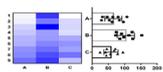


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# Reexamining opioid addiction as a co-occurring disorder: A clinical perspective on the “Chronic Pain Paradox”

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The use of opioids as an anodyne for chronic pain was not prevalent before the 1980s<sup>1</sup>. Students in medical schools had learnt to avoid prescribing opioids, considered highly addictive for treatment of non-malignant chronic pain<sup>1</sup>. Yet, from the early 1990s, prescription opioids emerged as a widely accepted method of treating chronic pain and palliative care<sup>2</sup>. Previously, chronic pain was treated in multidisciplinary clinics with coordinated care which included physical exams, medication management, biopsychosocial evaluation, cognitive behavioral treatment, physical therapy, and occupational therapy<sup>2</sup>. Starting in the early 1990's, under dubious antecedence, opioid analgesics were promoted as the proprietary remedy for chronic pain and received endorsement and support from care providers across the United States<sup>3</sup>. Non-cancerous chronic pain, as a phenomenon, was thus elevated to an ailment or a medical condition by its own right from its erstwhile status as a corollary to another medical condition. This led to an increase in opioid analgesic prescriptions, followed by a wide-ranging abuse by patients, converting opioid use disorder (OUD) to a problem of epidemic proportions<sup>4</sup>.

Apart from the legal course of action initiated against Perdue Pharma, in 2020, the maker and distributor of Oxycontin that resulted in a \$3.8 billion lawsuit settlement, in which Perdue Pharma pleaded guilty; since the recognition of this problem, new measures have been adopted to counter the opioid epidemic by clinicians. There has been a significant shift towards circumvention by physicians prescribing opioids for non-cancerous chronic pain. In a few instances, providers have resorted to putting a temporary moratorium on prescribing opioids to all non-cancerous chronic pain cases<sup>5</sup>.

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The Center for Disease Control (CDC) and various state agencies have passed protocols, installed prescription monitoring programs (PMPs), and created taskforces to rein in flagrant prescription practices by medical providers. Mental health counseling and alternative, non-prescriptive pain management procedures have been reintroduced in treatment as a new way of approaching the problem<sup>6,7</sup>. The Substance Abuse and Mental Health Administration (SAMHSA) have suggested hybrid programs such as medically assisted treatment (MAT) which utilizes the medical approach of prescribing slow releasing drugs with concomitant counseling for patients, as one of the best practices to intervene with opioid use disorders<sup>8</sup>. An integrated healthcare approach brought primary care physicians, nurses, and physician's assistants together with addiction counselors and social workers to coordinate and implement treatment for opioid misuse<sup>9,10</sup>.

These new approaches are laudable and effective, yet we argue, in this paper, for ascertaining the treatment of chronic pain as a co-occurring disorder to addiction. While acknowledging the two original transgressions of the opioid epidemic: a) the delineation and decontextualization of chronic pain as an independent medical phenomenon, and b) the over-prescription of opioid analgesics to treat chronic pain; we argue that recognizing chronic pain as a co-occurring disorder with addiction and psychological trauma could help providers contextualize it better, leading to an improved treatment protocol.

Over last two decades, persistent over-prescribing has set forth a culture of righteous demand among patients to obtain opioids and receive instant pharmacological sedation as an antidote to chronic pain. This culture, which may have taken roots, could cause resistance among chronic pain patients towards any change to alternative treatment plans. This could frustrate medical providers and reformers as they usher in the new treatment procedures promulgated by SAMHSA and the CDC. Thus, a co-occurring

diagnostic framework could provide a pathway to better understand this treatment dilemma. The co-occurring disorder lens of diagnosis could provide a pathway to understand this treatment dilemma.

In this paper, we do a critical, non-systematic review of existing literature that explores the intersection of chronic pain and OUD to make a case that these issues should be treated as co-occurring disorders and not as disconnected, independent phenomenon. We review the scope of the problem and provide an analysis of the complex relationship between chronic pain and usage of opioids from both pharmacological and psychological viewpoints and explore the challenges to treatment. We take an ecological and exchange theory perspective to understand the co-occurrence of pain and opioids addiction from a trauma-informed lens to unpack the complexity that OUD poses in juxtaposition to chronic pain. Furthermore, we explore the strategies to develop an integrated healthcare workforce from a co-occurring disorder perspective. Furthermore, we explain the context of co-occurring pain, addiction, and psychological trauma and identify the pertinent questions that such co-occurrences pose for treatment protocols. We draw our argument from a critical review of the literature as well as the incidence and prevalence of OUD.

