# IN-PRISON SUBSTANCE MISUSE TREATMENT PRINCIPLES AND MODALITIES

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## I. INTRODUCTION

This paper is written with correctional officials in developing countries in mind, specifically officials and program administrators who work in prisons or jails with inmates with substance misuse problems. It is intended for non-academic and non-technical audiences for easy understanding. If anyone cares to read more or explore specific topics within the literature of substance misuse research and treatment, a bibliography is provided at the end that provides all the background materials upon which this paper is based.

### A. Substance Misuse Is a Global Problem

Substance misuse has been plaguing the Western world for decades, particularly in the United States. The misuse of illicit substances is now spreading in developing countries. It is a global problem, confronting particular countries with growing economies. Increased wealth and the increasingly globalized economy have also brought about unprecedented opportunities for the flow and consumption of illicit substances. So there is no need to be shy about a country's substance misuse problem. We share this common challenge, from the global North to the global South.

Response to substance misuse, however, varies by country and more specifically by culture. What is being presented here represents mostly Western, or more specifically, US experiences. Caution should be exercised about how the ideas or intervention strategies presented here may or may not suit one's own country. Suffice it to say, there are no silver bullets or magic pills anywhere in the Western world. One can easily tell just by the fact that substance misuse is still widespread in the West. With all the claims about various effective pharmacological or psychosocial treatment approaches over the decades and so much treatment evaluation research, the US is now going through a serious opioid misuse crisis. It appears that the illicit drug problem in the US matches to its own drum beat, entirely independent of the accumulated knowledge of and investment in the intervention efforts. But this doesn't mean we should surrender to this social problem.

### B. The Prison System Is a Critical Front in Dealing with Substance Misuse

Historically, most countries have relied on the justice system as a primary means to respond to substance misuse in the society. This is because the possession and use of illicit substances is criminalized in most countries and many substance misusers also engage in criminal activities that get caught by the police. Although the criminal justice system is often the default solution to substance misuse, there are both benefits and drawbacks with this response strategy. On the drawbacks, substance misuse is a complex problem encompassing a multitude of problems—physiological, psychological, and social—none of which have easy solutions. To ask the criminal justice system to take on such a complex social problem may be unrealistic as well as resource-distracting. The primary role of the justice system is to enforce the law and penalize the law breakers. Treating substance misuse disorder requires a different mindset and response setup, one that sometimes does not sync well with the justice system.

On the other hand, many substance misusers wind up in the justice system, being arrested for crimes related to or caused by their drug problems. Because of the coercive nature of the justice agency, more specifically the prison system, treatment services can be delivered to the substance misusers more effectively and efficiently, often with little or no resistance. It will be quite different out in the community

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where treatment compliance is often the number one challenge for community-based service providers. High dropout rates frequently plague community-based treatment programs. Research has shown that for justice system-involved substance misusers (i.e., drug abusing prisoners), addiction assessment and treatment should begin during incarceration, and prison-based treatment is most effective when aftercare services are planned and delivered upon release. Research and evaluation studies on in-prison interventions and community rehabilitative programs in the U.S. have made much progress in recent years and produced many promising findings that can be shared in countries with emerging substance misuse problems.

The prison environment also offers an excellent opportunity to screen and treat substance abusers for infectious diseases such as HIV/AIDS, hepatitis B and C, and tuberculosis because this is the population that often lives beyond the reach of public health services. Substance abusers are also known for their lack of care for personal hygiene, thus making them highly susceptible to communicative diseases. Furthermore, once inside the prison and living in close quarters with other inmates, these substance abusers can quickly spread their diseases and create a public health headache.

## II. GUIDING PRINCIPLES FOR IN-PRISON TREATMENT

There are a few basic principles that all program administrators or prison officials should acquaint themselves with.

### A. The Prison Environment Offers a Great Opportunity to Deliver Treatment Services Because of Its Restrictive Structure

Most substance misusers are quite open to treatment services while incarcerated. The structured and restrictive environment inside prison offers an opportunity for treatment staff to assist their clients to think and reflect upon their personal or physical problems. Many addicted to substances will want to quit using and often seek treatment services. Once inside the prison, substance misusers will have few choices but to confront their drug problems. Many must endure and deal with symptoms of withdrawal and adjustment.

