



Becoming an Evidence-Based Practitioner

Mark M. Lewis¹ · Jennifer Harrison² · Steve Wiland³

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Abstract

Mental health and substance use disorders co-occur frequently, and are associated with poorer outcomes in life domains including housing, employment, health, and recovery. Finding evidence-based interventions for engagement and recovery can be a challenge for practitioners and organizations, as it involves accepting new interventions, and then implementing and measuring the results. However, practitioners frequently use their opinions or non-generalizable experiences rather than evidence-based findings to guide their practice. Medication-assisted therapy programs, especially for individuals with co-occurring mental health and substance use disorders, is an area of treatment where there are solid evidence-based outcome findings and where, nonetheless, many practitioners continue to use less-, or non-effective treatment approaches. Conflict between groups of staff using two different approaches can have serious negative impact on treatment outcome. These can be effectively addressed through a combination of education and interventions aimed at resolving intra-staff conflict.

Keywords Co-occurring disorders · Evidence-based practitioner · Motivational approaches

Evidence-Based Interventions for Co-occurring Disorders

Chronic illnesses result in significant disability in the United States and internationally, not least among them mental illnesses and substance use disorders (Institute of Medicine [IOM] 2006). Within the last year, over 20 million American adults were found to have a substance use disorder and almost 44 million a mental illness, and 8 million have both (Substance Abuse and Mental Health Services Administration [SAMHSA] 2014). The risk of having a co-occurring substance use disorder is higher for those with a serious mental illness, at over 50% (Hasin and Kilcoyne 2012; Lai and Sitharthan 2012; Lai et al. 2012); however, less than 10% of individuals with dual mental illness and substance use disorders receive treatment for both illnesses, and only half for either illness (SAMHSA 2014).

Not only are co-occurring substance use and mental health disorders common, but they are also associated with worse outcomes in many domains representing quality of life and treatment cost, including hospitalization, incarceration and arrest, housing, and employment (Green et al. 2007; Hunt et al. 2013; Schmidt et al. 2011). Individuals with co-occurring disorders (COD) have higher rates of relapse and lower rates of treatment engagement and completion than their counterparts with single disorders (Mueser et al. 2003). Not only are strong practice designs and psychometric instruments needed for effective implementation (Garner 2009), but in the case of Assertive Community Treatment, Medication-Assisted Treatment, Integrated Dual Disorder Treatment, and other team-based interventions, staff training, organizational support, sufficient resources, and a sense that the practice is helpful in engaging clients served are also crucial to the effective implementation of evidence-based practices (Amodeo et al. 2011, 2013). There is a need for balance in evidence-based practice implementation between practice integrity and local adaptation, and the need for consistent implementation measurement to assure sustainability (Ogden and Fixsen 2014). In short, evidence-based interventions for individuals with complex and co-occurring disorders exist, and are associated with improved outcomes when implemented effectively (Tables 1, 2).

✉ Jennifer Harrison
jennifer.harrison@wmich.edu
Steve Wiland
wilands@umich.edu

¹ Michigan Department of Health and Human Services, Lansing, MI, USA

² Western Michigan University, Kalamazoo, MI, USA

³ University of Michigan, Ann Arbor, MI, USA

Table 1 Recognizing personal opinion or evidence-based practitioner interventions

Personal opinion/narrative practitioner	Evidence-based practitioner
“We can’t let our clients break the rules. If one person does it, everyone will”	“Accurately assessing client stage of readiness will allow us to select the appropriate interventions that are associated with improved outcomes”
“I read in the paper that people on opiates can become psychotic and jump off buildings”	“The National Institute of Drug Abuse has a tip sheet for symptoms of opiate use disorders that I found really helpful in understanding what to look for”
“My cousin’s life was saved by Methadone. She said Suboxone was just re-sold on the street because you got it for a week at a time”	“Each person’s experience is unique for sure. In a systematic review from the Cochrane Library, both Suboxone and Methadone MAT programs were associated with moderate rates of abstinence after 6–12 months”

