

Reporting on the Opioid Crisis (2000-2018) – the Globe and Mail, Canada’s English Language Paper of Record

Amanda Quan

Ottawa Hospital Research Institute <https://orcid.org/0000-0002-0549-7306>

Lindsay A. Wilson

Ottawa Hospital Research Institute

Kumanan Wilson (✉ kwilson@ohri.ca)

<https://orcid.org/0000-0002-1741-7705>

Research

Keywords: Opioids, Canada, content analysis

Posted Date: May 19th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-27506/v1>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Objectives:

We aim to describe the general characteristics of how Canada's newspaper of record – The Globe and Mail, reports on opioid-related news, the opioid crisis and its victims, and explore how Canadians' perceptions of the opioid crisis could have developed over time.

Methods:

We searched The Globe and Mail between 2000 and 2018. We identified all articles related to the keyword "opioids". Independently and in duplicate, reviewers extracted qualitative data from articles. The Social Representation Theory was used as a framework for understanding the how the opioid crisis is portrayed in Canada.

Results:

Our search yielded 554 relevant opioid articles. The number of articles peaked in 2009, 2012, and in 2016, coinciding with major developments in the epidemic. The language used in this discourse has evolved over the years and has slowly shifted towards less stigmatizing language. Content analysis of the articles revealed common social representations attributing blame to pharmaceutical companies, physicians, and foreign countries. It is easy to blame these collectives as this contributes to social representations that are anchored in the public's predisposed notions.

Conclusions:

Canadian coverage of the opioid crisis is focused on basic social representations and blame patterns towards a few collectives, a shift towards root causes of the opioid epidemic could positively influence the general public's perception of the opioid crisis and help reap deeper understanding of the issue. Journalists face several obstacles to achieve greater focus and framing of the opioid crisis, a closer working relationship between the media and the research community is needed.

Introduction

Since the late 1990s, there has been a considerable increase in the use of prescription opioids for the relief of chronic pain. This has resulted in increasing levels of non-medical use of prescription opioids and associated increases in morbidity and mortality due to opioid overdoses (Belzak & Halverson, 2018; Fischer, Rehm, Goldman, & Popova, 2008). Today, North America is witnessing ever increasing rates of opioid misuse contributing to substantial drug-related harms, including addiction and both fatal and non-fatal overdose. In Canada, the rate of apparent opioid-related deaths per 100,000 population has increased by 40% between 2016 and 2018, from 8.4 to 11.8 deaths (Special Advisory Committee on the

Epidemic of Opioid Overdoses, 2018). Canadians are the second-highest per-capita consumers of opioids in the world, after only the United States (CIHI 2017), and opioid misuse has become a public health issue of national concern (Joint Action Statement 2016).

Historically, media coverage of various epidemics has helped shape the policy agenda (Babu, Aggarwal, & JunJie, 2017; Kaiser Family Foundation, 2004), while also reflecting ongoing policy discussions, debates and developments. As in the case of HIV/AIDS, the news media once again serves as an important source of information on a public health issue - the opioid epidemic, and contributes to shaping public understanding of the issue (Happer & Philo, 2013; Stevens & Hull, 2013). However, evidence from previous studies examining the effects of repetitive news framing, language used and agenda setting, highlight how public perception of a problem's importance (Happer & Philo, 2013; Scheufele & Tewksbury, 2007) and its potential solutions can be influenced by media coverage. Thus, to better understand how opioid-related media coverage could have impacted the perceptions of Canadians we examined the portrayal of opioids by Canada's newspaper of record – The Globe and Mail.

Theoretical Framework

The Social Representation Theory (SRT) (S. Moscovici, 1984) focuses on explaining how social representations of public issues are formed, and how these social representations help individuals, groups and communities make sense of unfamiliar, problematic events or issues. SRT has been used as a framework for investigating complex and challenging social phenomena such as HIV/AIDS (Gomes, Silva, & Oliveira, 2011; Joffe & Bettega, 2003), climate change (Höijer, 2010; Moloney et al., 2014), and poverty/homelessness (Chauhan & Foster, 2014). Anchoring, one of the processes by which social representations are formed, involves integrating unfamiliar objects into pre-existing knowledge and fitting novel information into previously formed ideas, thus making unfamiliar concepts familiar (Hakoköngäs & Sakki, 2016; Serge. Moscovici, 2008). This is often done by attributing responsibility or blame to specific collectives (i.e., large institutionalized groups like pharmaceutical corporations, foreign nations, professions, etc.). Determining how the media could have impacted social representation of the opioid crisis by attributing responsibility and blame to different collectives over time provides a deeper understanding of how the issue could be understood and perceived by every-day Canadians.

Thus, this study aims to: (1) describe general characteristics of how a Canadian newspaper reports on opioid-related news, the opioid crisis and its victims and (2) explore how Canadians' perceptions of the opioid crisis could have been impacted by news media using the framework of social representation theory.

