STUDY PROTOCOL

The overdose epidemic: a study protocol to determine whether people who use drugs can influence or shape public opinion via mass media

Ehsan Jozaghi[1]* and VANDU[2]

Abstract

Background: We are currently witnessing an ongoing drug overdose death epidemic in many nations linked to the distribution of illegally manufactured potent synthetic opioids. While many health policy makers and researchers have focused on the root causes and possible solutions to the current crisis, there has been little focus on the power of advocacy and community action by people who use drugs (PWUDs). Specifically, there has been no research on the role of PWUDs in engaging and influencing mass media opinion.

Methods: By relying on one of the longest and largest peer-run drug user advocacy groups in the world, the Vancouver Area Network of Drug Users (VANDU), newspaper articles, television reports, and magazines that VANDU or its members have been directly involved in will be identified via two data bases (the Canadian Newsstream & Google News). The news articles and videos related to the health of PWUDs and issues affecting PWUDs from 1997 to the end of 2020 will be analyzed qualitatively using Nvivo software.

Discussion: As our communities are entering another phase of the drug overdose epidemic, acknowledging and partnering with PWUDs could play an integral part in advancing the goals of harm reduction, treatment, and human rights.

Keywords: Fentanyl, People who use drugs, Media, Public opinion, VANDU, Epidemic, Criminalization, Marginalization, Newspapers, Magazine, Advertisement, Human rights

Introduction

Many nations, including Australia, Canada, the United Kingdom, and the United States have shown rapid increases in cases of opioid overdose deaths (Giraudon et al., 2013; Gomes et al., 2014; Roxburgh et al., 2013; Rudd et al., 2016). There are indications that a shift towards a global epidemic of opioid use and misuse is also inevitable, if appropriate preventative and harm reduction measures are not implemented (Degenhardt et al., 2013; Nolan et al., 2018). In fact, in the US, there were nearly 100,000 Americans who died of a drug overdose in 2020, and since the COVID-19 pandemic, overdose death rates have increased 30% compared to the prior year (Cartus et al., 2020; Lambdin et al, 2022). While researchers and policy makers have offered causes and possible solutions to the current opioid epidemic, many jurisdictions have already implemented numerous initiatives aimed at reducing drug overdose deaths.

One such initiative that has been implemented in many regions is the public health/awareness campaigns about

*Correspondence: eja2@sfu.ca

[1] UBC Faculty of Dentistry, Nobel Biocare Oral Health Centre, 2151 Wesbrook Mall, Vancouver, BC V6T 1Z3, Canada
Full list of author information is available at the end of the article

the potency of synthetic opioids through media and paid public advertisement (Kerr et al., 2013; Hedberg et al., 2018; Soukup-Baljak et al., 2015). Mass media, such as television, radio, newspapers, and magazines can be used effectively to reach large proportions of populations and change public opinion. In fact, recent public health campaigns, most notably the effects of tobacco use, have shown the success of mass media in changing social norms, attitudes, and behaviors related to addictive behavior (Wakefield et al., 2010). Similar results have been shown in other health areas, such as the National High Blood Pressure Education Program and the National Cholesterol Education Program, where large scale national campaigns helped to reduce both blood pressure and blood cholesterol in the United States (Roccella, 2002).

While mass media campaigns through paid advertisement could be successfully implemented to change attitudes, norms, perceptions, and eventually behavior, there has been little focus on the power of advocacy and community action by marginalized groups to accomplish similar outcomes. This is especially true for people who use drugs (PWUDs) who not only face numerous barriers in accessing health care, but have historically faced discrimination, stigmatization, and criminalization for their chronic relapsing medical condition (Lunze et al., 2015; Kiriazova et al., 2017; Rivera et al., 2014; Jozaghi, 2013; Thomson et al., 2017).

However, recent research that evaluates the social and scientific impact of North America's longest and largest drug user advocacy group, the Vancouver Area Network of Drug Users (VANDU), has demonstrated that PWUDs are capable of collectively advocating for health and well-being of marginalized groups (Jozaghi et al., 2018). Furthermore, prior ethnographic studies have noted that PWUDs through VANDU and its affiliate drug user lead groups have the capacity to not only advocate and give voice to the most marginalized members of society, but they have the capability to transform the discriminatory rhetoric around the war on drugs (Boyd et al., 2017; Brown et al., 2018; Goodman et al., 2017; Jozaghi, 2014a, 2014b, 2015; Jozaghi & Reid, 2014; Jozaghi et al., 2020; Maynard et al., 2021; Olding et al., 2018).