### **Understanding the Context: Emergence of Chronic Pain as a “Fifth Vital Sign”**

Today, over 100 million people in the United States live with non-cancerous chronic pain<sup>11</sup>. The Harrison Narcotic Act of 1914 had allowed sparing use of morphine and opioids for cancer related pain, acknowledging the risks of addiction if used for non-cancerous chronic pain. However, a non-empirical opinion piece in a reputed medical journal<sup>12</sup> had refuted the existing axiom and claimed that opioids, if used to sedate chronic pains, would be less likely to cause addiction. The paper was widely cited and used to justify the expansive use of opioids for chronic pain. Prescriptions of OxyContin, a popular brand of analgesic promoted by its

maker Purdue Pharma, rose from 670,000 in 1997 to 6.2 million in 2002<sup>13</sup>. Purdue Pharma devised new ways to promote higher prescription rates for its product including novel marketing techniques, sponsoring of education programs and pain management conferences, targeted advertising, and providing lucrative incentives to primary care physicians, nurses and physician's assistants to buy into their product<sup>13</sup>. The American Pain Society (APS) bought into the publicity, quite unethically, and termed chronic pain as the "fifth vital sign"<sup>14</sup>.

Vital signs measure the body's basic functions. There are four vital signs that are monitored routinely to estimate physical health. These are: body temperature, pulse rate, respiration rate and blood pressure<sup>15</sup>. The APS declared chronic pain to be the "fifth vital sign" and suggested measuring it using a Likert scale ranging from mild to severe and claimed it to be a key to understand pathology. They did so with no well-documented, randomized controlled trials supporting the claim<sup>15</sup>. The APS, plagued with conflicts of interest, sided with Purdue Pharma and helped increase their revenue from OxyContin: \$40 million in 1996 to nearly \$3 billion in 2002<sup>16,17</sup>. Between 2013 and 2015 the pharmaceutical industry spent \$39.7 million in opioid marketing, targeting 67,507 physicians across 2,208 US counties<sup>18</sup>. The study then linked the marketing drive to the opioid related mortality data in those counties after a one-year lag period. They concluded that an increase of one standard deviation of marketing value was associated with a veritable increase in opioid mortality: thereby, establishing a direct association between marketing and opioid related mortality<sup>19,20</sup>.

In 2001 alone, Purdue Pharma spent \$200 million in promoting OxyContin and paid around \$40 million in bonuses to sales representatives while also offering coupon incentives to patients<sup>13</sup>. Around this same time, the department in charge of regulating prescription drug advertising, the Federal Drug Administration (FDA), relaxed its regulations for

direct-to-consumer pharmaceutical ads. At this time, a tripling of budgets for this type of advertising grew to \$1.2 billion in 1998. This trend continued, and in 2006, advertising budgets reached \$5 billion<sup>21</sup>. In recent years, Purdue Pharma has had over 200 lawsuits filed against them which resulted in the company admitting that they misled healthcare providers and would no longer be marketing opioids to doctors. Unfortunately, the \$600 million in fines paid by Purdue Pharma does not equal the nearly \$31 billion in revenue generated<sup>22</sup>.

In the past decade, prescription opioids became the go-to pain treatment for many types of chronic pain, as they were generally regarded as safe and effective. However, between 2005 and 2018, 21-29% of individuals who were prescribed opioids for chronic pain, misused their prescription with 8-12% of individuals developing an opioid use disorder<sup>23</sup>. Over the span of one year, from 2016 to 2017, emergency room visits for suspected opioid overdoses rose<sup>22</sup> by 30%. The association between pain and opioid dependence had been somewhat vague until studies noted that severe pain is commonly seen among patients with opioid dependence<sup>23,24,25</sup>. Furthermore, severe chronic pain is also associated with higher risk of relapse<sup>26</sup>.

The elevation of non-cancerous chronic pain as the "fifth vital sign" had merely window dressed an unsupported claim to a measurable, objective sounding symptom of pathology. Subsequent research showed that this "fifth vital sign" change of status did not alter the quality of pain management outcomes and only caused overmedication of patients through enhanced opioids prescription<sup>27</sup>. Scholars, off late, have challenged this claim and termed it a "subjective" opinion at best unreliable as a validated health monitoring yardstick<sup>28,29</sup>. At present, the American Medical Association, American College of Surgeons, the Joint Commission, and centers for Medicare and Medicaid Services have all withdrawn their advocacy for pain as the fifth vital sign<sup>30</sup>.