Furthermore, research has shown that substance misuse treatment need not be voluntary. Compulsory or coerced treatment can increase treatment entry and prolong retention. Oftentimes substance misusers do not voluntarily enter treatment until they enter the prison. Therefore sanctions imposed by justice agencies or the prison environment can be effective tools to enroll substance misusers and expose them to treatment options, making recovery possible.

### B. Psychedelic Substance Misuse Causes Brain Damage That Has Long-Term Behavioral Consequences

Research has shown that prolonged use of psychedelic substances causes damage to the brain's structure and function, resulting in abnormal/criminal behavioral outcomes. Such brain damage cannot be easily repaired, which is why substance abusers often go through multiple relapses and drop out of treatment programs many times. The idea of "curing" addiction through one or two spells of treatment is simply unrealistic, and treatment outcomes therefore must consider multiple steps and measures that aim for long-term reduction in use and eventual recovery.

### C. There Are No Silver Bullets or Simple Solutions, So Expect Relapses, Many Times

Unlike diseases where specific pathogens can be identified as the culprit for certain medical conditions and specific medications can be applied to all who suffer from the same conditions, substance misuse is a far more complex problem that can be attributed to multiple factors. The characteristics of the drug users and the type of substance misused vary from person to person. Treatment needs to take into consideration individual variations. Although we know a lot about what drugs can do to the brain, which in turn affect one's thought process and behavior, we know little on how to correct the causal conditions so that the patients can stop using and return to productive functioning.

To make things more complicated, substance misuse is often the manifestation of multiple problems, or comorbidities, such as medical, psychological, social, and vocational troubles. It is generally agreed that early intervention can reduce lasting damage to the brain and improve chances of recovery. Therefore, it is critical that substance misusers in prison be identified early, their needs and risk assessed, and treatment provided promptly. This requires the prison staff to develop and be ready to deliver treatment services. This is a

simple concept but oftentimes difficult to implement.

**D. Treatment Must Include Risk/Needs Assessment and Adjust Treatment Accordingly**

As discussed above, substance misuse is typically prompted by and a reflection of multiple personal, mental as well as social issues. Moreover, many of these individuals have criminal records, which may or may not be related to their substance misuse. The type of substance abused, legal prescriptions or illicit psychedelic drugs or both, and the severity of the misuse can affect how individuals may respond to treatment regimens and their post-release reintegration into the community. Therefore at the earliest possible time upon their arrival in prison, risk/needs assessment needs to take place to understand the type of drugs misused, severity, prior criminal behavior and encounters with justice agencies, and prior treatment histories among other things.

Following the risk/needs assessment, treatment plans can then be drafted for each subject; and their problems may require a combination of treatment options, for instance, medication plus counseling or psychotherapy. Other services inside the prison may also be added to the treatment plan, such as drug education, peer support groups, or self-help groups.

**E. Aftercare Is Critical for In-Prison Treatment Activities**

Substance misuse often requires long-term engagement with the treatment community. While the in-prison treatment programs can often help inmates succeed to stop using drugs, but to maintain treatment effects requiresfollow-up reinforcement services. Research has consistently shown that the length of stay in treatment programs is directly related to the overall success. In other words, the longer one stays in a treatment program the more he/she can benefit from the services.

Furthermore, taking the long-term perspective also means that relapses will occur to many of these inmates, and multiple episodes of treatment thus become a normal part of their recovery process. Because of the damage to the brain and the challenges in eradicating the personal/social/mental situations that gave rise to their substance abuse in the first place, many justice-involved substance misusers will return to prison and start in-prison treatment programs again, and again. It is therefore important to recognize substance misuse as a form of chronic illness that requires not only in-prison treatment but also aftercare programs after release.

Retention in aftercare is key to treatment success because once outside the prison, these substance misusers often find ways to leave the treatment program prematurely. Without the prison structure, alternative strategies or incentives need to be developed to keep these substance misusers in the treatment program. Any incentives to encourage engagement in treatment must be coupled with continuous monitoring of the substance misusers, such as through behavioral observations by peer support groups, self-reports, and urine analysis. Knowing one is being monitored can serve as a powerful reminder that one is not alone in this struggle. On the other hand, a return to substance misuse also suggests that one's previous treatment protocol may need adjustment.

