

# Physician Understanding and Treatment of Addiction: Have ‘Pseudoaddiction’ and ‘Self-Medication’ led us astray?

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## Abstract

U.S. healthcare and psychiatry in particular, lack trained professional workforce, physical infrastructure, and financial support via insurance coverage needed to adequately support addiction treatment. Concepts of ‘pseudoaddiction’ and ‘self-medication’, influential among physicians who treat pain and/or mental illness, frame drug use as being therapeutically beneficial, which is different from, and even opposite to, how drug use is understood in the disease model of addiction. Over-emphasis on the closely-related concepts of ‘Pseudoaddiction’ and ‘self-medication’, especially in regard to patients who suffer addiction at high rates, may have contributed to a medical-psychiatric culture that has been slow to taking clinical responsibility for diagnosing, preventing, and treating addiction as a disease of major public health importance.

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## Introduction

Substance disorders collectively represent the leading cause of injury, premature illness and death in the US<sup>[1]</sup>. This public health disease burden is actually bigger than each of major proximal causes of death including cancer, stroke, heart attacks, and lung disease, because untreated addiction is a major root cause of all these devastating and terrifically expensive-to-treat conditions, in addition to substance-induced cirrhosis, dementia, HIV, suicide, homicide, accidents, and domestic violence.

Addiction, as a leading public health challenge of our time, has been brought to light in the minds of health care and law enforcement professionals — and the public — perhaps as never before, due to the emerging prescription opioid epidemic<sup>[2,3]</sup>. As Americans have begun to die from overdoses on prescribed addictive drugs at rates surpassing death from homicides, suicides, car accidents, or illicit non-prescription overdoses, more people are becoming aware of the heavy price of not adequately integrating addictionology into medicine and psychiatry. U.S. healthcare, and especially psychiatry, which should function as the natural home specialty for addictionology, remain seriously ill-equipped and under-resourced to diagnose and treat addiction. Shortfalls in fellowship-trained addiction psychiatrists, allied addiction professionals, training and treatment infrastructures, and insurance reimbursement, are so severe, that evidence-based addiction treatment for many in the US., especially the mentally ill is almost non-existent<sup>[4-7]</sup>.

In the absence of adequate physician attention to addictions and dual diagnosis disorders, these brain diseases have largely become the domain and prerogative of the criminal justice system<sup>[6]</sup>. Now, the U.S. imprisons more people per capita than any other nation<sup>[8]</sup> and it is widely known and accepted that the largest repositories of mentally ill and addicted people in the U.S. are not in our treatment centers, but in jails and prisons. These imbalances have caused many of our state governments to spend more on incarcerating people, than subsidizing public university education for the middle class, while formerly ‘deinstitutionalized’ mentally ill/addicted people are sentenced to for-profit prisons, solitary confinement, and felony-branded joblessness<sup>[9]</sup>. All of this-while



resulting in no benefit in reducing addictions—has paralleled the growth of a U.S. health care system that has become unsustainably expensive in part because it emphasizes expensive treatments for injuries and medical diseases caused by untreated addiction.

Many inside and outside of the addiction field are beginning to wonder: How did things get like this? After all, over 2 decades, thanks to many billions of dollars of federal research funds supplied by NIDA and NIAAA to medical schools all over the U.S., we understand addiction as a disease quite well: its cellular mechanisms, neuroanatomy, development, environmental and genetic risks, its public health impact, and its many evidence-based treatments. So what has gone wrong?

‘Failure in translation’ may be to blame, that is to say, a failure to communicate knowledge about the neuroscience and clinical evidence-base on addiction diagnosis and treatment to the criminal justice system, to health care system executives, to insurance companies, to politicians and of course, the public at large. But then one has to ask, why has this failure occurred, and who exactly should the translators be? Given that physicians are still holding onto, if tenuously, their roles as the leading health care experts, decision-makers, and ‘translators’ of science into medical practice, arguably the “buck stops” with doctors.

So, where have the voices of psychiatrists and other doctors been that are needed to advance the causes of addiction prevention, diagnosis, and treatment as mainstream missions in primary care and mental health? Certainly there have been some, but evidently not enough of the critical mass needed to evoke significant change. On top of extreme shortages of addiction psychiatrists being produced in the US. (less than 5% of psychiatrists pursue addiction psychiatry fellowship training in the U.S, and less than 25% of U.S. psychiatry residency programs have addiction fellowships<sup>[7]</sup>, medical school education in addictions is deficient nationwide<sup>[4]</sup>.