Explanation and justification of method

Therefore, if PWUDs have the power to lead, collaborate, and facilitate ground breaking research while advocating for the members of their community, then the question of whether PWUDs can inform and engage public opinion via mass media is topical. This is especially pivotal, because there has been no research thus far to evaluate such power of engagement and community action via mass media by PWUDs.

However, the previous work evaluating the effects of framing language, repetitive stories and agenda-setting signify how public perception and solutions to a problem (Happer et al., 2013; Scheufele et al., 2007) can be affected by media coverage. Generally, the predominate U.S. news media portrayal of the opioid crisis has shown why media and public opinion matter, and how PWUDs may have been left out of the discussion and participation. For example, most of the US media coverage of the opioid crisis has been focused on framing the PWUDs' issues as a criminal justice rather than of public health (Wild et al., 2019). In fact, a study that considered the 15th year period of the major U.S. newspapers (e.g., the fourth highest circulating newspapers), more than 60% of opioid crises news stories reported on prosecution, enforcement, and harsher penalties rather than relative treatment and/or harm reduction (e.g., 4% only focused on harm reduction) (McGinty et al., 2016).

Although qualitative content analysis of news items can almost always be descriptive in nature; the qualitative content analysis of the Canadian news media coverage of opioid crises have been examined previously. Such studies have shown the capability of the media in shaping public discourse on developments of harm reduction by selectively reporting on harm reduction and naloxone, leading to increased public support for these strategies compared to other alternatives (Wild et al., 2019).

For example, a recent comprehensive reporting of a major Canadian Newspaper reported significant increase in the coverage of opioid reported issues since 2010 with "peaks in coverage coincided with major public health or policy developments, indicating that opioids and their misuse became and have remained a priority issue in the eyes of the public over the years" (Quan et al., 2020, p. 8). Finally, Quan et al. reported that "the language used to describe people who use drugs has shifted to less stigmatizing language in recent years" (p. 8).

However, a comprehensive portrayal of the PWUDs in engaging newspaper reporting is limited and poorly understood mainly due to stigma attached to drug users as sources of knowledge and expertise. Although this is the first time that media engagement of drug user's advocacy effort has been proposed to be evaluated via a content analysis, McLean (2017) has previously examined the media framings of overdose via qualitative analysis of news items. McLean (2017) reported that PWUDs' addiction is viewed through the lens of discourse of disposal and the impropriety of punitive responses to drug misuse. The methodological approach of this protocol is inspired by Mclean (2017) approach where the data extraction and analysis (e.g., data base searches, NVivo software usage and data analysis) are initiated by coding

and framing of "noticeable, meaningful, or memorable" information.

Objective
Therefore, this study protocol will examine the following goal:

By identifying, analyzing and reporting on news articles, videos, and magazines that have been written, reported, and influenced by VANDU's membership, this article aims to show the level of engagement of marginalized groups with mass media.

Methods
Data source
In order to effectively conduct the qualitative content analysis of news items, this protocol will rely on a news data base: 1) the ProQuest Canadian Newsstream (formerly the Canadian Newsstand Complete) and 2) Google News. The Canadian Newsstream via ProQuest web interface was chosen because it provides not only the largest newspaper, video, and magazine article data bases in Canada (full text items of nearly 300 unique newspapers and news organizations), but the timeline for many of the articles goes beyond many of the other archive bases (some items date back to the 1970s) (Rosenbloom, 2018; Rosenbloom, 2019). Furthermore, the ProQuest Canadian Newsstream is able to provide access to other major Canadian news sources (e.g., the Globe & Mail, CBC News, and Maclean's) while at the same time allowing many regional media sources to be easily attainable (e.g., the Hamilton Spectator, the Medicine Hat News, and the Vancouver Courier) (Rosenbloom, 2018).

Google News was chosen as the second data source because it is a free based news portal that is simplified based on public use, rather than solely for academic purposes (Weaver et al., 2008). More than a decade ago, it was estimated that more than 9 million people access their news from Google news each month (Weaver et al., 2008); now it is estimated that 280 million people access their daily news from the noted platform (Franek, 2022). At the same time, Google News has a broader appeal in today's society, as more and more people are relying on social media such as YouTube and Google Chrome products to access news and up-to-date information via the clustering of news information on topics of interest (Banerjee et al., 2007). This is especially important in the context of this research, as the main objective relates to mass media's role in shaping public opinion.