## III. PHARMACOLOGICAL TREATMENT APPROACHES

Substance abuse treatment can be divided into two main categories: pharmacological and psychosocial. Oftentimes medications are used to assist the first stage of addiction treatment because there are many painful physiological responses to withdrawal. However, medications alone rarely can achieve long-term abstinence. Thus psychosocial strategies are almost always used in combination depending on the resources and the agencies providing the treatment services. In other words, pharmacological treatment is often augmented with psychosocial interventions, based on the assumption that the latter is necessary to foster long-term recovery.

It should be noted early that in comparison to other aspects of modern medicine, pharmacological research has been surprisingly limited when it comes to substance misuse. There are multiple reasons for the lack of investment in the research and development of medications to deal with addiction problems, a topic beyond this presentation. Unlike the multitude of medications available for physical diseases (think about antibiotics and pain meds), it is quite easy to go through all the medications available for substance use disorders. Currently there are only a few medications available for opioid, alcohol, and tobacco. For the

purpose of this presentation, we will only present the few medications for opioid dependency problems because thus far there is no effective pharmacotherapy for the treatment of stimulant misuse, i.e., cocaine, methamphetamine, and other amphetamine-type stimulants (ATS).

Pharmacotherapies or medication-based treatment for substance misuse can be divided into two broad functional categories. One category of medications is intended to serve as a substitution that can mimic or create similar feelings that the illegal drugs do. These medications (actually only two medications) are called agonists or partial agonists. Essentially this group of drugs can produce some euphoria similar to that of heroin, enough to reduce opioid cravings thus avoiding physical symptoms associated with withdrawal. These two drugs are: methadone and buprenorphine. The other group of medications are called antagonists, which just like what the name suggests are designed to counter the effects of opioids. Naltrexone, the only drug used for recovery purposes, blocks opioids from binding to their receptors, thus removing the mechanism for producing any euphoria and other effects.

Now a few more words on how these medications are administered and their treatment impact. In the US, methadone and buprenorphine are the only two drugs approved by the FDA for clinical use. Methadone, a synthetic opioid agonist for the purpose of substitution, has been around for decades. It can provide some euphoria similar to that produced by heroin so to reduce withdrawal symptoms and reduce craving for illicit opioid drugs. Methadone can also act to block the effects of illicit opioids. It is taken orally on a daily basis. Because of its potential for abuse and overdose, it is a tightly controlled substance and patients can only access this treatment on a daily basis at licensed and supervised settings. So one must have access to and make arrangement in order to stick to this treatment protocol.

Buprenorphine, the second medication, is also a synthetic opioid but only a partial agonist at opioid receptors. It helps reduce cravings and withdrawal symptoms, but does not produce the euphoria and sedation similar to that induced by heroin or other opioids. Clinically it carries less risk of respiratory depression or overdose than methadone. Buprenorphine is also taken orally. Because buprenorphine is a safe medication, it is approved for primary care physicians to prescribe to their patients. Oftentimes buprenorphine is combined with the antagonist naltrexone, a formulation called Suboxone. A long-acting formulation of buprenorphine is also available. This is the implant version in the form of small rods that are implanted under the skin of the upper arm. Once implanted, the medication can release slowly into the body for four to six months.

There are two common opioid antagonists: naltrexone and naloxone. Although both are opioid antagonists, they behave very differently and are used for very different purposes. Naloxone (or Narcan) is a fast acting but short-term opiod blocker, and used primarily as an antidote to reverse the effects of opioid overdose. It is an emergency medicine that is meant to save lives. Once injected or snorted, naltrexone works immediately. The person can become coherent quickly and start breathing normally. By acting fact, naloxone also wears off fast, typically in about 30 minutes and gone in 90 minutes.

Naltrexone on the other hand is a long-lasting opioid blocker. It binds and blocks opioid receptors so that the drug user will not feel the effects such as sedation and euphoria of opioids. It has been around for three decades as an opioid antagonist and is primarily used for recovery purposes. Once a substance misuser goes through the detoxification phase, naltrexone can be an effective tool in keeping patients off opioids. Naltrexone can be taken orally as pills and injected. The pill delivery form has a poor record of compliance. The injection formulation, called Vivitrol, can deliver the effect for up to one month. However, compared to agonists such as buprenorphine, naltrexone has a hard time to be accepted by active drug users.

