

Treatment, Volume 1: Understanding Evidence-Based Practices for Co-Occurring Disorders

OVERVIEW PAPER 6



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
Center for Substance Abuse Treatment
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The Co-Occurring Center for Excellence (COCE), funded through the Substance Abuse and Mental Health Services Administration (SAMHSA), is a leading national resource for the field of co-occurring mental health and substance use disorders (COD). The mission of COCE is threefold: (1) to receive and transmit advances in treatment for all levels of COD severity, (2) to guide enhancements in the infrastructure and clinical capacities of service systems, and (3) to foster the infusion and adoption of evidence- and consensus-based COD treatment and program innovations into clinical practice. COCE consists of national and regional experts including COCE Senior Staff, Senior Fellows, Steering Council, affiliated organizations (see inside back cover), and a network of more than 200 senior consultants, all of whom join service recipients in shaping COCE's mission, guiding principles, and approaches. COCE accomplishes its mission through technical assistance and training, delivered through curriculums and materials on-line, by telephone, and through in-person consultation.

COCE Overview Papers are concise and easy-to-read introductions to state-of-the-art knowledge in COD. They are anchored in current science, research, and practices. The intended audiences for these OPs are mental health and substance abuse administrators and policymakers at State and local levels, their counterparts in American Indian tribes, clinical providers, other providers, and agencies and systems through which clients might enter the COD treatment system. For a complete list of available overview papers, see the back cover.

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Originating Offices

Co-Occurring and Homeless Activities Branch, Division of State and Community Assistance, Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Rockville, MD 20857.

Homeless Programs Branch, Division of Service and Systems Improvement, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 1 Choke Cherry Road, Rockville, MD 20857.

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SUMMARY

The advantages of employing evidence-based practices (EBPs) (see Table 1, Key Definitions) are now widely acknowledged across the medical, substance abuse (SA), and mental health (MH) fields. This overview paper discusses EBPs and their role in the treatment of co-occurring disorders (COD).

Practitioners seldom have as much evidence as they would like about the best clinical approach to use in any given clinical situation. To choose the optimal approach for each client, clinicians must draw on research, theory, practical experience, and a consideration of client perspectives. Picking the best option at the moment using the best information available has been termed “evidence-based thinking” (Hyde et al., 2003) (see Table 1, Key Definitions).

This paper discusses evidence-based practices and their use in treating persons with COD, discusses how evidence (see Table 1, Key Definitions) is used to determine if a given practice should be labeled as evidence based, and gives some brief examples of EBPs for COD.

There is still considerable debate concerning how EBPs should be defined. This paper will present various points of view and will offer COCE’s perspective as a starting point for further discussion by the field.

LITERATURE HIGHLIGHTS

Both researchers and practitioners increasingly perceive EBPs as essential for improving treatment effectiveness in the medical, SA, and MH fields. The use of EBPs permits clinicians and programs to more reliably improve services and achieve optimal outcomes. In substance abuse treatment, EBPs have influenced service delivery in areas ranging from initial engagement (e.g., in the use of motivational enhancement strategies) to community re-entry (e.g., in the focus on cognitive-behavioral strategies for relapse prevention). The National EBP Project (Torrey et al., 2001) exemplifies the focused attention on translating science to service that is taking place for the treatment of persons with serious mental illnesses in mental health systems.

The earliest definitions of EBPs emphasized scientific research, and contrasted scientific evidence with approaches based on “global subjective judgment,” consensus, prefer-

ence, and other forms of “nonrigorous” assessment (Eddy, 2005). This “research only” approach was recently rearticulated for the field of mental health by Kihlstrom (2005): “Scientific research is the only process by which clinical psychologists and mental health practitioners should determine what evidence guides EBPS” (p. 23).

