



# Selected Papers of William L. White

[www.williamwhitepapers.com](http://www.williamwhitepapers.com)

Collected papers, interviews, video presentations, photos, and archival documents on the history of addiction treatment and recovery in America.

**Citation:** White, W., Parrino, M. & Ginter, W. (2011). A dialogue on the psychopharmacology in behavioral healthcare: The acceptance of medication-assisted treatment in addictions. Commissioned briefing paper for SAMHSA's A Dialogue on Psychopharmacology in Behavioral Healthcare conference, October 11-12, 2011. Posted at [www.williamwhitepapers.com](http://www.williamwhitepapers.com)

## A Dialogue on Psychopharmacology in Behavioral Healthcare: The Acceptance of Medication-Assisted Treatment in Addictions

William White, Mark Parrino, and Walter Ginter

### I. Introduction

A. Our review focuses on the evolution, current status, and degree of acceptance of medications in the treatment of substance use disorders (particularly of opioid addiction); current barriers to medication utilization; potential strategies to enhance utilization; and principles that could be incorporated into clinical practice guidelines for medication-assisted treatment. Issues related to efficacy, indications and contraindications, court-mandated treatment, cultural perspectives, and use across the developmental life cycle are addressed in other papers.

### II. Historical Perspectives on the Use of Medications in the Treatment of Addiction

A. Recovery Initiation versus Recovery Maintenance: Successful withdrawal to a drug-free state (the primary preoccupation of 19<sup>th</sup> century treatment of opioid addiction) does not constitute a state of sustainable recovery and should not, by itself, be considered a treatment for addiction.<sup>1</sup>

B. Medication Acceptance and Recovery Role Models: When visible recovery role models promote an ineffective medication, the medication's lack of scientific support does little to reduce its potential cultural popularity (e.g., the Keeley Cure in the 1880s and 1890s); where medication-assisted recovery role models are professionally and culturally invisible, scientific evidence alone will not lead to a medication's professional or cultural acceptance (e.g., methadone).<sup>2</sup>

C. Cultural Ambivalence: Failure to fully embrace medications as an adjunct in the treatment of addiction is fueled by continued cultural dissension about whether the cultural ownership of alcohol and other drug (AOD) problems should reside with medicine, religion, or law, e.g., is the addicted person best viewed as a patient, a sinner, or a criminal?

D. Stigma Unbound: The social and professional stigma attached to particular drugs, particular patterns of addiction, and the medications used to treat addiction is inextricably linked to public perception of those most associated with the drug. Issues of race, gender, sexual orientation, social class, and religion profoundly influence such perceptions and must be disentangled in any effort to reduce stigma. Drug addiction is one of the most socially stigmatized conditions, e.g., viewed as more blameworthy and more dangerous than mental illness.<sup>3</sup>

E. Science and Stigma: Scientific validation of a medication's positive effects on clinical and recovery outcomes does not mean inevitable acceptance by policymakers, service professionals, patients, patients' families, or the public. Historically, stigma trumps science. The greatest reduction in medication-related stigma comes not from acceptance of the belief that addiction or mental illness are brain diseases, but through identification with a beloved figure in recovery or persons in recovery from one's family, social, or occupational network that benefited from the particular medication.<sup>4</sup> Stigma flourishes in the absence of clear, consistent, multi-year educational campaigns that convey and affirm the validity of scientific studies of addiction and its effective treatment.

F. Fear of Harm in the Name of Help (Iatrogenesis): Resistance/ambivalence to medications is related to the long history of harm in the name of help within the history of addiction treatment and the resulting distrust of science in general and medications in particular within the addictions arena.<sup>5</sup>

1. Announcements of medication breakthroughs related to addiction treatment are notoriously unreliable due to the cyclical stages of overselling, financial exploitation, disillusionment, and a backlash of therapeutic pessimism, e.g., fraudulent miracle cures; the alcoholism vaccine; carbon dioxide therapy, insulin therapy; early excessive claims for lithium, valium, etc. in the treatment of alcoholism.<sup>6</sup>
2. Medications once used in addiction treatment were later integrated into the illicit drug culture as intoxicants, e.g., cannabis, cocaine, heroin, amphetamines, barbiturates, LSD.<sup>7</sup>
3. Past medications used in addiction treatment have resulted in severe toxicity and lethality.<sup>8</sup>
4. Medications have often been nested within broader patterns of treatments with reported iatrogenic effects, e.g., prolonged institutionalization, sterilization, electro- and chemo-convulsive therapies, psychosurgery, and psychologically invasive therapy techniques.<sup>9</sup>
5. One of the legacies of this history is that existing and new breakthroughs in the pharmacotherapeutic treatment of addiction may fail to be accepted and mainstreamed into clinical practice not because of lack of clinical effectiveness but due to unfounded fear of their potential iatrogenic effects.<sup>10</sup>
6. That early ineffective, harmful, and/or fraudulent medications used in the treatment of addiction wrapped themselves in the mantle of science (via fraudulent advertising or bad science) requires current clarification of who has the medical and moral authority within the US to make the definitive declaration of a medication's effectiveness or ineffectiveness.

G. Intergenerational Transmission of Resistance: Fear of medications has been passed down intergenerationally within communities of recovery (from grandsponsors to sponsors to sponsees), and across generations of addiction professionals (professional elders to new counselors).<sup>11</sup> Addictions counselors receive little training related to addiction treatment

medications,<sup>12</sup> which, combined with fear of using medications, produces a fundamental lack of curiosity about treatment options.

H. Management of Resistance: Fear of medications is best managed by acknowledging and respecting its historical legitimacy and through rigorous programs that ensure medication efficacy, effectiveness, and safety.

I. Experiential versus Scientific Knowledge: Tension within the addictions treatment/recovery field has existed for more than 160 years between fundamentally different ways of knowing: experiential knowledge and scientific knowledge (and the synthesis of the two within the realm of clinical knowledge).<sup>13</sup> Efforts to reduce medication-related stigma and enhance medication acceptance must work through these different mediums of knowing, e.g., inclusion of scientific proof (efficacy and effectiveness studies) and living proof (the faces and voices of people in medication-assisted recovery).

J. Medication and Pleasure: People addicted to alcohol and other drugs are culturally perceived as hedonists concerned only with their relentless pursuit of unearned pleasure. Cultural acceptance of a medication used to treat addiction is thus contingent upon the medication being perceived as not providing further pleasure or, preferably, denying pleasure from drug use (e.g., naltrexone in the treatment of opioid addiction), or punishing further drug use (e.g., disulfiram in the treatment of alcohol addiction). Any medication depicted as a “replacement” or “substitute” for a primary intoxicant will be culturally rejected (e.g., methadone perceived as “legal heroin” and rejected on the grounds that it extends such unearned pleasure). Such rejection is unwittingly reinforced by otherwise knowledgeable addiction treatment professionals equating the effects of heroin and methadone and viewing medication-assisted recovery as not “real” recovery.

K. Profile Transformation of Opioid Addiction: The aging of long-tenured opioid addicts, the dramatic increase in Caucasian prescription opioid addiction, and the rise of the latter in non-urban areas and its rise among older adults mark significant trends in the history of opioid addiction in the US with unclear effects on the future of professional and social stigma, treatment issues (e.g., pain management), and trends in the use of medications in addiction treatment.<sup>14</sup>

### III. Current Status of Medication-Assisted Treatment of Substance Use Disorders

A. Varieties: Medications used in the treatment of addiction span:

- *opioid agonists*, e.g., medications such as methadone (Methadose® and Dolophine®) used as aids in withdrawal from heroin or other short-acting opioids or used as maintenance agents to achieve metabolic stability, suppress cravings, and reduce the risk of relapse.
- *partial agonists*, e.g., similarly used medications such as buprenorphine (trade name Subutex®) and buprenorphine and naloxone combination (trade names Suboxone®, Depakote®).
- *opioid antagonists*, e.g., medications such as naltrexone that block the pharmacological effects of heroin and other opioids for 24-48 hours, or, in extended depot (injected/implanted) form, for up to four weeks.
- *alpha-2-adrenergic agonists* such as clonidine and lofexidine that have been used as adjuncts in opioid detoxification.

- *medications for management of acute withdrawal*, e.g., the use of benzodiazepines and anticonvulsant medications (carbamazepine, valproate) in alcohol withdrawal.<sup>15</sup>
- *aldehyde dehydrogenase (ALDH) inhibitors*, such as disulfiram (Antabuse®), that provide a chemical shield against impulsive use by eliciting toxic reactions (e.g., flushing, nausea/vomiting, increased heart rate) to even a small intake of alcohol;<sup>16</sup> disulfiram also has been used to prevent drinking-related relapse to cocaine use.<sup>17</sup>
- *Anti-craving agents*, e.g., naltrexone (ReVia®, Vivotrol®, and Depade®), nalmefene, and acamprosate (Campral®) used in the treatment of alcoholism to reduce post-withdrawal cravings for alcohol and reduce the rewarding effects of alcohol.<sup>18</sup>
- *Medications for co-occurring disorders*, e.g., antidepressants, mood stabilizers, and neuroleptic (anti-psychotic) and other medications used to treat co-occurring psychiatric disorders.<sup>19</sup>
- *Medications for nicotine dependence*, e.g., nicotine-based gums, patches, nasal sprays, inhalers, lozenges, tablets, sustained release bupropion hydrochloride (e.g., Zyban®), varenicline (e.g., Chantix®), and clonidine.<sup>20</sup>

B. Scope and Limits: Most medications in current use in the treatment of addiction are used primarily in the treatment of opioid and alcohol addiction. Few evidence-based medications exist for the treatment of other substance use disorders, but there are medications that hold promise for future treatment.<sup>21</sup>

