-Arnold & Gavazzi, 2002; Glynn, Cohen, Dixon & Niv, 2006; Miklowitz, George, Richards, Simoneau, et al., 2003; Miklowitz & Goldstein, 1997; Miklowitz, Simoneau, George, Richards, et al., 2000; Mueser & Glynn, 2000; Pfammatter, Junghan & Brenner, 2006; Sikich, 2005).

A recent review of over thirty randomized controlled trials of psychoeducation for individuals with serious mental illnesses and over one hundred randomized controlled trials of family psychoeducation provides a high level of evidence for the effectiveness of the model. The authors state:
Reviews of consumer psychoeducation found that experimental groups had reduced nonadherence (primarily with medication regimens), fewer relapses, and reduced hospitalization rates compared with control groups. Some studies found significant improvements in social and global functioning, consumer satisfaction, and quality of life. Multifamily psychoeducation groups (the focus of numerous studies) were associated with significantly improved problem-solving ability and a reduced burden on families, compared with control groups, among other strong outcome effects. … Psychoeducation should be included in covered services. Group and family interventions are especially powerful (Lyman, Braude, George, Dougherty, Daniels, et al., 2014).

Additionally, on average, rates of re-hospitalization have been consistently shown to be reduced by an average of 50 percent, with the range between 40 and 70 percent (Dixon, Adams & Lucksted, 2001; Pitschel-Walz, Leucht, Bauml, Kissling, et al., 2001). Rates of employment are also significantly higher among those who have participated in family psychoeducation. Other findings include improved family member well-being, decreases in negative symptoms, and decreased costs of general medical care (Campbell, 2004).

There are several essential elements of family psychoeducation programs including:

- Developing the relationship
- Educational workshops
- Skills building for community re-entry
- Social and vocational skills development.

The most effective family psychoeducation programs are six to nine months in duration and the best effects are shown for programs that continue for longer durations (Pitschel-Walz, Leucht, Bauml, Kissling & Engel, 2001). This is also the case for family interventions designed for clients and families where concurrent substance abuse is present (Mueser, Glynn, Cather, Xie, et al., 2013). Due to the difficulty of maintaining families in programs of long duration, current research is focusing on determining the efficacy of shorter duration programs and some have begun to demonstrate success in helping families feel empowered and better able to cope, and have lessened anxiety and depression (Dixon, Lucksted, Medoff, Burland, et al., 2011). Recently, brief interventions consisting of fewer sessions for individuals and for family members have led to marked increases in family participation, reduced symptomatology and enhanced recovery at follow up (Dixon, Glynn, Cohen, Drapalski, Medoff, et al., 2014). A toolkit for implementing traditional Family Psychoeducation can be found at http://store.samhsa.gov/facet/Professional-Research-Topics/term/Evidence-Based-Practices.

**Token Economy Interventions**

Token economies are interventions that are appropriate for long term care or residential settings where individuals with the most severe illnesses live and where improvements in
behaviors related to daily living skills are needed. In many cases individuals who would otherwise have remained hospitalized, have been enabled to live in the community as a result of the token economy intervention. Token economy interventions are long term interventions and commitment to long term, high intensity staff training and to providing the intervention over a long period of time are required.

A token economy intervention is based on social learning principles where intermediate (something that can be redeemed later such as a token) positive reinforcement is provided contingent on performance of an identified behavior. Punishment is never part of a token economy system and to avoid the mis-use of token economy interventions, absolute fidelity to the model is necessary. Fidelity to the EBP includes a substantial investment in staff training prior to initiation of the program and careful and sustained supervision of all staff throughout the full duration of the intervention (Silverstein, Hatashita-Wong, Wilkniss, et al., 2006).

Token economies are based on the seminal work of Paul and Lentz (1977) whose work provided the cornerstone of empirical support for social learning programs. Token economies, or social learning programs are the only interventions among the eight designated EBPs specifically recommended for long-term inpatient or residential care to improve personal hygiene, social interactions, and other adaptive behaviors.

Token economies have been used successfully in institutional settings for several decades and there are many studies that support the efficacy of this highly effective intervention (Ayllon & Azrin, 1965; Beck, Menditto, Baldwin, Angelone & Maddox, 1991; Dickerson, Tenhula & Green-Paden, 2005; Glynn, 1990; Hall, Baker & Hutchinson, 1977; Silverstein, Hatashita-Wong, Wilkniss, et al., 2006).

