What is a public health approach to substance use? Protocol for a qualitative systematic review

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ABSTRACT

Introduction The concept of a ‘public health approach’ to substance use is frequently but inconsistently invoked. This inconsistency is reflected in public policy, with governments using the term ‘public health approach’ in contradictory ways. This aim of this study is to clarify what is known and understood when the term ‘public health approach’ is used in the context of substance use.

Methods and analysis We will conduct a systematic search of Medline, Embase, Scopus, CINAHL, PsycINFO, Sociological Abstracts and PAIS Index. Eligible articles will be from peer-reviewed journals, in English, with full text available. There will be no limits on year of publication. Substance use must be the primary topic of the article. Editorials, commentaries and letters to the editor will be included, but not commentaries on other articles, unless the definition of a public health approach is central to the commentary. Data selection and collection will be conducted independently by two researchers, with a third separately resolving any disagreement. To answer the research question, we will extract authors’ definitions of a public health approach to substance use as well as any descriptions of the central principles, characteristics and components of such an approach. To synthesise the data, we will employ thematic synthesis. Coding will be conducted by one researcher and verified by a second; two researchers will then group the codes into themes using an inductive process. Finally, the full research team will develop a set of analytic themes, which will be presented as a narrative.

Ethics and dissemination Ethics approval is not needed since the research will only involve published work. Our findings will be disseminated in a peer-reviewed journal and, if possible, at conferences.

INTRODUCTION

The use of psychoactive substances, while common, comes with risks. It has been estimated that 5.5% of disability-adjusted life-years globally can be attributed to substance use.\(^\text{1}\) WHO reports that 3 million deaths per year can be attributed to alcohol and a further 500,000 to illicit drugs.\(^\text{2-3}\) Drug policy can cause harm as well; in much of the world, the commercialisation of alcohol and the criminalisation of opioids have exacerbated the health risks of those substances and introduced further social harms.\(^\text{4-5}\)

The concept of a ‘public health approach’ to substance use is frequently invoked in the English-language academic literature, but definitions are often vague. There are papers calling for such an approach that make no attempt to define it.\(^\text{6-7}\) Where definitions are offered, they vary greatly. For instance, some calls for a public health approach focus on substance use disorders as fully preventable brain disease that should be addressed as health rather than criminal issues, primarily through evidence-based prevention and treatment interventions.\(^\text{8}\) Others rest on the premise that some level of substance use in society is inevitable, and include the reduction of harm, support for human rights, and the facilitation of participatory democracy as fundamental principles.\(^\text{9}\)

This lack of a consistent definition is reflected in public policy. The term ‘public health approach’ is widely used in public and policy-maker debates. For instance, Canada’s federal government frequently states that it is committed to a public health approach to cannabis, opioids and substance use more broadly.\(^\text{10-12}\) Yet the government’s cannabis and opioids policies differ markedly. It is

Strengths and limitations of this study

- This review will allow the development of a practical definition of a public health approach to substance use that will be of value to policy-makers.
- We will employ thematic synthesis, which was specifically designed to rigorously and transparently synthesise research in public health/health promotion.
- Limiting to English-language literature means we will miss debate from much of the world.
- This review is unlikely to shed light on the impact or outcomes of measures associated with a public health approach to substance use.
difficult to discern many commonalities between Canada’s approach to cannabis, legalised and regulated since 2018, and its approach to opioids, in which criminal justice continues to play a major role. It has also been observed that globally, many countries are using the term ‘public health approach’ to describe their drug policy, using it as a ‘smokescreen’ to obscure policies that are coercive and may be contrary to ‘good public health practice’.

**OBJECTIVE**

This study will systematically review the English-language academic literature in order to understand what is meant and understood when the term ‘public health approach’ is used in the context of substance use. Using a modified form of the PICo tool for formulating qualitative systematic review questions (see online supplemental material, p. 1, for a brief discussion), the problem is substance use/drug policy, the phenomenon of interest is definitions of a public health approach, and the context is the English-language academic literature. Thus, our research question is: How is a public health approach to substance use defined and described in the English-language academic literature?

**METHODS AND ANALYSIS**

**Eligibility criteria**

Eligible articles will be from peer-reviewed journals, in the English language, with full text available. Grey literature will be excluded from this review (see online supplemental material, p. 2, for rationale). There will be no limits on year of publication. Editors, commentaries and letters to the editor will be included, but not responses to or commentaries on other articles, unless the definition of a public health approach is central to the response or commentary. Substance use must be the primary topic of the article—for example, an article about public health approaches to HIV that secondarily discusses intravenous drug use would be excluded. Similarly, an article proposing a public health approach to gambling that draws on the substance use literature would also be excluded.

**Information sources and search strategy**

We will use the following academic search engines: Medline, Embase, Scopus, CINAHL, PsycINFO, Sociological Abstracts and PAIS Index. We will use text word and subject heading terms, depending on the database, employing keywords for the phenomenon of interest—public health approaches to substance use. A search strategy has been created for Medline (see online supplemental material, p. 3); it will be adapted to the other six databases. We will also check the reference lists of included articles for potentially relevant sources that our search may have missed.