Methods

Data Collection

In order to fully capture the magnitude and nature of newspaper coverage of the opioid crisis, we conducted a thematic analysis of Canada's national paper of record – *The Globe and Mail*. *The Globe and Mail* had the widest circulation and highest print readership in 2018 (6.5 million print and digital readers) and is often cited as Canada's newspaper of record (Fillmore, 2009; The Editors of Encyclopaedia Britannica, 2018). *The Globe and Mail* prints separate editions for the following cities across Canada: Montreal, Toronto, Winnipeg, Calgary and Vancouver. We performed a bibliometric search for all *The Globe and Mail* articles relating to the keyword “opioids” published and archived in Canadian Periodicals Index Quarterly spanning an 18-year period (January 1st 2000 – June 1st 2018).

Data Preparation and Analysis

A data extraction form was developed as a means of objectively and systematically recording data obtained from the articles. Using this form, reviewers extracted qualitative data from articles independently and in duplicate. Information such as date, title, drugs mentioned, experts mentioned, language around people who use opioids, and supposed sources of the issue were extracted to help determine patterns in language, risk portrayals, and shifts in coverage emphasis. In line with the aims of the study and the SRT framework, the articles were also sorted and coded into groups by type of article, type of evidence, location of article and attribution of responsibility or blame. Due to the evolving nature of the opioid epidemic and the surrounding discourse, the extraction form and coding framework was modified as needed through a joint, and iterative process (Lofland, Snow, Anderson, & Lyn, 2006). All sorting and reporting disagreements were resolved by consensus.

Results

The initial search yielded 817 news articles. A more comprehensive review identified 554 relevant opioid and opioid crisis stories. Initial reporting began in 2001; the early years had none to very few opioid-related articles (Fig. 1). The predominant article type was news reports (73%, n = 405), although opinion-editorial articles as well as human interest stories were popular as well (Table 1). News reports and editorials were typically centered around statements of risk or criminal activity, while the anecdotes and opinion-based stories tended to focus on the far-reaching implications of opioid addiction from either the patient or provider perspective.

Table 1
Characteristics of Articles

Location of article	# of articles (% of total*)	Article Type	# of articles (% of total)
Banner Headline	68 (12.4%)	News report	405 (73.1%)
Front page other section	116 (21.1%)	Human interest stories	38 (6.9%)
Front section (but NOT front page)	273 (49.6%)	Opinion/editorial	108 (19.5%)
Not front page or front section	91 (16.6%)	Other (statistics, exposés etc.)	3 (0.5%)
*Note that some articles did not have a location/page listed			

The number of opioid related articles peaked in 2009, again in 2012, and substantially increased in 2016. Manual review of the opioid-related stories revealed that peaks in news coverage often coincided with major developments in or reports on the epidemic (Fig. 1).

Language and Types of evidence

Of all 554 articles, 24.9% (n = 138) referred to general statement of risks as evidence to support its claims. Only 13.4% (n = 74) of articles referred to some form of scientific study as evidence. From 2009–2018, the use of stigmatizing language such as “junkies” and “abuser” in reviewed newspaper articles saw decline, as did the term “drug addict” (Fig. 2). In 2012 we noted the emergence of the term’s “user” and “drug user”, and more recently, the use of less stigmatizing terminology such as “people who use drugs” or “people who suffer with addiction”.

A common framing characteristic of media reporting of opioid use and addiction is the use of hyperbole that dramatize or sensationalize the issue (Morris, 2004). Examples include newspaper headlines such as “Drugs ravage picture-perfect community” (Moore, 2011) and “We have opened Pandora's box - it's going to haunt us” (Weeks, 2014). Descriptions such as “teenage girls would do housework in their underwear in return for pills”, “abusers cut up the patches [fentanyl patches] and eat the pieces”(Editorial, 2015) and “thefts and break-and-enters so they [people who use drugs] can feed their habits”(Radwanski, 2010), also demonstrate how the issue was being framed.

Emergent Themes From Social Representations And Blame Patterns

Content analysis of the articles resulted in themes associated with key groups such as physicians, pharmaceutical companies and foreign countries, amongst others.

Some of the most common social representations among the articles was the attribution of blame to *pharmaceutical companies, physicians, and foreign countries*. The role of the pharmaceutical industry in motivating the massive rise in opioid prescriptions (Goldman, 2012; Howlett, 2017b), and how, if at all, they were being held responsible for their actions in Canada and abroad were widely discussed. Representations of *pharmaceutical companies* emphasized “profit over patients” and can be easily anchored to the public’s predisposed lack of trust towards the global pharmaceutical industry, also known as Big Pharma (Olsen & Whalen, 2009).

As stewards of the legal opioid supply, *physicians’* role in the creation of the opioid crisis, either by overprescribing, indiscriminately prescribing, lack of proper training and education on pain management leading to liberal prescribing etc., was also called in to question. Accordingly, articles discussed out-dated provincial opioid prescribing guidelines (Paperny, 2009a; Sud, 2016), and the creation of national opioid prescribing guidelines to improve and standardize prescribing practice (Paperny, 2012a; Weeks, 2010, 2015). The media’s representation of physicians often included reference to influence from the pharmaceutical industry – “doctors began prescribing opioids two decades ago to relieve moderate to-severe pain as pharmaceutical firms promoted their benefits” (Howlett, 2017a). Thirty-eight percent (n = 86/227) of all articles designating blame, discussed misconduct on the part of pharmaceutical companies and/or physicians.