**Skills Training**

Skills training encompasses a broad range of training in skills needed for functioning in everyday life including basic communication, assertiveness training, training in skills associated with a variety of social and vocational settings, and skills needed for personal care, independent living and community integration. Skills training, often named social skills training, is applicable not only to social skills, but to any area of life where concentrated practice of a new skill can assist functioning in areas such as obtaining further education or learning to be successful in a work setting. Skills training is not aimed at reducing symptoms but rather at helping people live with their illness and its symptoms in a more functionally adaptive way and has been shown to be highly effective for helping individuals learn specific skills or skill sets (Bellack, 2004; Bustillo, Lauriello, Horan & Keith, 2001; Kopelowicz, Liberman & Zarate, 2007; Kurtz & Mueser, 2008; Penn & Mueser, 1996).

Skills training derives from the behavioral literature and consists of instructional teaching techniques and behavior shaping techniques. Instructional teaching techniques involve didactic instruction, modeling, and experiential practice with feedback until the skill is
understood and in the control of the individual. Behavior shaping involves systematic practice and reinforcement of the desired behavior until the criteria are met.

Skills training is often essential for success in community living and can encompass training in skills such as negotiating a place to live, making friends, using public transportation, and other everyday situations. Skills training can be especially helpful for situations where interaction with others is either necessary or beneficial.

An important factor is that the skills learned have not always generalized to everyday living situations and have not always been sustained. Interventions designed to reinforce the learned achievements and to provide support for maintenance have shown enhanced levels of interpersonal problem-solving skills, significantly greater social adjustment and better quality of life. Results have been shown to be sustained for several months to more than two years (Glynn, Marder, Liberman, Blair, et al., 2002; Liberman, Glynn, Blair, Ross, et al., 2002; Pfammatter, Junghan & Brenner, 2006; Tauber, Wallace & Lecomte, 2000). Thus, support for maintenance of learned behaviors and skills should be built into service delivery systems to ensure sustainability.

Like CBT, virtually all mental health systems utilize skills training to assist individuals with a wide range of disorders to learn skills that will help them function more successfully in a broad array of situations.

**Psychosocial Interventions for Alcohol and Substance Use Disorders (also known as Concurrent Disorders Treatment or Integrated Dual Diagnosis Treatment)**

People with serious mental illnesses often have co-occurring substance use disorders; prevalence rates of co-morbidity range between 13 – 45% for those in contact with mental health services living in the community (Rush & Koegl, 2008). Estimates for the prevalence of concurrent substance use and mental health disorders overall range from 27 percent to more than 60 percent. Most literature reviews note that the prevalence of concurrent disorders in North America is quite high (Health Canada, 2002; Margolese, Malchy, Negrete, et al., 2004; National Alliance for the Mentally Ill, 2005; Watkins, Hunter, Wenzel, et al., 2004). Use of psychoactive substances exacerbates the symptoms of mental illness and can impede treatment. Treatment for those with concurrent disorders is most effective when the treatment for both disorders is integrated and offered by one provider or one team with knowledge of both disorders. This is to ensure that the individual receives a consistent explanation of illness/problems and a coherent treatment plan rather than a contradictory set of messages from different providers.

It is generally agreed that the key elements of integrated dual diagnosis treatment are:

- Assertive outreach
- Integrated case management
- An individualized treatment plan that addresses both the substance use disorder and the person’s mental illness
• Integrated services provided by the same clinician or clinical team
• Availability of multiple therapeutic approaches
• Comprehensive approach
• Knowledge about the effects of alcohol and drugs and their interactions with mental illness and the medications that are used to treat mental illnesses
• Reduction of negative consequences
• Cognitive behavioral therapy
• Stage-wise treatment provided as individuals progress over time through different stages of recovery
• Relapse prevention
• Motivational interviewing to help the individual develop awareness, hopefulness, and motivation
• Long term approach to ensure time unlimited treatment (Drake, Mercer-McFadden, McHugo & Bond, 1998; Haddock, Barrowclough, Tarrier, et al., 2003; Mueser, Noordsy, Drake & Fox, 2003).

Lack of attention to any of the elements can jeopardize the effectiveness of the treatment program. Shared decision making which includes the client and his or her family, is at the core of integrated treatment and is critical to success (Mueser, Noordsy, Drake & Fox, 2003).

