LITERATURE REVIEW

Problematic terminology for problematic drug use

David Cowan, MD, BSc (Hons), PhD

INTRODUCTION

The use of opioid therapy in chronic noncancer pain (CNCP) has been described as controversial.¹⁻⁹ While the use of opioids in CNCP is now accepted by many pain specialists,¹⁰⁻¹⁷ a major concern is that CNCP patients will develop patterns of problematic drug use, including abuse and addiction.¹⁸⁻²⁴ Consequently, over the years there have been numerous calls for more research into the long-term use of opioids in CNCP.7-9,18,24-26 However, it is also observed that prejudice and ignorance still impede optimum prescribing of these drugs.^{9,14,27} This is partly attributable to problems arising from the incorrect use of terminology pertaining to problematic drug use,^{2,6,28-34} and there is still a need for agreement on clear definitions for problematic behavior in CNCP patients.^{35,36} This focused review of literature examines the perceived origins of the problem and discusses attempts at redress along with some examples of ongoing contributory factors. The paper then concludes with suggestions on future remedial action.

ORIGINS OF THE PROBLEM

The anti-opium movement

According to Schaler,³⁷ a little more than 200 years ago the concept of addiction was unknown. Schaler noted that the tremendous change of opinion that led to the disease model of addiction did not originate from scientific research, but instead emanated from the moralistic rhetoric of the 19th Century anti-opium and temperance movements. The anti-opium movement arose largely from opposition to British and American involvement in trafficking opium into China; namely, the British government of the day, along with successive 19th Century governments, argued in favor of the traffickers, that the longterm use of opium was relatively safe.³⁸ Indeed, before the establishment of the anti-opium movement, self-medication with opium was considered as quite normal and not to pose a problem. Most people purchased opium in the same way as we now buy aspirin or paracetamol (acetaminophen)-many households would have stocked a bottle of tincture of opium, or laudanum, for the treatment of aches, pains, and stomach upset. The apparent absence of an epidemic of problematic opioid drug use may be partly explained by the theory that selfmedication was the most common reason for opioid use at this time.³⁸ However, there is no doubt that opioids were also used recreationally, although the boundaries between medical and recreational use were often blurred. Opium was often used as a tonic, a "pick-meup," or a "calmer of nerves." Both Wilberforce and Gladstone are said to have taken opium before speaking in the British House of Commons.³⁸

In 1895, a Royal Commission on opium use, initiated by the British Government, concluded that the "evil effects of opium consumption" had been greatly exaggerated, dismissing any connection between opium use and crime and likening its moderate use to that of alcohol; furthermore, they stated that the extensive use of opium for "non-medical and quasi-medical purposes" was, for the most part, without injurious consequences.³⁸ The Royal Commission also felt that nonmedical and medical uses of opium were perceived as so interwoven that it was deemed to be impractical to make a distinction between different types of usage with regard to the distribution and sale of the drug.

In contrast, the anti-opium movement, with the backing of the emerging medical profession, who desired greater control over the prescription of opioid substances, claimed that all regular use of opium would, without exception, lead to addiction.³⁸ In concurrence with Schaler,³⁷ Berridge³⁸ noted that, as a part of 19th Century progress, many medical conditions were newly classified or categorized as disease entities according to new "scientific" theories. However, the boundaries between studying chemistry, physics, biology, and sociology were not as fixed as they are today, and it was not uncommon to refer to phenomena in terms of the "moral sciences." It was in such a climate that medical professionals began to study the newly specialized area of addiction and, therefore, viewed opium consumption under the auspices of inebriety, which was classified as a disease.³⁸ Schaler claimed that by following the trend to "medicalize" social deviancy, it became easier for the

anti-opiumists to scare people away from drug use.³⁷ This hybrid theory suited the anti-opium movement well because it emphasized the moral aspect of disease causation and therefore disease symptoms could be viewed in terms of personal responsibility.³⁸

Unresolved question

Any evidence of the existence of a class of regular yet moderate therapeutic user would undermine the claims of the anti-opium movement and be seriously damaging to the movement's case for ending the opium trade in China.³⁸ Consequently, during the 19th century opium debate, the central argument became the question of whether or not there was a class of moderate, long-term, "nonaddicted" opium users, which also encompassed the use of opium products for the treatment of long-term chronic illnesses.³⁸ This issue remains unresolved today and is central to the present controversy as to whether or not there exists such a class of CNCP patients.