Within the overall discourse surrounding the illicit drug supply, blame on one collective, a foreign country, also emerged. The smuggling of contaminated drugs, often laced with Fentanyl, from China into Canada was widely reported: “...it’s easy to buy the stuff [Fentanyl] from black-market labs in China, with massive quantities of drugs of unknown provenance and quality shipped here under the noses of police and the Canada Border Services Agency” (“Canada, world leader in opiate addiction,” 2016). Of the articles designating blame, nearly half (42.7%, n = 97) blamed the tainted and/or illicit drug supply for rise in opioid related deaths (Karstens-Smith, 2018). An investigation into the source of illicit fentanyl, conducted by the Globe and Mail in 2016 (Howlett, Karen, Giovannetti, Justin, VanderKlippe, Nathan, 2016) stated was often referenced to confirm this. Many articles thereafter detailed the drug trafficking (Bains, 2017; Howlett & Woo, 2016), and joint efforts between China and Canada to curb such activities (Dhillon & Howlett, 2016). The social representation of China and their role in the opioid crisis can be anchored to the public’s potential distrust towards Chinese government activities following several food and drug safety issues over the years (Hedlund, Coyne, Sanford, & Huddelson, 2013; Meixler, 2018; Qiao, Guo, & Klein, 2010).

It is important to note that these media representations of blame evolved as the long-term consequences of opioid overprescribing became more apparent. Understanding both, we saw that many early articles (2000–2006) focused on the need for opioids for pain management and discussed opioids’ apparent addictiveness (Caldwell, 2001; McIlroy, 2006). Following this (2007–2012), the vast majority of articles addressed the steadily increasing rates of prescription painkiller use and fatal and non-fatal opioid overdoses (Agrell, 2007; Paperny, 2009b). During this time, gaps in the healthcare system (lack of chronic pain management, access to counselling, harm reduction services etc.) and overprescribing (or referred to

as liberal prescribing) by physicians with influence from the pharmaceutical industry were blamed (See Fig. 3) (Goldman, 2012; Weeks, 2011). Policy-related articles also developed along with this recognition, initially focusing on the need for opioid prescribing guidelines for healthcare providers, pharmaceutical tracking systems (Karen Howlett & Church, 2015). From 2012 onwards, the growing prevalence of substance misuse was thrust into the spotlight with several high-profile overdoses (Dhillon, 2013; Dowbiggin, 2012) and the delisting of high-dose prescription opioids from province's drug plans (Paperny, 2012b; Weeks, 2012). It was also at this time that blame patterns shifted away from physicians and the pharmaceutical industry, towards a tainted and increasingly potent illicit opioids supply (Bains, 2017; Posadzki, 2014). Next, between 2014 and mid-2016, opioid related overdoses continued to rapidly increase, and policies focused on better overdose surveillance and expanded access to Naloxone, a drug that can reverse opioid overdose. Throughout the last few years (mid-2016 to 2018), policies focused on approving and opening additional supervised consumption sites (Bailey, 2016; The Canadian Press, 2017; Woo, 2017); the blame still very much placed on the illicit drug supply of opioids such as fentanyl from China (Dhillon & Howlett, 2016; Fife & Steven Chase, 2017).

Discussion

Our study offers insight into news coverage of the opioid crisis in Canada, and highlights its important role in framing issues and acting as a disseminator of information. Of note, while early articles promoted the use of opioids for pain management (Finley, 1995; Kendall, 1996), this could have contributed to the initial perception of their safety. This is analogous to early academic papers that also minimized risk of opioid addiction or harm and have been extensively cited as evidence of the lack of risk around opioid prescribing (Juurlink, 2017). This form of early information can create an anchoring bias that can be difficult to change, even in the presence of evidence to the contrary (Robinson, Mendenhall, Novosel, & Mazalek, 2010). In this case, there was a delay between academic evidence suggesting the potential harms associated with opioid use (evidence that appeared in late 1990s to early 2000s)(Fischer, Pang, & Tyndall, 2019) and changes in expert opinion and media reporting, which did not consistently warn about opioid misuse and addiction until 2009. The media's role in communicating public health information at early stages, as in the case of the opioid crisis, deserves further exploration.

We found a significant increase in the coverage of opioids and opioid misuse from 2010 onwards (see Fig. 1). Peaks in coverage coincided with major public health or policy developments, indicating that opioids and their misuse became and have remained a priority public issue in the eyes of the public over the years (Fig. 1). As suggested by the results of this study, the language used to describe people who use drugs has shifted to less stigmatizing language in recent years. However, the continuing news framing and sensationalizing of opioid issue (see Language and Types of evidence) mimics fear-based opioid campaigns (Albarracín et al., 2005) and has the potential to increase the stigma surrounding drug use, shame individuals who use drugs and discourage them from seeking help (Soames Job, 1988). While some may argue that this coverage encourages action and staves off complacency, others have stated that fear-based opioid campaigns often fail to motivate people to change their behavior, may appeal to individuals' desire for risk-taking or may even foster an attitude of apathy towards substance use-related

harms (Zimmerman, 1997). Drawing parallels to the HIV/AIDS epidemic, a 2005 meta-analysis of 354 HIV-prevention intervention strategies (Albarracín et al., 2005) tested the major theoretical assumptions about behavior change, concluded that the most effective interventions were those that contained attitudinal arguments, educational information, behavioral skills arguments/training, and the least effective strategies were those that attempted to induce fear.