- There are 1,203 opioid treatment programs (OTPs) in 46 states (and the District of Columbia, U.S. Virgin Islands, American Samoa, and Puerto Rico), treating more than 260,000 patients on any given day.<sup>22</sup>
- A 2009 analysis provides the latest profile of OTPs in the US:
  - OTPs constitute only 8% of all U.S. addiction treatment facilities, but OTP patients constitute 23% of all patients in addiction treatment.
  - 50% of OTPs are operated by for-profit organizations.
  - Half of all OTP patients pay out-of-pocket for their own treatment, at an average annual cost of \$4,176 per year.
  - The number of patients admitted to OTPs in the United States grew dramatically between 1998 and 2008—influenced by the growth in for-profit OTPs and new patterns of opioid addiction, e.g., increased addiction to pharmaceutical opioids.<sup>23</sup>
- Suboptimal dosing has been a pervasive theme within the modern history of methadone maintenance<sup>24</sup>—a significant concern given the critical role optimal dose stabilization plays in achieving the best clinical outcomes.<sup>25</sup>
- In 2008, approximately 368,962 patients in the US were treated with buprenorphine (Suboxone®, Subutex®, or generic Subutex) for opioid addiction on any given day;<sup>26</sup> in the 12-month period ending November 30, 2010, 887,482 patients in the United States received prescriptions for buprenorphine.<sup>27</sup>
- Prescriptions for all alcoholism medications and buprenorphine for opioid addiction rose from 541,000 in 2003 to 2,620,000 in 2007 (42.9% average annual growth rate); alcohol treatment medications rose from 393,000 in 2003 to 720,000 in 2007 (12.9% average annual growth rate). These rates remain small compared to the size of the population experiencing substance use disorders.<sup>28</sup>

- The use of disulfiram, naltrexone, and selective serotonin reuptake inhibitors (SSRIs) actually declined between 1994 and 2004 within private addiction treatment programs, but a 2006 report found private sector treatment programs more likely to adopt the use of disulfiram, naltrexone, and SSRIs than public programs. Even with philosophical adoption at program level, only a small percentage of patients are actually prescribed these medications.<sup>29</sup> Knudsen and colleagues reported that less than 50% of private addiction treatment programs used medications for the treatment of alcohol or opioid addiction.<sup>30</sup>
- Rates of adoption of medications by addiction treatment programs in 2007 were as follows: agonist medications (18.1%); naltrexone (21.2%); disulfiram (24.2%). Medication adoption was associated with accreditation, having a physician on staff or available contractually, and having Master’s-level counselors.<sup>31</sup> Adoption of buprenorphine has been associated with additional factors: use of naltrexone, for-profit status, hospital affiliation, and provision of services of acute withdrawal.<sup>32</sup>
- In 2007, 49.7% of addiction treatment programs reported using SSRIs for treatment of a co-occurring mood disorder with use greatest in private nonprofit facilities, facilities that conducted psychiatric evaluations at intake, and facilities using a medical model and providing access to physicians; lowest rates of use were in for-profit facilities and in facilities with higher percentages of criminal justice referrals.<sup>33</sup>
- SSRIs are the most frequently used medication in addiction treatment, and centers that use SSRIs are more likely to later adopt the use of other medications.<sup>34</sup>

#### C. Other Emerging Trends:

- There is a clear trend toward the use of medications in combination.<sup>35</sup>
- There are early signs that the addiction field is moving to transcend categories of “drug free” and medication-assisted treatment and to define recovery for patients in the latter within the context of medication maintenance rather than cessation of such maintenance.<sup>36</sup>
- The mainstreaming of addiction medications into primary care without availability of ancillary support services or only limited scope and duration of such services<sup>37</sup> is resulting in using medication for brief respites in addiction careers (a safety net when drug money runs out) rather than for recovery initiation. The mainstreaming of such medications has been driven by Congressional legislation (Drug Abuse Treatment Act of 2000) with the interest of having physicians in private practice treat chronic opioid addiction. The legislation did not encourage the use of medication in tandem with other well-researched ancillary support services, based on federal publications such as the *Principles of Drug Addiction Treatment* by the National Institute on Drug Abuse. The legislation was limited in indicating that a physician, who would receive a waiver under the legislation, would only need to demonstrate a “capacity to refer a patient” for other services aside from the medication that was being prescribed within the practice setting. The policy issues in this area would appear to focus on access to treatment as opposed to the quality of treatment that is given to the individual.

### **IV. Degree of Current Acceptance/Obstacles to Acceptance of Medication-Assisted Treatment**

- A. General: The major barrier to adoption of medication-assisted treatment of substance use disorders is the prevailing belief that drug addiction should not be

treated (or replaced) with another “drug” and the failure to distinguish self-administration of a psychoactive substance as a “drug” from the professionally supervised use of a “medication.”<sup>38</sup>

B. Those in Need of Treatment:

- Medication-assisted treatment (with methadone or buprenorphine) voluntarily attracts more people addicted to heroin and other short-acting opioids than any other addiction treatment modality, but the majority of those addicted to heroin or prescription opioids are not currently in treatment.<sup>39</sup>
- Popular and professional conceptions of methadone as a “legal substitute for heroin,” street myths about methadone (e.g., “it rots your bones”), and the view that methadone maintenance (MM) is a “last resort” inhibit timely treatment seeking by those who could benefit from MM
- Surveys of opioid users confirm the perception of benefits of methadone maintenance but also reveal concerns about the perceived negative physical effects of methadone, the perception that methadone is more addictive than heroin, and the time demands of methadone maintenance clinic compliance.<sup>40</sup>

C. Patients Enrolled in Treatment:

- A major obstacle to medication adherence is the failure of patients and their families to understand opioid addiction as a brain disease and the importance of medication adherence in successful recovery management.
- Patient non-adherence is a major concern in the pharmacotherapeutic treatment of all substance use disorders.<sup>41</sup>
- Problems with patient adherence to medication protocols are being transcended by new depot formulations that do not require daily self-administration.<sup>42</sup>
- Social/professional stigma attached to the medication is a universal feature of the experience of methadone maintenance patients in the United States.<sup>43</sup>
- Patient misconceptions and shared street lore about methadone contribute to premature treatment termination. Patient surveys find that while many believe methadone has positively affected their lives, they also believe that methadone could hurt their health and that its use should be terminated as soon as possible.<sup>44</sup>
- Nearly 60% of methadone patients are “fully compliant” in spite of a regimen more demanding than that required of virtually any other medication protocol.<sup>45</sup>
- MM treatment access can be limited—even for the most highly motivated patient—by lack of geographical proximity, inadequate treatment capacity/waiting lists for treatment admission, restrictive admission criteria, the demand for daily attendance, limited timeframes within which individuals can receive medication or pick up take-home medication, shaming rituals (e.g., standing in line on public streets, frontally-observed urination for drug testing), lack of insurance and prohibitive service fees, homelessness, child care, and language and cultural barriers.<sup>46</sup> Access to buprenorphine is limited by its relatively high cost.<sup>47</sup>
- A number of policymakers are reluctant to engage the state legislative bodies as a means of ensuring that access to such care is provided. It is generally tolerated that many residents of a state will travel to an adjoining state to gain access to care. The state of Mississippi provides a case in point where one certified Opioid Treatment Program exists in the state, and it is known that many of its residents travel to adjacent states such as Alabama and Louisiana to gain access to care.

#### D. Scientific and Regulatory Panels:

- Scientific reviews of the pharmacotherapeutic treatment of alcohol dependence have affirmed the value of four medications: 1) disulfiram (where not medically contraindicated and for those with family/clinical support to supervise consumption), 2) acamprosate, 3) oral naltrexone, and 4) once-monthly injectable, extended release naltrexone.<sup>48</sup> Some efficacy has also been demonstrated for topiramate, baclofen, ondansetron, and quetiapine in the treatment of alcohol dependence.<sup>49</sup>
- Methadone maintenance has been evaluated and endorsed in scientific and technical reviews of the American Society of Addiction Medicine (1990), the Government Accounting Office Report (1990), the Office of Technology Assessment of the United States Congress (1990), the American Medical Association Council on Scientific Affairs (1994), the National Institutes of Health Consensus Conference on Effective Treatment of Heroin Addiction (1997), the American Public Health Association (1997), the American Medical Association House of Delegates (1997), the Office of National Drug Control Policy (1990, 1999), the National Institute on Drug Abuse (1999), and the World Health Organization (2001).<sup>50</sup>
- The FDA has approved three forms of buprenorphine for such treatment: sublingual tablets of buprenorphine (Subutex), a tablet combination of buprenorphine and naloxone (Suboxone) designed to reduce problems of diversion and illicit use; and a sublingual film of buprenorphine and naloxone (Suboxone). Buprenorphine implants are also being tested for potential use in the treatment of opioid addiction.<sup>51</sup>

#### E. Addiction Treatment Professionals and Organizations:

- In general, addiction treatment professionals are more supportive of the use of medications for co-occurring disorders than for the treatment of addiction.<sup>52</sup>
- Counselors with greater levels of education and experience have the most positive attitudes toward the role of medications in recovery initiation and maintenance.<sup>53</sup>
- Duration of methadone maintenance declines in tandem with increased abstinence-orientation of the program philosophy<sup>54</sup> of counselors<sup>55</sup> and of physicians<sup>56</sup>—a factor of great concern given high relapse and mortality rates following cessation of methadone maintenance.<sup>57</sup>
- While 70% of patients being treated for co-occurring substance use and psychiatric disorders receive medication, only 34.4% of patients treated for opioid dependence and 24% of patients being treated for alcohol dependence in the US receive medication.<sup>58</sup>
- Subtherapeutic dosing (below 60 mgd) and professional pressure on patients to taper continue to prevail in many opioid treatment programs in spite of efforts to reduce such practices.<sup>59</sup> The ambiguity and conflict over the precise goals of addiction treatment (and their measurement) complicate the evaluation of medication-assisted treatment of addiction.<sup>60</sup> Such ambiguity reflects and contributes to conflicting policy and clinical treatment goals. Illustratively, in the field of general healthcare, physicians in hospitals will work to treat patients who may continue to be “non-compliant” with recommended treatment regimens, e.g., the hypertensive patient who fails to eat healthy foods or exercise. Rarely does the physician terminate the use of hypertensive medication even in non-compliant patients. In contrast, within the opioid addiction treatment arena, patients have often been expelled from methadone treatment for non-compliance, and programs who continue to provide medication in the face of non-compliance are chastised as providing harm reduction rather than effective clinical care.