ATTEMPTS TO REDRESS THE SITUATION

World Health Organization and Diagnostic and Statistical Manual definitions

Observing that the term "addiction" was originally used to describe a habit, Fishbain et al.² noted that in 1957, the World Health Organization (WHO) defined addiction as "a state or period of chronic intoxication characterized by: an overpowering desire or need (compulsion) to continue taking a drug and to obtain it by any means, a tendency to increase the dose, a psychological and generally a physical dependence on the effects of the drug, and a detrimental effect on the individual and/or society." However, because it was recognized that some individuals could be physically dependent on a drug without compulsive use and vice versa, the WHO decided to adopt the term "dependence."²

In 1964, the WHO defined drug dependence as "a state of psychic or physical dependence, or both, on a drug arising in a person following administration of that drug on a periodic or continuous basis."² Thus, the dichotomy between physical dependence and psychological dependence was made explicit, as was the possibility of experiencing one without the other (e.g., the possibility of being physically dependent without being addicted). Subsequently, however, in a working paper for the WHO, Glatt described the conditions of "psychological" or "emotional dependence," formerly known as "habituation."³⁹ Glatt then noted the condition of "physical dependence" followed by the bracketed word "addiction," suggestive of synonymity between the two.

The 1980 *Diagnostic and Statistical Manual*, 3rd edition (DSM-III),⁴⁰ used two terms: "abuse" and "dependence"

(Table 1). Abuse included a pathological pattern of use, while dependence included the concepts of tolerance and withdrawal.^{2,40} The DSM-III made no distinction, however, between dependency and legitimate long-term medical use of an opioid or sedative, which could result in tolerance and withdrawal symptoms on abrupt cessation of drug.² Furthermore, opioid and sedative dependence with no abuse were considered to be psychiatric disorders, whereas similar conditions related to prolonged administration of antihypertensive or antidepressant drugs were not.² Also, there was no provision for assessing the severity of dependence.² Subsequently, the WHO convened an international working party which defined "dependence" as "a syndrome manifested by a behavioral pattern in which the use of a given psychoactive drug or class of drugs is given a much higher priority than other behaviors that were once given a higher value."2 Dependence syndrome was thus perceived as not absolute but existing in degrees, with compulsive drug-using behavior at the extreme end,² which in turn led to revised DSM-III criteria (DSM-III-R).41

CONTRIBUTORY FACTORS

Opiophobia

Despite these attempts to redress the situation, in 1985, Morgan⁴² popularized the term "opiophobia," which was used to describe the undertreatment of severe pain owing to irrational and undocumented fears of opioid drug addiction. Morgan contended that opiophobia was associated with faulty knowledge, resulting in physician inability to distinguish between physical dependence and drug addiction.⁴² While Halpern and Robinson⁴³ proposed that it may be difficult to distinguish between psychological dependence and physical dependence, they concurred that drug addiction is distinctly different from physical dependence on a drug, and that while physical dependence can be a part of addiction, physical dependence does not have to be present for addiction to occur.

Portenoy²⁹ observed that practitioners commonly failed to distinguish between physical dependence, addiction, drug abuse, drug dependence, and compulsive use, and felt that the term "drug dependence" could refer to psychological dependence, physical dependence, or both. He defined drug addiction in the chronic pain patient as an intense desire for the drug, compulsive drug use, continued use despite significant side effects, unapproved drug use during periods of no symptoms or to treat symptoms not prescribed for, manipulative behavior, acquiring drugs from other sources, drug hoarding, drug selling, and unapproved use of other drugs.²⁹ Drug abuse was defined as the use of an agent outside socially and medically approved patterns in a given culture, or in a way that results in physical, psychological, or social harm to the individual or others.²⁹ Finally, Portenoy advocated that physical dependence could occur after minimal exposure to opioids and should be expected to be present in any patient who had taken opioids for more than a few days.²⁹

Attempts at defining prevalence of problematic opioid use

One of the factors that has continued to perpetuate misuse of terminology has been an ongoing attempt by various authors to define the prevalence of problematic opioid use among pain patients, using incorrect definitions combined with generally unsound research methods.

In what was perceived by some as a landmark publication in 1954, Rayport⁴⁴ used the term "medical addiction," defining those addicted as having been initially given opioids by a physician. Rayport's survey purported to demonstrate a higher prevalence of patients (28.2 percent) who were medically addicted to narcotics (i.e., opioids) than had previously been recognized.⁴⁴ However, there were methodological problems with the survey; 43.5 percent of those undergoing treatment for addiction were convicted criminals referred by courts for treatment, who would be sent to prison if they did not complete treatment. If the patient stated that addiction to opioids owed to prescription by a physician, they were defined as medically addicted; no external checks were made as to the validity of the claim, such as by checking criminal records to verify whether the patient had been convicted of opioid possession before they claimed to have been medically addicted.44

In 1974, Glatt stated that users of narcotics (i.e., opioids) become both psychologically and physically dependent on relatively small therapeutic doses after a relatively short period of administration, thus, reinforcing the concept of the medical addict.⁴⁵ Further attempts were made to establish the prevalence of problematic drug use among CNCP patients. Fordyce⁴⁶ claimed from experience that addiction or habituation—these terms being used interchangeably, with no definitions given was seen in over 50 percent of chronic pain patients. No evidence was offered in support of this claim.