Table 2 Supporting evidence-based practitioners at four levels

<p>Staff supporting clients</p> <p>Seek client’s view in not only how the clinical care is working for them, but also how the collaborative and therapeutic relationship is going for them. Consider the Session Rating Scale (Duncan et al. 2003; Campbell and Hemsley 2009)</p> <p>Use a quantifiable scale for outcomes (e.g. daily symptom checklist, PHQ-9, GAD-7, Outcome Rating Scale) regularly, and find a way to graph or show the results over time</p> <p>Staff supporting each other</p> <p>Call each other in a way that acknowledges the possible resistance and readiness when you feel you or a fellow staff member are using a personal opinion rather than evidence to support an intervention. Ways to bring this up include: “I am interested in how you came to that conclusion”, “I’d like to know more about the level of evidence you are using”</p> <p>Talk about your own stage of readiness to try new interventions that have the appropriate level of evidence to support them. This includes your own pro-con matrix or readiness ruler</p> <p>Programs supporting staff</p> <p>Acknowledge a priori that some staff are more willing and others less so to engage robustly in exploring and implementing evidence-based practices, and that changing a culture and getting it to take hold is very challenging</p> <p>Support both in-house and external trainings, and ask trainers to specifically speak to the evidence to support those interventions, and provide the background material to support the interventions</p> <p>Support on-going consultation and coaching that works up as well as down. This means the treatment leader is not always right, and is just as in need of strong consultation as any member of the team</p> <p>Systems supporting programs</p> <p>Provide trainings that are accessible and affordable to direct care practitioners. Insist that trainers provide the background data of the interventions they are presenting so anyone could do the research themselves</p> <p>Train on ways to find evidence even in busy clinical practice that is likewise accessible and quick</p> <p>Value and measure fidelity to practices and outcomes, and share those results with all of your stakeholders. Partner with research organizations to add to the practice-based evidence that informs evidence-based practices</p>
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Barriers to Evidence-Based Interventions

If evidence-based interventions exist that are positively correlated with improved outcomes for individuals with complex disorders, why are they not always implemented? From an outside perspective, this might not make sense. Why wouldn’t treatment teams use the most effective strategies to help people in their recovery processes? Especially for agency leaders and state policy-makers, the disconnect between knowing what works and fully implementing it at the direct service level can be a daunting barrier. Understanding this barrier requires an understanding that the same stage of readiness approaches we use with

our clients need to also be used with staff, programs, and organizations. Most often, it is not a lack of understanding of what are the most effective, scientifically supported interventions. Rather, it is the lack of readiness, willingness, and ability on the part of staff to implement those interventions.

Recently, we began working with medication-assisted treatment (MAT) programs throughout a large state to support practice improvement. MAT clinics provide Methadone, Suboxone, and Vivitrol to persons with opioid use disorders that may be comorbid with mental illnesses. The clinics in view are designed to make use of the increased benefit of providing both medication and treatment in one location to persons with this type of co-occurring addiction. The

research clearly demonstrates that combining medication and counseling in one setting to people with both mental illness and substance use disorders is far more effective than either one alone (Drake et al. 2008). The source guidelines for MAT call for the use of medications and counseling using strength-based strategies and motivational interventions. The degree to which actual service delivery includes strength-based strategies and motivational interventions is far from the standard hoped to be achieved over time. Yet the sense of moving in the right direction exists.

If best practices work—as in the case of medication and motivational counseling in MAT settings—and are associated with improved outcomes, why then do barriers still exist for their implementation? Understanding our personal narratives can be instructive in understanding the reason-based team and staff resistance to implementation of evidence-based interventions. Outside of the worlds of research, policy, and clinical practice, there is still plenty of discussion in our culture about theories on how to resolve the opioid crisis in the United States. Often, these theories are based upon our own experiences with opioid use disorder, sometimes direct lived experience, more often knowing one or more individuals with such direct experience. This would be a case study or small sample size at most, and without a very high level of evidence. Perhaps we know someone from law enforcement or child welfare services, who has seen the impact of substance use disorders on people they serve. Perhaps we have only seen substance use disorders and co-occurring mental illness on the news, or heard politicians talk about the opioid crisis in the mainstream media. If we based our views of what interventions work in advancing recovery on these limited experiences or opinions, we can miss the evidence. We are all prone to using our individual and collective experiences, intuition and opinions to solve the problems of the universe. When talking to others, we might talk about “science” in our conversation, which may sound a bit like this: “and that’s proved,” “everyone knows that,” “scientists have proven it,” “it happened to my cousin,” or “I read it in the paper!” All, of course, are intended to give weight to our ideas and opinions, but are likely not representative of actual evidence of what interventions are most predictive of improved outcomes.

As behavioral health practitioners, we can fall into the same trap of confusing individual experience or opinion with higher-quality evidence of what works to treat co-occurring disorders. However, for practitioners the stakes are much higher, as utilizing opinion rather than science to guide interventions can be harmful to clients. If we are using our personal opinions or narratives, neither the clinical assessment nor the corresponding treatment approach or intervention can be effectively developed. The end result is that the practitioner’s future with the person they are serving is informed by a personal narrative or

opinion which is not based upon a high level of evidence and which may, in fact, contribute to treatment failure.