Critics of the “research only” approach note that the true performance of an intervention often remains uncertain even when substantial research evidence is available (Claxton et al., 2005), that certain types of interventions are more amenable to research than are others and are therefore more likely to be supported by research evidence (Reed, 2005), and that definitions of successful outcomes are not universally shared, especially in behavioral health (Messer, 2005). Reed (2005) suggests that the dichotomy between research and “everything else” in defining EBPs unnecessarily restricts the definition of evidence and precludes important knowledge based on nonexperimental research (e.g., case studies) and clinical and

Table 1: Key Definitions

Evidenced-Based Practice	A practice which, based on expert or consensus opinion about available evidence , is expected to Produce a specific clinical outcome (measurable change in client status).
Evidence	Facts, theory, or subject matter that support or refute the claim that a given practice produces a specific clinical outcome. Evidence may include research findings and expert or consensus opinions.
Expert Opinion	A determination by an expert, through a process of evidence-based thinking , that a given practice should or should not be labeled “evidence based.”
Consensus Opinion	A determination reached collectively by more than one expert, through a process of evidence-based thinking , that a given practice should or should not be labeled “evidence based.”
Strength of Evidence	A statement concerning the certainty that a given practice produces a specific clinical outcome.
Evidence-Based Thinking	A process by which diverse sources of information (research, theory, practice principles, practice guidelines, and clinical experience) are synthesized by a clinician, expert, or group of experts in order to identify or choose the optimal clinical approach for a given clinical situation.

patient experiences. It has also been argued that clinical decisionmaking (Messer, 2005) and health policy (Atkins et al., 2005) involve factors and trade-offs related to patient and community values, culture, and competing priorities that are not generally informed by research. An alternative to the “research only” approach that addresses these concerns is the “multiple streams of evidence” approach (Reed, 2005).

The Institute of Medicine (2000) suggests a definition of EBPs that reflects the “multiple streams of evidence” approach. The IOM argues for three components of EBPs:

1. **Best research evidence**—the support of clinically relevant research, especially that which is patient centered
2. **Clinician expertise**—the ability to use clinical skills and past experience to identify and treat the individual client
3. **Patient values**—the integration into treatment planning of the preferences, concerns, and expectations that each client brings to the clinical encounter

These three types of evidence can be integrated through “evidence-based thinking” (see Table 1, Key Definitions). Evidence-based thinking may be undertaken to formally designate practices as evidence based or in day-to-day clinical decisionmaking. See Messer (2005) for two case-based examples of evidence-based thinking in clinical practice; see Atkins and colleagues (2005) for examples related to health policy.

KEY QUESTIONS AND ANSWERS

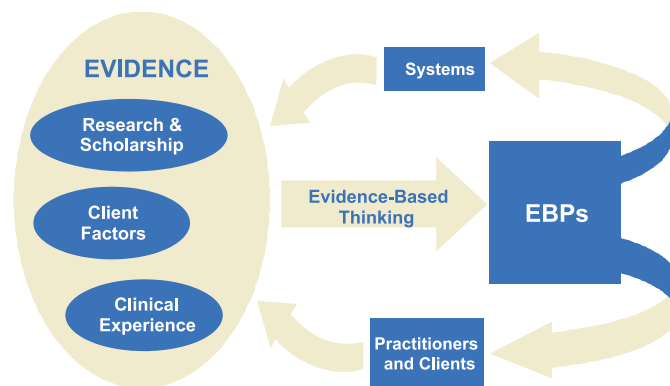
1. What do we mean by evidence-based practices for co-occurring disorders?

COCE has adopted the “multiple streams of evidence” approach to EBPs discussed above. COCE also takes the position that the integration of multiple streams of evidence requires the application of evidence-based thinking (see Table 1, Key Definitions, page 1). Accordingly, EBPs are defined by COCE as practices which, based on expert or consensus opinion about available evidence, are expected to produce a specific clinical outcome (i.e., measurable change in client status). Figure 1 illustrates the process by which streams of evidence (i.e., research and scholarship, client factors, and clinical experience) are combined using evidence-based thinking to arrive at recommendations concerning EBPs. Note that the systems, practitioners, and clients who use these EBPs contribute to the evidence base for future evidence-based thinking.

2. How much evidence is needed before a practice can be called an EBP?

There is no simple answer to this question. In general, the designation of a practice as an EBP derives from a review of research and possibly other evidence by experts in the field (see Question 1). Different organizations use different processes and standards to determine whether practices are evidence based.