As a warning of the dangers of drug dependency and drug abuse in patients with chronic pain, Medina⁴⁷ undertook a prospective survey of patients with headache. While acknowledging "great confusion" in the use of terminology, Medina provided definitions of psychological dependence, physical dependence, and drug abuse. Medina then added to the confusion, however, by classifying some problematic users as "physically addicted"—a term for which Medina offered no definition and also contradicted his earlier definitions.⁴⁷

To support the claim that prescription drug abuse is a significant problem in CNCP patients, Maruta et al, using a sample of 144 patients, reported 41 percent as being drug abusers and 24 percent as being drug dependent.¹⁸ While acknowledging the difficulties in defining operational criteria for abuse of prescription drugs, Maruta et al. arrived at their definitions of "drug abuse" and "drug dependency" by modifying existing criteria; however, they also acknowledged that their definitions were too broad to demonstrate meaningful differences between the groups of patients they studied.¹⁸ The authors made no distinction between physical drug dependency and psychological drug dependency and conceded that refinement of their definitions were necessary.¹⁸ However, two years later, Maruta and Swanson,¹⁹ contrary to refining definitions, further broadened them, stating that abuse had occurred if a patient with no evidence of a nonprogressive disease had taken a narcotic (opioid) on a daily basis for more than a month, which yielded a 100 percent abuse rate for patients taking oxycodone.¹⁹

In comparing study populations, Bouckams et al.⁴⁸ stated that the prevalence of "addiction" in Maruta et al.'s population¹⁸ was identical to their own. However, Bouckams et al. appear to have overlooked the fact that Maruta et al.'s very broad definition was of "dependence" and not "addiction." This does not correlate with the former's own definition of "addiction," described as a behavioral pattern of drug use and characterized by overwhelming involvement with the use of the drug, the securing of its supply, and a high tendency to relapse after withdrawal.⁴⁸

Continued problems using World Health Organization and *Diagnostic and Statistical Manual* terms to define problematic use

In undertaking a survey of 110 patients to determine the prevalence of problematic drug use among CNCP patients, Kouyanou et al.³¹ commented on the confusing terminology in the field of psychoactive substance abuse and/or dependence, noting that the DSM III-R criteria for the diagnosis of such conditions had limitations (Table 1). Interestingly, while six (4.8 percent) patients were classified as dependent on opioid analgesics, there were more patients (five, 4 percent) classified as abusing nonopioid analgesics than there were abusing opioid analgesics (four, 3.2 percent).³¹

Chabal et al.⁴⁹ concluded that applying DSM-III-R criteria, the WHO's International Classification of Disease diagnostic criteria (WHO-ICD-10),⁵⁰ or more recent DSM-IV criteria⁵¹ presented difficulties in distinguishing between dependency and legitimate long-term use of opioids in CNCP patients. To address these problems, a 5-point checklist for prescription opioid abuse was proposed, including the following items: overwhelming

Table 1. Common diagnostic criteria	
Source	Criteria
DSM-III Diagnostic Criteria for Psychoactive Substance Dependence. (APA,1980)	"Substance Dependence" generally is a more severe form of substance use disorder than substance abuse and requires physiological dependence, evidenced by either tolerance or withdrawal.
	Invariably there is also a pattern of pathological use that causes impairment in social or occupational func- tioning, although in rare cases the manifestations of the disorder are limited to physiological dependence. An example would be an individual's inadvertently becoming physiologically dependent on an analgesic opioid given to him by a physician for the relief of physical pain.
	The diagnosis of all Substance Dependence categories requires only evidence of tolerance or withdrawal, except for alcohol and cannabis dependence, which in addition requires evidence of social or occupational impairment from use of the substance or a pattern of pathological substance use.
DSM-III-Revised Diagnostic Criteria for Psychoactive Substance Dependence. At least three of the following nine conditions must be present. (APA, 1987)	1) Substance is often taken in larger amounts or over a longer period than the person intended.
	2) Persistent desire or one or more unsuccessful efforts to cut down or control substance use.
	3) Great deal of time spent in activities necessary to get the substance (e.g. theft), take the substance (e.g. chain-smoking), or recover from its effects.
	4) Continued use substance use despite knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by the use of the substance (e.g., keeps using heroin despite family arguments about it, has cocaine-induced depression, or has an ulcer made worse by drinking).
	5) Frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school, or home (e.g. does not work because hung over, goes to work "high," is intoxicated while taking care of children), or when substance use is physically hazardous (e.g., drives when intoxicated), important social, occupational, or recreational activities are given up or reduced because of substance use.
	6) Marked tolerance: a need for markedly increased amounts of the substance (i.e. at least 50 percent increase) to achieve intoxication or the desired effect, or markedly diminished effect with continued use of the same amount of substance.
	7) Characteristic withdrawal symptoms.
	8) Substance is often taken to relieve or avoid withdrawal symptoms.
	9) Some symptoms of the disturbance must have persisted for at least one month, or have occurred repeat- edly over a longer period.
DSM-IV Diagnostic Criteria for Sub- stance Dependence. A maladaptive pat- tern of substance use, leading to clini- cally significant impairment or dis- tress, as manifested by three or more of the following, occurring at any time in the same 12- month period. (APA, 1994)	1) Tolerance, as defined by either of the following: (a) a need for markedly increased amounts of the sub- stance to achieve intoxication or desired effect, or (b) markedly diminished effect with continued use of the same amount of substance.
	2) Withdrawal, as manifested by either of the following: (a) the characteristic withdrawal syndrome for the substance, or (b) the same or a closely related substance is taken to relieve or avoid withdrawal symptoms.
	3) The substance is often taken in larger amounts or over a longer period than the person intended.
	4) There is a persistent desire or unsuccessful efforts to cut down or control substance use.
	5) A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects.
	6) Important social occupational or recreational activities are given up or reduced because of substance use
	7) The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption).
ICD-10 Diagnostic	1) A strong desire or sense of compulsion to take the substance.
Guidelines for Dependence	2) Difficulties in controlling substance-taking behavior in terms of its onset, termination, or levels of use.
Syndrome. A defi- nite diagnosis of dependence should usually be made only if three or more of the follow- ing have been pres- ent together at some time during the pre- vious year. (WHO, 1992)	3) A physiological withdrawal state when substance use has ceased or been reduced, as evidenced by: the characteristic withdrawal syndrome for the substance or use of the same (or closely related) substance with the intention of relieving or avoiding withdrawal symptoms.
	4) Evidence of tolerance, such as increased doses of the psychoactive substance are required in order to achieve effects originally produced by lower doses (clear examples of this are found in alcohol and opiate-dependent individuals who may take daily doses sufficient to incapacitate or kill nontolerant users).
	5) Progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or take the substance, or to recover from its effects.
	6) Persisting with substance use despite clear evidence of overtly harmful consequences, such as harm to the liver through excessive drinking, depressive mood states consequent to periods of heavy substance use, or drug-related impairment of cognitive functioning, or could be expected to be aware of the nature and extent of the harm.