Recent research also found enhanced outcomes when family interventions including communication and problem solving training, were combined with treatment for the substance use disorder. This research identified that persons with serious mental illness receiving the combined intervention had improved functioning and significantly less severe overall psychotic symptoms and their family members also had improved mental health functioning and greater knowledge of co-occurring disorders (Mueser, Glynn, Cather, Xie, et al., 2013).

A toolkit for implementing treatment for concurrent disorders can be found at http://store.samhsa.gov/facet/Professional-Research-Topics/term/Evidence-Based-Practices.

Pschosocial Interventions for Weight Management

Interest in designing and researching interventions aimed at helping individuals manage their weight is relatively recent. Much of this interest can be attributed to the fact that most of the second generation anti-psychotic medications cause substantial weight gain for many individuals, which can lead to other serious health problems; the combination of these health problems is known as the metabolic syndrome. Metabolic syndrome is much more prevalent in people using anti-psychotic medications and can lead to diabetes and an increased risk of cardiovascular events such as heart attack and stroke. A recent meta-analysis of the literature found that the prevalence of metabolic syndrome in people with
schizophrenia and related disorders is consistent across treatment setting (inpatient vs outpatient), country of origin, and gender. Older individuals were at greater risk and those who had been ill the longest had the highest risk of developing the syndrome. When individual studies were evaluated, waist size was most useful in predicting metabolic syndrome and use of antipsychotic medication, especially clozapine, conveyed the highest risk. Those who did not use anti-psychotic medications were at lowest risk of this life threatening syndrome (Mitchell, Vancampfort, Sweers, van Winkel, Yu & de Hert, 2013).

Several randomized clinical trials of PSR interventions designed to help individuals lose weight have demonstrated substantial improvement for the PSR intervention compared to control or non PSR conditions (Brar, Ganguli, Pandina, Turkoz, et al., 2005; Jean-Baptiste, Tek, Liskov, et al., 2007; Kwon, Choi, Bahk, et al., 2006; Weber & Wyne, 2006; Wu, Wang, Bai, et al., 2007; Wu, Zhao, Jin, et al., 2008). Additionally, there have been several studies of individuals who had just begun to take anti-psychotic medications and these have also shown significant differences in the amount of weight gained by people beginning treatment (Álvarez-Jimenez, Hetrick, Gonzalez-Branch, et al., 2008; Evans, Newton & Higgins, 2005; Littrell, Hilligoss, Kirshner, et al., 2003). The effects can be difficult to maintain however and booster sessions and or continuation of the weight management intervention may be needed (Álvarez-Jiménez, Martínez-García, Pérez-Iglesias, Ramírez, et al., 2010). Because of the weight inducing effects of anti-psychotic medications, losing weight once it has been gained can be very difficult for individuals taking these medications; it is thus important to begin weight management intervention at the earliest possible time.

Recent research has identified that pharmacologic interventions may be helpful in preventing or reducing weight gain associated with anti-psychotic medications (Mahmood, Booker, Huang & Coleman, 2013). Because of the serious health implications associated with obesity, and the great difficulty that people with serious mental illnesses who are using antipsychotic medications have in controlling their weight, individuals should be monitored very closely for early signs of respiratory and cardiovascular disorders, for cancers of all kinds, and provided with the newest and best pharmacologic interventions available.

Due to the potentially life saving benefits of managing one’s weight, interventions for weight management should be an essential component of the PSR continuum of services offered. An important but unaddressed issue concerns the management of diabetes that often develops in individuals especially when weight gain is rapid. Interventions to prevent the onset of diabetes and manage those cases that do develop, need to be designed and tested so they can be integrated into weight management programs to assist in the prevention and control of this potentially life threatening disease.
Important Considerations for Implementation of Services Designated as Evidence Based Practices and Services with Outcomes Derived from Research

There are several important considerations to note when EBPs are to be implemented. Success of the interventions depends on adhering to these principles.

Fidelity to the Researched Model

Many agencies and organizations attempt to provide only certain components of an EBP and this generally fails to produce the intended result. EBPs must be provided as they were developed and researched, i.e., provided with fidelity to the practice as described in the literature. Simply calling a service by the name of an EBP, or offering parts of the practice, or modifying it to shorten it or save money defeats the essential purpose of EBPs. The factor that makes them evidence based is that a certain intervention, provided in a certain way, was found to be effective. If that intervention is changed or provided in a different way, there is no evidence to suggest that it will have the desired effect (Latimer, 2010).