- Many addiction treatment programs and recovery support institutions that do not use medications refuse to admit methadone patients in need of their services or to refer their own patients who could benefit from adjunctive, medication-assisted treatment.<sup>61</sup>
- The historically negative attitudes of residential treatment programs toward methadone may be softening,<sup>62</sup> and there are increased efforts to integrate methadone patients into residential treatment programs.<sup>63</sup>
- Methadone dose and positive attitudes toward the option of sustained MM treatment are the most critical factors influencing MM retention, which in turn influences long-term recovery outcomes.<sup>64</sup>
- Counselor recovery status does not predict attitudes towards buprenorphine, but degree of adherence to a 12-step treatment philosophy is associated with less acceptance of buprenorphine.<sup>65</sup>
- New consensus definitions of recovery are recognizing the recovery status of medication-stabilized patients who meet other criteria for recovery.<sup>66</sup>

#### F. Treatment Referral Resources and External Authorities:

- Many criminal justice and child welfare authorities refuse to accept medication-assisted treatment, place arbitrary limitations of time on such treatment, or require reductions in medication dosage as a condition of “graduation” or release. There is enormous suspicion among representatives from such systems to even acknowledge the use and value of such medications to treat chronic opioid addiction. The general view is that it does not even fall within the parameters of their responsibility. As a jail administrator once put it, “How can we be expected to solve the problem that the general society can’t even touch?”

#### G. Diverse Communities of Recovery:

- Attitudes within Alcoholics Anonymous and SMART Recovery<sup>67</sup> toward the use of medications for the treatment of alcohol dependence and co-occurring psychiatric disorders have become more accepting.<sup>68</sup>
- Narcotics Anonymous (NA) Bulletin # 29 characterizes persons on medically supervised methadone or other maintenance medications as being “under the influence of a drug,” “using,” and “not clean” and affirms that NA’s definition of abstinence precludes the use of methadone as a treatment for opioid dependence.<sup>69</sup>
- Prevailing attitudes toward methadone and more recently buprenorphine are drawn from members’ past use of these medications within the illicit drug culture for purposes of intoxication, respite rather than recovery, or self-managed withdrawal. The resulting perception of these medications as part of “the life” will not change through exposure to scientific studies of methadone but by relationships with people for whom these medications have been or are a crucial support in their recoveries.<sup>70</sup>
- Although methadone patients seeking recovery support from local NA groups may be denied the right to speak in meetings, the right to hold service positions, or the right to serve as a sponsor to other NA members, there are patients in medication-assisted treatment who continue to use NA for support—sharing or withholding their medication status.<sup>71</sup>
- Addiction professionals are caught in “contradictory expectations that they embrace the latest scientific findings on opioid addiction treatment while assertively linking



their patients to recovery mutual aid groups whose attitudes and practices may contradict these very findings.”<sup>72</sup>

- Patients in medication-assisted treatment for opioid addiction have created their own education and advocacy organizations (e.g., Advocates for the Integration of Recovery and Methadone [AFIRM, founded 1995], the National Alliance for Medication Assisted Recovery [formerly the National Alliance of Methadone Advocates, founded 1988], and Advocates of Recovery through Medicine [ARM, founded in 1999-2000]), as well as organizations inspired by patient advocates (National Alliance of Advocates for Buprenorphine Treatment, founded 2005).<sup>73</sup>
- There are recovery mutual aid groups and related peer recovery support specifically for people in medication-assisted recovery (e.g., Methadone Anonymous, Medication Assisted Recovery Support),<sup>74</sup> and protocols have been suggested for increasing involvement of patients in medication-assisted treatment in mainstream recovery mutual aid fellowships.<sup>75</sup>
- Persons in medication-assisted recovery have filled leadership positions within advocacy organizations such as Faces and Voices of Recovery.
- Consumer guides on medication-assisted treatment are being developed by grassroots recovery community organizations.<sup>76</sup>

#### H. Public/Local Communities:

- Media portrayal of methadone maintenance continues to focus on the least stabilized patients and the lowest quality treatment programs, e.g., *Methadonia*. Generally speaking, there have been a far greater number of lurid stories about patients in treatment in community-based settings than stories of successful recovery.
- Methadone maintenance patients experience discrimination in such arenas as education, employment, housing, health care, and government benefits.<sup>77</sup>
- Opioid treatment programs face significant Not-In-My-Backyard (NIMBY)-related resistance related to initial siting and relocation decisions.<sup>78</sup> Many local community planning commissions have adopted zoning ordinances against the development of Opioid Treatment Programs. Fortunately and more recently, such zoning ordinances have been overturned in the courts as a violation of the Americans With Disabilities Act.

#### I. Policymakers and Payors:

- It is a point of interest that the Nixon Administration funded the major expansion of methadone maintenance treatment through the Special Action Office for Drug Abuse Prevention (SAODAP).
- Congress subsequently approved legislation in 1974 regulating the Opioid Treatment System—a network of local clinics then known as Methadone Maintenance Programs. State policymakers also developed regulations to govern the use of medications like methadone.
- In spite of the evidence in support of the use of these medications, which clearly reduce costs to the government at all levels in addition to the society, there are still many states that will not provide third-party public reimbursement (Medicaid) for such treatment services. Accordingly, most patients in proprietary treatment programs make out-of-pocket payments since there is no insurance available to them. Additionally, where states do provide access to such third party

reimbursement, such systems become vulnerable to cyclic swings in funding cutbacks. State legislators typically look to cut such entitlement program reimbursement if access to care increases, placing a further drain on resources.

- Only 5 state Medicaid programs offer coverage for all recommended nicotine cessation pharmacotherapies as well as individual and group counseling; 38 states offered coverage for one form of treatment (medication or counseling).<sup>79</sup> Most health plans cover medications for alcohol dependence, one-third exclude buprenorphine for treatment of opioid dependence, and 55% place it in the highest cost tier.<sup>80</sup>
- Some government agencies (e.g., Department of Transportation) discriminate against MM patients for reasons not supported by medical science (e.g., refusal of a commercial driver license (CDL) to a highly stabilized methadone patient). In an interesting policy divergence, state legislators are passing restrictions for CDL use intrastate (Maine 2011) based on the fact that methadone is being prescribed increasingly for pain management. There have also been sporadic reports of methadone implicated in vehicular accidents and deaths. It is interesting to note that CDL restrictions do not apply to other equally powerful prescription opioids.
- There is a trend toward increased support of medication-assisted treatment by single state authorities overseeing addiction treatment, but adoption efforts lack a clear strategy.<sup>81</sup>
- There is no other area of medical practice other than methadone maintenance in which government policymakers have dictated to physicians who they may medicate, how many patients they can medicate, at what dosage, what laboratory tests must be conducted, what ancillary services must be provided, and the length of treatment.<sup>82</sup> To some degree and as a twist of public policy face, such requirements may have inadvertently protected the integrity of the treatment system. One piece of evidence that clearly comes to the surface is the recent and significant increase in the prescribing of methadone for pain management from 2000 to 2010. There have been four nationally published reports on the topic of methadone-associated mortality, clearly indicating that the increase in mortality is directly connected to the prescribing of methadone for pain management as opposed to addiction treatment. According to recent national data, there are more than twice as many patients receiving methadone for pain management as there are patients in registered Opioid Treatment Programs.
- There is greater concern with diversion of medication into the illicit drug culture than in how to increase access to medication-assisted treatment. This anomaly was noted in the Institute of Medicine report on Federal Regulation of Methadone Treatment (1995). While there may have been early concerns by enforcement agencies at the federal and state level about methadone diversion from the Opioid Treatment Programs, such concerns are not in evidence at the time of this writing. There is, however, increasing concern about the diversion of methadone via its prescription for pain management.