## Understanding the “Pain Paradox”

Pain is caused by a reduction in blood vessels, subsequent neural activity, and higher level cognitive processes that help interpret and define an individual's pain experience<sup>31</sup>. Chronic pain has been defined as “an unpleasant sensory and emotional experience associated with actual and potential tissue damage or described in terms of such damage”<sup>31, para 4</sup>. Thus, chronic pain has emotional and psychological components that amalgamates with corporeal discomfort. Acute pain resolves itself once the tissue damage in a particular cellular region of the body gets repaired. However, the “chronification” of pain occurs over time with prolonged psychological reinforcements facilitated and inhibited by the central nervous system<sup>32</sup>. Due to the mental and physical aspects of pain, a mere medical or a psychological treatment approach may only address part of the problem; leaving the addictive and emotional qualities lingering<sup>32</sup>.

Etiologically, chronic pain satisfies a psychological need for patients by producing certain electrical brain activity that leads to a rapid release of endogenous opioids, considered the naturally produced narcotics of the body<sup>33, 34</sup>. These naturally produced opioids can provide a hedonistic hit simultaneously as the body undergoes acute pain<sup>35</sup>. This creates a distinction between the appearance of pain and the reality of pain. Chronic pain contains a paradox, a “pain paradox” in which pain also accompanies a certain self-contradictory pleasure embedded within. If the central nervous system ushers in chronic pain, the peripheral nervous system triggers a different signal that excites neurons making cells less responsive to pain and producing a contradictory sensation of pleasure tied in within the brain's reward system<sup>36,37</sup>. This mechanism is often referred to as an internal analgesic protection which causes a certain veritable release providing a secondary hedonistic hit for patients, a pathway to addiction. The Mu-opioid receptors which “mediate positive reinforcement following direct (morphine) or

indirect (alcohol, nicotine) activation”<sup>38</sup> are densely concentrated in three important areas of the brain. These are the areas that regulate pain (periaqueductal gray, thalamus, cingulate cortex and insula), the area that regulates emotional response to pain (amygdala), and the area stimulated by rewards and responsible for perception of pleasure and wellbeing (ventral tegmental area and nucleus accumbens)<sup>39,40</sup>. Opioids, similar to cannabinoids and nicotine, target the dopamine receptors in the nucleus accumbens (NAc), a region in each brain hemisphere that is associated with pleasure, rewards, and seeking of repeat experiences<sup>41</sup>. This characteristic endows opioid medications with both analgesic and euphoric capabilities making pain management a complex enterprise. Employment of opioids stimulates both the pleasure and the pain-analgesic regions of the brain simultaneously with repeated use creating an association between the pleasure and the pain parts of the brain<sup>42</sup>. As a result, whenever patients experience even the slightest pain, they immediately seek concomitant analgesic relief and pleasure. Since the mu-opioid receptors stimulate the amygdala as well, it evokes an emotional response to pain<sup>39,43</sup>.

Usage of opioids for chronic pain potentially contains paradoxical qualities that could be addictive. Perhaps for this very reason, medical physicians have reported a lack of confidence on how to safely prescribe opioids for common pain<sup>39</sup>. Psychological classifications have identified this as a “pain paradox” in instances of cutting, trichotillomania, and other disorders where acute pain facilitates the release of anxieties and produces a hedonistic calmness for patients<sup>44</sup>. Opioids such as OxyContin, albeit a slow-release option, could block neural synapses and pathways to pain, providing additional release for patients suffering from chronic pain while also reinforcing possible addictions. Thus, when patients get addicted to opioids that were initially meant to relieve their chronic pain; they experience a double hedonistic hit<sup>44</sup>: first from the pain paradox, later

from the opioid, making this phenomenon akin to a co-occurring disorder.