For MAT clinics specifically, the challenges and pressures of providing the medication, as well as the strong influence of the Drug Enforcement Agency rules for participation and handling of Methadone, create a supervised milieu with a strong focus on compliance, consequences and even punishment. Interestingly, the research on these practitioner tactics for people in treatment for alcohol use disorders has demonstrated that they are as effective (or ineffective) as no treatment at all (Kampman and Jarvis 2015). Yet, we continue to approach treatment for substance use disorders with a “tough love” approach, and to regard the person with the disorder as someone who is expected to manipulate, violate rules and resist treatment. This approach is a method that had as its practice functions mandating abstinence, confronting denial and resistance with no “enabling” behaviors on the part of the practitioner, and requiring proof of abstinence through drug screens, etc. During the period of time when the prevailing opinion was that clients were trying to manipulate rather than recover, people who made multiple attempts at treatment achieved durable periods of abstinence after 3–5 years. Interestingly, people who got into trouble and tried repeatedly to quit on their own, achieved durable abstinence in that same period of 3–5 years (Amato et al. 2011).

Practitioners who become intuitively reactive to resistant behaviors, and respond in ways they think will extinguish them, are practicing from personal opinion rather than an evidence-informed framework. We logically and intuitively see resistance to treatment as a barrier to progress and wellness, which provokes a feeling of frustration in the practitioner. That response results in an intuitive judgment about the behavior, frequently assigned to the client’s character. Most people would understand this as labeling. Once labeled, the practitioner’s approach to the person is influenced by the chosen label, and the relational dynamic supporting change is often weakened. By contrast, evidence-based practitioners will recognize the assistive collaborative relationship as the best tool for change, and always the first focus of any helping strategy (Drake et al. 2008; Fixsen et al. 2005). Without this tool, the person in care is unlikely to more fully disclose in depth, and so the practitioner becomes hamstrung in trying help with deeper issues motivating behaviors targeted for change. To add to this complexity, practitioners are often not practicing alone, but in tandem with other practitioners. Within a team, there may be wide variance in how resistance is understood and approached. How this intra-staff conflict is resolved is another significant issue in co-occurring care (Mee-Lee and Harrison 2010). Disagreements about whether to follow a team member’s narrative approach, or to utilize evidence-based treatment

interventions, can create intra-staff conflict that becomes a barrier unto itself in implementing interventions associated with improved outcomes.

Becoming an Evidence-Based Practitioner

Alternatively, to become an “evidence-based practitioner,” each clinician has to be able to practice from an evidence base. Practicing from an evidentiary framework is intentional rather than intuitive. The evidence-based practitioner seeks to know how the resistant behavior makes sense to the person displaying it. In this way, judging and labeling to reduce frustration are avoided, and instead an opportunity is created for strengthening the interpersonal tool for change in an effort to assist the person in overcoming the reason for their resistance. Is this an easy shift to make? Not typically. However, is this attainable by practitioners with sufficient practice? Absolutely.

So how does the practitioner shift from techniques that are intuitive to intentional, in order to be ready, willing, and able to implement evidence-based interventions? A few steps would seem fundamental. A good start would include “stopping doing” such elements as judging, labeling and sharing “ain’t it awful” stories about the client with other staff. Instead, the evidence-based practitioner slows down, and facilitates the kind of discussion that will allow the person receiving services to discover and describe the reasons for the behavior. We hope that the case example below helps to highlight some of the themes of: (1) knowing evidence-based interventions that work and are associated with improved outcomes; (2) experiencing barriers to the implementation of those interventions from or between staff who are using personal narrative or opinion rather than evidence to guide treatment; and (3) utilizing consultative, quick research, and training models to address this disconnect and support the use of evidence in treatment.

Case Example

Derek came 1 day early to pick up his “take-home” methadone for the subsequent 10-day period. He had asked if he could come a day early in order to save on the stress of transportation, and was told he could. However, he was told not to take his morning dose of medication until he got to the clinic. When he stepped up to the dosing window the supervising nurse noticed the morning med dose had already been opened. She told him to stop, but he downed the remaining Methadone and handed her the empty container. The nurse immediately told him he violated the DEA rules for dosing and told him he could not take his medication at home any longer.