Figure 1: Evidence-Based Thinking



The key question in determining whether a practice is evidence based is: What is the strength of evidence indicating that the practice leads to a specific clinical outcome? There is no gold standard for assessing strength of evidence, especially evidence derived from clinical experience. However, COCE has developed a pyramid to represent the level or strength of evidence derived from various research activities. As can be seen in Figure 2, evidence may be obtained from a range of studies including preliminary pilot investigations and/or case studies through rigorous clinical trials that employ experimental designs. Higher levels of research evidence derive from literature reviews that analyze studies selected for their scientific merit in a particular treatment area, clinical trial replications often with different populations, and meta-analytic studies of a body of research literature. Finally, at the highest level of the pyramid, are expert panel reviews of the research literature.

Figure 2: Pyramid of Evidence-Based Practices



In evaluating evidence, it is important to understand the distinction between efficacy and evidence. Efficacy means that a treatment or intervention produces positive results in a controlled experimental research trial. Effectiveness means that treatment or intervention produces positive results in a usual or routine care setting (i.e., in the real world). Efficacy established in controlled research does not necessarily equate with effectiveness in real world settings. For example, it may be impractical to provide real world clinicians with the level of training and supervision provided to clinicians in research studies, or real world target populations and community contexts may differ from those used in the research, and so on.

3. Why should EBPs be used?

There are several reasons to use EBPs. Foremost, when services are informed by the best available evidence, the quality of care is improved. Using EBPs increases the likelihood that desired outcomes will be obtained. EBPs that are based upon research typically have carefully described service components, and many have manuals to guide their implementation. This allows for consistent delivery of the practice and high fidelity to the model. Lastly, by employing these practices, providers will often more efficiently use available resources.

4. What are the differences between EBPs, “consensus-based practices,” “science-based practices,” “best practices,” “promising practices,” “emerging practices,” “effective programs,” and “model programs”?

A number of terms have been used at different times, and by different groups, to describe practices that are expected to produce a specific clinical outcome. These terms are somewhat interchangeable. The terms “promising” and “emerging” are consistent with the notion that the strength of evidence varies among practices deemed likely to produce specific clinical outcomes. COCE avoids descriptors like “best” and “model” because they may imply that there is a single best approach to treating all persons with COD. COCE also avoids the term “effective” because no hard criterion exists for the level of evidence by which “effectiveness” is established.

The term “consensus based” refers to a process by which evidence is commonly evaluated and synthesized to determine if a given practice is an EBP. Other common processes include evaluation of evidence using standardized criteria and numerical scores, meta-analysis, and synthesis by a single scholar. COCE views the consensus process as the best way to identify and evaluate EBPs.

5. Is all manualized treatment evidence-based treatment? Have all EBPs been manualized?

Just because a practice is in manual form does not mean it has risen to the level of an EBP. Manual development can be an early step in outcome research, and that research may

show the manualized treatment to be ineffective. Moreover, manuals are sometimes developed as marketing tools for treatments that have undergone little research.

However, once an EBP is established, the development of treatment manuals and practice guidelines help make the EBP accessible to providers. Manuals can minimize the need for costly trainings and often contain fidelity measures and outcome assessment strategies. They can also improve clinical decisionmaking by laying out guidelines for critical circumstances. Practice manuals vary in their level of detail and may not be useful as stand-alone products. Not all EBPs have manuals, but many do.

6. What is EBP fidelity and why does it matter?

Fidelity is the extent to which a treatment approach as actually implemented corresponds to the treatment strategy as designed. Following the initial design with high fidelity is expected to result in greater success in achieving desired client outcomes than deviating from the design (i.e., having low fidelity).

7. What are some evidence-based practices for co-occurring disorders?

Because the treatment of COD is a relatively new field, there has not been time for the development and testing of a large number of EBPs specifically for clients with COD. Clearly EBPs developed solely for MH or SA should be considered in the treatment of people with COD.

EBPs for COD should combine both treatment elements (e.g., the use of motivational strategies) and programmatic elements (e.g., composition of multidisciplinary teams). COCE has outlined the critical components of COD practices (see Overview Paper 3, Overarching Principles) that should guide the selection of these elements.