But to avoid becoming trapped in the endless circularity of ‘we don’t have enough addiction-trained doctors because we don’t have enough addiction trained doctors to train enough addiction trained doctors’ it may be helpful to consider how general physicians and psychiatrists may have been distracted away from recognizing, understanding, treating, and advocating for addiction treatment as a major health care priority. It is interesting that aside from modern Diagnostic-Statistical Manual (DSM-IV or 5) formulations of the disease model of addiction, two other concepts describing heavy substance use have been widely espoused and embraced within the medical and psychiatric communities. These concepts explain chronic drug-seeking and drug-using non-pathologically—as something that is almost exactly the opposite from what the disease model of addiction is—as drug use that is beneficial. These two widely influential and quite similar concepts, both promoted and embraced by physicians in academia and on the front lines of clinical practice are ‘Pseudoaddiction’ and ‘self-medication’.

### **Pseudoaddiction’=’self-medication’ ≠ addiction**

Introduced in 1989, ‘Pseudoaddiction’ was defined as an ‘iatrogenic’ syndrome, where patients appearing to be drug-seeking, *as if* addicted, are best understood only as suffering undertreated pain and in need of more opioids<sup>[10]</sup>. In pseudoaddiction, the doctor who withholds opioids is the problem, and inadequate opioid treatment for pain is *the* cause of the disorder. This concept proliferated in the literature, appearing in over 200 academic publications, then secondarily in textbooks, dictionaries, and web sites, despite having no scientific evidence base to support it<sup>[11]</sup>. Its impact, concurrent with ‘pain is the 5<sup>th</sup> vital sign’, ‘patients-as-consumer’ campaigns, and aggressive opioid pharmaceutical marketing, has underpinned a decade of near exponential growth in opioid prescriptions, iatrogenic addictions and overdose deaths, to the point where in some regions of the country access to health care itself has become a risk factor for acquiring addiction<sup>[3,12]</sup>. In 2 decades the U.S. has become a nation of just 4% of the world’s population that consumes 80% of the world’s pharmaceutical opioid supply<sup>[2,11]</sup>.

‘Self-medication’, a concept originating when psychiatrists noticed frequent tobacco, alcohol, and other drug use in the deinstitutionalized mentally ill, has been around for many decades, but was also formally elaborated on in the 1980’s<sup>[13,14]</sup>. It has subsequently been endorsed and widely embraced in primary research and review papers and educational sources spanning the field of psychiatry, as the standard explanation for why persons with mental illnesses use substances<sup>[14]</sup>. ‘Self-medication’ has become so widely and dogmatically accepted as the key explanation for substance use in mental illness, that it has become nearly synonymous with ‘dual diagnoses’. In both ‘pseudoaddiction’ and ‘self-medication’, drug use is explained as a *choice to seek and use drugs for benefit*—to gain symptom relief from pain or psychiatric symptoms. Whereas in addiction, the behavior is explained as *compulsive, not a voluntary choice, that persists despite negative consequences, not because of benefits*. As suggested in Table 1, the construct similarities between ‘pseudoaddiction’ and ‘self-medication’ are quite comprehensive, including how they consistently contradict the disease model of addiction. Of course, untreated pain does exist. People do self-medicate (e.g. taking an antibiotic for pneumonia). And sometimes, taking addictive drugs (usually short term) can be very therapeutic. But it may be time to ask: Has the medical community and psychiatry in particular grown over-accustomed—even ‘addicted’ to overusing, academically endorsing, and clinically propagating, the proxy diagnoses of ‘pseudoaddiction’ and ‘self-medication’ to avoid dealing with addiction itself? If so, what forces have contributed to this phenomenon? Do doctors believe these constructs help them avoid heaping the criminalizing stigma of ‘addiction’ onto their patients? Do these constructs excuse doctors from dealing with addiction, when so many of us, and most detrimentally, psychiatrists, don’t know how to treat it, or can’t get paid for doing so, or, are so often accustomed to prescribing addictive drugs for a wide variety of indications? Have there been too many incentives, and too many effective marketing campaigns from corporate interests that manufacture and sell addictive drugs like nicotine, opioids, benzodiazepines and stimulants, that have over-inflated their medicinal attributes to doctors and the public, while minimizing their addictive downsides<sup>[14,15]?</sup>