In addition to ensuring that the EBP is provided so that it will be effective, there is another reason that avoiding failure is important. If an intervention is called by the name of an EBP and it is suggested to administrators, funding sources, and consumers as a service that will achieve certain outcomes, but does not, all are disappointed and will likely feel misled. Moreover, it is highly likely that funding for that and possibly other services will be withdrawn and consumers and their families will no longer trust the system or agree to take part in services that promise to achieve results. If an EBP is to be offered, it is important to offer it with fidelity to the researched model and to be honest about desired and potential effectiveness.

 Appropriately Trained and Experienced Staff

Provision of EBPs requires that staff are fully trained and competent to implement the service as designed. Most often this means that staff must receive additional training and become experienced in the provision of the practice. Some of the EBPs require certain clinical skill sets in order to be provided appropriately. Without the proper knowledge and expertise, the intervention will likely not be provided as it was intended to be and could be harmful to service users.

Although many clinicians are trained to provide some components of most if not all of the EBPs, few are trained in every aspect of each of them. Like fidelity to the researched model, adequate training in all aspects of the practice is essential if the interventions are to be effective in assisting those with serious mental illnesses to attain recovery and reach the goals they set for themselves. This points to the need to hire appropriately trained professional staff and to thoroughly re-train existing staff and provide continuing education on a regular basis so that all practitioners can provide the interventions correctly.
Adequate, on-going supervision by practitioners who themselves are fully trained is essential (Anthony, 2008; Liberman, Hilty, Drake & Tsang, 2001).

### Integrated and Coordinated Services Tailored to the Needs and Wishes of Each Individual

All services, including EBPs, must be offered and provided as part of an integrated and coordinated set of services. Together with the individual, a comprehensive range of services that meets his or her needs and wishes should be decided upon. Simply offering a few services that are not driven by the needs and desires of each individual will benefit no one. And providing them without coordination of the full range of providers and supports available to the person will result in confusion, mixed messages, and possibly failure of any or all of the services. Unfortunately, providing services in a chaotic manner that lacks integration is often the case due to a variety of factors including competition among service providers, professional misunderstandings, and limited resources.

### Challenges

Despite the considerable advances in our knowledge of what can be helpful to people with serious mental illness, there is much that remains unknown. For example, while we have a range of EBPs that have been shown to be effective in helping people with serious mental illness achieve certain specified outcomes, we know very little about a multitude of factors that can, and often do, impact on the successful provision of these services.

Additionally, there is often resistance from psychologists and other providers who are reluctant to accept new services or instructions to change existing services. This is sometimes called evidence based pushback and can refer to resistance to accepting research findings and resistance to change. This is not unique to psychology; many practitioners who have been trained in a particular modality or who have been providing services for some time believe that they and their colleagues have offered the best there is. Suggestions to change can be taken as an insult to their best efforts to help the individuals they may have been truly dedicated to serving.

Provision of EBPs with fidelity using adequately trained staff can be resource intensive. As currently developed, each of the EBPs is a multi-component service that often requires considerable time and several staff to deliver properly. Most mental health services are under resourced, having seen their budgets cut repeatedly. As such, the EBPs may be seen as taking valuable resources away from what might be considered more basic and important services. This can be particularly true if the EBPs are not well understood and their potential outcomes not well described. However, it is important to stress again the importance of providing the EBPs with fidelity and with adequately trained staff to avoid failure and loss of confidence in these services. It may be important to restate a disheartening fact about the treatment of schizophrenia and other serious mental illnesses in North America: few people with these conditions receive well-recognized and highly
effective treatments. This reality is known as the science-to-service gap: research has shown that several interventions are effective, yet services research shows that most people who could benefit from them are unlikely to receive these services (Drake & Essock, 2009).

**Summary**

Helping people with serious mental illness recover and achieve a satisfying life in the community often requires provision of services that assist with learning skills and acquiring resources that they may not presently have. People with serious mental illness and their families have a right to expect that the services they receive are the best possible — that they actually work. Public health systems have a special responsibility to purchase and provide services that work – interventions supported by rigorous research offer greater assurance of this level of quality (Morris, Day & Schoenwald, 2010).

