

CORRESPONDENCE



A 1980 Letter on the Risk of Opioid Addiction

TO THE EDITOR: The prescribing of strong opioids such as oxycodone has increased dramatically in the United States and Canada over the past two decades.¹ From 1999 through 2015, more than 183,000 deaths from prescription opioids were reported in the United States,² and millions of Americans are now addicted to opioids. The crisis arose in part because physicians were told that the risk of addiction was low when opioids were prescribed for chronic pain. A one-paragraph letter that was published in the *Journal* in 1980³ was widely invoked in support of this claim, even though no evidence was provided by the correspondents (see Section 1 in the Supplementary Appendix, available with the full text of this letter at NEJM.org).

We performed a bibliometric analysis of this correspondence from its publication until March 30, 2017. For each citation, two reviewers independently evaluated the portrayal of the article's conclusions, using an adaptation of an established taxonomy of citation behavior⁴ along with other aspects of generalizability (Section 2 in the Supplementary Appendix). For context, we also ascertained the number of citations of

other stand-alone letters that were published in nine contemporaneous issues of the *Journal* (in the index issue and in the four issues that preceded and followed it).

We identified 608 citations of the index publication and noted a sizable increase after the introduction of OxyContin (a long-acting formulation of oxycodone) in 1995 (Fig. 1). Of the articles that included a reference to the 1980 letter, the authors of 439 (72.2%) cited it as evidence that addiction was rare in patients treated with opioids. Of the 608 articles, the authors of 491 articles (80.8%) did not note that the patients who were described in the letter were hospitalized at the time they received the prescription, whereas some authors grossly misrepresented the conclusions of the letter (Section 3 in the Supplementary Appendix). Of note, affirmational citations have become much less common in recent years. In contrast to the 1980 correspondence, 11 stand-alone letters that were published contemporaneously by the *Journal* were cited a median of 11 times.

In conclusion, we found that a five-sentence letter published in the *Journal* in 1980 was heavily and uncritically cited as evidence that addiction was rare with long-term opioid therapy. We believe that this citation pattern contributed to the North American opioid crisis by helping to shape a narrative that allayed prescribers' concerns about the risk of addiction associated with long-term opioid therapy. In 2007, the manufacturer of OxyContin and three senior executives pleaded guilty to federal criminal charges that they misled regulators, doctors, and patients about the risk of addiction associated with the drug.⁵ Our findings highlight the potential consequences of inaccurate citation

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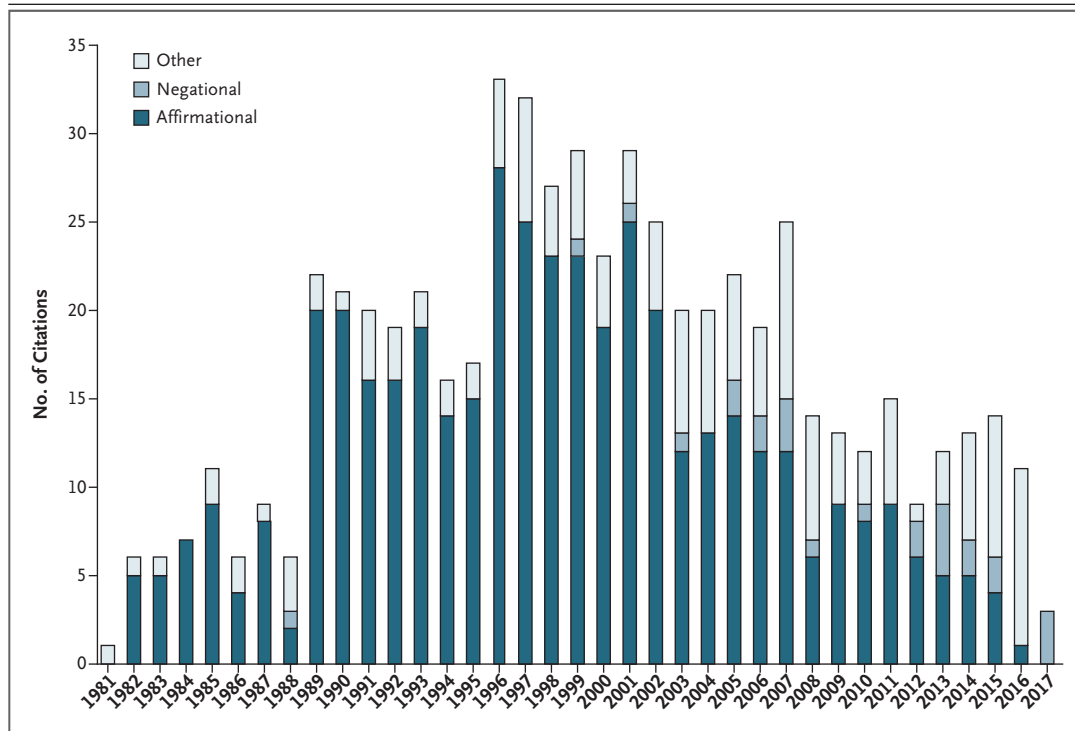


Figure 1. Number and Type of Citations of the 1980 Letter, According to Year.

Shown are number of citations of a 1980 letter to the *Journal* in which the correspondents claimed that opioid therapy rarely resulted in addiction. The citations are categorized according to whether the authors of the articles affirmed or negated the correspondents' conclusion about opioids. Details about "other" citation categories are provided in Section 2 in the Supplementary Appendix.

and underscore the need for diligence when citing previously published studies.

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Disclosure forms provided by the authors are available with the full text of this letter at NEJM.org.

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