patient focus on drug issues during clinic visits; asking for early prescription replenishments on three or more occasions; multiple visits or telephone calls to request more opioids; a pattern of lost, spilled, or stolen medications; and supplemental sources of opioids obtained from multiple providers or illegal sources.⁴⁹

Wesson et al.⁵² noted that the seemingly more precise term "dependence" did not encompass all of the attributes of addiction, defined as being present when a person's life is dominated by drug use and which continues in spite of repeated adverse consequences. They suggested that the DSM III-R criteria had actually lost the criteria with most appeal to psychiatrists, namely, the thought process of the patient. According to DSM III-R, physical dependence and tolerance (criteria 7 and 8) combined with any of criteria numbers 2, 3, 5, 6, or 9, will qualify a patient for diagnosis of drug dependence (Table 1).41 Given this broad latitude, Wesson et al. suggested additional considerations when using the DSM III-R criteria for the assessment of addiction in CNCP patients, such as drug-taking reliability, loss of control over drug uses, drug-seeking behaviors, the abuse of alcohol or street drugs, and general communication style.⁵² Similarly, Sees and Clark³⁰ observed that no precise or satisfactory definition of addiction among chronic pain patients existed, and only three of nine DSM III-R criteria persisting for one month or more or repeating over a longer period was required (Table 1). Accordingly, five of the nine diagnostic criteria related to physical dependence or tolerance may easily be met in CNCP patients on long-term opioid therapy.³⁰ If the term "addiction" is to be used in relation to CNCP patients, it must be defined in terms of compulsive drug use, drug-seeking behavior, loss of control over drug use (dose and frequency), and continued drug use in spite of adverse consequences and medical advice to discontinue opioids.³⁰ Sees and Clark also suggested the addition of questions on adverse life consequences not owing to pain, contact with street drug culture, and cooperation with treatment plan, including alternative pain management techniques, because although tolerance and physical dependence should be expected in CNCP patients on long-term opioid therapy, the maladaptive behavioral changes associated with addiction should not.³⁰

Subsequent to their review of literature, Fishbain et al.² concluded that terminology to describe problematic drug use was not being used in a universally acceptable fashion. However, they noted that the DSM had no plans to adopt the term "addiction" or develop operational criteria for this syndrome.² Observing that the undertreatment of pain could lead to behaviors that might be mistaken for addiction, Fishbain et al. predicted that the situation was unlikely to improve and would continue to cause research difficulties.² Despite the introduction of newer DSM-IV criteria,⁵¹ Compton et al.³³ acknowledged the

challenging task of determining whether or not a CNCP patient who is physically dependent on opioids is in fact addicted. Because the DSM-IV criteria for substance dependence were still heavily weighted toward the presence of physical dependence and tolerance, some CNCP patients could meet these criteria without actually being addicted, and conversely, some who were addicted may not (Table 1). To overcome these problems, Compton et al. introduced a multiple-item screening questionnaire.³³ Responses of known addicted patients differed significantly from those of nonaddicted patients as demonstrated by total questionnaire scores in a sample of 52 patients.³³