To understand how Canadians' perception of the opioid crisis could be impacted we used the SRT framework. This analysis revealed how newspaper coverage could have aid the development of blame patterns towards different collectives within the public's perception. It is evident that the current opioid crisis is, and is communicated as, several overlapping crises – over prescription of pain medications (by pharmaceutical companies and physicians), the growing availability of contaminated street drugs (supposedly from China) and a failure to fully implement harm reduction measures (Fig. 3). It is easy for both the media and the public to blame these collectives, because the content contributes to social representations that can be anchored in the public's predisposed notions. We see a lack of journalistic scrutiny regarding root causes of the opioid issue - only 5.7% (n = 32) of all articles discussed secondary causes of the opioid crisis such as gaps in the healthcare system i.e. lack of funding for or availability of, opioid treatment programs, addiction services, alternative pain management services such as physiotherapy, occupational therapy etc. (Cummings, 2012; Graveland & The Canadian Press, 2017; Malleck, 2017). Even fewer articles (2.5%, n = 12) chose to broach the root causes of high-risk drug use - social inequity, socioeconomic disparities and unresolved trauma (Philpott, 2017; Picard, 2017).

To our knowledge, this is the first study to explore opioid newspaper reporting in the Canadian context. It provides much needed details about how Canadian perceptions of the opioid epidemic and could have been shaped by news reporting. This study spans a 18-year period (January 1st 2000 – June 1st 2018), and is able to provide a comprehensive overview of how reporting and focus has changed over time. A major limitation of this work is using only Globe and Mail print articles as a data source. Firstly, only a subset of the Canadian population reads print newspaper, and only so many of those individuals choose to read the Globe and Mail. In addition, the way in which news is consumed has also changed drastically over the reporting period – today, the large majority of newspaper readers are now accessing at least some of their newspaper online (News Media Canada, 2019). It should also be noted that we did not include any newspaper articles published in French, this is another limitation of our work. Future studies seeking to understand reporting and in what ways it could influence perceptions of the opioid crisis should take more forms of reporting (ie. internet, social media, magazines etc.), and their content, and reporting in more languages, into consideration.

Conclusions

The opioid crisis is a complex health and social issue, and journalists play an important role in knowledge dissemination and perception development as demonstrated by this study. Based on our results, we believe that over time improvements have been made to the language used in reference to people who use drugs, but a greater focus on the primary and secondary causes of the opioid crisis in the

newsprint media is needed. We believe a shift in coverage away from basic social representations and blame patterns towards root causes of the opioid epidemic has the potential to positively influence the general public's perception of the opioid crisis and help reap a deeper understanding of the issue. Journalists face several obstacles to achieve greater focus and framing of the opioid crisis, and a closer working relationship between the media and the research community is needed.

Abbreviations

SRT	Social Representation Theory
-----	------------------------------

Declarations

Ethics approval and consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request

Competing interests

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request

Funding

Not applicable

Authors' contributions

Conceptualization: KW, LW; Development and implementation of methods: KW, LW, AQ;