Derek became angry and began shouting and using vulgar language throughout the building. Later he called to apologize, and the Clinical Case Manager who took the call accepted his apology. Nevertheless, he was still told he could no longer dose at home at this time. He blew up again, and she hung up on him. Derek had to drive 90 min round trip to pick up his daily doses, and was angry about having to do so. He explained that on the day he came in early, he had simply been following his usual morning routine, which included taking his methadone after waking up. When he remembered that he was supposed to wait until he got to the clinic on that particular day, he stopped and saved the rest to take at the clinic. He anticipated that he would be in trouble for his mistake, so he tried to down the remaining medication as quickly as possible, hoping his mistake might go undetected. The nurse, however, believed that he had instead diverted a half-dose and was lying.

The nurses had had other experiences with Derek in which he lost his temper and ended up getting his way. They felt unsupported and not included in decisions about Derek’s treatment. Of course, when the nurses told him they were revoking his “take home” privileges because he did not follow the requested conditions, Derek’s counselor became angry with them for making this decision without involving her. In this scenario, Derek became divided from the nursing staff, who became divided from the clinical staff, who now have challenges to address with Derek. The nurses saw their unilateral decision as a type of consequence that would impact Derek’s behavior for the better—a type of “tough-love” punishment that was consistent with their personal philosophy for handling behavior problems, however intuitive and unthoughtful it may have been. The nurses had also been discussing Derek in meetings, and including pejorative remarks that were critical and even ridiculing, which only evoked increased defensiveness from the clinical staff.

Derek involved the state-level employee overseeing the MAT clinic program, who interceded and worked with the clinical staff to resolve the situation and reinstate take-home privileges. As it happened, this was done without input from the nurses, who were then surprised when Derek showed up to pick up his take-homes. More resentment accumulated among the nurses toward the clinical staff, not only for leaving them out of the decision-making process, but also for overriding their decision and not informing them that Derek’s privileges had been reinstated. One of the nurses opined that he was just being enabled by the clinical staff (remember tough love?), and when it was said that punishment does not truly change behavior, she replied that she had seen it work (remember, “It happened to my cousin”?).

At this point, an evidence-based treatment consultant was asked to step in and work with the staff to support the development of a method of practice that could replace the so-called tough-love approach. In order to promote an

intentional approach, the process started with an examination of the nurse's comment: "I've seen it work!"

The meaning of the nurse's statement was analyzed within the context of the involved workplace dynamics. To her it was meant to stop him from breaking rules, and from yelling obscenities at them when he was angry. Quickly this definition and technique fell by the way side as ineffective, since the nursing staff described him as having done this several times in the past despite being given similar consequences. The theory that punishments worked was pretty much discounted by an examination of the evidence represented by their own descriptions of past behaviors and outcomes. Interestingly, the staff were able to make distinctions between a client behaving with resentment to avoid being harmed by someone viewed as having higher authority, versus working with someone to help examine ineffective behaviors and make healthier, more effective choices. This important difference becomes clear within the context of a personal set of values and desires, as in "He's not changing because you can punish him. He's changing because he cares about his behavior."

The next step was to factor in diagnostically significant elements to see if any clues to the behavior, or reason for the resistance, might be found there. It was immediately revealing that he had an opioid dependence diagnosis as well as one for comorbid bipolar disorder. The sparked a discussion considering how much of his behavior may have been related to bipolar symptoms rather than intentional and volitionally chosen bad behavior. If it was related to bipolar symptoms, then what kind of evidence might there be for that and what would the triggers be? From there, what might a clinical approach be, beginning with responding to the request to pick up his take-home doses early, and then for each subsequent step to the point where his privileges were given back?

One of the first steps was to look at past episodes of explosive verbal reactions as evidence of a pattern that could be addressed differently. Interventions for treatment of the bipolar disorder were discussed, as was therapy to help the team and Derek understand how explosions are triggered, and to develop strategies for discussing problems differently, including reviewing the program activities, rules, and participation, and developing an understanding of each one in a way that could be perceived as caring rather than controlling. Also, discussing how the program staff could assist him in managing situations more collaboratively with the practitioners, and even role-playing possible problems. This became the staff recommendation for the effective co-occurring treatment that was supposed to be part of Derek's services.

It was agreed that using the rules as leverage was not anything that would resemble a strength-based approach. At first the staff struggled even to define strength-based. Most initial definitions wobbled around something like, "help them find

and use their strengths." With more facilitation, staff began to see that a strength-based approach has more than that one simple dimension. It encompasses the entire approach of the practitioner and has multiple elements including:

- Do I see this person as worthwhile?
- Is my role one of dominating and controlling, or assisting and supporting?
- Do I take a primary, active role and push the person to secondary, passive role, or do I trust this person to be in a more active role for advancing their recovery, rather than passive?
- If I take an assistive/collaborative role, will I really be helping?
- Do I need total and instant cooperation, or is there room for patience and compassion?
- Do I need to confront resistance, or can I slow down and see if there is a reason for the resistance that makes sense and that I can help to resolve?

