# Paving the way: converting scientific research into substance abuse treatment methods

With over 27 years of combined experience, **Dr Jaime Mulligan** and **Dr Ashli Sheidow** from Training Support System (a division of Sheidow Consulting, Inc.) have dedicated their recent research to ensuring scientifically proven methods are translated into clinical practice. Their new web-based training and support system is paving the way for improved treatment outcomes for substance-abusing adolescents.

Despite significant recent advancements in drug abuse treatment methods, adolescent substance abuse remains a serious problem. The 2011 National Survey on Drug Use and Health found 7% of American youths between the ages of 12 and 17 met criteria for substance (illicit drug or alcohol) dependence or abuse.

## A DIFFICULT PATH AHEAD

Although the issue of substance abuse is prevalent across multiple age groups, it presents specific risks and challenges in adolescents. Substance use in early teenage years is associated with higher levels of substance abuse and dependence later in life, often with deleterious effects on educational, social, physical, employment and mental health outcomes. Together, Mulligan and Sheidow have developed a new web-based system that is breaking new ground in counsellor training. The system provides training on a proven treatment method and delivers long-term support for counsellors to ensure that adolescents with substance abuse disorders receive effective treatment.

## BEST FOOT FORWARD

Evidence-Based Practice (EBP) is a relatively new approach that has rapidly been gaining popularity and traction in the clinical world, and particularly in substance use treatment. EBP is widely defined as 'the integration of the best available research with clinical expertise in the context of patient characteristics, culture and preferences' (Levant, 2005). In practice, an EBP approach uses treatment methods that have been found to have positive effects on patients' progress in randomised clinical trials. As awareness of EBP spreads, these research-supported methods are being demanded not only by funding bodies and federal agencies but also by those individuals seeking treatment. EBPs are also gaining popularity from counsellors themselves, prompting research into how to ensure these treatments are delivered and sustained for optimum patient outcomes.

One such treatment method is Contingency Management for Youth Addiction (CM-YA) which combines behavioural and cognitive behavioural principles into a family treatment to target drug use. CM-YA is based on the principle that drug use is an operant behaviour and can therefore can be controlled by the individual with proper supports in place. Practically speaking, the principle of CM is that positive achievements such as negative urine tests or achievement of treatment goals are reinforced with immediate rewards such as vouchers or small cash prizes. CM has been found to have highly successful results in many studies, including those focused on youth addictions. For instance, Azrin et al (1994) used a randomised trial to compare CM-YA to supportive counselling, and found that youths receiving CM-YA were eight times more likely to abstain from drug use. Furthermore, CM-YA has been found to be safe to implement, produce positive outcomes across a range of addictions and work effectively alongside other available treatments (Carroll, 2004). In addition, community-based outpatient programmes currently provide the majority of substance use treatment. Due to its combination of behavioural therapy, cognitive behavioural therapy, and caregiver involvement, a CM-YA treatment model is particularly applicable to patients in this setting. This encouraging base of evidence has prompted Mulligan and Sheidow to focus on CM-YA treatment for their recent studies.

## A GAP IN THE ROAD

Despite the wealth of evidence supporting EBPs, and specifically CM-YA, it is clear that there are critical barriers between attaining knowledge and translating this knowledge into actual treatment practices. Although most practitioners support the use of EBPs, very few substance-use patients actually receive any evidence-based care. This gap between science and service can, in part, be attributed to the past stigmatisation of substance abuse issues, resulting in the development of treatments originating outside of mainstream healthcare. However, there are a range of additional factors that are inhibiting the uptake of EBPs in the modern medical world. Systemic barriers, such as cost and a lack of resources to learn a new

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***Contingency Management for youth addictions (CM-YA) is based on the principle of immediately rewarding positive progress. Can you expand on how this is delivered practically in the context of substance use treatment?***
The counsellor works with the youth and their family to develop a list of rewards that motivate the youth. These can be monetary rewards or non-monetary such as privileges, time with family or friends, favourite activities, or getting out of a chore. Once the list of rewards is finalised they are tied to points. At each session, points are earned for a negative drug screen or lost for a positive drug screen. Once the youth has enough points, they can select a reward off the menu when they have a negative drug screen.

The treatment is divided into 3 levels. As the youth achieves consecutive weeks of abstinence (tested by drug screens), they move up the levels – they earn more points and rewards become bigger. This level system helps maintain motivation in treatment. In addition, the youth and family identify a Most Valued Privilege. The youth earns this MVP with every negative drug screen. The MVP ensures they always earn a large reward with each negative drug screen, in addition to the points that they can cash in for rewards. The MVP ensures that the youth has a clear, meaningful reward on their mind when they are faced with peer pressure or triggers to use. They can make a decision in the moment – if they want to use, they lose the MVP; if they resist peer pressure and manage triggers, they earn the MVP – and they earn points on top of getting the MVP!

***Is CM applicable to all drug and alcohol problems? Do different drugs require different treatment approaches?***
CM has been found to be successful with all drug and alcohol problems. The only difference in treatment would be the frequency of drug testing. Drugs that exit the system quickly will require more frequency and random drug tests.

***Why is the CM family-therapy approach particularly effective for adolescents?***
It includes family in every stage of treatment by teaching them how to recognise signs of drug use, effectively supervise the youth, reward them for making good decisions, and help identify triggers so that they can prompt the youth to use their skills to manage the triggers without resorting to drug use. In addition, the interventions target the unique developmental needs of adolescents. Typically family involvement in treatment is rare. The TSS trains counsellors in the importance of family involvement, the processes behind family treatment and how to engage parents in the treatment. The ABC assessment process also demonstrates to the youth the clear link between their triggers, their drug use, and the negative outcomes in their life in a very concrete and meaningful way. The point-and-level system provides a concrete way for achieving success and monitoring progress, which is important for adolescents still learning how to link their decisions to their behaviours.

