Improving Pain Management Communication: How Patients Understand the Terms “Opioid” and “Narcotic”

Michael P. Mangione, MD¹ and Megan Crowley-Matoka, PhD²

¹University of Pittsburgh School of Medicine, Pittsburgh, PA, USA; ²VA Center for Health Equity Research and Promotion, University of Pittsburgh, Pittsburgh, PA, USA.

BACKGROUND/OBJECTIVES: Pain specialists often advocate discontinuing use of the term “narcotic,” with the negative connotations it bears for many patients, in favor of the term “opioid.” To contribute empirical data to this argument, we elicited and compared patient understandings of the terms “narcotic” and “opioid.”

DESIGN/PARTICIPANTS: Brief, anonymous surveys were administered to 100 outpatients. Respondents were asked to describe what a narcotic/opioid is, give example(s), explain why someone would take a narcotic/opioid and describe long term consequences of use.

RESULTS: Of the 100 outpatients, 86% responded “don’t know” to all four opioid questions. Only 12% did not know what a narcotic was ($p < .001$). While 50% of patients related “narcotics” to pain management, more than a third cited addiction or abuse. Of the 100 outpatients, 78% feared an adverse outcome from long-term narcotic use, with 66% of those answers citing “addiction.”

CONCLUSION: Most patients were unfamiliar with the term opioid, while a substantial percentage identified a narcotic as an illegal drug and most reported adverse consequences as the outcome of long term use. Our findings, while preliminary, suggest that “opioid” is a more unfamiliar term, but raise questions about whether simply using different terminology would affect patient fears about this class of medications.

KEY WORDS: narcotic; opioid; pain; addiction.

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INTRODUCTION

The subjectivity of pain and the clinical uncertainty which often accompanies its management render doctor–patient communication particularly critical in the pain management setting. Indeed, the effect of provider attitudes and communi-

cation are frequently identified as key contributing factors in the ongoing problem of inadequate pain treatment reported across a wide range of disease types and treatment settings.^{1–5} One aspect of pain-related communication under debate is the terminology commonly used to describe one class of pain medications, specifically the terms “narcotics” vs. “opioids.”^{6–8} Pain specialists arguing against use of the term “narcotic” generally focus on two key points. First, they contend that it is clinically inexact, as “narcotic” refers to a side effect of opioid medications (e.g., “insensibility or stupor”),⁹ not to the intended action of analgesia. Second, pain specialists refer to the negative connotations the term “narcotic” may bear, specifically those related to illicit substances, arguing that these may have a “chilling effect on prescribers and patients alike, interfering with appropriate treatment of pain.”⁷

A rich range of literature has explored the importance of language in medical practice, including the use of euphemism and technical terminology in doctor–patient communication.^{10–18} Such work has shown how language choice can influence both the affective and instrumental dimensions of clinical interactions, and thus may impact key outcomes linked to doctor–patient communication, including patient satisfaction and adherence.¹³ One useful step in beginning to unravel these complex communicative processes in pain management is to explore the specific meanings and associations of key pain-related terms. To contribute empiric data to the evolving debate over the use of “narcotic” and “opioid,” we conducted a survey to elicit and compare patient understandings of the two terms.

METHODS

This study was approved by the Veterans’ Affairs (VA) Pittsburgh Healthcare System Institutional Review Board.

Sample and Recruitment. One hundred subjects were recruited from outpatient hospital waiting areas in an urban VA hospital. Waiting areas and times of day were purposively selected to ensure variation. Five data collection periods were completed, with three conducted in outpatient primary care waiting areas and two in outpatient surgical clinic waiting areas. Data collection periods also included both morning (three periods) and afternoon (two periods) clinical shifts. Approximately 20 patients were recruited during each period. One hundred and six patients were approached to achieve the target sample size of 100, with only six patients explicitly refusing to participate. The potential rate of implicit refusals created by patients simply leaving the area before they could

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be approached is impossible to calculate precisely; however, a greater than normal degree of movement in and out of the waiting room area was not observed during data collection.

Survey Design. Survey questions were written at an eighth grade level. They included closed-ended demographic questions regarding sex, age-range, race/ethnicity, and appointment type. Two questionnaire versions were generated, one using the term “narcotic” and the other the term “opioid.” These terms were selected as those most commonly used to describe this class of pain medications in the context of doctor–patient encounters, clinical team communications, and administrative forms in the study setting. Open-ended survey questions included: 1) What is an opioid/narcotic? 2) Give an example of an opioid/narcotic. 3) Why does someone take an opioid/narcotic? 4) What happens when someone takes an opioid/narcotic for a long time? To minimize potential selection bias, the two survey versions were pseudo-randomized by alternating versions into one stack assembled for distribution. Patients were approached in order as they were seated in the waiting room.