At the *treatment level*, interventions that have their own evidence to support them as EBPs are frequently a part of a comprehensive and integrated response to persons with COD. These include:

- Psychopharmacological Interventions (e.g., desipramine and bupropion for people with cocaine use disorders and depression [Rounsaville, 2004])
- Motivational Interventions (e.g., motivational enhancement therapy [Miller, 1996; Miller & Rollnick, 2002])
- Cognitive-Behavioral Interventions (e.g., contingency management [Roth et al., 2005; Shaner et al., 1997])

At the *program level*, the following models have an evidence base for producing positive clinical outcomes for persons with COD:

- Modified Therapeutic Communities (De Leon, 1993; De Leon et al., 2000; Sacks et al., 1998, 1999)
- Integrated Dual Disorders Treatment (CMHS, 2002; Drake et al., 1998b, 2004)

- Assertive Community Treatment (Drake et al., 1998a; Morse et al., 1997; Wingerson & Ries, 1999)

The current state of the science highlights the need for evidence-based thinking in making both programmatic and clinical decisions in the treatment of people with COD.

8. How can I learn about new developments in EBPs?

At SAMHSA, the National Registry of Effective Programs and Practices (NREPP) is a decision-support tool that assesses the strength of evidence and readiness for dissemination of a variety of mental health and substance abuse prevention and treatment interventions. The NREPP system is currently in transition and will be available through a new Web site (www.nationalregistry.samhsa.gov) in Spring 2006. A highly respected organization in Great Britain, the Cochrane Collaborative, maintains the Cochrane Library, which contains regularly updated evidence-based healthcare databases (see www.cochrane.org) on a comprehensive array of health practices. Relevant specialty organizations (e.g., American Psychological Association) also publish lists of evidence-based practices. These compilations of programs and interventions may or may not be generalizable to persons with COD, and the reader should look for specific reference to COD populations.

9. What issues should be considered in the use of EBPs?

Most EBPs are not universally applicable to all communities, treatment settings, and clients. If communities, treatment settings, and/or clients vary from those for which the EBP is designed, or if the human and facilities resources needed for the EBP are not available, effectiveness may be reduced. The various issues that must be considered in the use of an evidence-based practice include:

- Client population characteristics including culture, socioeconomic status, and the existence of other health and social issues that may complicate service delivery (e.g., pregnancy, incarceration, disabilities)
- Staff attitudes and skills required by the EBP
- Facilities and resources required by the EBP
- Agency policies and administrative procedures needed to support the EBP
- Interagency linkages or networks to provide needed additional services (e.g., vocational, educational, housing assistance, etc.)
- State and local regulations
- Reimbursement for the specific services to be provided under the EBP

These considerations are further discussed in Module 6 of COCE's Evidence- and Consensus-Based Practice curriculum.

10. Are there financial incentives to use EBPs? Are there components of EBPs that are not reimbursable?

The financing of EBPs for COD varies greatly by State. Some States (e.g., New York) have included evidence-based practice language in their licensing and regulation standards to create an incentive for providers receiving State support to use EBPs (New York State Office of Mental Health, 2005). Other States now require that programs demonstrate the use of EBPs in order to receive funding. In Oregon, for example, programs that receive State funds must show that a percentage of those funds are used to pay for EBPs (Oregon Department of Human Services, 2005).

For evidence-based program model EBPs, like assertive community treatment, some States will use Medicaid dollars to support a case rate, and other States use a fee-for-service methodology to reimburse providers.

11. What should be done to facilitate/enable program administrators and staff to adopt EBPs/CBPs?

The implementation of EBPs will present both psychological challenges (e.g., resistance to change, commitment to current practices) and practice challenges (e.g., need for training and supervision, need for organizational changes, new licensures or certifications). Several practical guides to facilitating adoption of new practices are available including sections from SAMHSA's Evidence-Based Practice Implementation Resource Kits available at www.mentalhealth.samhsa.gov/cmhs/communitysupport/toolkits/cooccurring/default.asp and Module 6 of COCE's Evidence- and Consensus-Based Practice curriculum.

12. How can one bridge the gap between the diverse needs of people with COD and the limited number of EBPs?

The reality is that the number of EBPs available to the clinician is insufficient to the task of treating COD. Clients with COD present a variety of disorders, and appropriate treatment covers a wide spectrum of services—screening, assessment, engagement, intensive treatment, re-entry. For the foreseeable future, the clinician will need to use evidence-based thinking (see Table 1, Key Definitions) to determine the optimal course of action for each patient. As discussed earlier, inputs to evidence-based thinking include research, theory, practice principles, practice guidelines, and clinical experience.