Acknowledgements

Not applicable

References

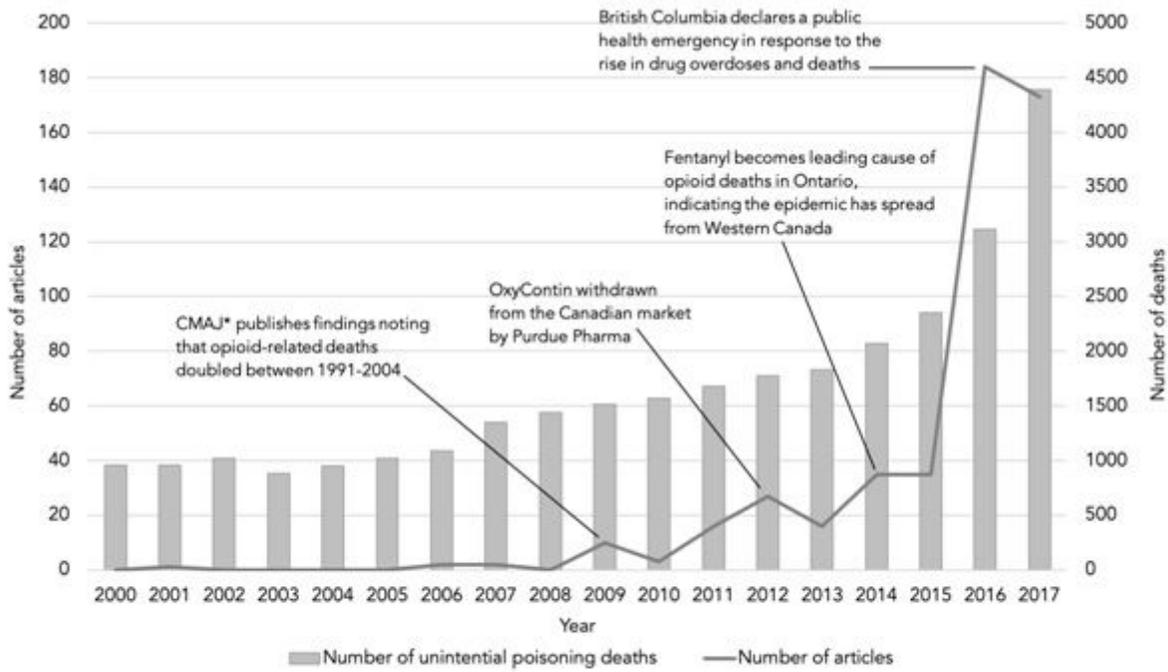
1. Agrell S. (2007, November 21). Student use of painkillers on the rise. *The Globe and Mail*.
2. Albarracín D, Gillette JC, Earl AN, Glasman LR, Durantini MR, Ho MH. A test of major assumptions about behavior change: A comprehensive look at the effects of passive and active HIV-prevention interventions since the beginning of the epidemic. *Psychol Bull.* 2005. <https://doi.org/10.1037/0033-2909.131.6.856>.
3. Babu SC, Aggarwal S, JunJie C. (2017). Role of media in shaping the policy process: comparative lessons from the food price crisis in Bangladesh, China, India, and Viet Nam. *IFPRI - Discussion Papers*.
4. Bailey I. (2016, August 22). Insite to trial 24-hour operation to manage overdoses. *The Globe and Mail*.
5. Bains C. (2017, September 19). RCMP target fentanyl shipments from China. *The Globe and Mail*.
6. Belzak L, Halverson J. The opioid crisis in Canada: A national perspective. *Health Promotion Chronic Disease Prevention in Canada.* 2018. <https://doi.org/10.24095/hpcdp.38.6.02>.
7. Caldwell R. (2001, November 6). A prescription for addiction? High-profile cases are raising concerns about whether patients need worry about becoming dependent on pharmaceutical painkillers. *The Globe and Mail*.
8. Canada, world leader in opiate addiction. (2016, April 11). *The Globe and Mail*.
9. Chauhan A, Foster J. (n.d.). Representations of Poverty in British Newspapers: A Case of “Othering” the Threat? *Journal of Community and Applied Social Psychology*. <https://doi.org/10.1002/casp.2179>.
10. Cummings B. (2012, February 21). Pain or addiction. *The Globe and Mail*.
11. Dhillon S. (2013, October 3). Coroners report sheds light on Monteith’s final moments. *The Globe and Mail*.
12. Dhillon S, Howlett K. (2016, November 25). China acknowledges role in opioid crisis; Chinese ministry agrees to work with RCMP to stop fentanyl exports after Globe series exposed link to surge of overdoses in Canada. *The Globe and Mail*.
13. Dowbiggin B. (2012, May 1). Hockey Night host’s family reveals a private tragedy. *The Globe and Mail*.
14. Editorial. (2015). Fentanyl kills. Hello, Ottawa? *The Globe and Mail*, p. A10.
15. Fife R, & Steven Chase. (2017, June 19). Opioid sellers use Internet’s dark corners to stump RCMP, China. *The Globe and Mail*.
16. Fillmore N. (2009). What’s behind the shake up at ‘Canada’s newspaper of record? *Straits Times*.

17. Finley GA. (1995, November). Pain Management. *The Globe and Mail*.
18. Fischer B, Pang M, Tyndall M. The opioid death crisis in Canada: crucial lessons for public health. *The Lancet Public Health*. 2019. [https://doi.org/10.1016/S2468-2667\(18\)30232-9](https://doi.org/10.1016/S2468-2667(18)30232-9).
19. Fischer B, Rehm J, Goldman B, Popova S. Non-medical use of prescription opioids and public health in Canada: An urgent call for research and interventions development. *Can J Public Health*. 2008. <https://doi.org/10.1007/BF03405469>.
20. Goldman B. (2012, March 23). Big Pharma's big influence. *The Globe and Mail*.
21. Gomes AMT, Silva ÉMP, Oliveira DC de. Social representations of AIDS and their quotidian interfaces for people living with HIV. *Revista Latino-Americana de Enfermagem*. 2011. <https://doi.org/10.1590/s0104-11692011000300006>.
22. The Canadian Press
Graveland B. & The Canadian Press. (2017, November 14). Report urges Canada to seek opioid alternatives. *The Globe and Mail*.
23. Hakoköngäs E, Sakki I. The naturalized nation: Anchoring, objectification and naturalized social representations of history. *Journal of Social Political Psychology*. 2016. <https://doi.org/10.5964/jspp.v4i2.664>.
24. Happer C, Philo G. The role of the media in the construction of public belief and social change. *Journal of Social Political Psychology*. 2013. <https://doi.org/10.5964/jspp.v1i1.96>.
25. Hedlund KD, Coyne DP, Sanford DM, Huddelson J. The heparin recall of 2008. *Perfusion (United Kingdom)*. 2013. <https://doi.org/10.1177/0267659112462274>.
26. Höjjer B. Emotional anchoring and objectification in the media reporting on climate change. *Public Understanding of Science*. 2010. <https://doi.org/10.1177/0963662509348863>.
27. Howlett K, Giovannetti J, VanderKlippe, Nathan LP. (2016, April 9). How Canada got addicted to fentanyl. *The Globe and Mail*.
28. Howlett K. (2017a). Doctor with drug industry ties allowed to vote on opioid guidelines. *The Globe and Mail*, p. A1.
29. Howlett K. (2017b, May 1). Purdue agrees to settle OxyContin suit; Proposal for pharmaceutical giant to pay \$20-million over pain pill that triggered Canada's opioid crisis must still be approved by courts. *The Globe and Mail*, p. pA1.
30. Howlett K, Woo A. (2016, April 9). Fentanyl's deadly path. *The Globe and Mail*.
31. Joffe H, Bettega N. Social representation of AIDS among Zambian adolescents. *Journal of Health Psychology*. 2003. <https://doi.org/10.1177/13591053030085011>.
32. Juurlink DN. Rethinking "doing well" on chronic opioid therapy. *CMAJ*. 2017. <https://doi.org/10.1503/cmaj.170628>.
33. Kaiser Family Foundation. (2004). AIDS at 21: Media coverage of the HIV epidemic 1981– 2002.
34. Karen Howlett, Church E. (2015, November 30). Canada urged to create national system to track opioid-related deaths. *The Globe and Mail*.