American Society of Addiction Medicine

The American Society of Addiction Medicine (ASAM) public policy statement on definitions related to the use of opioids in pain treatment highlights the unreliability of the now commonly used DSM-IV criteria for diagnosing opioid use disorder in pain patients.³⁶ These same short-comings can also be noted in the WHO-ICD-10. As noted, both DSM-IV⁵¹ and WHO-ICD-10⁵⁰ lack a definition for "addiction," and both quote the potential for drug tolerance and physical dependence in their equivalent diagnoses for addiction, "Opioid Dependence" and "Dependence Syndrome," respectively.³⁶ The ASAM defines addiction as a primary, chronic, neurobiological disease, characterized by one or more of the following types of behavior: impaired control over drug use, compulsive use, and continued use despite harm and drug craving.³⁶

REGULATORY AND INVESTIGATIVE POLICIES

"Dangerous gap"

The United States federal government is currently focusing on problematic drug use associated with the prescription of opioids for CNCP, although it has been noted that there remains a "dangerous gap" in the medical literature.⁵³ Resulting in confusion and anxiety, this gap is now exacerbated by the US Drug Enforcement Administration's (DEA) regulatory and investigative policies.⁹ The debate and media stories regarding ongoing prosecutions of physicians who prescribe opioids are highlighted by the Pain Relief Network (PRN), an organization which focuses on US law enforcement agencies' increasing role in contributing to the undertreatment of pain due to irrational fears of problematic drug use.⁵⁴ The PRN claims that it is becoming increasingly clear that patients in pain who are dependent on opioid medications to function are being targeted by law enforcement agencies to increase their conviction statistics, and that pain clinics are being targeted by state and federal agencies and summarily shut down.54 Patient records are

being removed from doctors' offices, and the patients themselves essentially abandoned by society, unable to find replacement care. $^{54}\,$

Drug Enforcement Administration's action on OxyContin

Illustrating the aforementioned regulatory difficulty, several interesting points were raised by Ronald T. Libby in a piece titled, "The DEA's OxyContin Action Plan: An Unproven Drug Epidemic."54 Libby cites the US Government Accountability Office's highly critical report in 1999, stating the DEA had no measurable proof that it had reduced the illegal drug supply in the United States.⁵⁵ The US Department of Justice also gave the DEA a negative evaluation, concluding that its goals were not consistent with the federal National Drug Control Strategy and questioning why the DEA was not doing more to combat prescription drug abuse.⁵⁶ In 2001, the DEA responded to this criticism by announcing a major new campaign, the "OxyContin Action Plan,"57 claiming that OxyContin was responsible for a deadly drug epidemic spreading throughout rural America.58

However, Libby cited the use of questionable methodology by the DEA in the collection of their data on socalled "OxyContin-verified" deaths, noting that most of the decedents had multiple drugs in their bodies.⁵⁴ More than 40 percent of the autopsy reports contained benzodiazepines, approximately 40 percent contained an opioid in addition to oxycodone, 30 percent contained an anti-depressant, 15 percent contained cocaine, and 14 percent contained over-the-counter antihistamines or cold medications-therefore, death could have been attributed to any number of drugs or combination of drugs or diseases.⁵⁴ In addition, Libby suggested there are problems with the DEA's estimate of death risk.54 With Libby's calculations of eight deaths (0.00008 percent) for every 100,000 OxyContin prescriptions, and with an average of 2.5 of these as verified deaths and 5.5 likely related deaths, it is somewhat ambitious to claim that these low numbers constitute a deadly prescription drug epidemic.⁵⁴

Despite this, ongoing DEA drug diversion investigations focus on physicians who prescribe high levels of OxyContin and other opioids to alleged "addicts."⁵⁴ The DEA defines addicts as individuals who habitually use any narcotic drug that endangers the public morals, health, safety, or welfare; this, according to Libby, leads to the mistaken belief that CNCP patients who are prescribed large amounts of opioids are addicts, and that physicians who treat them are conspirators in the illegal drug trade.⁵⁴ Similar to the 19th Century, we still see a hybrid mixture of moral and health concerns. The DEA takes the position that narcotics such as OxyContin should be the drug of "last resort for chronic pain."⁵⁹ However, Libby advocated that determining whether a pain patient is an "addict" and whether OxyContin is "medically necessary" in treating chronic pain is clearly beyond the expertise and mission of the DEA. $^{54}\,$

However, if medical specialists still cannot agree among themselves what is meant by addiction and drug dependence and sometimes fail to acknowledge the differences between therapeutic dependence, physical dependence, and psychological dependence, then it can hardly be expected that law enforcement agencies and lay juries will be able to make this distinction. In the meantime, opioid-maintained CNCP patients continue to be labeled as junkies, addicts, or abusers, sometimes based merely on their time-scale of opioid use.^{34,54,60-62}

"TERMINOLOGICAL MINEFIELD"