In addition, one of the main advantages of Google News over all other archival data bases, such as ProQuest, Factiva, JSTOR, Periodicals Archive Online, or LexisNexis, is its ability to provide not only text items, but other graphics (e.g., photos) and background information (e.g.,

headline size and story placement) that are often eliminated before a story is archived in traditional data bases (Weaver et al., 2008). Finally, Google news is able to capture local news or smaller non-print articles (e.g., VICE, the Georgia Straight, the Tyee, the North Shore News, and rabble.ca) that are often missed by other data bases, such as in this case, the ProQuest Canadian Newsstream.

Data collection/Sampling
The data pertaining to this study protocol related to openly accessible news items available to the public via Google or the membership/subscriber-based academic portal of Canadian Newsstream; therefore, no ethics approval was needed from a university or institution. The search query for both Google News and Canadian Newsstream involved the phrase, "Vancouver Area Network of Drug Users". No restriction on the publication date of news items was considered for both data bases, because some web interfaces and search engines have no details by which they order their results (Haddaway et al., 2015).

The inclusion criteria for news items (e.g., newspapers, magazines, and videos) will be based on the following criteria: 1) items written or spoken in the English language; 2) items that are related directly to VANDU's recent activism, work, or action; 3) items that involve members of VANDU (e.g., action, comments, or activism). The news items that met the initial inclusion criteria will be further reviewed in full before being added for qualitative analysis. The English language was chosen because most of VANDU's activism happen in the British Columbia province and the Canadian Newstream includes the English content.

As shown on Table 1, the preliminary data collection, from the Canadian Newsstream, indicates that 1,196 articles have been shaped by VANDU membership since 1997.

During the full review, each news item's geographic area will be divided via an excel worksheet into local (e.g., British Columbia (B.C.)), national (e.g., Canada), and International categories. Moreover, the data range for each article will also be noted in the excel worksheet.

Material/Data handling
In addition to Microsoft Excel which will be used for quantitative analysis linking geography and important dates to the data set, this study protocol also relies on Nvivo software (version 12) for the qualitative analysis. Version 12 of Nvivo software (QSR International Pty Ltd., 2018) has many new features that not only allow for greater exploration and visualization into the qualitative analysis (e.g., coding videos, photos, maps, interviews, pdf files), but also allows for easy cross tabulation of data and information exchange via other software. Many of

Table 1 The Canadian Newsstream articles shaped by VANDU membership

Time Ranges Start	Time Range End	Number of Results
1997–01-01	1997–12-31	4
1998–01-01	1998–12-31	11
1999–01-01	1999–12-31	15
2000–01-01	2000–12-31	49
2001–01-01	2001–12-31	32
2002–01-01	2002–12-31	100
2003–01-01	2003–12-31	106
2004–01-01	2004–12-31	66
2005–01-01	2005–12-31	69
2006–01-01	2006–12-31	55
2007–01-01	2007–12-31	33
2008–01-01	2008–12-31	84
2009–01-01	2009–12-31	43
2010–01-01	2010–12-31	56
2011–01-01	2011–12-31	50
2012–01-01	2012–12-31	42
2013–01-01	2013–12-31	45
2014–01-01	2014–12-31	36
2015–01-01	2015–12-31	23
2016–01-01	2016–12-31	68
2017–01-01	2017–12-31	55
2018–01-01	2018–12-31	44
2019–01-01	2019–12-31	47
2020–01-01	2020–12-31	63

these features will help in the analysis of news articles and better visualization of imported items.

Data analysis

The data analysis of news items that have passed the first and second review will be imported into Nvivo for further qualitative analysis. Members of VANU will be employed as community researchers to perform some of the reviews and coding. The duplicate news items that have been picked-up by other news outlet but are identical to the original report will be omitted by the two reviewers.