Naltrexone is most effective when the substance misusers have completed detoxification, which is ideal for use in prison and in preparation for release. For instance, research has shown that the initiation of extended release (slow release) injectable naltrexone prior to prison release can significantly reduce relapse among opioid-dependent inmates. Those who received the extended release (slow release) injectable naltrexone prior to prison release had a greater number of days in abstinence, and fewer positive urine drug tests in the 6 months, particularly during the first two weeks following release when they are at high risk for overdose.

## IV. PSYCHOSOCIAL TREATMENT APPROACHES

Unlike pharmacotherapies, this section presents different versions of "talk" therapies, i.e., through techniques of persuasion or convincing to change people's attitudes and behaviors so that they will remain abstinent. Collectively called psychosocial strategies, they teach people to acquire new ways of thinking and skills to handle stressful situations that may trigger substance abuse.

Research has shown that overall, psychosocial treatment strategies are effective, particularly when used in combination with pharmacological interventions. Over the decades, mental health practitioners and the research community continue to examine, test, and refine psychosocial intervention programs for criminal offenders who abuse drugs. Most of these psychosocial interventions are available online in public and academic websites should anyone be interested in obtaining free materials. We know that criminal offenders with substance misuse problems present more challenges than their non-criminal peers, which must be taken into consideration when devising treatment interventions both inside and outside the prison. Drug treatment programs for prison inmates typically need to incorporate two key ingredients: (1) risk of reoffending, and (2) criminogenic needs.

There are two aspects to the *risk* factor in every criminal offender with substance misuse problems: (1) the risk of re-offending; and (2) the risk of relapse. For a criminal offender, "risk" is often construed as the likelihood to re-offend; but this type of risk is often compounded by the offender's likelihood of relapse into substance misuse. The greater the substance misuse problem the more likely the person is to re-offend regardless of other criminogenic factors. In the U.S. most criminal offenders are assessed to identify not only their criminal propensity but also the severity of their substance misuse. Treatment plans in prison ideally should take both factors into consideration and match the service needs of the offender. Depending on inmates' drug use histories and types of drugs abused, some may receive a combination of pharmacological interventions and psychosocial services, while others are only assigned to psychosocial programs such as education and training programs to acquire coping skills, behavioral modification, counseling, and self-help.

*Needs* assessment is an extension of risk assessment. It allows for drug treatment programs to achieve optimal allocation of resources so that the most intensive and costly services are provided to those in greatest need. There are well known treatment needs that have long been identified by practitioners to address with criminal offenders, such as criminal thinking, criminal associates, impulsivity, risk taking, limited self-control, poor problem-solving skills, poor educational and employment skills, and drug and alcohol dependence. Risk and needs assessment in American correctional institutions is mostly done through the administration of some instruments, either developed in house or purchased commercially. Because of the high demand for in-prison treatment and other correctional activities (e.g., housing assignment or pre-release planning), risk and needs assessment has become an industry in the U.S. where private businesses are developing and selling assessment tools to correctional agencies. Similar to other established psychometric tests, correctional agencies are typically charged license fees and/or per-use fee[†]. In California, for instance, there are about 130,000 offenders in the state prison system, all of whom typically undergo two separate risk/needs assessments, one at entry and one prior to release. As one can imagine, fees associated with the administration of the assessment as well as payment to the commercial company can quickly amount to a significant number. It is therefore important to understand the nature of these commercial risk/need assessment tools, and perhaps explore cheaper or free alternatives. There are free options. Most of the measures in these risk/needs assessment tools are similar to one another. There are no secrets to what these items are.

There are many terminologies and variations in treatment modalities including cognitive behavioral therapy, contingency management, relapse prevention, and treatments combining cognitive behavioral therapy and contingency management. Three distinct treatment modalities that have the strongest empirical support are presented below.

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[†] Like many established psychometric tests, commercial risk & needs assessment instruments for U.S. prison populations, such as LSI-R and COMPAS, typically involve two types of fees—an annual license fee (usually a few thousand dollars) and a per-use fee (usually around $3 per use). For example, details can be found at https://www.gifrinc.com/course/lsi-r/ for fee structures on LSI-R, probably the most widely recognized risk & needs assessment instrument for justice-involved populations in North America.