Bearing out Fishbain et al.'s prediction made more than 10 years ago,² the continuation of the problematic use of terminology is highlighted in a recently published book.⁶³ Living with Drugs, by Professor Gossop of the National Addiction Centre in London, gives a historical perspective on drug use and discusses the use, effects, social context, and control of some common contemporary drugs such as alcohol, tobacco, cannabis, LSD, and heroin. While Gossop indicates that in this particular book he prefers to examine the issues of drugs and drug taking themselves rather than the language used to talk about them, by way of an "Author's Apologia," Gossop indicates that the words used to describe drug taking confront us with a "terminological minefield."63 Gossop notes that the word "addiction" is strongly disliked by many because of its implied "excess meaning" but sees a place for the term as it captures something of the element of compulsion to use drugs, which has underlying physiological foundations-although he sees it as describing a learned psychological process.⁶³ Gossop notes further that there is a lobby that objects to the term "syndrome" being used in relation to dependence because it has medical connotations.⁶³ There should be no objection to such medical connotations, however, if we are talking about a diseased state.

DISEASE OR NOT?

Once again, this takes us back to the 19th century root of the problem. In disputing that addiction really is a disease, Schaler suggests that the disease model has previously been mistakenly applied in judging the moral conduct of those who society conveniently sought to control or marginalize through "treatment."³⁷ For example, it was not until 1973 that the American Psychiatric Association—which defines the disease of "substance dependence" in DSM-IV⁵¹—declassified homosexuality as a disease.³⁷ Clearly, to avoid confusion and contradiction, the decision to classify something as a disease must be underpinned by robust evidence and in some cases regularly reviewed. Such a review is now required regarding the concepts of addiction and dependence. While ASAM defines addiction as a primary, chronic, neurobiological disease,³⁶ according to the WHO classification of diseases,⁵⁰ the disease of addiction apparently does not exist, yet there is a classification for "dependence syndrome."⁵⁰ This lack of clarity gives rises to the question, which is really the disease: addiction, dependence, both, or neither?

TIME FOR NEW DIAGNOSTIC CRITERIA

The ASAM acknowledges that its definitions do not constitute formal diagnostic criteria but hopes that they may serve as a basis for future development of more specific, universally accepted diagnostic guidelines.³⁶ Indeed, the ASAM advocates that universal agreement on definitions of addiction, physical dependence, and tolerance is critical to the optimal treatment of pain and management of disorders arising from addiction and continues to work toward this end with the American Academy of Pain Medicine and the American Pain Society.³⁶

In current practice, the term "addiction" is commonly used to impose a category, resulting in people being labeled as "addicted" or "not addicted." This type of categorization prevents any possibility of viewing people as being anywhere in between. Clearly, this is a problem that the WHO had sought to overcome in defining "dependence syndrome" as existing in degrees, with compulsion to use drugs at the extreme end of a spectrum.⁵⁰ However, it is still unusual for professionals to refer to people as being "slightly" or "severely" addicted.

It is time to start advancing through the aforementioned "terminological minefield" to try and formulate new diagnostic criteria. For example, a new classification of psychological opioid dependence syndrome (PODS) may be useful. This could be characterized by one or more of the following: impaired control over drug use, compulsive use, continued use despite harm, and drug craving. This could be further qualified by items such as those suggested by Portenoy,²⁹ Sees and Clark,³⁰ Compton et al.,³³ Chabel et al.,⁴⁹ and Wesson et al.⁵² in the form of a checklist, and thus graded in degrees of severity. Also, it could be noted whether other phenomena such as physical dependence and tolerance are present or not. Although physical dependence and tolerance are separate entities, they can nonetheless be problematic. However, before this can happen, further clarification and agreement is also needed as to whether we are describing a diseased state, this being all of the time or perhaps just some of the time.

CONCLUSION

Clearly, the use of correct terminology pertaining to problematic opioid drug use is fraught with difficulties.

This is particularly so with regard to CNCP patients but also applies to wider recreational drug use. The unstable foundation of the 19th century hybrid moral-scientific theory that underlies the concept of addiction has resulted in failure to reach a consensus on the application of correct terminology. This has been exacerbated over the years by the continued application of inappropriate, inadequate, and unreliable criteria, which have been used by many as "gold standard" definitions. Furthermore, to compound the problem, inappropriate methodology has been applied in seeking to determine the prevalence of problematic opioid drug use, including death rates.

These issues have clear implications for the discipline of pain medicine and contribute to the difficulties of assessing for problematic drug use among CNCP patients. The question as to whether or not there exists a class of long-term, unproblematic, opioid-maintained CNCP patient remains unresolved and is central to the present controversy. Before conclusive research into the longterm effects of opioids in CNCP patients can be undertaken on a large scale, however, universal agreement is required on the application of terminology with regard to precisely what terms are to be used, how such terms are defined, and if they are to be graded according to severity. Such agreement will in turn need to be underpinned by additional research, for example, further studies that build on the earlier cited work by Fishbain et al.,² Portenoy,²⁹ Sees and Clark,³⁰ Kouyanou et al.,³¹ Compton et al.,³³ Chabel et al.,⁴⁹ and Wesson et al.⁵²

David Cowan, MD, BSc (Hons), PhD, Reader, Department of Leadership & Practice Innovation, Faculty of Health & Social Care, London South Bank University.