The initial qualitative analysis will involve open coding, where, based on the review of the whole news item (e.g., the title and news content), each article will be placed into its own category. Placing a whole news item in a coding category in Nvivo is achieved based on the inductive principles of grounded theory, whereas during the data collection, there will already be interplay between coding and data review (Charmaz, 2006; Haddaway et al., 2015; Maher et al., 2018; Suddaby, 2006). Line-by-line coding

(Charmaz, 2006) will also be employed to analyze each sentence when descriptive labels will be linked to each sentence or paragraph. The coding will be reviewed for accuracy by the VANDU members and senior author where the clustered themes based on similarities will be assessed. Despite some variation in individual coding, general themes regarding the news passages will be established.

In effect, during the final review and subsequent uploading of the news items, there could be 'constant simultaneous comparison between items that belong to specific coding categories and whether a new coding category needs to be constructed (Suddaby, 2006). Codes will be developed in an iterative process, as emergent news items and themes will be identified in accordance with grounded theory principles (Strauss & Corbin, 1990). In fact, the emergent themes will be constantly compared with established codes to observe similarities and differences across categories.

To provide linkage and examples from the new inductive, open, and emergent coding (Wilson et al., 2018) Nvivo software will be used once again for a deductive approach in coding the content of news items (Elo et al., 2008; Hsieh et al., 2005; Vaismoradi et al., 2013). During this stage of analysis, latent content analysis will be employed, where the focus is not only on the interpretation of the content (Holsti, 1969), but the main objective is to display the intended usage of the words and phrases (Morse, & Field, 1995; Catanzaro, 1988). Therefore, by relying on Nvivo's word frequency query, the most frequent words and phrases will be identified. This quantification of the most frequent words or phrases is an attempt to contextualize the text of the news items, rather than infer meaning (Hsieh et al., 2005). In other words, the goal is to find the underlying meaning of the news articles via better analysis of news text.

Rigor

Later on, the most frequent words and phrases will be used within the context of the previous inductive codes to form new templates and code guides as a means of sorting the text within each news item (Crabtree, & Miller, 1999). The theme identified through this deductive process will help provide further interpretation in terms of latent meanings (Fereday et al., 2006). Since validity is an important concept in research regardless of the methods used, this research also presents findings with quotes from each news item to present the context for each theme and as a standalone representation of the theme. Furthermore, the coding theme and quotes representing each theme will be reported to the VANDU board directors for comments and feedback so validity and reliability could be established based on the

oral history of the membership. During data analysis and coding, the research team will meet regularly to compare notes and discuss new themes that could have emerged and consequently refine the framework for coding to fully account for all the theme and topics. Through comparing the narrative data based on the social justice framework, the PWUDs' experiences of engagement with media and news outlet will be assessed via VANDU membership's firsthand experiences. VANDU feedback on these themes not only enhances the rigor of our findings but helps in establishing validity in our qualitative findings.

Results
Not Applicable because it is a study protocol and data has not been collected, analyzed and reported.

Discussion
While previous research related to the effectiveness of public opinion and public campaign has been conducted through surveys (Kerr et al., 2013; Hedberg et al., 2018; Soukup-Baljak et al., 2015), it is important to note that survey research has historically underestimated the effectiveness of an intervention because of the stigmatized nature of drug use (Shield et al., 2012; Zhao et al., 2009). Therefore, one of the strengths of this research is its unique ability to report on the largest and longest running drug user advocacy group in North America and its impact on public opinion, through mass media engagements. Qualitative findings could indicate the detailed type of activism and community action conducted by the members of the drug user community in forms of interviews, demonstrations, and news reports.

It is important to note that social stigma, where society via mass media endorses stereotypes or negative feelings against an already marginalized group (Livingston et al., 2012), manifests itself at a personal level. As the current opioid epidemic has demonstrated, stigmatization can also manifests at a structural level. Therefore, this research could demonstrate that drug users and their allies could have a profound influence on mass media engagement. In effect, positive stories initiated by peer-led advocacy groups, such as VANDU via mass media engagement could have the power to slowly change the stigma that target PWUDs.

It is also important to note that while previous research has clearly demonstrated the activism and community action of VANDU since the late 1990s, such as numerous demonstrations, night time syringe distributions, injection support teams, and the implementation of unsanctioned supervised injection facilities (SIF), unsanctioned inhalation facilities, scientific research, and education (Jozaghi, 2014a, 2014b, 2015; Jozaghi & Reid, 2014; Jozaghi et al., 2018), VANDU's mass media engagement

as the longest run drug user organization has not been reported in any previous study. One of the shortcomings of this study protocol was related on the reliance of English only speaking News outlets. Also, relying on newspaper accounts can also limit the exact topic of interest might be covered. Therefore, investigating a mixed method approach via surveys research combined with qualitative work may provide the greatest insights, rather than a single methodological approach.