35. Karstens-Smith G. (2018, May 18). Drug-testing pilot project finds fentanyl in more than 60% of samples. *The Globe and Mail*.
36. Kendall PR. (1996, June). Methadone treatment. *The Globe and Mail*.
37. Lofland J, Snow D, Anderson L, Lyn L. (2006). Analyzing Social Settings: A guide to qualitative observation and analysis (4th Ed.). *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis (4th Ed.)*.
38. Malleck D. (2017, January 6). Why is everyone talking about painkillers, but not pain? *The Globe and Mail*.
39. McIlroy A. (2006, October 21). "SOLVE THIS AGONY": Michael DeGroot is in chronic pain. So are five million other Canadians. A cure has long eluded scientists, but now, writes ANNE McILROY in the first of a series, they are starting to unravel the mystery – and offer hope. *The Globe and Mail*.
40. Meixler E. (2018). Outrage in China Over Latest Vaccine Safety Scandal.
41. Moloney G, Leviston Z, Lynam T, Price J, Stone-Jovicich S, Blair D. Using social representations theory to make sense of climate change: What scientists and nonscientists in Australia think. *Ecol Soc*. 2014. <https://doi.org/10.5751/ES-06592-190319>.
42. Moore O. (2011, October 8). Drugs ravage picture-perfect community. *The Globe and Mail*.
43. Morris JS. (2004). The Effects of Dramatized Political News on Public Opinion. *American Review of Politics*, 25.
44. Moscovici S. (1984). The phenomenon of social representations. In *Social Representations*.
45. Moscovici S. (2008). *Psychoanalysis, its image and its public. Illustrée*.
46. News Media Canada. (2019). *Newspapers 24/7 Report*.
47. Olsen AK, Whalen MD. Public perceptions of the pharmaceutical industry and drug safety: Implications for the pharmacovigilance professional and the culture of safety. *Drug Saf*. 2009. <https://doi.org/10.2165/11316620-000000000-00000>.
48. Paperny AM. (2009a, November 14). Canada, you need an intervention. *The Globe and Mail*.
49. Paperny AM. (2009b, December 8). Painkiller deaths double in Ontario. *The Globe and Mail*.
50. Paperny AM. (2012a, January). Treating Canada's tiniest drug addicts. *The Globe and Mail*.
51. Paperny AM. (2012b, March 1). B.C. to limit coverage of addictive prescription painkiller. *The Globe and Mail*.
52. Philpott J. (2017, January 14). Getting to the root of Canada's opioid crisis; In 2017, it's important we turn the tide on this public-health predicament. *The Globe and Mail*.
53. Picard A. (2017, August 23). Expert panel calls on physicians to help curb opioid crisis. *The Globe and Mail*.
54. Posadzki A. (2014, August 4). Fentanyl suspected in overdoses; Abbotsford health officials and police suspect dealers are sneaking the synthetic opioid into low-quality heroin. *The Globe and Mail*.
55. Qiao G, Guo T, Klein KK. Melamine in Chinese milk products and consumer confidence. *Appetite*. 2010. <https://doi.org/10.1016/j.appet.2010.05.047>.