#### J. Obstacles to Acceptance of Medication-Assisted Treatment

- There is fear on the part of addiction counselors that smoking cessation during treatment will increase risk of relapse to other drug use. Smoking remains a part of the staff culture in some addiction treatment programs; 20.5% of addiction counselors smoke. There is the perception that it is not important to compare smoking to other drug addictions and concern that there is no time or reimbursement for smoking-related counseling.<sup>83</sup>

- The perception of addiction as a characterological weakness (e.g., self-centeredness, hedonism, recklessness, laziness) and that medication is a technological substitute that may prevent the needed transformation in character, values, and relationships.<sup>84</sup>
- “Inconsistent with our treatment philosophy” remains a major obstacle to the adoption of medications in the treatment of addiction.<sup>85</sup>
- Major barriers for out-of-treatment persons who could benefit from but do not seek methadone maintenance include waiting lists, lack of insurance or income to pay fees, lack of photo identification, fear of a rigorous and potentially prolonged treatment, and fear of stigma attached to methadone maintenance.<sup>86</sup>
- Physicians and other health care personnel are resistant to treating patients with chemical addictions because of their beliefs that such patients will “be drug seeking, demanding, manipulative, irresponsible, and respond poorly to treatment.”<sup>87</sup>
- Obstacles to prescribing addiction treatment medications include physician perceptiveness of their limited effectiveness, inadequate marketing and information dissemination about the medications, concerns about adverse side effects, and concerns about the high price of some medications.<sup>88</sup>
- Lack of organizational/leadership support within addiction treatment programs is a critical factor in failure to adopt pharmacotherapeutic treatment of substance use disorders, e.g., adoption of naltrexone in treatment of alcohol dependence.<sup>89</sup>

K. Summary of Methadone Maintenance Status: Trapped between medical and moral/criminal models of problem definition and resolution, methadone maintenance has never achieved full legitimacy as a medical treatment by the public, health care professionals, and the recovery community in spite of the scientific studies supporting it; the person enrolled in methadone maintenance has never received full status as a “patient”; and the methadone clinic has yet to be viewed as a place of healing on par with hospitals or outpatient medical clinics.<sup>90</sup>

## V. Strategies for Increased Medication Acceptance

A. Design, conduct, and evaluate a national educational campaign on the role of medication and adjunctive support services in long-term recovery with sub-campaigns aimed at key social institutions: government, law, medicine, social services, business and industry, faith communities, media outlets, electronic social networks, and communities of recovery.

- Develop PSAs related to medications, treatment, and recovery for use in public campaigns, e.g., Recovery Month PSAs.

B. Encourage and support patient advocacy, e.g., medication-assisted recovery advocacy organizations and involvement of patients/families in medication-assisted treatment within the recovery advocacy movement.

C. Continue research on clinical effectiveness and cost-effectiveness with greater emphasis on clarity of indication and contraindications and effects on long-term recovery outcomes,<sup>91</sup> clearer science-based clinical guidelines on the use of medications in the treatment of adolescent substance use disorders,<sup>92</sup> and science-based guidelines to assist patients who are considering tapering off of their medication.

- Address question of optimal duration of medication maintenance based on scientific studies that have evaluated outcomes across periods of maintenance.<sup>93</sup>

D. Create rapid response team to respond to media stories and public presentations that include erroneous information about medications used in the treatment of addiction, including overselling of what a medication can do in the absence of other treatment and recovery supports.

E. Promote broad strategies of quality improvement. Medication adoption could be enhanced by increasing accreditation of addiction treatment programs; increasing percentage of trained Master's level addiction counselors; enhancing counselor retention; increasing representation and broadening role of physicians in addiction treatment; and building linkages with primary care physicians.<sup>94</sup>

F. Emphasize the conceptualization of addiction as a chronic disease. Recent efforts to recast addiction as a chronic illness and to shift addiction treatment from models of acute care to models of sustained recovery management may provide a more viable framework to understand the role of medications in long-term recovery from addictions.<sup>95</sup> Educate patients, families, professionals, policymakers, and the public about addiction medications whose positive effects, like those in treatment of asthma, hypertension, and diabetes, last only as long as they continue to be self-administered as prescribed—sustained self-care versus cure.

G. Disseminate information about addiction treatment outcomes with and without medication assistance, e.g., attraction to treatment; treatment duration; recovery, re-addiction, and mortality rates.

H. Promote recovery-oriented methadone maintenance<sup>96</sup> to elevate the quality of medication-assisted treatment of opioid addiction and transcend the isolation of OTPs from the larger addictions treatment field, local recovery mutual aid societies, and other local community institutions. Examples include:

- Emphasize what medication in combination with clinical and peer support can add to one's life rather than what it reduces or deletes from one's life.
- Stop kicking people out of treatment for exhibiting symptoms of the disorder for which they are being treated.<sup>97</sup>
- Implement research-based protocols to enhance retention of patients in medication-assisted treatment.<sup>98</sup>
- Provide a broad menu of medical, social, and peer recovery support services with the medication protocol.<sup>99</sup>
- Conduct rigorous post-treatment monitoring and early re-interventions with all admitted patients to reduce post-discharge mortality rates and increase long-term recovery outcomes.<sup>100</sup>

I. Elevate medication-assisted recovery outcomes via assertive post-treatment monitoring, support, assertive linkage to recovery communities, and when needed, early re-intervention for all patients regardless of discharge status.<sup>101</sup>

J. Promote regulatory reform to increase access to interim methadone maintenance and office-based medical management of stabilized patients.

K. Promote smoking cessation within addiction treatment: Provide regulatory and financial incentives to integrate the following into all addiction treatment programs: smoking-related education/training of all addiction professionals; comprehensive smoking bans in all addiction treatment campuses; evaluation of smoking status and degree of motivation to quit of all patients at intake; education linking smoking cessation to recovery prognosis; and a motivational intervention that includes advice on how to stop smoking, smoking-related counseling, and availability of pharmacotherapy to aid smoking cessation.<sup>102</sup>

L. Elevate the availability and quality of patient education.

- Develop presentation materials and self-instructional materials on medication-assisted treatment that challenge myths and folklore, present an accurate picture of the scientific studies of addiction treatment medications, and convey the faces and voices (experience, strength, and hope) of persons in medication-assisted treatment.
- Explore ways to nationally replicate the Medication Assisted Recovery Support (MARS) model of peer education. (Note: SAMHSA has approved the use of 2011 RCSP Supplemental Funding to create the MARS Training Institute at the Albert Einstein College of Medicine. Staff and patients from ten methadone programs around the US will be brought to the Bronx to learn how to create MARS-type Peer Recovery Support Programs around the US.)

M. Elevate medication-focused professional education and training.

- Expand brief physician training with mentoring from more experienced physicians (e.g., wide replication of process used in Buprenorphine Office-Based Practice Trial and NIDA's Clinical Trials Network (CTN) process to enhance adoption of the use of buprenorphine).<sup>103</sup>
- Enhance knowledge and skills of addiction professionals related to pharmacotherapy by integrating related education/training in all addiction studies programs and requiring medication updates as part of regular CEU requirements from credentialing and licensing bodies.
- Develop a packaged training program on medication-assisted treatment and recovery to be disseminated through the Addiction Technology Transfer Centers to addiction treatment referral sources, with a special emphasis on the criminal justice system and child welfare system.

N. Educate policymakers.

- Extol cost-effectiveness of pharmacotherapeutic treatment of addiction<sup>104</sup> and effects of health care reimbursement policies on help-seeking.<sup>105</sup>
- Assure availability of insurance benefits and public funding (e.g., Medicaid) for medications and other ancillary supports used in the treatment of addiction.<sup>106</sup>

O. Utilize patients in recovery as educational and advocacy resources. We view

the use of patients who currently use or have used medication as a critical support to their recoveries as key resources in all of the above strategies.

- Engage Faces and Voices of Recovery and AATOD to provide leadership development and public/professional education skills of current and former patients

in medication-assisted recovery, e.g., expand work that AATOD has done with Vista Pharmaceuticals to train patient advocates to speak in public about MAT.

## VI. Principles Related to Practice Guidelines for Medication-Assisted Treatment of Substance Use Disorders

A. Formulate principles that can be used in the development of practice guidelines, such as:

- Care not control: The clinical rationale for the use of medications must be reframed from what they suppress (e.g., withdrawal symptoms, crime, infectious disease transmission) to what they promote (metabolic stabilization, recovery initiation/maintenance, enhanced quality of personal/family life).
- Patient choice/partnership: There needs to be a balance of responsibility between caregiver and patient as the individual is admitted into a therapeutic environment and is encouraged to remain as long as the individual will benefit from such care. It springs from a dynamic of compassionate care as opposed to controlling the individual, while preserving the elusive balance of engaging the patient during different periods in the treatment and recovery process.
- Safety via monitoring and supervision.
- Treatment alternative or treatment adjunct: Medications may be considered an adjunct to other treatment or an alternative to specialized addiction treatment (e.g., the effectiveness of naltrexone in the treatment of alcohol dependence without specialized behavioral/counseling interventions).<sup>107</sup> Psychosocial support services can be added to medications (e.g., methadone maintenance) to enhance recovery outcomes.<sup>108</sup>
- Dose and duration: Patients, families, referral sources, treatment providers, and policymakers need to be educated on the importance of optimal doses of medications and optimal duration of medication support.
- Availability and scope of ancillary services: The clinical balance here is understanding when such services are critical and when they are no longer necessary for the patient. This is the art of treatment that draws upon scientific evidence and clinical experience.
- Potent service combinations and sequences: Medication and particular psychosocial supports may generate better outcomes than either intervention in isolation.
- Culture of recovery: Medications need to be wrapped within a vibrant culture of recovery that supports sustained remission of substance use disorders and enhancements in global health and quality of life.
- Continuity of contact and support over time and across treatment episodes.
- Recovery planning: Very early in treatment, patients need to be involved in the development of a lifetime recovery plan, which should include getting the most out of treatment and then eventually moving on to tapering or medical maintenance depending on the individual.

## SUMMARY

Given what has been stated throughout the course of this paper, there is a need to provide a broad and sustained public and professional education about what addiction is, how it differs from use and dependence, and the positive role that medications can play in long-term addiction recovery. There are positive trends toward gradual increases in understanding

of addiction as a medical disorder; however, these can only be maintained through sustained efforts at professional and public education.