Conclusion
Therefore, since the formation of VANDU as a response to the public health declaration of blood borne infections (e.g., HIV and hepatitis C cases) and drug overdose cases (e.g., 300 cases per year) in the late 1990s by the Vancouver/Richmond Health Board (Kerr et al., 2006), there has been numerous mass media engagements by VANDU's memberships. This study protocol attempts to show how VANDU's past mass media engagements via qualitative content analysis have had impacts on mass media. Perhaps VANDU engagement with the media over time has the potential to show PWUDs' advocacy efforts and project a shift in public opinion on drug policy. As the overdose crisis linked to synthetic opioids continues, VANDU's mass media engagements study could demonstrate the level of advocacy by PWUDs for harm reduction (e.g., SIFs), de-criminalization, and human rights.

Declarations

Author details
[1]UBC Faculty of Dentistry, Nobel Biocare Oral Health Centre, 2151 Wesbrook Mall, Vancouver, BC V6T 1Z3, Canada. [2]Vancouver Area Network of Drug Users, 380 E Hastings St, Vancouver, BC V6A 1P4, Canada.

References

Boyd, S., Murray, D., & MacPherson, D. (2017). Telling our stories: Heroin-assisted treatment and SNAP activism in the Downtown Eastside of Vancouver. Harm Reduction Journal, 14(1), 1–14.

Brown, L., Skulsh, J., Morgan, R., Kuehlke, R., & Graham, B. (2018). Research into action? The Eastside Illicit Drinkers Group for Education's (EIDGE) experiences as a community-based group in Vancouver, Canada. Drug and Alcohol Review, 37, S156–S158.

Cartus, A. R., Li, Y., Macmadu, A., Goedel, W. C., Allen, B., Cerdá, M., & Marshall, B. D. (2022). Forecasted and observed drug overdose deaths in the US during the COVID-19 pandemic in 2020. JAMA Network Open, 5(3), e223418.

Degenhardt, L., Whiteford, H. A., Ferrari, A. J., Baxter, A. J., Charlson, F. J., Hall, W. D., & Vos, T. (2013). Global burden of disease attributable to illicit drug use and dependence: Findings from the Global Burden of Disease Study 2010. The Lancet, 382(9904), 1564–1574.

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. J Adv Nurs, 62(1), 107–115.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. Int J Qual Med, 5(1), 80–92.

Giraudon, I., Lowitz, K., Dargan, P. I., Wood, D. M., & Dart, R. C. (2013). Prescription opioid abuse in the UK. Br J Clin Pharmacol, 76(5), 823–824.

Gomes, T., Mamdani, M. M., Paterson, J. M., Dhalla, I. A., & Juurlink, D. N. (2014). Trends in high-dose opioid prescribing in Canada. Can Fam Physician, 60(9), 826–832.

Goodman, A., Fleming, K., Markwick, N., Morrison, T., Lagimodiere, L., Kerr, T., Society, W. A. H. R. (2017). "They treated me like crap and I know it was because I was Native": The healthcare experiences of Aboriginal peoples living in Vancouver's inner city. Social Science & Medicine, 178, 87–94.

Haddaway, N. R., Collins, A. M., Coughlin, D., & Kirk, S. (2015). The role of Google Scholar in evidence reviews and its applicability to grey literature searching. PLoS ONE, 10(9), e0138237.

Happer, C., & Philo, G. (2013). The role of the media in the construction of public belief and social change. J Soc Pol Psychol, 1(1), 321–336.

Hedberg, K., Bui, L. T., Livingston, C., Shields, L. M., & Van Otterloo, J. (2019). Integrating public health and health care strategies to address the opioid epidemic: The Oregon Health Authority's Opioid Initiative. Journal of Public Health Management and Practice, 25(3), 214–220.

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. Qualitative Health Research, 15(9), 1277–1288.

Jozaghi, E. (2012). 'The biggest mistake God ever made was to create junkies': Unsafe injection practices, health care discrimination and overdose deaths in Montreal, Canada. Canadian Graduate Journal of Sociology and Criminology, 2(1), 20–34.