56. Radwanski A. (2010). Welcome to London, where OxyContin is king. *The Globe and Mail*.
57. 10.1145/1971630.1971653
Robinson S, Mendenhall S, Novosel V, Mazalek A. (2010). *Tangible anchoring: Grasping news and public opinion. ACM International Conference Proceeding Series*.
<https://doi.org/10.1145/1971630.1971653>.
58. Scheufele DA, Tewksbury D. Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*. 2007. <https://doi.org/10.1111/j.0021-9916.2007.00326.x>.
59. Soames Job RF. Effective and ineffective use of fear in health promotion campaigns. *Am J Public Health*. 1988;78(2):163–7. <https://doi.org/10.2105/ajph.78.2.163>.
60. Special Advisory Committee on the Epidemic of Opioid Overdoses. (2018). National report: Apparent opioid-related deaths in Canada (January 2016 to March 2018) Web-based Report.
61. Stevens R, Hull SJ. The Color of AIDS: An Analysis of newspaper coverage of HIV/AIDS in the United States from 1992–2007. *Critical Arts*. 2013;27(3):352–69.
<https://doi.org/10.1080/02560046.2013.800668>.
62. Sud A. (2016, May 12). Rx for opioids. *The Globe and Mail*.
63. The Canadian Press. (2017, July 28). New drug-use site opens in Vancouver; Latest supervised-consumption facility set to open on Friday in Downtown Eastside in effort to help prevent overdose deaths. *The Globe and Mail*.
64. The Editors of Encyclopaedia Britannica. (2018). The Globe and Mail. In *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/topic/The-Globe-and-Mail>.
65. Weeks C. (2010, May 4). First Canadian guidelines issued for opioid painkillers. *The Globe and Mail*.
66. Weeks C. (2011, April 12). High opioid dose risks death. *The Globe and Mail*.
67. Weeks C. (2012). OxyContin delisting not the answer. *The Globe and Mail*.
68. Weeks C. (2014, October 4). Glen Levy, Amherst, N.S.'We have opened Pandora's box - it's going to haunt us'. *The Globe and Mail*.
69. Weeks C. (2015, May 16). Ottawa to fund prescription-drug abuse monitoring; Proposed national program would target people who go to multiple doctors and pharmacies to obtain opioids, Health Minister says. *The Globe and Mail*.
70. Woo A. (2017, May 16). House okays relaxed rules for supervised consumption sites. *The Globe and Mail*.
71. Zimmerman R. (1997). *Social marketing strategies for campus prevention of alcohol and other drug problems*.

Figures



*CMAJ is the Canadian Medical Association Journal

Figure 1

Number of relevant articles relating to search term “opioids” by The Globe and Mail, and annual number of unintentional poisoning deaths in Canada (2007 –2017)