**A. Cognitive Behavioral Therapy**

Most common psychosocial interventions are those emphasizing cognitive changes in how people perceive events or situations and what alternative activities one may use to resolve their predicaments. Cognitive behavioral therapy (CBT) oriented treatment modalities have probably received the most attention in evaluation and have in general produced more consistent positive findings than any other psychosocial approaches. Meta-analysis in other areas of mental health also suggest that CBT performs better than other psychosocial treatment practices, such as psychodynamic therapy, psychoeducation, physical exercise and supportive interventions. There are numerous variants of CBT, such as relapse prevention and dialectical behavior therapy. CBT consists of two main components: identify and understand events and situations that provoke negative emotive states; and learn alternative coping skills and apply these newly acquired skills to wider situations.

CBT starts with "attitude adjustment," by changing the way criminal offenders think or perceive things. The philosophy behind CBT assumes that people who abuse drugs usually are aware of their predicaments but are unable to navigate through life's challenges (i.e., triggers or drug use cues) without resorting to drug-induced solutions. These trigger events or life circumstances can be internal (i.e., negative physical or mental states such as not feeling well or depressed), interpersonal (i.e., peer pressure or negative social encounters) or situational (i.e., social settings that induce stress or pressure). CBT-oriented treatment activities help substance misusers to recognize these stress-inducing or high-risk situations, acquire thinking strategies and coping skills through modeling and practicing. A CBT practitioner often presents multiple scenarios (in addition to eliciting specific situations from participants) that trigger substance-using behavior, identifies problematic thoughts and response strategies in the past that led to drug use, then introduces different ways of thinking and problem solving strategies, frequently through role-playing and modeling. CBT participants will then rehearse and practice these newly acquired thinking skills and behavioral techniques.

**B. Contingency Management**

Contingency management (CM) focuses on exploiting the principle of operant conditioning, that is, behavior is shaped by its consequences. If positive behaviors are quickly reinforced through incentives, CM believes that such behaviors will likely repeat themselves. Psychologists have long studied how animal or human behavior changes in anticipation of anticipated outcomes. By offering alternatives to drug use, people with substance misuse problems are believed to be able to accept non-drug incentives and avoid relapse. CM therefore seeks alternatives or behavioral substitutions, mostly through incentives, to encourage or maintain desired behavioral changes and prevent relapse. Numerous studies have been conducted to examine the efficacy of contingency management and findings are supportive in general.

Under CM procedures, a treatment participant is rewarded with an incentive following a clean drug test, typically through urinalysis. The incentive is used to reinforce the positive behavior of staying clean and a substance misuser is believed to maintain his/her abstinence in anticipation of further rewards. There are two major types of CM procedures. One is the voucher-based reinforcement therapy (VBRT), in which a substance misuser receives a voucher worthy of a monetary value each time he/she is tested clean. Consecutive clean tests can increase the value of the voucher. First instance, the first time a clean urinalysis is worth $1.00. The second test, if found clean, the voucher will be worth $1.50, and the third consecutive clean test will be worth $2.00. After three clean tests, the program participant will earn a total $4.50. However if the fourth test turns dirty, the voucher will be worth $1.00, reset to its starting value. The idea is that as the voucher becomes more valuable with each successive clean test, the program participant will be incentivized to stay clean, hoping to cash in for a sizable cash award at the end.

Another common CM protocol is the prize-based procedure, where each clean urinalysis is rewarded with a chance to win something from a bowel filled with paper tickets or slips for various prizes. After a program participant provides a negative drug test, he/she will get to draw a prize from the prize bowel. Oftentimes the ticket or slip contains nothing more than a few encouraging statements, such as "good job". The majority of the slips in the bowel contain low value prizes. However, as the participant turns in consecutive clean urine samples, he/she is afforded additional chances to draw prizes, thus increasing his/her chances of winning "big" prizes, e.g., a $100 gift card. But a dirty test will reset to only one draw from the bowl.

Meta-analysis research has also confirmed the effectiveness of contingency management in promoting abstinence. Greater effectiveness tended to occur in studies where there was greater researcher involvement

and in shorter treatment duration. CM was found to be more effective in treating opiate use and cocaine use, relative to tobacco and polysubstance abuse. Although the effect seems to disappear over time, CM can be used as an adjunct to other treatments because of its effectiveness in keeping participants in the program.