**About the Authors:** William White is a Senior Research Consultant at Chestnut Health Systems; Mark Parrino is President of the American Association for the Treatment of Opioid Dependence (AATOD), and Walter Ginter is Project Director of the Medication Assisted Recovery Support (MARS) Project.

- 
- <sup>1</sup> White, W. L. (2002). Trick or treat? A century of American responses to heroin addiction. In D. Musto (Ed.), *One hundred years of heroin* (pp. 131-148). Westport, CT: Auburn House. Ling, W., Hillhouse, M., Domier, C., Doraimani, G., Hunter, J. Thomas, C,...Bilangi, R. (2009). Buprenorphine tapering schedule and illicit opioid use. *Addiction*, *104*, 256-265.
- <sup>2</sup> White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems.
- <sup>3</sup> Corrigan, P. W., Kuwabara, S. A., & O'Shaughnessy, J. (2009). The public stigma of mental illness and drug addiction: Findings from a stratified random sample. *Journal of Social Work*, *9*(2), 139-147.
- <sup>4</sup> Corrigan, P. W., & Penn, D. L. (1999). Lessons from social psychology on discrediting psychiatric stigma. *American Psychologist*, *54*, 765-776. Corrigan, P. W. (2002). Testing social cognitive models of mental illness stigma: The prairie state stigma studies. *Psychiatric Rehabilitation Skills*, *6*, 232-254. Corrigan, P. W., River, L. P., Lundin, R. K., Penn, D. L., Uphoff-Wasowski, K., Champion, J.,...Kubiak, M. A. (2001). Three strategies for changing attributions about severe mental illness. *Schizophrenia Bulletin*, *27*, 187-195. Corrigan, P. W., & Wassel, A. (2008). Understanding and influencing the stigma of mental illness. *Journal of Psychosocial Nursing and Mental Health Services*, *27*, 187-195. Couture, S. M., & Penn, D. L. (2003). Interpersonal contact and the stigma of mental illness: A review of the literature. *Journal of Mental Health*, *12*, 291-305.
- <sup>5</sup> White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems.
- <sup>6</sup> White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems. See Norcross et al., 2010 for further discredited treatments: Norcross, J. C., Koocher, G. P., Fala, N. C., & Wexler, H. K. (2010). What does not work? Expert consensus on discredited treatments in addictions. *Journal of Addiction Medicine*, *4*(3), 174-180.
- <sup>7</sup> White, W. L. & Webber, R. (2006). La Historia del Tratamiento Farmacológico para los Desórdenes del Uso de la Sustancia (The history of pharmacological treatment for substance use disorders). In F. López-Muñoz & C. Alamo (Eds.), *La Historia de la Psicofarmacología* (pp. 887-898). Madrid: Editorial Médica Panamericana.
- <sup>8</sup> Kleber, H., & Riordan, C. (1982). The treatment of narcotic withdrawal: A historical review. *Journal of Clinical Psychiatry*, *43*(6), 30-34. Kolb, L., & Himmelsbach, C. (1938). Clinical studies of drug addiction: A critical review of the withdrawal treatment with method of evaluating abstinence syndromes. *American Journal of Psychiatry*, *94*, 759-797. White, W. L., & Kleber, H. D. (2008). Preventing harm in the name of help: A guide for addiction professionals. *Counselor*, *9*(6), 10-17.
- <sup>9</sup> Ilgen, M. A., & Moos, R. (2006). Exacerbation of psychiatric symptoms during substance use disorder treatment. *Psychiatric Services*, *57*, 1758-1764. Moos, R. H. (2005). Iatrogenic effects of psychosocial interventions for substance use disorders: Prevalence, predictors, prevention. *Addiction*, *100*(5), 595-604. White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems.
- <sup>10</sup> White, W. (2009). *Long-term strategies to reduce the stigma attached to addiction, treatment and recovery within the city of Philadelphia (with particular reference to medication-assisted treatment/recovery)*. Philadelphia: Department of Behavioral Health and Mental Retardation Services.

- 
- <sup>11</sup> White, W., & Coon, B. (2003). Methadone and the anti-medication bias in addiction treatment. *Counselor* 4(5), 58-63.
- <sup>12</sup> Abraham, A. J., Ducharme, L., & Roman, P. (2009). Counselor attitudes toward pharmacotherapies for alcohol dependence. *Journal of Studies of Alcohol and Drugs*, 70, 628-635.
- <sup>13</sup> Borkman, T. (1976). Experiential knowledge: A new concept for the analysis of self-help groups. *Social Service Review*, 50, 445-456.
- <sup>14</sup> White, W. (2004). OxyContin addiction: A new drug, but an old problem. In D. Pinsky, R. Meyers, J. Gardin, W. White, & S. Brown (Eds.), *When painkillers become dangerous* (pp. 99-138). Center City, MN: Hazelden.
- <sup>15</sup> Ait-Daoud, N., Malcolm, R. J., & Johnson, B. A. (2006). Addictive behaviors, An overview of medications for the treatment of alcohol withdrawal and alcohol dependence with an emphasis on the use of older and newer anticonvulsants. *Addictive Behaviors*, 31, 1628-1649.
- <sup>16</sup> Jørgensen, C.H., Pedersen, B. Tønnesen, H. (2011). The efficacy of disulfiram for the treatment of alcohol use disorder. *Alcoholism: Clinical & Experimental Research*, (in press).
- <sup>17</sup> Carroll, K. M., Fenton, L. R., Ball, S. A., Nich, C., Frankforter, T. L., & Shi, J., & Rounsaville, B. J. (2004). Efficacy of disulfiram and cognitive behavior therapy in cocaine-dependent outpatients: A randomized placebo-controlled trial. *Archives of General Psychiatry*, 61, 264-272.
- <sup>18</sup> Soyka, M., & Rösner, S. (2008). Opioid antagonists for pharmacological treatment of alcohol dependence—a critical review. *Current Drug Abuse Review*, 1(3), 280-291.
- <sup>19</sup> Ait-Daoud, N., Malcolm, R. J., & Johnson, B. A. (2006). Addictive Behaviors, An overview of medications for the treatment of alcohol withdrawal and alcohol dependence with an emphasis on the use of older and newer anticonvulsants. *Addictive Behaviors*, 31, 1628-1649. Center for Substance Abuse Treatment. (2005). *Medication-assisted treatment for opioid addiction in opioid treatment programs* (Treatment Improvement Protocol (TIP) Series 43, DHHS Publication No. (SMA) 05-4048). Rockville, MD: Substance Abuse and Mental Health Services Administration. Johnson, B. A. (2000). Neuropharmacological treatments for alcoholism: Scientific basis and clinical findings. *Psychopharmacology*, 149(4), 327-344. Senay, E. (1998). *Substance abuse disorders in clinical practice*. New York: W.W. Norton & Co. Stotts, A. L., Dodrill, C. L., & Kosten, T. R. (2009). Opioid dependence treatment: Options in pharmacotherapy. *Expert Opinions in Pharmacotherapy*, 10(11), 1727-1740. Volpicelli, J. R. (2001). Alcohol abuse and alcoholism: An overview. *Journal of Clinical Psychiatry*, 62(suppl 20), 4-10.
- <sup>20</sup> Bonnie, R. J., Stratton, K., & Wallace, R. B. (2007). *Ending the tobacco problem: A blueprint for the nation*. Washington, D.C.: Institute of Medicine. Knudsen, H. K., Studts, J. L., Boyd, S., & Roman, P. M. (2010). Structural and cultural barriers to the adoption of smoking cessation services in addiction treatment organizations. *Journal of the Addictive Diseases*, 29, 294-305.
- <sup>21</sup> Chen, H., Wu, J., Zhang, J., & Hashimoto, K. (2010). Recent topics on pharmacotherapy for amphetamine-type stimulant abuse and dependence. *Current Drug Abuse Review*, 3(4), 222-238. Somaini, L., Donnini, C., Raggi, M. A., Amore, M., Ciccocioppo, R., Saracino, M.A.,...Gerra, G. (2011). Promising medications for cocaine dependence treatment. *Recent Patents on CNS Drug Discovery*, 6(2), 146-160. Vandrey, R., & Haney, M. (2009). Pharmacotherapy for cannabis dependence: How close are we? *CNS Drugs*, 23(7), 543-553.
- <sup>22</sup> Parrino, M. (2008). Coordinating methadone treatment providers and policymakers: Lessons learned over 30 years. *Heroin Addiction and Related Clinical Problems*, 11(1), 43-46.
- <sup>23</sup> DASIS. (2006). *The DASIS Report: Facilities operating opioid treatment programs: 2005*. Washington, DC: Office of Applied Studies, Substance Abuse and Mental Health Services Administration. Kresina, T. F., Litwin, A., Marion, I., Lubran, R., & Clark, H. W. (2009). United States government oversight and regulation of medication assisted treatment for the treatment of opioid dependence. *Journal of Drug Policy Analysis*, 2(1), Article 2.
- <sup>24</sup> D'Aunno, T., Foltz-Murphy, N., & Lin, X. (1999). Changes in methadone treatment practices: Results from a panel study: 1988-1995. *American Journal of Drug and Alcohol Abuse*, 25, 681-699. D'Aunno, T., & Pollack, H.A. (2002). Changes in methadone treatment practices: Results from a national panel study, 1988-2000. *Journal of the American Medical Association*, 288(7), 850-856.
- <sup>25</sup> See White & Torres, 2010 for a discussion: White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.