### **A Co-Occurring Disorder**

More than 87% of people with substance use disorders (SUD) reported chronic or acute pain, with over two-thirds stating that they were using prescription drugs for self medication without a prescription<sup>45</sup>. Among the misused substances (i.e., cocaine, heroin, etc.), opioids are the only one that can be legally obtained by prescription. A national survey found that the majority, 63.4% of people misusing opioids, stated that their reason for use was to find relief from pain; 59.9% of them were suffering from a co-occurring disorder<sup>46</sup>. However, opioid abuse primarily seen as simply a matter of addiction/substance use disorder (SUD), and rarely the co-occurrence of mental health conditions, traumatic stress, physical disabilities and associated pain, chronic illnesses and failure to manage pain generated from those illnesses that result in opioid intake and subsequent addiction, have been addressed concurrently. Unlike conventional SUDS which may have developed from recreational use, OUD may occur from legally obtained prescription drugs meant to address a medical need<sup>47</sup>.

The current national crisis critically points out that addressing the opioid epidemic as a co-occurring disorder is imperative<sup>48,49,50</sup>. Without acknowledging the hedonistic properties of the pain paradox, the current crisis cannot be properly addressed. Individuals with a primary disorder of chronic pain and a co-occurring disorder of any other mental health condition—such as anxiety, psychological trauma, despair, or difficulties in concentration—may use opioids to chemically cope by self-medicating. A case example illustrates this conundrum aptly; following the Vietnam War a large contingent of veterans returned home with acute bodily pain due to war related injuries; opioids were administered to all those injured, 80% recovered without getting addicted to the opioid analgesics, but 12 percent did<sup>40</sup>. Interestingly, those that got addicted had one common denominator

differentiating them from others; they were diagnosed with a mental health condition, such as, battle-exposed post-traumatic stress disorder (PTSD), traumatic brain injury (TBI) or clinical depression<sup>40</sup>. Researchers hypothesized that probability of addiction from the opioid analgesics seemed to increase for those with co-occurring mental health disorders; an important conjecture towards reconceptualizing chronic pain treatment.

Literature suggests that the co-occurrence of non-cancerous chronic pain and OUD exacerbate mutual symptoms and feed into one another, producing additional barriers to treatment<sup>51,52,53</sup>. Patients with co-occurring disorders of pain and OUD often self-medicate and attempt to chemically treat a myriad of addictive and impulsive behaviors emanating from mental health conditions, psychological traumas, medical conditions, and personality disorders<sup>54,55</sup>. Personality disorders upend cognition, executive functioning, emotional regulations, interpersonal functioning and impulse control which may also be affected or exacerbated by opioid use<sup>56</sup>. Clinical and medical providers need to screen patients for possible co-occurrence of disorders and incorporate the outcome in their treatment plans. Individuals with addictive personality disorders may contain risks factors such as history of parental addictions, childhood trauma, and adult trauma from war or forced immigration which can often go overlooked when being treated for chronic pain<sup>57,58</sup>.

Co-occurring disorders impair ego-defenses of individuals exposing them to the throes of addiction which stimulates the brain's reward centers in a different way than other forms of addictions<sup>59</sup>. Similarly, withdrawals from opioids are painful but the co-occurrence of another mental or medical disorder cause additional mental regression and defensive slide making it a recalcitrant disorder to treat. Viewing opioid abuse as a co-occurrence of chronic pain makes this disorder fundamentally dissimilar to crack cocaine and methamphetamine crisis of the

previous decades; and the approach of containing the opioid crisis without taking co-occurring pain paradox into account, may severely limit treatment efficacy<sup>60</sup>. Thus, it is important for behavioral health practitioners to grasp the co-occurring intersections of the pain paradox and opioid abuse.

#### Lack of Clinical Consensus

Biology, psychology, and community factors contribute to drug experiences. Every individual is vulnerable to their addiction in a unique way. It is abundantly clear that some non-circumspect medical providers have been distributing potent opioids like candy (street term) without screening for co-occurrence, without taking time to understand the context of the patients, without weighting the risk factors for addiction have led to this current crisis. Genetic and predisposition factors are often overlooked for a quick fix which leads to lingering pain and higher health care costs from long term prescription use<sup>61</sup>. The over-emphasis on pain management and the sequential failure to achieve a 0-scale pain management strategy are strongly associated with the recent opioid crisis in the US. However, since the onset of the crisis there has been a confusion and lack of confidence among physicians regarding prescribing opioids<sup>62</sup>. With reports of overdose deaths and the sheer expansiveness of the scope of OUD creeping into the public consciousness, clinicians have become stricter on prescribing opioids<sup>63</sup>. As a result, uninsured and lower income individuals with chronic pain resorted to illegitimately sourced heroin or synthetic fentanyl<sup>64</sup>. Properly treating underlying pain became a challenge for medical practitioners as tendencies rose to under-prescribe opioid analgesics even for genuine pain issues<sup>65</sup>. Under-prescribing could perhaps lead to the individual finding other methods to treat their underlying pain and at times, prescription opioid use is a slippery slope which may lead to heroin use or overuse of prescription opioids, with four-fifths of heroin users having a history of past prescription opioid misuse<sup>66</sup>. Even properly treated opioid addiction

