Supplemental material

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Supplementary Material

Notes

Modified version of PICO

Expert opinion is an important resource for public policy, but systematically reviewing such non-research narrative evidence comes with challenges (McArthur et al., 2015). PRISMA-P guidelines stipulate that protocols should "provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)" (Shamseer et al., 2015). However, per the *Cochrane Handbook for Systematic Reviews of Interventions* (Noyes et al., 2020, section 21.5), PICO is not always suitable for qualitative systematic reviews. Adaptations of PICO have been developed for qualitative systematic reviews (Munn et al., 2018). Notably, JBI (formerly known as the Joanna Briggs Institute) has proposed PICo (Population, Intervention or Phenomena of Interest, Context (McArthur et al., 2015). Per the authors, these "should be considered as a guide rather than a policy."(McArthur et al., 2015, p. 190); accordingly, our version of PICo diverges from theirs by substituting "problem" for population.

McArthur, A., Klugárová, J., Yan, H., & Florescu, S. (2015). Innovations in the systematic review of text and opinion. *International Journal of Evidence-Based Healthcare, 13*(3), 188–195. https://doi.org/10.1097/XEB.0000000000000060

Munn, Z., Stern, C., Aromataris, E., Lockwood, C., & Jordan, Z. (2018). What kind of systematic review should I conduct? A proposed typology and guidance for systematic reviewers in the medical and health sciences. *BMC Medical Research Methodology, 18*, 5. https://doi.org/10.1186/s12874-017-0468-4

Noyes, J., Booth, A., Cargo, M., Flemming, K., Harden, A., Harris, J., Garside, R., Hannes, K., Pantoja, T, & Thomas, J. (2020). Chapter 21: Qualitative evidence. In Higgins et al. (Eds.), *Cochrane handbook for systematic reviews of interventions version 6.1* (updated September 2020). Retrieved from https://training.cochrane.org/cochrane-handbook-systematic-reviews-interventions

Shamseer, L., Moher, D., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., Shekelle, P., Stewart, L. A., Altman, D. G., Booth, A., Chan, A. W., Chang, S., Clifford, T., Dickersin, K., Egger, M., Gøtzsche, P. C., Grimshaw, J. M., Groves, T., Helfand, M., … Whitlock, E. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015: Elaboration and explanation. *BMJ, 349*, g7647. https://doi.org/10.1136/bmj.g7647

Exclusion of the grey literature

While a quantitative evidence synthesis would generally take an exhaustive approach to searching the literature, both academic and grey, in the case of this research question there are two reasons the grey literature should be analyzed separately. First, the grey literature is repetitive. For example, a cursory Google search shows dozens of submissions to the Canadian government regarding public health approaches to cannabis legalization – all very similar, and usually referring back to one or two key texts for their definition of a public health approach (e.g. Centre for Addiction and Mental Health, 2014). Second, the grey literature includes many advocacy or position papers that promote public health approaches at least in part on the basis of normative / value-based criteria (see for instance Canadian Public Health Association, 2014). Comparatively, the academic literature tends to be more evidence-focused. This is not a clean distinction – some academic sources will be opinion-based commentaries or editorials, and some of the grey literature is written by scholars – but the two bodies of literature are different enough to justify synthesizing them separately.

Centre for Addiction and Mental Health. (2014). *Cannabis Policy Framework*. Toronto, ON: CAMH.

Canadian Public Health Association. (2014). *A new approach to managing illegal psychoactive substances in Canada*. Ottawa, ON: CPHA.

Medline Search Strategy

1. (public health* adj3 approach*).mp
2. exp "Drug and Narcotic Control"/
3. exp Illicit Drugs/
4. exp Drinking Behavior/
5. exp Alcoholic Beverages/
6. exp Tobacco/
7. exp Tobacco Products/
8. exp "Tobacco Use"/
9. exp Smoking Devices/
10. exp smoking/
11. exp Substance-Related Disorders/
12. exp Analgesics/
13. exp Amphetamine/
14. exp Barbiturates/
15. exp Benzodiazepinones/
16. exp "Hypnotics and Sedatives"/
17. exp Central Nervous System Stimulants/
18. exp Tranquilizing Agents/
19. exp Illicit Drugs/
20. exp Cannabis/
21. exp Cocaine/
22. exp Heroin/
23. exp Hallucinogens/
24. exp Narcotics/
25. (alcohol* or beer? or binge* or drink* or liquor* or wine*).mp
26. ((intraven* or inject* or iv) adj3 (abus* or us* or misus*)).mp
27. (analgesic* or barbiturate* or benzo* or painkiller* or pain killer* or sedative* or stimulant* or tranquilizer*).mp
28. (opiate* or opioid* or opium* or codeine* or fentanyl* or hydromorphone* or morphine* or oxycodone*).mp
29. (amphetamine* or cocaine* or crack? or crystal meth* or methamphetamine* or drug* or ecstasy* or mdma* or inhalant* or lsd or narcotic* or salvia? or speed? or hallucinogen* or heroin*).mp
30. (cannabis* or cbd? or cannabidiol* or hash? or hashish? or marijuana* or marihuana* or thc? or tetrahydrocannabinol*).mp
31. (cigarette* or e-cigar* or ecigar* or nicotine* or smok* or tobacco* or vape* or vaping*).mp
32. (substance* adj3 (abus* or us* or misus*)).mp
33. addict*.mp
34. (alcohol* or addict* or drug* or substanc* or smok* or tobacco*).jw
35. exp animals/ not humans.sh
36. (1 and (or/2-34)) not 35

Draft Extraction Table (with example)

Full reference	Publication type	Country	Substance(s)	DEFINITION / CENTRAL PRINCIPLES	COMPONENTS / CHARACTERISTICS (positive)	COMPONENTS/ CHARACTERISTICS (negative)	Sources cited?
Fischer, B., Rehm, J., & Hall, W. (2009). Cannabis use in Canada: The need for a "public health" approach. *Canadian Journal of Public Health*, *100*(2), 101–103.	Commentary	Canada / Australia	Cannabis	"This approach is primarily concerned with reducing substance use related harms by acting on determinants and risks, rather than focusing on use per se, and by implementing targeted interventions to reduce the public health burden of use"[1] (p. 101)	"A public health framework for cannabis use requires a solid footing in evidence on the health risks and harmful consequences of its use and the identification of patterns of use that predict such problems." (p. 101) "…a public health approach to cannabis should more selectively use law enforcement to achieve public health objectives in specific areas of particular concern, such as deterring driving while affected by cannabis, and minors' opportunities to use cannabis."[2] (p. 102)	"Cannabis use, however, has been conspicuously exempted from a public health approach in Canada. The enforcement of abstinence is its primary policy objective. The predominant approach of criminalization proscribes any use of the drug as illegal and subject to punishment (implying that all use is harmful)." (p. 101)	[1] Hall, 2007 [2] Strang, Witton & Hall, 2000

Hall, W. (2007). What's in a name? *Addiction, 102*(5), 692.

Strang, J., Witton, J., & Hall, W. (2000). Improving the quality of the cannabis debate: Defining the different domains. *BMJ 320*(7227), 108–110.

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