By dissecting the occurrence of this incident, staff were able to identify several options for intervening differently in a manner that they agreed would have had a better chance of working more effectively, including the following:

- We were punishing him for having bipolar symptoms that we may have triggered.
- We did not have to make a decision at the dosing window when we discovered that he had taken half his dose. We could have let him know that we needed some time with him and the counselor to make sure we were doing everything necessary to help have a successful outcome for his recovery.
- Decisions should have been made with the inclusion of everyone on the team. Nurses and practitioners can work together with each client, so that a consensus can develop on how best to handle situations.
- If handled as collaborative partners, the person may have been able to discuss diversion of the first dose, if that is actually, what happened. The chances of this discussion happening constructively are significantly diminished if he is made to feel defensive because of premature focus on consequences and fear of being expelled as punishment.

Implications for Direct Practice and Organizational Development

The way to give up one's personal narrative or opinion basis, and to instead from a solid evidence-base includes avoiding reacting, and using available evidence to inform treatment decisions. This involves recognizing the purpose

of resistance in recovery, our own reactions to the resistant behaviors of those we serve, and how those elements can influence care in negative ways. There are important roles for staff, programs, and systems to positively influence care by acknowledging resistance in ourselves, and treating that with the same compassion, understanding, and other motivational approaches that we use with our clients.

Once we feel more comfortable with following evidence to support our interventions, we still have the dilemma of how to find those interventions quickly enough to effectively impact treatment. Conducting a full literature review is usually too laborious and time-consuming to be useful in the moment. Knowing how to look quickly for the highest quality of research is crucial to being able to support implementation of its practice application. The levels of evidence, as described in Sackett et al. (2000), include (from lowest to highest) expert opinion or case study, cohort studies, single randomized control studies, and finally synthesis articles including systematic reviews. High-quality systematic reviews can be found at Cochrane Library (<http://www.thecochranelibrary.com/view/0/index.html>) and Campbell Collaboration Library (<http://www.campbellcollaboration.org/library>). A handy element of these systematic review libraries is the “lay synopsis,” which provides a one-page overview of the practice and results in layperson’s language. This can be useful for topics that may be unfamiliar for practitioners, as well as for clients and families who want to understand why a particular intervention is being recommended. In addition, the Substance Abuse and Mental Health Services Administration (SAMHSA)’s National Registry of Evidence-based Programs and Practices (NREPP) (<http://www.nrepp.samhsa.gov>) can often yield results that are easy to read and can even be presented to clients as part of explaining the recommended treatment or intervention.

A program or system intervention can include asking for this same level of evidence to be present in training and consultation models. When organizations are hiring trainers or consultants, ask them to present the evidence that supports the interventions they are teaching. Insist on a bibliography so that any person could follow-up with the source data to understand the research more thoroughly. In this way, systems can fill the vacuum that can be created by inconsistent opinion with consistent, research-based evidence.

Additionally, programs and systems should be very intentional in their approach to measuring outcomes and fidelity to best practice models. This means using a standard measurement of comparing the practice as implemented to the original clinical trials, or to an available gold standard or care (Drake et al. 2008; Tyrer and Weaver 2004; Warren et al. 2007; Fixsen et al. 2005; Harrison et al. 2017, 2016). It also means not confusing fidelity with outcomes themselves. Fidelity is a proxy for improved outcomes, but systems need to continue to measure outcomes to assure that the practices

are yielding the expected results, as well as being curious about when that is not the case. Systems need to share outcome evidence with programs, programs with staff, and staff with clients so that everyone can become aware when what is going on at a particular MAT provider is working well.

Co-occurring mental illness and substance use disorders are common, can severely impact outcomes, and often require evidence-based practices to assist people in achieving recovery. Using evidence-based practices involves educating ourselves and our teams on which interventions assist recovery, and which interventions are at high risk for detracting from recovery for those with complex or comorbid illnesses. It also means challenging our own assumptions and those of our teammates that may be drawn not from evidence, but from folk wisdom more related to personal opinions about reward and punishment than to efficacy and effectiveness. Becoming an evidence-based practitioner first means giving up your personal opinion in favor of the evidence to support your work. The chart below provides ideas of how to implement this change at the staff, program, and organizational level (Mee-Lee and Harrison 2010).

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