- 
- <sup>26</sup> White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>27</sup> National Alliance of Advocates for Buprenorphine Treatment.
- <sup>28</sup> Mark, T. L., Kassed, C. A., Vandivort-Warren, R., Levit, K. R., & Kranzler, H. R. (2009). Alcohol and opioid medications: Prescription trends, overall and by physician specialty. *Drug and Alcohol Dependence, 99*, 345-349.
- <sup>29</sup> Ducharme, L. J., Knudsen, H. K., & Roman, P. M. (2006). Trends in the adoption of medications for alcohol dependence. *Journal of Clinical Psychopharmacology, 26*(1), Supplement, S13-S19.
- <sup>30</sup> Knudsen, H.K., Abraham, A.J. & Roman, P.M. (2011). Adoption and implementation of medications in addiction treatment. *Journal of Addiction Medicine, 5*(1), 21-27.
- <sup>31</sup> Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). The use of antidepressant medications in substance abuse treatment: The public-private distinction, organizational compatibility, and the environment. *Journal of Health and Social Behavior, 48*, 195-210.
- Roman, P. M., & Johnson, J. A. (2002). Adoption and implementation of new technologies in substance abuse treatment. *Journal of Substance Abuse Treatment, 22*, 211-218.
- <sup>32</sup> Garner, B. R. (2009). Research on the diffusion of evidence-based treatments within substance abuse treatment: A systematic review. *Journal of Substance Abuse Treatment, 36*, 376-399.
- <sup>33</sup> Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). The use of antidepressant medications in substance abuse treatment: The public-private distinction, organizational compatibility, and the environment. *Journal of Health and Social Behavior, 48*, 195-210.
- <sup>34</sup> Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). The use of antidepressant medications in substance abuse treatment: The public-private distinction, organizational compatibility, and the environment. *Journal of Health and Social Behavior, 48*, 195-210.
- <sup>35</sup> Anton, R. F., Myrick, H., Wright, T. M., Latham, P. K., Baros, A. M., Waid, L. R., & Randall, P. K. (2011). Gabapentin combined with naltrexone for the treatment of alcohol dependence. *American Journal of Psychiatry, 168*(7), 709-717.
- Johnson, B. A. (2000). Neuropharmacological treatments for alcoholism: Scientific basis and clinical findings. *Psychopharmacology, 149*(4), 327-344.
- <sup>36</sup> Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment, 33*, 221-228.
- <sup>37</sup> Horgan, C. M., Reif, S., Hodgkin, D., Garnick, D. W., & Merick, E. L. (2007). Availability of addiction medications in private health plans. *Journal of Substance Abuse Treatment, 34*(2), 147-156.
- <sup>38</sup> Rieckmann, T., Kovas, A. E., & Rutkowski, B. A. (2010). Adoption of medications in substance abuse treatment: Priorities and strategies of single state authorities. *Journal of Psychoactive Drugs, SARC Supplement 6*, 227-238.
- White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Intellectual Disability Services.
- <sup>39</sup> Kreek, M. J. (2000). Methadone-related opioid agonist pharmacotherapy for heroin addiction: History, recent molecular and neurochemical research and future in mainstream medicine. *Annals of the New York Academy of Science, 909*, 186-216.
- Kreek, M. J., & Vocci, F. (2002). History and current status of opioid maintenance treatments. *Journal of Substance Abuse Treatment, 23*(2), 93-105.
- White, W. & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>40</sup> Neale, J. (1998). Drug users' views of prescribed methadone. *Drugs: Education, Prevention and Policy, 5*(1), 33-45.
- <sup>41</sup> Garbutt, J. C. (2009). The state of pharmacotherapy for the treatment of alcohol dependence. *Journal of Substance Abuse Treatment, 36*(Suppl 1), S15-S23.
- <sup>42</sup> Lobmaier, P. P., Kunøe, N., Gossop, M. & Waal, H. (in press). Naltrexone depot formulations for opioid and alcohol dependence: A systematic review. *CNS Neuroscience & Therapeutics*. Advance online publication. doi:10.1111/j.1755-5949.2010.00194.x
- <sup>43</sup> Conner, K. O., & Rosen, D. (2008). "You're nothing but a junkie": Multiple experiences of stigma in an aging methadone maintenance population. *Journal of Social Work Practice in the Addictions, 8*(2), 244-264.
- Murphy, S., & Irwin, J. (1992). "Living with the dirty secret": Problems of disclosure for methadone maintenance clients. *Journal of Psychoactive Drugs,*

- <sup>44</sup> Stancliff, S., Myers, J. E., Steiner, S., & Drucker, E. (2002). Beliefs about methadone in an inner-city methadone clinic. *Journal of Urban Health, 79*, 571-578.
- <sup>45</sup> Haskew, M., Wolff, K., Dunn, J., & Bearn, J. (2008). Patterns of adherence to oral methadone: Implications for prescribers. *Journal of Substance Abuse Treatment, 35*, 109-115.
- <sup>46</sup> Peterson, J. A., Schwartz, R. P., Mitchell, S. G., Reisinger, H. S., Kelly, S. M., O'Grady, K. E., & Agar, M. H. (2010). Why don't out-of-treatment individuals enter methadone treatment programmes? *International Journal of Drug Policy, 21*, 26-42. Saxon, A. J., & McCarty, D. (2005). Challenges in the adoption of new pharmacotherapeutics for addiction to alcohol and drugs. *Pharmacology & Therapeutics, 108*, 119-128. Zaller, N. D., Bazazi, A. R., Velazquez, L., & Rich, J. D. (2009). Attitudes toward methadone maintenance among out-of-treatment minority injection drug users: Implications for health disparities. *International Journal of Environmental Research on Public Health, 6*(2), 787-797.
- <sup>47</sup> Saxon, A. J., & McCarty, D. (2005). Challenges in the adoption of new pharmacotherapeutics for addiction to alcohol and drugs. *Pharmacology & Therapeutics, 108*, 119-128.
- <sup>48</sup> Rösner, S., Hackl-Herrwerth, A., Leucht, S., et al, (2010). Opioid antagonists for alcohol dependence. *Cochrane Database of Systematic Reviews, 12*, Art. No. CD001867. doi:10.1002/14651858.CD001867.pub3
- <sup>49</sup> Edwards, S., Kenna, G. A., Swift, R. M., & Leggio, L. (2011). Current and promising pharmacotherapies, and novel research target areas in the treatment of alcohol dependence: A review. *Current Pharmaceutical Design, 17*(14), 1323-1332. Garbutt, J. C. (2009). The state of pharmacotherapy for the treatment of alcohol dependence. *Journal of Substance Abuse Treatment, 36*(Suppl 1), S15-S23. Ray, L. A., Heydari, A., & Zorick, T. (2010). Quetiapine for the treatment of alcoholism: Scientific rationale and review of the literature. *Drug and Alcohol Review, 29*(5), 568-575.
- <sup>50</sup> Kleber, H. (2008). Methadone maintenance 4 decades later: Thousands of lives saved but still controversial. *Journal of the American Medical Association, 300*(9), 2303-2305. Mattick R. P., Breen, C., Kimber, J., & Davoli, M. (2003). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database of Systematic Reviews, (Issue 2)*:CD002209. National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction. (1998). Effective medical treatment of opiate addiction. *Journal of the American Medical Association, 280*(22), 1936-1943. See White & Torres, 2010 for discussion and citations: White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>51</sup> Ling, W., Cassadonte, P., Bieglow, G., Kampman, K. M., Patkar, A., Bailey, G. L., & Beebe, K. L. (2010). Buprenorphine implants for treatment of opioid dependence. *Journal of the American Medical Association, 304*(14), 1576-1583.
- <sup>52</sup> Fuller, B. E., Rieckmann, T., McCarty, D., Smith, K. W., & Levine, H. (2005). Adoption of naltrexone to treat alcohol dependence. *Journal of Substance Abuse Treatment, 28*, 273-280.
- <sup>53</sup> Rieckmann, T., Daley, M., Fuller, B., Thomas, C., & McCarty, D. (2007). Client and counselor attitudes toward the use of medications. *Journal of Substance Abuse Treatment, 32*, 207-215.
- <sup>54</sup> Caplehorn, J. R. M., McNeil, D. R., & Kleinbaum, D. G. (1993). Clinic policy and retention in methadone maintenance. *The International Journal of the Addictions, 28*(1), 73-89.
- <sup>55</sup> Caplehorn, J. R., Irwig, L., & Saunders, J. B. (1996). Attitudes and beliefs of staff working in methadone maintenance clinics. *Substance Use and Misuse, 31*, 437-452. Caplehorn, J. R. M., Lumley, T., & Irwig, L. (1998). Staff attitudes and retention of patients in methadone maintenance programs. *Drug and Alcohol Dependence, 52*, 57-61.
- <sup>56</sup> Caplehorn, J. R., Irwig, L., & Saunders, J. B. (1996). Physicians' attitudes and retention of patients in their methadone maintenance programs. *Substance Use and Misuse, 31*, 663-677.
- <sup>57</sup> Gold, M. L., Sorensen, J. L., McCanlies, N., Trier, M., & Dlugosch, G. (1988). Tapering from methadone maintenance: Attitudes of clients and staff. *Journal of Substance Abuse Treatment, 5*, 37-44. Kang, S. Y., Magura, S., Nwakese, P., & Demsky, S. (1997). Counselor attitudes in methadone maintenance. *Journal of Maintenance in the Addictions, 1*, 41-58. Ward, J., Mattick, R. P., & Hall, W. (1998). How long is long enough? Answers to questions about the