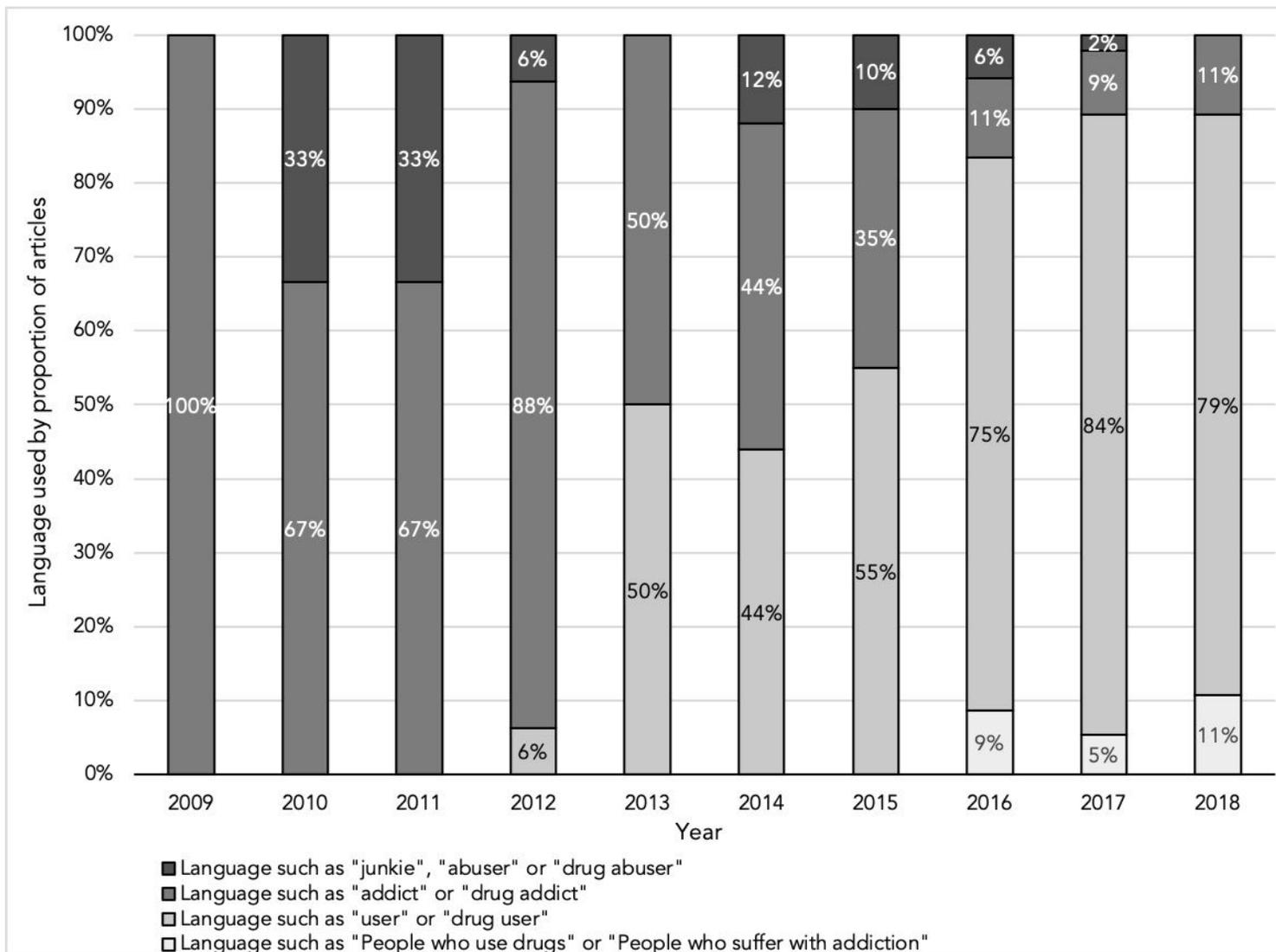


Figure 2

Proportion of articles and language used to describe individuals suffering with substance use disorder (2009 – 2018)

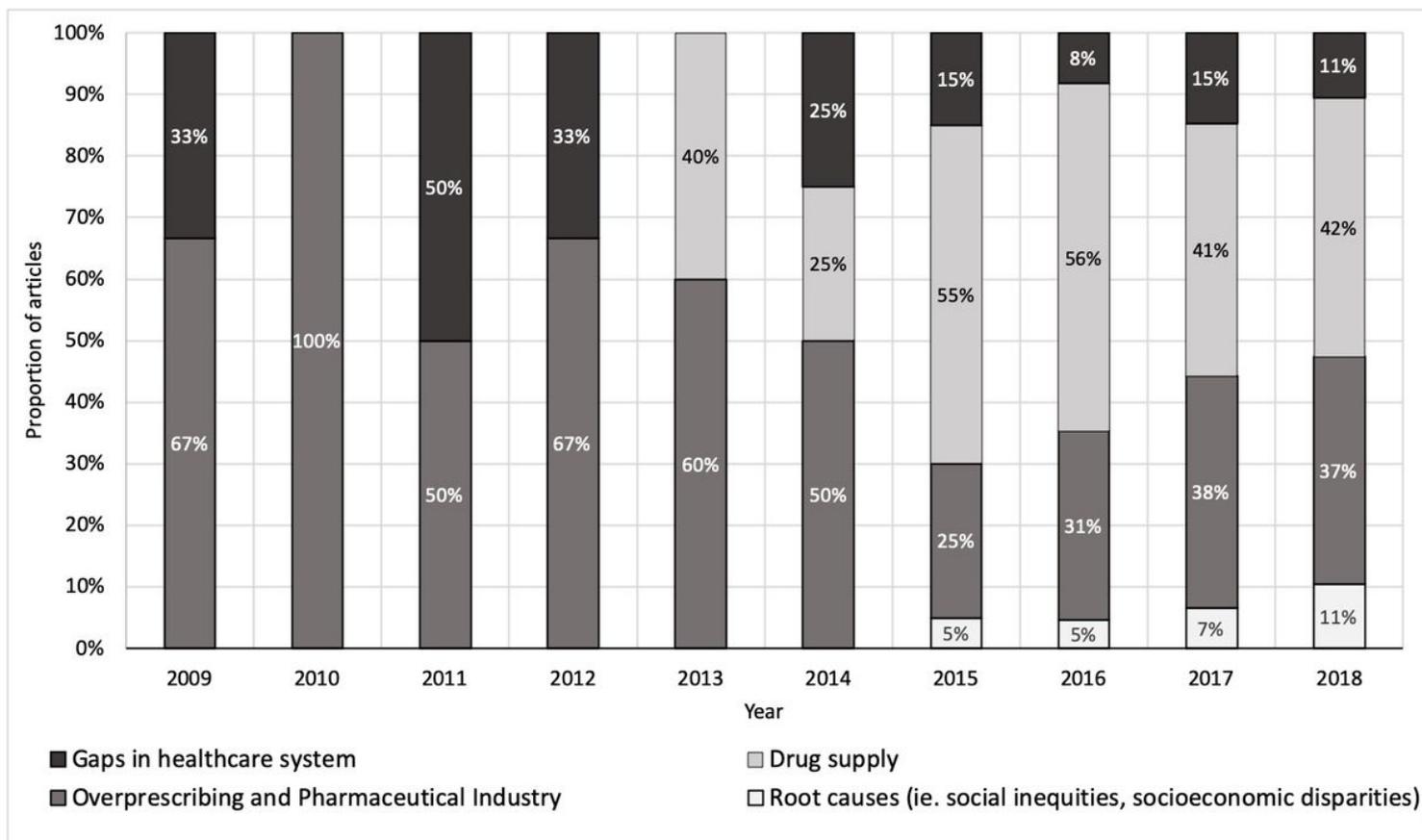


Figure 3

Proportion of articles stratified by blame designated (2009-2018)