Jozaghi, E. (2014a). The role of drug users' advocacy group in changing the dynamics of life in the Downtown Eastside of Vancouver Canada. Journal of Substance Use, 19(1–2), 213–218.

Jozaghi, E. (2014b). "SALOME gave my dignity back": The role of randomized heroin trials in transforming lives in the Downtown Eastside of Vancouver, Canada. International Journal of Qualitative Studies on Health and Well-Being, 9(1), 23698.

Jozaghi, E., & Reid, A. A. (2014). A case study of the transformative effect of peer injection drug users in the Downtown Eastside of Vancouver, Canada. Canadian Journal of Criminology and Criminal Justice, 56(5), 563–594.

Jozaghi, E., & Yake, K. (2020). Two decades of activism, social justice, and public health civil disobedience: VANDU. Canadian Journal of Public Health, 111(1), 143–144.

Kerr, T., Small, W., Hyshka, E., Maher, L., & Shannon, K. (2013). 'It's more about the heroin': Injection drug users' response to an overdose warning campaign in a Canadian setting. Addiction, 108(7), 1270–1276.

Kerr, T., Small, W., Peeace, W., Douglas, D., Pierre, A., & Wood, E. (2006). Harm reduction by a "user-run" organization: A case study of the Vancouver Area Network of Drug Users (VANDU). International Journal of Drug Policy, 17(2), 61–69.

Kiriazova, T., Lunze, K., Raj, A., Bushara, N., Blokhina, E., Krupitsky, E., & Gifford, A. L. (2017). "It is easier for me to shoot up": Stigma, abandonment, and why HIV-positive drug users in Russia fail to link to HIV care. AIDS Care, 29(5), 559–563.

Maher, C., Hadfield, M., Hutchings, M., & de Eyto, A. (2018). Ensuring rigor in qualitative data analysis: A design research approach to coding combining NVivo with traditional material methods. International Journal of Qualitative Methods, 17(1), 1609406918786362.

Maynard, R., & Jozaghi, E. (2021). The drug war must end: The right to life, liberty and security of the person during the COVID-19 pandemic for people who use drugs. Harm Reduction Journal, 18(1), 1–2.

McGinty, E. E., Kennedy-Hendricks, A., Baller, J., Niederdeppe, J., Gollust, S., & Barry, C. L. (2016). Criminal activity or treatable health condition? News media framing of opioid analgesic abuse in the United States, 1998–2012. Psychiatric Services, 67(4), 405–411.

McLean, K. (2017). From "junkies" to "soccer moms": Newspaper representations of overdose, 1988–2014. Critical Criminology, 25(3), 411–432.

Nolan, S., Socias, M. E., & Wood, E. (2018). The threat of an international opioid crisis. Current Addiction Reports, 5(4), 473–477.

Olding, M., Hayashi, K., Pearce, L., Bingham, B., Buchholz, M., Gregg, D., & Nosyk, B. (2018). Developing a patient-reported experience questionnaire with and for people who use drugs: A community engagement process in Vancouver's downtown eastside. International Journal of Drug Policy, 59, 16–23.

Rivera, A. V., DeCuir, J., Crawford, N. D., Amesty, S., & Lewis, C. F. (2014). Internalized stigma and sterile syringe use among people who inject drugs in New York City, 2010–2012. Drug and Alcohol Dependence, 144, 259–264.

Rosenbloom, D. (2018). Framing low-carbon pathways: A discursive analysis of contending storylines surrounding the phase-out of coal-fired power in Ontario. Environmental Innovation and Societal Transitions, 27, 129–145.

Rosenbloom, D. (2019). A clash of socio-technical systems: Exploring actor interactions around electrification and electricity trade in unfolding low-carbon pathways for Ontario. Energy Research & Social Science, 49, 219–232.

Roxburgh, A., Burns, L., Drummer, O. H., Pilgrim, J., Farrell, M., & Degenhardt, L. (2013). Trends in fentanyl prescriptions and fentanyl-related mortality in Australia. Drug and Alcohol Review, 32(3), 269–275.

Rudd, R. A., Seth, P., David, F., & Scholl, L. (2016). Increases in drug and opioid-involved overdose deaths — United States, 2010–2015. Morbidity and Mortality Weekly Reports., 65, 1445–1452.

Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. Journal of Communication, 57(1), 9–20.