- duration of methadone maintenance treatment. In J. Ward, R. P. Mattick, & W. Hall (Eds.), *Methadone maintenance treatment and other opioid replacement therapies* (pp. 305-336). Amsterdam: Harwood Academic. Zanis, D. A., & Woody, G. E. (1998). One-year mortality rates following methadone treatment discharge. *Drug and Alcohol Dependence, 52*(3), 257-260. See White & Torres, 2010 for a discussion: White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>58</sup> Knudsen, H. K., Abraham, A. J., & Roman, P. M. (2011). Adoption and implementation of medications in addiction treatment. *Journal of Addiction Medicine, 5*(1), 21-27.
- <sup>59</sup> D'Aunno, T., Foltz-Murphy, N., & Lin, X. (1999). Changes in methadone treatment practices: Results from a panel study: 1988-1995. *American Journal of Drug and Alcohol Abuse, 25*, 681-699. D'Aunno, T., & Pollack, H.A. (2002). Changes in methadone treatment practices: Results from a national panel study, 1988-2000. *Journal of the American Medical Association, 288*(7), 850-856.
- <sup>60</sup> Newman, R. G. (1987). Methadone treatment: Defining and evaluating success. *New England Journal of Medicine, 317*, 447-450.
- <sup>61</sup> Greenberg, B., Hall, D. H., & Sorensen, J. I. (2007). Methadone maintenance therapy in residential therapeutic community settings: Challenges and promise. *Journal of Psychoactive Drugs, 39*, 203-210. Hetteima, J. E., & Sorensen, J. L. (2009). Access to care for methadone maintenance patients in the United States. *International Journal of Mental Health and Addiction, 7*, 468-474. White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>62</sup> Rieckmann, T., Daley, M., Fuller, B., Thomas, C., & McCarty, D. (2007) Client and counselor attitudes toward the use of medications. *Journal of Substance Abuse Treatment, 32*, 207– 215.
- <sup>63</sup> Deal, D., Folks, C., & White, W. (2011). *Methadone maintenance patients in a residential rehabilitation program: The Eagleville experience*. Posted at [www.williamwhitepapers.com](http://www.williamwhitepapers.com).
- www.williamwhitepapers.com. Larney, S., Corcoran, K., Wodak, A., & Dolan, K. (2006). *Integration of harm reduction into abstinence-based therapeutic communities: A case study of We Help Ourselves, Australia*. Geneva: World Health Organization.
- Kipnis, S. S., Herron, A., Perez, J., & Joseph, H. (2001). Integrating the methadone patient in the traditional addiction inpatient rehabilitation program—problems and solutions. *The Mount Sinai Journal of Medicine, 68*(1), 28-32.
- <sup>64</sup> Caplehorn, J. R., Lumley, T. S., & Irwig, L. (1998). Staff attitudes and retention of patients in methadone maintenance programs. *Drug and Alcohol Dependence, 52*, 57-61.
- <sup>65</sup> Knudsen, H. K., Ducharme, L. J., Roman, P. M., & Link, T. (2005). Buprenorphine diffusion: The attitudes of substance abuse counselors. *Journal of Substance Abuse Treatment, 29*, 95-106.
- <sup>66</sup> Betty Ford Institute Consensus Panel. (2007). What is recovery? A working definition from the Betty Ford Institute. *Journal of Substance Abuse Treatment, 33*, 221-228. White, W. (2007). Addiction recovery: Its definition and conceptual boundaries. *Journal of Substance Abuse Treatment, 33*, 229-241.
- <sup>67</sup> “Advocates the appropriate use of prescribed medications and psychological treatments.” Retrieved January 5, 2011 from <http://www.smartrecovery.org>
- <sup>68</sup> Tonigan, J. S., & Kelly, J. F. (2004). Beliefs about AA and the use of medications: A comparison of three groups of AA-exposed alcohol dependent persons. *Alcoholism Treatment Quarterly, 22*(2), 67-78. Rychtarik, R. G., Connors, G. J., Dermen, K. H., & Stasiewics, P. R. (2000). Alcoholics Anonymous and the use of medications to prevent relapse: An anonymous survey of member attitudes. *Journal of Studies on Alcohol, 61*, 134-138.
- <sup>69</sup> Narcotics Anonymous World Services, Inc. (1996). *World Service Board of Trustees Bulletin #29: Regarding methadone and other drug replacement programs*. Retrieved December 22, 2010 from <http://www.na.org/?ID=bulletins-bull29>.
- <sup>70</sup> White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Intellectual disability Services.
- <sup>71</sup> White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of

- 
- Behavioral Health and Intellectual disability Services.
- <sup>72</sup> White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Intellectual disability Services.
- <sup>73</sup> Woods, J. (2001). Methadone advocacy: The voice of the patient. *The Mount Sinai Journal of Medicine*, *68*, 75-78.
- <sup>74</sup> Gilman, S. M., Galanter, M., & Dermatis, H. (2001). Methadone Anonymous: A 12-step program for methadone maintained heroin addicts. *Substance Abuse*, *24*(4), 247-256. Ginter, W. (2009). *Advocacy for medication-assisted recovery*. Retrieved November 4, 2009 from [http://www.facesandvoicesofrecovery.org/publications/profiles/walter\\_ginter.php](http://www.facesandvoicesofrecovery.org/publications/profiles/walter_ginter.php). Glickman, L. Galanter, M., Dermatis, H., & Dingle, S. (2006). Recovery and spiritual transformation among peer leaders of a modified Methadone Anonymous group. *Journal of Psychoactive Drugs*, *38*(4), 531-533. McGonagle, D. (1994). Methadone Anonymous: A 12-Step program. *Journal of Psychosocial Nursing*, *32*(10), 5-12.
- <sup>75</sup> Obuchowsky, M., & Zweben, J.E. (1987). Bridging the gap: The methadone client in 12-Step programs. *Journal of Psychoactive Drugs*, *19*(3), 301-302. White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Intellectual disability Services.
- <sup>76</sup> PRO-ACT. (2011). *PRO-ACT's Consumer guide to medication-assisted recovery*. Retrieved January 5, 2011 from [http://www.proact.org/consumer\\_guides/consumer\\_guide\\_to\\_medication-assisted\\_recovery/index.cfm](http://www.proact.org/consumer_guides/consumer_guide_to_medication-assisted_recovery/index.cfm).
- <sup>77</sup> White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>78</sup> Genevie, L., Struening, E. L., Kallos, J. E., Gelier, I., Muhlin, G. L., & Kaplan, S. (1988). Urban community reaction to health facilities in residential areas: Lessons from the placement of methadone facilities in New York City. *The International Journal of the Addictions*, *23*(6), 603-616. White, W. (2009a). *Long-term strategies to reduce the stigma attached to addiction, treatment and recovery within the City of Philadelphia (with particular reference to medication-assisted treatment/recovery)*. Philadelphia: Department of Behavioral Health and Mental Retardation Services.
- <sup>79</sup> Center for Disease Control and Prevention (2010). State Medicaid coverage for tobacco-dependence treatments. *MMWR Morbidity and Mortality Weekly Report*, *59*, 41.
- <sup>80</sup> Horgan, C. M., Reif, S., Hodgkin, D., Garnick, D. W., & Merick, E. L. (2007). Availability of addiction medications in private health plans. *Journal of Substance Abuse Treatment*, *34*(2), 147-156.
- <sup>81</sup> Rieckmann, T., Kovas, A. E., & Rutkowski, B.A. (2010). Adoption of medications in substance abuse treatment: Priorities and strategies of single state authorities. *Journal of Psychoactive Drugs, SARC Supplement 6*, 227-238.
- <sup>82</sup> Newman, R. G. (1991). What's so special about methadone maintenance? *Drug and Alcohol Review*, *10*, 225-232.
- <sup>83</sup> Knudsen, H. K., & Studts, J. L. (2010). The implementation of tobacco-related brief interventions in substance abuse treatment: A national study of counselors. *Journal of Substance Abuse Treatment*. *38*, 212-219. Knudsen, H. K., Studts, J. L., Boyd, S., & Roman, P. M. (2010). Structural and cultural barriers to the adoption of smoking cessation services in addiction treatment organizations. *Journal of the Addictive Diseases*, *29*, 294-305.
- <sup>84</sup> See discussion in White, 2011: White, W. (2011). *Narcotics Anonymous and the pharmacotherapeutic treatment of opioid addiction*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Intellectual disability Services.
- <sup>85</sup> Ducharme, L. J., Knudsen, H. K., & Roman, P. M. (2006). Trends in the adoption of medications for alcohol dependence. *Journal of Clinical Psychopharmacology*, *26*(1), Supplement, S13-S19.
- <sup>86</sup> Peterson, J. A., Schwartz, R. P., Mitchell, S. G., Reisinger, H. S., Kelly, S. M., O'Grady, K. E., Agar, M. H. (2010). Why don't out-of-treatment individuals enter methadone treatment programmes? *International Journal of Drug Policy*, *21*, 26-42.
- <sup>87</sup> Saxon, A. J., & McCarty, D. (2005). Challenges in the adoption of new pharmacotherapeutics for addiction to alcohol and drugs. *Pharmacology & Therapeutics*, *108*, 119-128.
- <sup>88</sup> Mark, T. L., Kranzler, H. R., Poole, V. H., Hagen, C. A.,