***Treatment is often provided in a community-based outpatient setting. Can you explain what this is and the implications for practitioner training?***
Community-based outpatient settings are typically the first, and lowest-cost, treatment option provided to a teen. With this option the youth and family come to the office to meet with the counsellor once or twice a week for about one hour each visit. For the counsellor, the focus becomes maximising the number of sessions each week to ensure revenue, which leaves little time for training and development. Typically, counsellors will do the minimum training required to maintain their licence. Our TSS addresses this by making training convenient and meaningful and by providing the research demonstrating that when you use an EBP, and you implement it with fidelity, your patients are more likely to show up for their session and will stay in treatment longer. In addition, insurance companies will often pay a counsellor more money per hour if they can prove they are implementing an EBP. This reimbursement model is often called "Pay for Performance" and it is increasingly common that insurance will either not pay, or pay you less money per hour, if you do not implement an EBP.

***How can CM-YA ensure long-term effects even when the rewards have ceased?***
**a)** Treatment focuses on the concrete skill deficits and environmental factors that are triggering the drug use. The youth earns rewards for negative drug screens, but most treatment is updating the ABC assessments (functional analyses) so that we have a current, working understanding of the individual teen's drug use patterns. This allows us to focus intensively on their specific needs. This skill development drives long-term abstinence.

**b)** Family involvement is critical. The family learns how to support their teen and monitor them once treatment is over.

**c)** As treatment progresses, the rewards in the point-and-level system are replaced entirely by natural rewards and activities which the family provides. Teens struggling with substance use often have legal problems, have educational issues, or are not permitted to have a job or participate in sports or activities. In addition, much of their time is spent getting money for drugs, obtaining the drugs, using the drugs, and hiding their use. As the teen decreases drug use, they have more time to engage in activities they once enjoyed and they can access privileges that were once forbidden because of the drug use. This return to "normal life" is highly motivating and sustainable.

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EBP create practical obstacles in EBP uptake. Furthermore, personal barriers such as an unwillingness to accept that long-practised methods may not be best and resistance to change also play an important part. Alongside these factors, one of the key points to come out of numerous studies is that treatment models provide vastly improved clinical outcomes if they are delivered with fidelity (remain true to the model) and competency. This has served to shift the spotlight onto how best to train and monitor practitioners, alongside monitoring patient progress.

**BRIDGING THE GAP**
To overcome the barriers mentioned above, and thus deliver better patient treatment, Mulligan and Sheidow have developed the Training Support System (TSS) for CM-YA. This is an entirely unique, web-based training and support platform that offers a cost-effective and accessible alternative to conventional training methods. Training and support are delivered in a three-tier design as below:
**1)** Basic initial training in CM-YA is provided through the Contingency Management Computer Assisted Training (CM-CAT) that counsellors can complete at their own pace. This basic initial training includes a training companion toolkit and connects counsellors via the web with a Lead Trainer who monitors progress and provides 1:1 support, practice opportunities, and resources. Importantly, this web-based approach overcomes the financial burden faced by many community-based agencies and prevents scheduling and travel barriers. Additionally, it has proven to be popular with users: in a recent trial, 97% of people who completed the CM-CAT described it as "extremely helpful" and an increase in CM knowledge was observed following the training.

**2)** The second stage is the provision of ongoing feedback, Lead Trainer availability, and professional networking on both an individual and agency-wide level. Feedback relating to the understanding and use of CM-YA is provided through knowledge tests and coded session tapes. In addition, confidential monthly surveys from caregivers provide counsellor-specific and agency-wide feedback on adherence levels. These Key Performance Indicators are summarised quarterly in an implementation report provided to the counsellor and agency with recommendations for improving outcomes and adherence to the treatment model.

**3)** Training is sustained within the TSS with the availability of ongoing support and mentoring as well as access to up-to date literature and tools. A CM-YA expert Lead Trainer is assigned to each agency and, through this trainer, counsellors have access to resources, feedback and training that is tailored to their individual needs. This coaching can take multiple forms but may consist of elements such as web-based booster training sessions or role-play.

Thus, the TSS provides a training method that attends to all the possible barriers of dissemination, as well as providing comprehensive and ongoing support that continues well after the initial training is delivered. This will have vast positive implications for substance-abusing adolescents receiving treatment from practitioners trained through the TSS and sets a new level for how training methods can ensure both competency and fidelity.

## Detail

**RESEARCH OBJECTIVES**
Mulligan and Sheidow focus their research efforts on how best to train practitioners in adolescent substance abuse to ensure that best practice research findings make their way into real-world treatment.

**FUNDING**
NIH: National Institute on Drug Abuse

**COLLABORATORS**
Aspects of the TSS for CM-YA grew from Dr Sheidow's work with Scott Henggeler, PhD, and others.

**BIO**
Jaime Mulligan, PsyD (formerly Jaime Houston) has over 14 years of experience implementing evidence-based programmes in the community. Dr Mulligan is currently the Vice President and Clinical Director for Training Support System and the Principal Investigator for current NIDA-funded studies evaluating ways to effectively train professionals to use evidence-based treatments.

Ashli J Sheidow, PhD, is a Senior Research Scientist at the Oregon Social Learning Center (OSLC) and President of Training Support System. She is NIDA- and NIMH-funded to research treatments for mental health and substance abuse problems in adolescents and emerging adults, particularly those who have co-occurring problems. Her research also focuses on effective dissemination of evidence-based practices, particularly training practices for community-based counsellors.

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