Shield, K. D., & Rehm, J. (2012). Difficulties with telephone-based surveys on alcohol consumption in high-income countries: The Canadian example. International Journal of Methods in Psychiatric Research, 21(1), 17–28.

Soukup-Baljak, Y., Greer, A. M., Amlani, A., Sampson, O., & Buxton, J. A. (2015). Drug quality assessment practices and communication of drug alerts among people who use drugs. International Journal of Drug Policy, 26(12), 1251–1257.

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. Nursing & Health Sciences, 15(3), 398–405.

Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. The Lancet, 376(9748), 1261–1271.

Weaver, D. A., & Bimber, B. (2008). Finding news stories: A comparison of searches using LexisNexis and Google News. Journalism & Mass Communication Quarterly, 85(3), 515–530.

Wild, T. C., Koziel, J., Anderson-Baron, J., Hathaway, J., McCurdy, A., Xu, X., & Hyshka, E. (2019). Media coverage of harm reduction, 2000–2016: A content analysis of tone, topics, and interventions in Canadian print news. Drug and Alcohol Dependence, 205, 107599.

Wilson, L., Vannice, S., Hacksel, C., & Leonard, L. (2018). Peer worker or client?: Conflicting identities among peer workers engaged in harm reduction service delivery. Addiction Research & Theory, 26(5), 361–368.

Zhao, J., Stockwell, T. I. M., & Macdonald, S. (2009). Non–response bias in alcohol and drug population surveys. Drug and Alcohol Review, 28(6), 648–657.

Banerjee, S., Ramanathan, K., & Gupta, A. (2007, July). Clustering short texts using wikipedia. In Proceedings of the 30th annual international ACM SIGIR conference on Research and development in information retrieval (pp. 787–788).

Barry, C. L., Sherman, S. G., & McGinty, E. E. (2018). Language matters in combatting the opioid epidemic: safe consumption sites versus overdose prevention sites.

Catanzaro M. Using qualitative analytical techniques. In: Woods NF, Catanzaro M, Nursing research: Theory and practice. 1988; St. Louis, MO: Mosby: 437–456.

Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis. sage.

Crabtree, B. F., & Miller, W. F. (1992). A template approach to text analysis: developing and using codebooks.

Franek, K. (2022). How Google News Makes Money: Business Model Explained. Accessed from: https://www.kamilfranek.com/how-google-news-makes-money/#:~:text=I%20have%20already%20mentioned%20that,of%20a%20number%20of%20users.

Holsti, O. R. (1969). Content analysis for the social sciences and humanities. Reading. MA: Addison-Wesley (content analysis).

Jozaghi, E., Greer, A. M., Lampkin, H., & Buxton, J. A. (2018). Activism and scientific research: 20 years of community action by the Vancouver area network of drug users. Substance Abuse Treatment, Prevention, and Policy, 13(1), 1–9.

Jozaghi, E. (2015). The role of peer drug users' social networks and harm reduction programs in changing the dynamics of life for people who use drugs in the downtown eastside of Vancouver, Canada (Doctoral dissertation, Arts and Social Sciences: Simon Fraser University).

Lambdin, B. H., Davidson, P. J., Browne, E. N., Suen, L. W., Wenger, L. D., & Kral, A. H. (2022). Reduced Emergency Department Visits and Hospitalisation with Use of an Unsanctioned Safe Consumption Site for Injection Drug Use in the United States. Journal of general internal medicine, 1–8.

millLunze, K., Lunze, F. I., Raj, A., & Samet, J. H. (2015). Stigma and human rights abuses against people who inject drugs in Russia—A qualitative investigation to inform policy and public health strategies. PLoS ONE, 10(8), e0136030.

Morse, J. M., & Field, P. A. (1995). Qualitative research methods for health professionals (No. 610.73072 M6).

Roccella, E. J. (2002). The contributions of public health education toward the reduction of cardiovascular disease mortality: experiences from the National High Blood Pressure Education Program. In Public Health Communication (pp. 89–100). Routledge.

Strauss, A., & Corbin, J. (1990). Basics of qualitative research. Sage publications.

Suddaby, R. (2006). From the editors: What grounded theory is not.

E Thomson H Lampkin R Maynard M Karamouzian E Jozaghi 2017 The lessons learned from the fentanyl overdose crises in British Columbia Canadian Addiction 112 11 2068 2070

Publisher's Note