REFERENCES

1. Brena SF, Sanders SH: Controversy corner: Opioids in nonmalignant pain: Questions in search of answers. *Clin J Pain*. 1991; 7: 342-345.

2. Fishbain DA, Rosomoff HL, Rosomoff RS: Drug abuse, dependence, and addiction in chronic pain patients. *Clin J Pain*. 1992; 8: 77-85.

3. Butler SH: Opiates for chronic pain—Present American controversy. *Regulatory Peptides*. 1994; 53(Suppl 1): S295-S296.

4. Savage SR. Pain medicine and addiction medicine: Controversies and collaboration. *J Pain Symptom Manage* 1993; 8: 254-256.

5. Turk DC: Clinicians attitudes about prolonged use of opioids and the issue of patient heterogeneity. *J Pain Symptom Manage*. 1996; 11; 218-228.

6. Collett BJ: Opioid tolerance: The clinical perspective. *Br J Anaesth.* 1998; 81: 58-68.

7. Harden RN, Fox CD: Chronic opioid therapy: Another reappraisal. *Am Pain Soc Bull.* 2002; 12: 1.

8. Mikta M: Experts debate widening use of opioid drugs for chronic nonmalignant pain. *JAMA*. 2003; 289: 2347-2348.

9. Gallagher R: Õpioids for intractable pain: The good, the bad and the ugly [Editorial]. *Pain Med.* 2005; 6(2): 103-104.

10. Zenz M, Strumpf M, Tryba M: Long-term oral opioid therapy in patients with chronic non-malignant pain. *J Pain Symptom Manage*. 1992; 7: 69-77.

11. Melzack R: Landmark article on management of chronic non-malignant pain. *Can Fam Physician*. 1995; 41: 9-12.

12. Portenoy RK: Opioid therapy for chronic non-malignant pain: A review of the critical issues. *J Pain Symptom Manage*. 1996; 11: 203-217.

13. A consensus statement from the American Academy of Pain Medicine and the American Pain Society: The Use of Opioids for the Treatment of Chronic Pain. *Pain Forum.* 1997; 6: 77-79.

14. McQuay HJ: Opioids in pain management. *Lancet.* 1999; 353: 2229-2232.

15. American Academy of Pain Medicine: Long-term controlled substances therapy for chronic pain. Sample agreement, 2001. Available online at: *http://www.painmed.org/productpub/state-ments/sample.html*.

16. Provisional Recommendations for the Appropriate Use of Opioids in Patients With Chronic Non-cancer Related Pain. A consensus document prepared on behalf of The (UK) Pain Society. April 2003. Available online at: *http://www.painsociety.org.*

Kalso E, Allan L, Dellemijn PL, et al.: Recommendations for using opioids in chronic non-cancer pain. *EurJPain*. 2003; 7: 381-386.
Maruta T, Swanson DW, Finlayson RE: Drug abuse and dependency in patients with chronic pain. *Mayo Clin Proc*. 1979; 54: 241-244.

19. Maruta T, Swanson DW: Problems with the use of oxycodone compound in patients with chronic pain. *Pain*. 1981; 11: 389-396.

20. Langemark M, Olesen J: Drug abuse in migraine patients. *Pain.* 1984; 19: 81-86.

21. Hardy PAJ: Use of opiates in treating chronic benign pain. *Br J Hosp Med.* 1991; 45: 257.

22. Streltzer J: Pain management and chemical dependency. *JAMA*. 1998; 279: 17.

23. Jonasson U, Jonasson B, Wickstrom L, et al.: Analgesic use disorders among orthopaedic and chronic pain patients at a rehabilitation clinic. *Subst Use Misuse*. 1998; 33: 1375-1385.

24. Donohoe CD: Pain management and chemical dependency. *JAMA*. 1998; 279: 17.

25. Passik SD: Responding rationally to recent reports of abuse/ diversion of oxycontin. *J Pain Symptom Manage*. 2001; 21: 359-360. 26. Ytterberg S, Mahowald M, Woods S: Codeine and oxycodone use in patients with chronic rheumatic disease pain. *Arthritis Rheum*. 1998; 41: 1603-1612.

27. Hill CS: Government regulatory influences on opioid prescribing and their impact on the treatment of pain of non-malignant origin. *J Pain Symptom Manage*. 1996; 5: 287-298.

28. Evans PJD: Narcotic addiction in patients with chronic pain. *Anaesthesia.* 1981; 36: 597-602.

29. Portenoy RK: Opioid therapy in non-malignant pain. *J Pain Symptom Manage*. 1990; 5(Suppl): S46-S62.

30. Sees KL, Clark HW: Opioid use in the treatment of chronic pain: Assessment of addiction. *JPain Symptom Manage*. 1993; 8: 257-264. 31. Kouyanou K, Pither CE, Wessely S: Medication misuse, abuse and dependence in chronic pain patients. *J Psychosom Res*. 1997; 43: 497-504.