is difficult to manage if the underlying pain lingers as those with past opioid use and chronic pain being five times more likely to experience relapse compared to those that do not live with chronic pain<sup>67</sup>. Adding to this existing confusion is a lack of consensus on the effectiveness of alternative approaches to pain management.

There is a lack of clinical consensus and definitive research that provides a protocol to effectively treat non-cancerous chronic pain with physicians often expressing a lack of confidence in prescribing opioids to pain patients<sup>68</sup>. In some facilities, physicians have imposed a freeze on prescribing medication, leaving chronic pain patients with morbid inconvenience.

Unresolved dilemmas on the efficacy of pain treatment question the very legitimacy of pain symptoms; questions such as how to differentiate between patients with real chronic pain from those who are malingering to feed to their addiction? How to differentiate between legitimate chronic pain symptoms with the addictive ones? Should the practice of using opioids as a pain management mechanism be eschewed altogether? If the practice of prescribing opioids is abjured, then how to help patients who currently manage their chronic pain with opioids but have not become addicted? Does use of opioids for chronic pain create a dilemma where the providers are uncertain about when pain subsides, functionality improves, and addiction begins? How do providers of both medical and behavioral health services differentiate between a functional pain management need and the OUD that co-occurs? Traditionally, increased tolerance to pain through non-pharmaceutical mechanisms was a legitimate means to pain management. When non-cancerous pain struck, either one tolerated the pain, or found alternative methods to fortify resilience of the body by distracting the mind. By the time opioids were promoted as a cure and pain was elevated to a "fifth vital sign", the scientific community had trounced all alternative

and holistic approaches to pain management practices that hitherto existed<sup>69</sup>. In their zeal to promote a pharmacological solution to pain management practices such as yoga, self-management, and even counseling was done away with in favor of opioid prescription. As stated earlier, chronic pain is a complex construct that includes both physical and cognitive contexts. Unfortunately, clinicians of both behavioral and medical stripes disagree on the importance of non-biological factors to chronic pain; components such as emotional resilience, nurturing supportive relationships, healthy lifestyle were set aside in favor of opioids<sup>70</sup>.

Debates over harm reduction and abstinence-only approaches have historically divided provider communities treating OUD. A few providers have long advocated for use of slow releasing, non-addictive opioids such as buprenorphine to reduce risks of overdosing while others supported an abstinence-only approach focusing on understanding the context of the patient, increasing resilience through counseling, case-management, and other eclectic intervention strategies<sup>40</sup>. These clinical differences and lack of consensus have marked the treatment approaches to both pain management and OUD.

### **A Clinical Paradigm Shift**

Given the importance of recognizing OUD as a co-occurrence of pain management, and the effectiveness of pain control while treating OUD, integrated methods are still underused. A recent study continued to confirm the pain-OUD co-occurrence by revealing that over 60% of people with methadone assisted treatment for opioid use reported having chronic pain. Among the large portion of patients that reported chronic pain, less than 13% were receiving treatment for both pain management and opioid use disorder<sup>71</sup>. This indicates a crucial need to develop and implement treatment methods which can treat these issues simultaneously. While developing treatment plans for people with physical disabilities or chronic illness

experiencing co-occurring pain and OUD issues, collaborative services which include psychological counseling, treatment coordinators, pharmacists, and health service providers specialized in pain management are crucial as they provide integrated treatments that are shown to relieve both OUD and its root, pain, simultaneously<sup>72</sup>.

Of the individuals misusing prescription opioids for pain management, 40.8% state that they received these prescriptions from friends or family members with 86.5% of those family members having the pills prescribed to them by a physician<sup>73</sup>. The communication between physicians and patients also plays a significant role in protecting patients from becoming opioid dependent, as 31% of patients in the study reported having not enough discussion with their physicians about pain management and claimed that their first motivation of getting prescription opioids was to manage pain under the management of physicians. Therefore, physicians' assessment and monitoring of the co-occurrence of chronic pain should become a key component in overcoming the current opioid crisis<sup>74</sup>.