Two documents provide substantial information to inform evidence-based thinking: TIP 42, *Substance Abuse Treatment for Persons With Co-Occurring Disorders* (CSAT, 2005) and *Service Planning Guidelines: Co-Occurring Psychiatric and Substance Disorders* (Minkoff, 2001). These

documents incorporate EBPs where appropriate and emphasize recommended treatment interventions for people with COD in substance abuse treatment settings.

FUTURE DIRECTIONS

Much has been accomplished in the field of COD over the last 10 years, and a body of knowledge has been acquired that is appropriate for broad dissemination and application. There are now several well-articulated, evidence-based practices that are ready for application in clinical programs. Despite this considerable progress, far more research is needed to answer the host of questions that surround the treatment of persons with COD. Research is needed that will:

- *Survey typical treatment facilities* to understand their capabilities (with particular regard to staffing) and current activities (regarding identifying and serving clients with COD)
- *Clarify the characteristics* of those clients with COD for whom substance abuse treatment alone is not sufficient to achieve significant improvement in their substance use and mental disorders
- *Develop and test strategies to engage* clients with COD of different degrees of severity
- *Develop and test strategies to maximize adherence* to substance abuse and mental health counseling services, medication, and medical regimens
- *Clarify the optimum length of treatment* for clients with COD who manifest different severities of disorders
- *Develop and test strategies and techniques for ensuring successful transition* to continuing care (also known as aftercare) and for determining the effectiveness of different aftercare service models
- *Evaluate the dual recovery mutual self-help approaches* that are emerging nationally
- *Study the principles, practices, and processes of technology transfer* in the field of COD treatment
- *Facilitate integrated treatment through policies and workforce development strategies* that overcome legal and other barriers to the provision of a full spectrum of behavioral health services by the Substance Abuse Treatment workforce

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COCE Senior Staff Members

The CDM Group, Inc.

Rose M. Urban, LCSW, J.D., Executive Project Director
Jill G. Hensley, M.A., Project Director
Anthony J. Ernst, Ph.D.
Fred C. Osher, M.D.
Michael D. Klitzner, Ph.D.
Sheldon R. Weinberg, Ph.D.
Debbie Tate, M.S.W., LCSW

National Development & Research Institutes, Inc.

Stanley Sacks, Ph.D.
John Challis, B.A., B.S.W.
JoAnn Sacks, Ph.D.

National Opinion Research Center at the University of Chicago

Sam Schildhaus, Ph.D.

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Michael Cartwright, B.A., *Foundations Associates, Consumer/Survivor/Recovery Community Representative*

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Jennifer Michaels, M.D., *National Council for Community Behavioral Healthcare*

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Pamela Waters, M.Ed., *Addiction Technology Transfer Center*

Mary R. Woods, RNC, LADAC, MSHS, *National Association of Alcohol and Drug Abuse Counselors*

COCE Senior Fellows

Barry S. Brown, M.S., Ph.D., *University of North Carolina at Wilmington*

Carlo C. DiClemente, M.A., Ph.D., *University of Maryland, Baltimore County*

Robert E. Drake, M.D., Ph.D., *New Hampshire-Dartmouth Psychiatric Research Center*

Michael Kirby, Ph.D., *Independent Consultant*

David Mee-Lee, M.S., M.D., *DML Training and Consulting*

Kenneth Minkoff, M.D., *ZiaLogic*

Bert Pepper, M.S., M.D., *Private Practice in Psychiatry*

Stephanie Perry, M.D., *Bureau of Alcohol and Drug Services, State of Tennessee*

Richard K. Ries, M.D., *Dual Disorder Program, Harborview Medical Center*

Linda Rosenberg, M.S.W., CSW, *National Council for Community Behavioral Healthcare*

Richard N. Rosenthal, M.A., M.D., *Department of Psychiatry, St. Luke's Roosevelt Hospital Center*

Douglas M. Ziedonis, M.D., Ph.D., *Division of Psychiatry, Robert Wood Johnson Medical School*

Joan E. Zweben, Ph.D., *University of California - San Francisco*

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For technical assistance:
visit www.coce.samhsa.gov, e-mail coce@samhsa.hhs.gov, or call (301) 951-3369



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