32. Shaffer HJ: The most important unresolved issue in the addictions: Conceptual chaos. *Subst Use Misuse*. 1997; 32: 1573-1580.

33. Compton P, Darakjian MA, Miotto K: Screening for addiction in patients with chronic pain and problematic substance use: Evaluation of a pilot assessment tool. *J Pain Symptom Manage*. 1998; 16: 355-363.

34. Cowan DT, Wilson-Barnett J, Griffiths P, et al.: A randomised, double-blind, placebo-controlled, cross-over pilot study to assess the effects of long-term opioid drug consumption and subsequent abstinence in chronic non-cancer pain patients receiving controlled-release morphine. *Pain Med.* 2005; 6: 113-121.

35. Kalso E, Edwards JE, Moore RA, et al.: Opioids in chronic non-cancer pain: Systematic review of efficacy and safety. *Pain.* 2004; 112(3): 372-380.

36. American Society of Addiction Medicine (ASAM): Public Policy Statement on Definitions Related to the use of Opioids in Pain

Treatment. 2001. Available online at: *http://www.asam.org/ pain/ definitions2.pdf.*

37. Schaler J: *Addiction is a Choice*. Chicago: Open Court Publishing, 2000.

38. Berridge V: *Opium and the People*. London: Free Association Books, 1999.

39. Glatt MM: Recent patterns of abuse of and dependence on drugs. *BrJ Addict*. 1968; 63: 111-128.

40. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, 3rd edition (DSM-III).* Washington, DC: American Psychiatric Association, 1980.

41. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, 3rd edition revised (DSM-III-R).* Washington, DC: American Psychiatric Association, 1987.

42. Morgan JP: American opiophobia: Customary underutilization of opioid analgesics. *Adv Alcohol Subst Abuse*. 1985; 5: 163-173.

43. Halpern LM, Robinson J: Prescribing practices for pain in drug dependence: A lesson in ignorance. *Adv Alcohol Subst Abuse*. 1985; 1-2: 135-162.

44. Rayport M: Experience in the management of patients medically addicted to narcotics. *JAMA*. 1954; 156: 684-691.

45. Glatt M: Drugs, Society & Man. A Guide to Addiction and its Treatment. Lancaster, UK: Medical & Technical Publishing, 1974.

46. Fordyce W: *The acquisition of operant pain. Behavioural methods for chronic pain and illness.* St. Louis: CV Mosby, 1976. 47. Medina JL, Diamond S: Drug dependency in patients with chronic headaches. *Headache.* 1977; 17: 12-13.

48. Bouckams, AJ, Masand P, Murray GB, et al.: Chronic nonmalignant pain treated with oral narcotic analgesics. *Ann Clin Psychiatr.* 1992; 4: 185-192.

49. Chabel C, Miklavz K, Jacobson L, et al.: Prescription opiate abuse in chronic pain patients: Clinical criteria, incidence, and predictors. *Clin J Pain*. 1997; 13: 150-155.

50. World Health Organization: *International Statistical Classification of Diseases and Related Health Problems*. Tenth revision, Vol. 1. (WHO-ICD-10). Geneva: World Health Organization, 1992.

51. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders, 4th edition (DSM IV).* Washington, DC: American Psychiatric Association, 1994.

52. Wesson DR, Ling W, Smith DE: Prescription of opioids for treatment of pain in patients with addictive disease. *J Pain Symptom Manage*. 1993; 8: 289-296.

53. Enck RE. Opioid management: Addressing the gap in understanding, education, and practice [Editorial]. *J Opioid Manage*. 2005; 1(1): 9-10.

54. Pain Relief Network: http://www.painreliefnetwork.org.

55. Drug Control, DEA's Strategies and Operations in the 1990s (GAO/GGD-99-108). Washington, DC: Government Accountability Office, 1999.

56. Status of Achieving Key Outcomes and Addressing Major Management Challenges (GAO-01-729). Washington, DC: Government Accountability Office, 2001.

57. DEA-Industry Communicator, "OxyContin Special." Was-hington, DC: Department of Justice. Vol. 1, p. 3.

58. DEA Congressional Testimony, April 11, 2002, p. 1.

59. DEA-Industry Communicator, "OxyContin Special." Washington, DC: Department of Justice. Vol. 1, p. 16.

60. Cowan DT, Allan LG, Griffiths P, et al.: Opioid drugs: A comparative survey of therapeutic and 'street' use. *Pain Med.* 2001; 2: 193-203.

61. Cowan DT, Allan LG, Griffiths P: A pilot study into the problematic use of opioid analgesics in chronic non-cancer pain patients. *Int J Nurs Stud.* 2002; 39: 59-69.

62. Cowan DT, Wright D, Wilson-Barnett J, et al.: Cessation of long-term morphine analgesia—A case study. *Br J Anaesth Recov Nurs.* 2003; 4: 20-23.

63. Gossop M: *Living with Drugs*. Aldershot, Hampshire, UK: Ashgate, 2000.