### C. Motivational Interviewing (MI)

Motivational interviewing is a counseling style whereby the therapist seeks to help program participants to explore and resolve their own ambivalence towards drug treatment and rehabilitation. MI-type counseling is non-judgmental and non-confrontational. The counseling style places the participant at the center to take charge of his/her own life. The client is encouraged to set goals and explore ways to avoid their destructive lifestyle. As suggested by the name, this type of counseling helps clients find self-motivation to change behaviors that are not consistent with their goals and objectives. Typically, the therapist uses open-ended questions to encourage participants to realize their agency.

Often grouped in therapeutic interventions called Motivational Enhancement Therapy (MET), MI procedures are typically brief and used in conjunction with other behaviorally oriented treatment activities. MI starts with an assessment of the program participant, then the therapist uses the information to stimulate discussion and self-motivation. The treatment consists of brief sessions, during which participants make a plan for change and devise strategies to maintain abstinence.

Although some found that MI was only effective in treatment retention not outcomes, other meta-analyses find that MI in general produces significant, albeit low to moderate range of, impacts on outcomes. Still others found that MI was able to produce significant outcomes that were robust across many moderators, including feedback (motivational enhancement therapy), delivery time, manualization, delivery mode (group vs. individual), and ethnicity.

Because MI is brief and manualized, it can be applied in settings where there are few other treatment resources. There are many free materials online and anyone interested in learning or practicing motivational interviewing techniques can obtain instructions and manuals at the U.S. government agency (such as NIDA) websites[‡]. In fact among the different variants of CBT, contingency management strategies appeared to have the clearest evidence for its effectiveness, followed by relapse prevention, and motivational interviewing. However, the effectiveness of contingency management tends to disappear once the incentive structure is gone. Furthermore, because financial incentives and frequent drug tests are important components of the protocol, contingency management is often beyond the means of community agencies; and cost-efficient strategies must be developed for contingency management to be implemented on a wider scale.

### D. Other Common Psychosocial Interventions

There are of course many more psychosocial interventions than the three briefly described above. A large number of these treatment modalities are variants of CBT, such as dialectical behavior therapy (DBT) and moral reconation therapy (MRT). DBT focuses on learning about one's triggers that lead to negative states of mind and learning to apply different coping skills to break the sequence of events, thoughts, feelings, and behaviors that cause relapse. DBT assumes that the identification of triggers and effective coping skills can produce and reinforce desired behavior and prevent relapse. MRT on the other hand was developed specifically to help criminal offenders to adjust their anti-social thinking. Following conventional CBT principles, MRT helps ex-offenders through several phases to identify and process events and environments that cause criminogenic stress, acquire and practice alternative behavioral solutions, and apply their new skills to a wide range of stressors.

One other strategy that has been widely practiced in the U.S. among the substance misuse community is called the *twelve-step program*, which was originally proposed by Alcoholics Anonymous (AA)—a self-help style of support groups for alcoholics. There are AA groups practically in all corners of the U.S., where mentors are helping mentees abstain from drinking. There are also 12 traditions to go along with the 12 steps of changes that govern behavior of AA members. The 12-step program first emerged in the 1930s and, although there have been changes over the decades, the essential elements remain. As summarized by the

[‡] For instance, numerous instructional and assessment materials about motivational interviewing and motivational enhancement therapy can be downloaded for free on NIDA's website: https://www.drugabuse.gov.

American Psychological Association, the process involves the following[§]:

- admitting that one cannot control one's alcoholism, substance misuse or compulsion;
- recognizing a higher power that can give strength;
- examining past errors with the help of a sponsor (experienced member);
- making amends for these errors;
- learning to live a new life with a new code of behavior;
- helping others who suffer from the same alcoholism, substance misuses or compulsions.

Following the examples of AA, other self-help groups among substance misusers of various addictive behaviors have emerged over the decades, such as Cocaine Anonymous, Gamblers Anonymous. These self-help groups are widely available in most American communities. However, evaluation of their effectiveness using rigorous designs, i.e., randomized controlled trials, is rather limited. While the 12-step philosophy is widely applied, the actual implementation and treatment procedures are difficult to standardize across.

## V. CONCLUSION

Research has shown that treatment for substance misuse disorder is effective, but there is no singular approach that works the wonder. Most treatment professionals in the West would advocate for a comprehensive approach that starts with risk and needs assessment, and then match treatment services with identified needs. Because of the nature of the population, post-release monitoring and surveillance are also important components of the treatment planning. Research has shown that effective treatment programs for criminal populations tend to have the following characteristics: (1) intensive and behavioral that aim at taking up most if not all offenders' daily schedule and providing positive reinforcement for pro-social behavior; (2) focused on high risk offenders; (3) matching treatment modalities and services with identified needs; and (4) providing pro-social contexts to bridge offenders released from prison to outside law-abiding lifestyles.