- McLeod, C., & Crosse, S. (2003). Barriers to the use of medications to treat alcoholism. *American Journal on Addictions, 12*, 281-294. Mark, T. L., Kranzler, H. R., Song, X., Bransberger, P., Poole, V. H., & Crosse, S. (2003). Physicians' opinions about medications to treat alcoholism. *Addiction, 12*(4), 617-626.
- <sup>89</sup> Saxon, A. J., & McCarty, D. (2005). Challenges in the adoption of new pharmacotherapeutics for addiction to alcohol and drugs. *Pharmacology & Therapeutics, 108*, 119-128.
- <sup>90</sup> Vigilant, L. G. (2008). "I am still suffering:" The dilemma of multiple recoveries in the lives of methadone patients. *Sociological Spectrum, 28*, 278-298. Vigilant, L. G. (2001). "Liquid handcuffs": The phenomenology of recovering on methadone maintenance. *Boston College Dissertations and Theses*. Vigilant, L. G. (2005). "I don't have another run left with it": Ontological security in illness narratives of recovery on methadone maintenance. *Deviant Behavior, 26*(5), 399-416.
- <sup>91</sup> Mark, T. L., Kranzler, H. R., Song, X., Bransberger, P., Poole, V. H., & Crosse, S. (2003). Physicians' opinions about medications to treat alcoholism. *Addiction, 12*(4), 617-626.
- <sup>92</sup> Simkin, D.R. & Grenoble, S. (2010). Pharmacotherapies for adolescent substance use disorders. *Child and Adolescent Psychiatric Clinics of North America, 19*(3), 591-608.
- <sup>93</sup> Greenfield, L., & Fountain, D. (2000). Influence of time in treatment and follow-up duration on methadone treatment outcomes. *Psychopathology and Behavioral Assessment, 22*(4), 353-364.
- <sup>94</sup> Ducharme, L. J., Knudsen, H. K., & Roman, P. M. (2006). Trends in the adoption of medications for alcohol dependence. *Journal of Clinical Psychopharmacology, 26*(1), Supplement, S13-S19. Knudsen, H. K., Ducharme, L. J., & Roman, P. M. (2007). The use of antidepressant medications in substance abuse treatment: The public-private distinction, organizational compatibility, and the environment. *Journal of Health and Social Behavior, 48*, 195-210. Mark, T. L., Kranzler, H. R., Poole, V. H., Hagen, C. A., McLeod, C., & Crosse, S. (2003). Barriers to the use of medications to treat alcoholism. *American Journal on Addictions, 12*, 281-294. Mark, T. L., Kranzler, H. R., Song, X., Bransberger, P., Poole, V. H., & Crosse, S. (2003). Physicians' opinions about medications to treat alcoholism. *Addiction, 12*(4), 617-626. Rieckmann, T., Daley, M., Fuller, B., Thomas, C., & McCarty, D. (2007). Client and counselor attitudes toward the use of medications. *Journal of Substance Abuse Treatment, 32*, 207-215.
- <sup>95</sup> Dennis, M. L., & Scott, C. K. (2007). Managing addiction as a chronic condition. *NIDA Science and Practice Perspectives, 4*(1), 45-55. McLellan, A. T., Lewis, D. C., O'Brien, C. P., & Kleber, H. D. (2000). Drug dependence, a chronic medical illness: Implications for treatment, insurance, and outcomes evaluation. *Journal of the American Medical Association, 284*(13), 1689-1695. White, W., & McLellan, A. T. (2008). Addiction as a chronic disease: Key messages for clients, families and referral sources. *Counselor, 9*(3), 24-33. White, W. (2008). *Recovery management and recovery-oriented systems of care: Scientific rationale and promising practices*. Pittsburgh, PA: Northeast Addiction Technology Transfer Center, Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health & Mental Retardation Services.
- <sup>96</sup> White, W., & Torres, L. (2010). *Recovery-oriented methadone maintenance*. Chicago, IL: Great Lakes Addiction Technology Transfer Center, Philadelphia Department of Behavioral Health and Mental Retardation Services and Northeast Addiction Technology Transfer Center.
- <sup>97</sup> Knight, K. R., Rosenbaum, M., Irwin, J., Kelley, M. S., Winger, L., & Washburn, A. (1996). Involuntary versus voluntary detoxification from methadone maintenance treatment: The importance of choice. *Addiction Research, 3*(4), 351-362. White, W., Scott, C., Dennis, M., & Boyle, M. (2005). It's time to stop kicking people out of addiction treatment. *Counselor, 6*(2), 12-25.
- <sup>98</sup> Booth, R. E., Corsi, K. F., & Mikulich-Gilbertson, S. K. (2004). Factors associated with methadone maintenance retention among street-recruited injection drug users. *Drug and Alcohol Dependence, 74*(2), 177-185. Greenfield, L., & Fountain, D. (2000). Influence of time in treatment and follow-up duration on methadone treatment outcomes. *Psychopathology and Behavioral Assessment, 22*(4), 353-364. Kayman, D. J., Goldstein, M. F., Deren, S., & Rosenblum, A. (2006). Predicting treatment retention with a brief "Opinions About Methadone" scale. *Journal of Psychoactive Drugs, 38*(1), 93-100. White, W. (2008). *Recovery management and recovery-oriented systems of care: Scientific rationale and promising practices*. Pittsburgh, PA: Northeast Addiction Technology Transfer Center, Great Lakes Addiction Technology Transfer Center, Philadelphia

- <sup>99</sup> Abbot, P. J., Moore, B., Delaney, H., & Weller, S. (1999). Retrospective analyses of additional services for methadone maintenance patients. *Journal of Substance Abuse Treatment, 17*(1-2), 129-137.
- Plater-Zyberk, C. J., Varenbut, M., Daiter, J., & Worster, A. (2011). The value of clinical case management in a methadone maintenance treatment program. *The American Journal of Drug and Alcohol Abuse*. Advance online publication.
- Woody, G. E., McLellan, A. T., Luborsky, L., & O'Brien, C. P. (1990). Psychotherapy and counseling for methadone-maintained opiate addicts: Results of research studies. *NIDA Research Monograph, 104*, 9-23.
- <sup>100</sup> Dennis, M. L., Scott, C. K., & Funk, R. (2003). An experimental evaluation of recovery management checkups (RMC) for people with chronic substance use disorders. *Evaluation and Program Planning, 26*(3), 339-352.
- Zanis, D. A., McLellan, A. T., Alterman, A. I., & Cnaan, R. A. (1996). Efficacy of enhanced outreach counseling to reenroll high-risk drug users 1 year after discharge from treatment. *American Journal of Psychiatry, 153*, 1095-1096.
- Zanis, D. A., & Woody, G. E. (1998). One-year mortality rates following methadone treatment discharge. *Drug and Alcohol Dependence, 52*(3), 257-260.
- <sup>101</sup> Dennis, M. L., Scott, C. K., & Funk, R. (2003). An experimental evaluation of recovery management checkups (RMC) for people with chronic substance use disorders. *Evaluation and Program Planning, 26*(3), 339-352.
- <sup>102</sup> Fiore, M. C., Jaen, C. R., Baker, T. B., Bailey, W. C., Benowitz, N. L., Curry, S. J.,...Wewers, M. E. (2008). *Treating tobacco use and dependence: 2008 update*. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service.
- Knudsen, H. K., & White, W. L. (in press). Smoking cessation services in addiction treatment: Challenges for organizations and the counseling workforce. *Counselor*.
- <sup>103</sup> Amass, L., Ling, W., Freese, T. E., Reiber, C., Annon, J. J., Cohen, A. J.,...Horton, T. (2004). Bringing buprenorphine-naloxone detoxification to community treatment providers: The NIDA Clinical Trials Network field experience. *American Journal on Addictions, 13*(Suppl 1), 542-566.
- Saxon, A. J., & McCarty, D. (2005). Challenges in the adoption of new pharmacotherapeutics for addiction to alcohol and drugs. *Pharmacology & Therapeutics, 108*, 119-128.
- <sup>104</sup> Baser, O., Chalk, M., Rawson, R., & Gastfriend, D.R. (2011). Alcohol dependence treatments: Comprehensive healthcare costs, utilization outcomes, and pharmacotherapy persistence. *American Journal of Managed Care, 17*(8 Suppl), S22-S34.
- Clark, R. E., Samnaliev, M., Baxter, J. D., & Leung, G. Y. (2011). The evidence doesn't justify steps by state Medicaid programs to restrict opioid addiction treatment with buprenorphine. *Health Affairs, 30*(8), 1425-1433.
- <sup>105</sup> Schauffler, H. H., McMenamin, S., Olson, K., Boyce-Smith, G., Rideout, J. A., & Kamil, J. (2001). Variations in treatment benefits influence smoking cessation: Results of a randomized controlled trial. *Tobacco Control, 19*(2), 175-180.
- <sup>106</sup> Mark, T. L., Kranzler, H. R., Poole, V. H., Hagen, C. A., McLeod, C., & Crosse, S. (2003). Barriers to the use of medications to treat alcoholism. *American Journal on Addictions, 12*, 281-294.
- <sup>107</sup> Anton, R. F., Myrick, H., Wright, T. M., Latham, P. K., Baros, A. M., Waid, L. R., & Randall, P. K. (2011). Gabapentin combined with naltrexone for the treatment of alcohol dependence. *American Journal of Psychiatry, 168*(7), 709-717.
- <sup>108</sup> McLellan, A. T., Woody, G. E., Luborsky, L., & Goehl, L. (1988). Is the counselor an "active ingredient" in substance abuse rehabilitation? An examination of treatment success among four counselors. *The Journal of Nervous and Mental Disease, 176*(7), 423-430.
- McLellan, A. T., Arndt, I. O., Metzger, D. S., Woody, G. E., & O'Brien, C. P. (1993). The effect of psychosocial services in substance abuse treatment. *Journal of the American Medical Association, 269*, 1953-1957.
- White, W. (2009). *Peer-based addiction recovery support: History, theory, practice, and scientific evaluation*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Mental Retardation Services.