**Data management and selection process**

To facilitate the screening process we will use the Covidence systematic review software. We will record details of all searches. Results will be entered into Covidence and deduplicated. Two reviewers will independently review titles and abstracts against an eligibility checklist (for criteria, see above), with a third person separately resolving any disagreement. They will then review full-text articles for eligibility, with a third researcher again resolving differences, and eliminate any remaining duplicates. This process, like the rest of the review, will be reported using the most recent Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines.

**Data collection process, data items**

Two reviewers will independently extract data using an extraction form (see online supplemental material, p. 4, for a draft) and enter them into qualitative data analysis software NVivo; any differences will be resolved by consensus or, if necessary, by a third team member. The following descriptive information about the included articles will be extracted for context: full reference, article type (commentary, review, etc), country of origin, substance(s) under discussion, and author funding (if applicable). To answer the research question, we will extract authors’ definitions of a public health approach to substance use (or particular substances), as well as any descriptions of the central principles, characteristics and components of such an approach. Negative definitions (ie, what a public health approach is not) will also be extracted. These will need to be explicitly stated by the authors; if no definition or characteristics are offered, we will not attempt to infer them, but the study will be included and the lack of a definition recorded. We will also record any sources the authors may have cited in support of their definition of a public health approach to substance use. The data extraction table included in this article’s online supplemental material gives an example of the data items collected for one article returned in our test search.

**Risk of bias in individual studies**

Assessing study quality and risk of bias is an important part of qualitative systematic reviews. Generally, this is accomplished “by focusing on assessment of methodological strengths and limitations as a marker of study rigour.” However, this systematic review is different from most: its sources will generally not be research studies, and the data to be extracted—definitions of a public health approach—will be expert opinion rather than research findings. While we are aware of no guidelines for assessing risk of bias when the object of a systematic review is expert opinion, we will track author funding in order to explore the possibility of bias. Study quality will not be assessed.
Synthesis
Given the subject matter, synthesis will be entirely qualitative. This review will employ thematic synthesis, designed by Thomas and Harden as a way to rigorously and transparently synthesise research in the area of health promotion.\textsuperscript{19–21} Thematic synthesis has three stages of analysis: (1) coding text, (2) grouping codes into descriptive themes and (3) interpreting those to generate analytic themes.\textsuperscript{21}

Coding will be conducted by one researcher using NVivo. A second researcher will verify the coding; disagreements will be resolved by consensus or, failing that, by a third team member. Two researchers will then group the codes into themes, using the inductive process outlined above, and prepare a draft for the other team members outlining these descriptive themes and offering an initial interpretation.

The final stage of thematic synthesis is the generation of analytic themes. The objective here is to ‘go beyond’ the primary studies and generate new interpretive constructs, explanations or hypotheses.\textsuperscript{21} In this stage, researchers generally work independently at first, then as a group, repeating as many times as necessary to reach consensus on a set of analytic themes.\textsuperscript{21–23} The full team will participate in this process. In the interest of transparency, a detailed account will be recorded and reported.

Overall results will be summarised in tables. Analytical themes will be presented as a narrative, with the support of additional tables and infographics as needed. The full team will participate in this process as well.

Meta-Bias
In most systematic reviews, it is necessary to assess possible meta-bias, including selective reporting and publication bias.\textsuperscript{18} In this case, we are intentionally excluding grey literature for the reasons outlined in online supplemental material (p. 2), and since we are examining only the English-language literature, we are also aware that the review will fail to capture drug policy debate from much of the world. However, we believe this will not constitute meta-bias in the context of our research question (How is a public health approach to substance use defined and described in the English-language academic literature?).

Confidence in cumulative evidence
To assess confidence in our review findings, the research team will use the Grades of Recommendations, Assessment, Development and Evaluation-Confidence in the Evidence from Reviews of Qualitative research tool, designed to assess ‘the extent to which a review finding is a reasonable representation of the phenomenon of interest’.\textsuperscript{24} It does so through an assessment of methodological limitations, coherence, adequacy of data and relevance for each individual review finding.

Patient and public involvement
There is no planned patient or public involvement in the conduct of this systematic review.

ETHICS AND DISSEMINATION
Ethics approval is not needed since the research will only involve published work. Our findings will be disseminated in a peer-reviewed journal and, if possible, at conferences.

Contributors JFC conceptualised the project and drafted the protocol. TMW, CS, SB and JR critically reviewed it and provided feedback. JFC is the guarantor. All approved the final manuscript.

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REFERENCES
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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.


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.


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)

<table>
<thead>
<tr>
<th>Full reference</th>
<th>Publication type</th>
<th>Country</th>
<th>Substance(s)</th>
<th>DEFINITION / CENTRAL PRINCIPLES</th>
<th>COMPONENTS / CHARACTERISTICS (positive)</th>
<th>COMPONENTS / CHARACTERISTICS (negative)</th>
<th>Sources cited?</th>
</tr>
</thead>
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<tr>
<td>Fischer, B., Rehm, J., &amp; Hall, W. (2009). Cannabis use in Canada: The need for a “public health” approach. <em>Canadian Journal of Public Health, 100</em>(2), 101–103.</td>
<td>Commentary</td>
<td>Canada / Australia</td>
<td>Cannabis</td>
<td>“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.” (p. 101)</td>
<td>“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)</td>
<td>“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. 102)</td>
<td>1 Hall, 2007</td>
</tr>
</tbody>
</table>