Treating prison inmates with substance misuse problems is no easy task. For prison officials and program administrators, there are two take-home points from this paper.

### A. Avoid Reinventing the Wheel

Much literature and clinical procedures have been developed, tested and standardized in the U.S. as well as in many Western countries. Psychosocial interventions do not contain proprietary ingredients that, if packaged together, can somehow deliver guaranteed results. There is no need to purchase any commercial training manuals or packages. Be very suspicious if someone advocates a commercial product or encourages one's agency to purchase a so-called name brand in the substance misuse treatment field. As demonstrated in the above review of promising psychosocial interventions for substance misuse, U.S. government agencies on health services, using tax-payers' money, have funded numerous clinical programs with manualized procedures and treatment principles. These materials are almost always posted online for all to download free of charge. For instance, NIDA's official website contains a wealth of information about CBT that can be downloaded for free. Similar CBT training manuals can also be found at another U.S. government agency, the National Institute of Alcohol Abuse and Alcoholism (NIAAA)[**].

However, there is no shortage of companies, many of them in the U.S., that are eager to sell or promote packaged programs for a fee. Many companies also try to get listed on government agency websites as a way to increase their "legitimacy". Free manualized treatment protocols (and assessments) can be obtained so that well-established psychosocial interventions can be implemented with little or no cost. While it is important to develop culturally-sensitive programs, the theories underlying the above-mentioned treatment modalities are common across all societies, and have been tested and standardized through numerous clinical studies with different social and ethnic groups. More importantly, these psychosocial principles are simple enough for ordinary people to master, thus providing cost-effective treatment to peer support groups in places where

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[§] For a quick overview and lesson of the the 12-step program, a good source is provided by *VandenBos, G. R. (2007). APA dictionary of psychology, 1st ed.* Washington, DC: *American Psychological Association.*

[**] Specific instructions on how to conduct CBT training can be found at NIDA's website: https://archives.drugabuse.gov/TXManuals/CBT/CBT1.html. Similar CBT training manuals can also be found at NIAAA's official website: https://pubs.niaaa.nih.gov/publications/MATCHSeries3/.

there are few mental health professionals.

**B. Use Rigorous but Inexpensive Evaluation Strategies to Improve Treatment Programs Over Time**

Evaluation research should be a standard component in all agencies that provide substance misuse treatment services. Furthermore, psychosocial interventions that are often culturally responsive tend to vary somewhat from place to place. Once a psychosocial intervention takes on a local flavor, it should be evaluated so that incremental improvements can be made. By rigorous, we do not mean expensive. In fact, conventional randomized controlled trials (RCTs) are probably the least expensive evaluation design with the simplest statistical procedures to prove a point. There is no need for fancy statistics, simulations, or struggles with matching subjects or controlling for covariates. To the medical world, RCTs are the most basic design to prove the efficacy of a treatment protocol. Social sciences are catching up. Many treatment topics can be brought into evaluation: single vs. group counseling, single sessions vs. multiple session interventions, strategies to improve retention, or days in maintaining abstinence. Any adjustments in program design or treatment activities, as trivial as scheduling preferences or appointment reminders through cell phone texts, can be evaluated using RCT designs. The key objective of a randomized controlled trial is to create a condition for "objective" or "non-judgmental" comparison, and prevent cherry picking.

Criminal offenders remain arguably the most afflicted segment of the population and receive the least treatment. For instance, in the U.S., about half of prisoners meet the clinical criteria for a diagnosis of substance use disorders, but only 10% of them receive treatment. Much of the treatment has been the cheapest options, such as mutual support, peer counseling, and drug education. This is because prison inmates rarely raise much sympathy or public concerns for adequate funding. However, the vast majority of these inmates, except for those lifers, will return to the community where their substance misuse problems will again place the public and themselves in danger of further criminal offenses. It behooves all agencies inside the criminal justice and social service sectors of the government to pay attention to these substance misuse offenders because, if untreated, they can cost a lot more money and headaches to the justice system as well as the community.

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