A coding scheme for the open-ended survey responses was developed by the authors, and all surveys were coded independently by both authors. In the process of coding open-ended responses, opioid analgesics (such as MS-Contin, methadone and Percocet) were distinguished from illegal drugs of abuse (such as heroin, crack and cocaine). Answers were differentiated based on whether they referred to pain management, addiction/abuse or both. Coding of each survey was then compared, discrepancies were resolved by discussion, and final coded data were entered into a database for analysis. Due to the small sample size, differences between the narcotic and opioid responses were tested using Fisher’s exact tests (Table 1). Further comparison within the narcotics survey responses was conducted using McNemar’s test to account for multiple responses from individual respondents. Two-sided p-values <.05 were considered statistically significant.

Sample Characteristics. As planned, 100 patients were enrolled in the study. The sample characteristics are summarized in Table 1 and are consistent with the general demographics of the local VA patient population. Of the study patients, 74% presented for a primary care or surgical clinic appointment.

RESULTS

As shown in Table 1, patients were significantly more likely to respond that they did not know what an opioid was as compared to a narcotic (43/50 vs. 6/50, $p<.001$). Similarly, 88% (44/50) patients did not provide an answer for questions 2–4 on the opioid version ($p<.001$). Of the few patients who knew anything about the term “opioid,” nearly all (6/7) associated it with pain. When asked what a narcotic is, pain was also the most frequently cited response (25/50). However, a substantial portion of patients (19/50) cited illegal drugs of abuse or addiction, with three patients citing both pain and addiction/abuse. Of the patients in either category that answered question 4, 90% (44/49) referenced either addiction or some other adverse outcome, including 6/6 patients in the

Table 1. Comparison of Narcotics vs. Opioid Survey Version Responses

	Narcotic N=50 No. (%)	Opioid N = 50 No. (%)	P - value*
Age			
Less than 65	29 (58)	31 (62)	.79
More than 65	19 (38)	16 (32)	
Blank	2 (4)	3 (6)	
Race			
White	38 (76)	34 (68)	.46
Black	7 (14)	12 (24)	
Other	5 (10)	4 (8)	
Sex			
Male	44 (88)	43 (86)	.80
Female	5 (10)	4 (8)	
Blank	1 (2)	3 (6)	
Q1. What is a narcotic/opioid?			<.001
Pain-related	22 (44)	5 (10)	
Drug of abuse-related	10 (20)	0 (0)	
Addiction-related	6 (12)	0 (0)	
Both pain and addiction	3 (6)	0 (0)	
Both pain and drug of abuse	0 (0)	1 (2)	
Miscellaneous	3 (6)	1 (2)	
Don't know/blank	6 (12)	43 (86)	
Q2. Give an example(s) of a narcotic/opioid.			<.001
Legal drug	24 (48)	5 (10)	
Illegal drug	9 (18)	0 (0)	
Both legal and illegal drugs	3 (6)	1 (2)	
Miscellaneous	4 (8)	0 (0)	
Don't know/blank	10 (20)	44 (88)	
Q3. Why does someone take a narcotic/opioid?			<.001
Pain-related	25 (50)	5 (10)	
Abuse-related	11 (22)	0 (0)	
Addiction-related	3 (6)	0 (0)	
Both pain and abuse	2 (4)	1 (2)	
Both pain and addiction	2 (4)	0 (0)	
Miscellaneous	1 (2)	0 (0)	
Don't know/blank	6 (12)	44 (88)	
Q4. What happens when someone takes a narcotic/opioid for a long time?			<.001
Addiction-related	28 (56)	6 (12)	
Other adverse outcome-related	6 (12)	0 (0)	
Tolerance-related	2 (4)	0 (0)	
Both addiction and tolerance	3 (6)	0 (0)	
Both addiction and other adverse outcome	2 (4)	0 (0)	
Miscellaneous	2 (4)	0 (0)	
Don't know/blank	7 (14)	44 (88)	

* P-values based on Fisher’s exact tests. P-values for age and sex considered blank as a separate response category and one blank value for race from the Narcotic survey was included in the “Other” category. Excluding blanks for these items resulted in similar p-values. Differences in responses to the survey questions compared any response to “Don’t know/blank”

opioid category. Interestingly, the majority of patients who referred to pain when asked what a narcotic/opioid is *also* reported addiction as a long-term outcome: 22/25 for narcotics, 5/6 for opioids.

Additional analysis of responses within the narcotics survey alone further suggests that associations with this term are frequently negative. Interestingly, in describing what a narcotic is, patients were *not* significantly more likely to cite pain (25/50) than they were addiction or abuse (19/50, $p=.33$), nor were

they significantly more likely to cite pain (29/50) rather than abuse/addiction (18/50, $p=.08$) as a reason for taking one. Patients did provide legal vs. illegal drugs as an example of a narcotic more frequently (27/50 vs. 12/50, $p=.009$), although interpreting these numbers is difficult given that some medications, such as Oxycontin, could reference either legal or illegal use. Verbatim responses provide additional insight, with patients using terms such as “sick,” “ruin,” “hook,” “die,” and “death” and phrases such as “damages brain, internal organs” and “makes you a vegetable” to describe long-term outcomes of narcotic use.