Over the past several years, considerable research has been conducted resulting in several practices that have been shown to be effective when provided as designed and researched. These are known as evidence based services (EBPs) and the research that supports them has been summarized in a series of studies called the Schizophrenia Patient Outcomes Research Team (PORT) studies. The most recent update of the PORT study identified sixteen pharmacologic and eight psychosocial interventions that are considered evidence based. The eight PSR interventions are: assertive community treatment, supported employment, cognitive behavioral therapy, family-based services, token economy, skills training, psychosocial interventions for alcohol and substance use disorders, and psychosocial interventions for weight management. Although the PORT study focused on schizophrenia, most have assumed that the findings from major studies of individuals with schizophrenia generalize to others with serious mental illnesses, and that the interventions for people with schizophrenia can be used for people with other serious mental illnesses.

In addition to the eight EBPs, the PORT study also identified four promising practices that are emerging but do not as yet have enough empirical support to allow them to be designated as EBPs. These will be discussed in the next Interventions module.

Several important considerations must be kept in mind when the EBPs and other researched services are discussed. These include the importance of providing the researched practice with fidelity to the design and model that was found to be effective, ensuring that staff are appropriately trained and supervised, and providing services in an integrated and coordinated manner that meets the needs and wishes of the person to be served. In order to meet the challenges posed by resource intensive EBPs, it is important to ensure that adequate resources are allocated. Other factors include the need to provide all interventions, including those that are evidence based, from a recovery oriented framework and perspective that is person centered and oriented to the goals of the individual. Finally, psychologists must recognize the need to overcome resistance to change that can be exhibited by staff and administrators who genuinely believe that the services they have provided over the years have been the best available and the most effective.
Sample Learning Activity

This exercise has two parts. For the first part, the large group is to be divided into eight small groups, which can be as small as two per small group. Each small group is to be assigned one of the EBPs. Each small group is to design an implementation plan for the EBP they have been assigned, adhering to the components of each practice and taking into account the need for fidelity, appropriately trained staff, and integration of the EBP into the existing mental health service.

The sample mental health service currently offers traditional case management, referral to traditional vocational rehabilitation services, a service they call CBT which is provided by staff with an undergraduate degree who have been given a one day seminar on CBT, social work assistance to find housing, leisure activities, and referral to a smoking cessation program. Consultation with a psychiatrist for medication evaluation is available.

For the second part of the exercise, each small group should describe how they will overcome the problems they will face in implementing the EBP. These problems could be lack of adequate resources either for the service itself or to train staff, resistance from existing practitioners, administrators who insist on offering a “lite” version of the practice, practitioners who believe there are alternatives with demonstrably equal outcomes, etc. Additionally, a consumer participant will provide feedback on the design of the EBP and the proposed solutions to overcome the systems level problems that could be encountered.
# Sample Evaluation Questions

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<th>Question</th>
<th>Correct Answer</th>
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| 1. Challenges to successful implementation of the EBPs include:  
   a) lack of resources  
   b) staff that are not adequately trained to provide the EBP  
   c) consumers that have little faith in the mental health system  
   d) administrators that suggest providing the EBP in ways other than it was designed  
   e) all of the above  
   f) a, b, d, and e above  
   g) none of the above | e is correct |
| 2. The following are reasons why psychologists might resist incorporating EBPs:  
   a) EBPs constitute a change in the way many psychologists normally practice  
   b) participating in an EBP team could mean that psychologists are not seen as the “doctor” or most knowledgeable team member  
   c) EBPs could be seen as taking resources away from other services thought to be more important  
   d) there may be insufficient resources to implement the EBP as designed  
   e) all of the above  
   f) a, b, and c above | e is correct |
| 3) Of the EBPs, the most important is CBT because this intervention can help people learn how to “manage the demons” in their lives | F |
| 4) Services for people with serious mental illness are now offered in the community and all of the EBPs were designed and tested for delivery in community settings to better serve the needs of the population | F |
| 5) The importance of the PORT study is that it indicated that the eight identified EBPs are the only ones that should be offered because they can be certain to produce the identified outcomes | F |
Lecture Notes Citations


**Additional Resources**

Citing the Curriculum

Citation for this Module:

Citation for the full Curriculum:

For additional information, contact:
Recovery to Practice initiative at the American Psychological Association, [www.apa.org/pi/rtp](http://www.apa.org/pi/rtp) or Mary A. Jansen, Ph.D., at Bayview Behavioral Consulting, Inc., [mjansen@bayviewbehavioral.org](mailto:mjansen@bayviewbehavioral.org) or [jansenm@shaw.ca](mailto:jansenm@shaw.ca)