**Table 1:** Comparison of Pseudoaddiction, Self-medication, and Addiction.

Concept Perspective	Pseudoaddiction	Self-medication	Addiction
Patient’s mode of drug-taking	Voluntary/elective	Voluntary/elective	Involuntary/compulsive
Patient’s decision-making	Intact and rational	Intact and rational	Impaired and irrational
Contextual basis for patient’s drug-seeking	Pain symptoms	Psychiatric symptoms	Drug-associated cues
Patient’s incentive for drug seeking and use	Pain Symptom Relief	Mental Illness Symptom relief	Chemical stimulation of brain reinforcement system
Presumed value and consequences of drug-taking	Beneficial (symptom relief from pain)	Beneficial (symptom relief from mental illness)	Detrimental (medical and psychiatric harm)
Medical model framework for drug-taking behavior	Drug use = treatment	Drug use = treatment	Drug use = disease
Common attitude engendered	Sympathetic (accepted)	Sympathetic (accepted)	Stigmatized and criminalized
Primary clinical response to drug-taking	Support	Ignore or Support	Attempt to stop or reduce
Primary research orientation toward addictive drugs	Focus on/develop therapeutic effects	Focus on/develop therapeutic effects	Focus on/develop addiction treatments

No studies have attempted to measure the scope or impact of the clinical use of the constructs of ‘pseudoaddiction’ or ‘self-medication’ in patient populations with either pain or mental illness. Measuring how many patients in large clinical populations have had their substance use behaviors labeled with these terms, and what the impact those terms have had on their treatment, would be hard since these terms are not actually regarded as billable, or formal diagnoses as recognized by the DSM. Notably, however, diagnoses of addictive disorders, which are accepted by the DSM system, have also not traditionally been adequately covered by health care billing and reimbursement (e.g. due to stigma and lack of parity of insurance coverage). Thus, it would be quite difficult to measure the extent to which one set of unbillable diagnoses (e.g. pseudoaddiction/self-medication) have been adversely used in substitution for another set of largely unbillable, albeit, more factual diagnoses (e.g. of addictive disorders). Nevertheless, there is a need to find ways to critically examine how the concepts of ‘pseudoaddiction’ and ‘self-medication’ have adversely impacted addiction diagnosis and treatment, particularly for vulnerable populations, like the mentally ill, who suffer extremely high rates of addictions due to involuntary brain-based vulnerabilities, and yet can’t seem to get those addictions treated adequately<sup>[16]</sup>. In the opioid epidemic we see ‘Adverse Selection’ where patients most vulnerable to overdose or addiction (i.e. those with mental illness) are most likely to be inappropriately prescribed opioids<sup>[17,18]</sup>. Meanwhile, the psychiatric literature is filled with papers that espouse the hypothesis that mentally ill people use nicotine, alcohol, opioids, marijuana, cocaine, and other drugs at high rates because these drugs are especially ‘medicinal’ for *them*<sup>[14]</sup>, despite plentiful contrary evidence that these drugs *generate* mental illness symptoms in us ‘healthy’ people. For example, while clinicians and researchers have widely endorsed tobacco as a *medication* for various mental illness symptoms<sup>[19]</sup>, nicotine addiction remains largely untreated in half of all smokers—mentally ill people—where it persists, not only in association with poorer psychiatric and addiction outcomes, but as a leading contributor to impoverishment, illness and early death<sup>[15-20]</sup>.

## Conclusion

Hopefully, the medical community and psychiatry in particular, are changing to more decisively embrace the responsibility of expertly diagnosing and treating addiction and dual diagnosis conditions as pervasive brain diseases of tremendous public health, social and economic significance. Moving away from, or more critically appraising ‘pseudoaddiction’ and ‘self-medication’, as concepts that have distracted us from addiction in our addicted patients, may be important steps in this change. Then, we may be more ready to take on addiction as a disease, and remove it from its failed, stigmatized, and inhumane assignment to criminal justice.

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