DISCUSSION

Overall these results suggest that for most patients in this sample, “opioid” is an unfamiliar term and that those few patients able to identify the term related it to the management of pain. “Narcotic” on the other hand was associated with a variety of meanings, including pain management, drug abuse and addiction. Negative associations with this term were most apparent in regard to long-term use, where 78% of those surveyed feared an adverse outcome ($p<.001$). Strikingly, however, for *both* terms the vast majority of patients, including those who referenced pain management, also cited addiction and/or other adverse outcomes as a long-term outcome of use. Thus, while the term “opioid” could be considered more neutral through unfamiliarity, our initial results raise the possibility that patients may fear these medications regardless of the term used.

Generalizability of this study is undoubtedly limited by its small sample size and location at a single site characterized by a generally older, male veteran patient population. Knowledge and attitudes about both legal medications and illegal drugs may vary substantially by factors such as age, gender, socioeconomic status, and geography. In addition, the pseudo-randomization of the two survey versions, as well as the in-person data collection may have introduced additional sources of bias. However, despite these limitations, the sheer magnitude of difference in familiarity between the two terms, as well as the frequently negative associations evoked by both terms even when understood as medical treatment for pain, suggest that this area merits additional exploration.

A first step suggested by these initial findings is to explore whether the differences in understanding and perception of the two terms observed in our small study are borne out in the more general population. In addition, future research should explore whether such different understandings translate into differences in actual behavior—that is, does use of the term “narcotic” in the clinical encounter actually have a “chilling effect” on patients’ willingness to accept and adhere to pain treatment? And if so, would use of an alternative, potentially more neutral term like “opioid” make a difference in effectively communicating about and managing patient pain? Or, as suggested by these preliminary findings, might patients fear adverse long-term outcomes with this class of medications,

regardless of the terminology used? And if this were the case, once the term “opioid” became more familiar would it too simply accrue the negative associations seen in our study with the term “narcotic”? Ultimately, these initial results underscore the need for further exploration of the way language, attitudes and behavior—on the part of both patients and healthcare providers—interact in pain management.

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Conflict of Interest: The corresponding author has served as a consulting medical expert in pain management. There are no other potential conflicts of interest.

Corresponding Author: Michael P. Mangione, MD; University of Pittsburgh School of Medicine, 3A104, University Drive C Pittsburgh, PA 15240, USA (e-mail: mangionemp@anes.upmc.edu).

REFERENCES

1. Green CR, Wheeler JRC, Marchant B, LaPorte F, Guerrero E. Analysis of the physician variable in pain management. *Pain Med*. 2001;2:317–327.
2. van Ryn M. Research on the provider contribution to race/ethnicity disparities in medical care. *Med Care*. 2002;40:1–140–51.
3. Institute of Medicine. Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare. Washington DC: National Academies Press; 2003.
4. Gallagher RM. Physician variability in pain management: are the JCAHO standards enough. *Pain Med*. 2003;4:1–3.
5. Green CR, Wheeler JRC. Physician variability in the management of acute post-operative and cancer pain: a quantitative analysis of the Michigan experience. *Pain Med*. 2003;4:8–20.
6. Craig DS. Is the word “narcotic” appropriate in patient care. *J Pain & Pall Care Pharmacotherapy*. 2006;20:33–35.
7. Patt RB. Evolving views on opioid therapy for the management of chronic pain killers (analgesics): panacea, poison or somewhere in between. Available at http://www.mhecoalition.com/EvolvingViewsOnOpioidTherapy_RichardPatt.html Accessed April 28, 2008.
8. Mangione M. On the use of the term narcotic. *Am J Pain Manag*. 2004;14:129.
9. Myers T. Mosby’s Dictionary of Medicine, Nursing & Health Professions, 7th edition. St. Louis, MO: Mosby; 2006.
10. Cassell EJ, Skopek L. Language as a tool in medicine: methodology and theoretical framework. *J Med Ed*. 1977;52:197–203.
11. Waitkin H. Doctor–patient communication: clinical implications of social scientific research. *JAMA*. 1984;252:2441.
12. Roter DL, Hall JA. Doctors Talking with Patients, Patients Talking with Doctors. Westport CT: Auburn House ; 1992.
13. Ong LM, de Haes JC, Hoos AM, Lammes FB. Doctor–patient communication: a review of the literature. *Soc Sci Med*. 1995;40:903–918.
14. Burson-Tolpin A. Fracturing the language of biomedicine: the speech play of U.S. physicians. *Med Anthro Quart*. 1989;3:283–293.
15. Hadlow J, Pitts M. Understanding of common health terms by doctors, nurses and patients. *Soc Sci Med*. 1991;32:193–196.
16. Wood ML. Naming the illness: the power of words. *Fam Med*. 1991;23:534–538.
17. Chapple A, Campion P, May C. Clinical terminology: anxiety and confusion amongst families undergoing genetic counseling. *Pat Ed & Counsel*. 1997;32:81–91.
18. Bourhis RY, Roth S, MacQueen G. Communication in the hospital setting: a survey of use of medical and everyday language amongst doctors, patients and nurses. *Soc Sci Med*. 1989;28:339–346.