An effective strategy for addressing such practices of medication sharing and misuse is establishing more effective PMPs. Such programs have been effective at monitoring the behaviors of prescribers and determining the risk of abuse<sup>75</sup>. There is a lack of research measuring the overall impact PMPs have on opioid use, as, unfortunately, PMPs vary by state. Those states with a PMP in place that logs opioid use have shown to result in less opioids being prescribed<sup>76</sup>. So, it is paramount that alternate treatment methods and processes for monitoring the prescription process are developed going forward<sup>77,78,79</sup>.

Counseling is another critical pain intervention. However, the role of counseling in lowering prescription opioid dependence seems to vary by study: for example, pre operative counseling in pain management could significantly reduce the consumption of prescription opioids after

carpal tunnel release surgery, indicating that counseling for pain management may be able to improve the reduction of prescription opioid usage as a supplementary approach<sup>80</sup>. Similarly, conducting cognitive-behavioral therapy and educational counseling services, have helped in achieving reduced pain scores from baseline measurements and decreased non-medical use of opioids<sup>81</sup>. However, previous studies have reported non-significant improvement in illicit opioid use. For instance, no statistically significant difference was spotted in opioid-negative urine samples between regular buprenorphine-naloxone maintenance therapy (BNMT) and counseling plus BNMT for opioid dependence<sup>82</sup>. It is also argued that combining intensive counseling services in treatment for prescription opioid dependence is less likely to be beneficial<sup>83</sup>.

There has been a shift in treating OUD with the introduction of medically assisted therapy (MAT) which led to thinking of treatment beyond just drugs. MAT incorporates harm reduction approaches to drug addictions by regularly administering buprenorphine, a slow releasing non-addictive antidote which reduces the risk of overdosing, along with counseling and case management approaches in an integrated care setting<sup>84</sup>. Medical and behavioral health professionals should confer and work in tandem to comprehensively address the problem. Treating chronic pain as a co-occurring disorder to OUD will further add to this new treatment approach.

## Conclusion

Historically, pain management protocols are marked by conflicts of interest, irregularities in care, and a lack of integration in medical and behavioral health care provisions. This has resulted in a nationwide crisis of epic proportions. The OUD that has emerged through legally obtained prescription drugs, meant to address a medical need of relief from chronic pain, has another moral dimension to it: patients find legitimacy in their addiction and thus find it difficult to accept their condition as a disorder<sup>85</sup>.

To an extent, these individuals have reason to feel outraged on being diagnosed with OUD as they had gone to their physicians for a legitimate reason and ended up being labeled as an addict by society. This phenomenon adds further complication to both the OUD and pain management treatment outcomes. Tolerance of opioid medication may lead to an increase in dosage, with a current study reporting that approximately half of the patients with opioid dependence did not believe that they had received sufficient medication to control their pain symptoms<sup>86</sup>. This belief of feeling underserved along with needing an increased dosage to relieve pain leads to higher consumption of prescribed painkillers and usage of emergency services to manage chronic pain<sup>87</sup>. Long term use of prescription opioids can lead to increased duration of disability, a higher likelihood of surgery, and higher rates of comorbid mental health issues<sup>88</sup>.

Despite the differences that may exist in terms of reason for use, which differentiates the opioid epidemic from past crack-cocaine epidemic, public perception of opioid users remains negative, with 78.1% of individuals feeling that the user is to blame for their prescription OUD. This rises to over 80% if the individual has had a personal experience with prescription opioids<sup>89</sup>. Compared to similar polls which show less blame on the prescriber or pharmaceutical companies; with categories which include doctors not properly examining the individual prior to prescribing opioids and pharmaceutical companies not adequately explaining the possibility of addiction on labels only receiving 58.1% and 50.3% respectively<sup>90</sup>. The rationale for use, as well as the response to the recent opioid epidemic, has been predominantly as an “addiction” crisis, and rarely are co-occurring physical disabilities, chronic illnesses and pain generated from those illnesses, addressed simultaneously. The co-occurring paradigm, we argue here, could influence the design, funding, and implementation of treatment recovery programs moving forward.

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