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Patient-Centered Care for Addictions Treatment: A Scoping Review Protocol

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ABSTRACT:

Introduction: Substance use disorders are chronic conditions that may benefit from expanded person-focused treatment approaches. Patient-centered care (PCC), commonly used for chronic-conditions, is a structured treatment approach that responds to patients' unique needs and has been associated with positive outcomes (e.g., treatment retention, health outcomes). Despite its demonstrated effectiveness, evidence regarding its feasibility and potential outcomes among people with substance dependence remain limited. The aim of this scoping review is to explore how patient-centered care has been defined, measured and implemented among people with problematic substance use.

Methods and analysis: This scoping review follows the iterative stages of the Arksey and O'Malley framework. Both empirical (from Medline, Embase, PsycINFO, CINAHL and ISI Web of Science) and grey literature references will be considered if they focused on populations with problematic substance use and described or measured PCC or one of its components in a health-oriented context. Two reviewers will independently screen and review references. A descriptive overview, numerical summaries (where relevant) and a directed content analysis will be carried out on extracted data. This scoping review will be registered with Open Science Framework.

Ethics and dissemination: This review will generate evidence to inform decision-makers and health care providers on the feasibility, implications and potential outcomes associated with PCC for substance use treatment. A multidisciplinary team has been gathered to represent the needs of people with problematic substance use, health care providers and decision makers. The team's knowledge users will be engaged throughout this review and will participate in dissemination activities (e.g., workshops, presentations, publications, reports).

ARTICLE SUMMARY: (Strengths and Limitations of this Study)

- This is the first scoping review to systematically explore how patient-centered care has been defined, measured and implemented among people with problematic substance use.
- A multidisciplinary team composed of drug policy advocates, health care providers, decision makers and academics will lead this scoping review.
- Both the population (people with problematic substance use) and concept of interest (patient-centered care) have been indexed using a variety of terms, which poses a challenge to ensuring breadth of the search.
- A comprehensive search strategy has been developed in consultation with a health sciences librarian to promote a sensitive scope of empirical and grey literature sources.
- This iterative scoping review study has been registered with Open Science Framework to enhance its transparency.

1. INTRODUCTION

Alcohol, tobacco and illicit substance use is a significant public health concern that accounts for 11.2% of the global burden of disease and 21.1% of all deaths.[1] People with substance use disorders are at an increased risk of mortality and morbidity;[2, 3] and some may be further affected by lost family and social support, criminal justice involvement, and social marginalization.[4] These associated harms highlight the multi-factorial nature of substance use disorders.[5, 6]

This multi-factorial nature, combined with the fact that drugs are subject to inconsistent policies (i.e., some are illegal, some are not),[7, 8] and affect the brain and body differently,[9] add to the complexity of its treatment. Effective pharmacological therapies are available to assist with the treatment of some, but not all, substance use disorders. For instance, for opioid use disorder, medication assisted treatment (e.g., oral methadone) has shown to be the most effective approach to reduce the use of illicit opioids and its associated harms.[10] On the other hand, psychosocial interventions (e.g., cognitive behavioural therapy; contingency management) can be very effective.[11-13] However, these approaches can be limited in their effectiveness at engaging and treating some populations (e.g., people with opioid use disorder or with severe mental comorbidities).[12-14] Both pharmacological and psychosocial interventions can be offered in a variety of settings (e.g., residential, community-based outpatient), delivered by different health care professionals (e.g., nurses, counselors, physicians), and with a wide range of outcome expectations (e.g., abstinence-oriented, harm reduction).[6, 15]

Despite variability in the settings, providers and expectations of substance use treatment, interventions are recommended to adopt a chronic, recovery-oriented approach,[16, 17] and one that adapts to the unique, person-specific, treatment needs.[6, 18] Indeed, evidence has shown that when clients' needs (e.g., housing, parenting support, medical care) are matched to the services offered, they are more likely to be retained to substance use treatment.[19-21] Patient-centered care (PCC) is a structured approach that encompasses these recommendations by prioritizing clients' unique goals, values, and involvement in the treatment and recovery process. As such, PCC warrants further consideration for efforts aimed at optimizing the responsiveness of substance use treatment to the individualized and long-term needs of its clients.

PCC has a longstanding history in clinical psychology, and has emerged in medicine over the past decade in efforts to improve the quality and effectiveness of health care, particularly for people with chronic illnesses.[22-24] This is not surprising, since research has shown PCC to be associated with treatment retention and adherence, treatment satisfaction, improved health outcomes, and quality of life.[23-25] The most common principles, as defined in concept analyses[26, 27] and reviews in the health sciences literature[24, 28, 29] are: (1) *understanding the whole person* to account for the biological, psychological and social aspects of patients' illnesses (i.e., holistic or comprehensive care); (2) *exploring the disease and illness experience* to understand the personal meaning of illness for the patient (i.e., person-focused or individualized care); (3) *finding common ground* where power, knowledge and responsibility are shared

between the patient and provider (i.e., shared-decision making or collaborative care); and (4) *enhancing the patient-provider relationship* to improve the positive outcomes of treatments provided (i.e., relational care).

For people with substance use disorders, research to date has focused on measuring specific principles or concepts that broadly overlap with PCC, such as individualized treatment preferences, needs and goals,[19, 30, 31] shared-decision making[32] or client autonomy[33] and relational care.[34, 35] These studies have been conducted with specific populations of people with substance use disorders (e.g., for people with primarily alcohol or opioid use disorder). However, the PCC principles that have been applied in this broad evidence base could be adapted into a variety of treatments and settings, which could yield significant opportunities that improve the quality of treatments for people with substance use disorders.

To begin considering the potential benefits of PCC for people with substance use disorder, a comprehensive review of the existing evidence and grey literature is needed to gain initial understanding of what aspects of PCC have been empirically tested and clinically adopted. Bringing this evidence together in a systematic scoping review has the potential to inform future research and policy efforts aimed at designing and testing the effectiveness of a structured PCC approach for the treatment of substance use disorders. To our knowledge, no such review is currently available.

2. OBJECTIVE

The present scoping review will systematically explore how patient-centered care has been defined, measured and implemented in health care settings for people with substance use disorders. Specifically, this review aims to examine the extent and nature of existing evidence of PCC in addiction research and clinical practice. This review will generate evidence to inform future directions for research and clinical practice design.

3. METHODS AND ANALYSIS

This scoping review methodology will adopt the classic framework developed by Arksey and O'Malley,[36] and recent enhancements[37, 38, 39] including best practices for conducting and reporting systematic reviews (i.e., Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) or PRISMA for scoping reviews once available).[39-41] Accordingly, a reflexive and iterative approach will be maintained; particularly during the study selection and data extraction phases, which may become more refined throughout the review. All iterations of the protocol will be registered through Open Science Framework.[42] DistillerSR software for systematic reviews[43] will be used by both reviewers for screening, extraction, monitoring and to support synthesis and summarizing of findings.

3.1. Stage 1: Defining the Research Question

The research question was developed as a broad framing of the population (i.e., people with problematic substance use), the concept (i.e., patient-centered care) and the context (i.e., health-oriented settings) to be explored. Thus, this scoping review asks:

1. What patient-centered care principles and outcomes have been empirically explored and implemented in health-oriented settings for people with problematic substance use?

3.2. Stage 2: Identifying Relevant Literature

Our goal in developing this search strategy is to undertake a comprehensive review of the existing evidence base. However, this particular research question poses a challenge to keyword selection due to the evolution of terms used to describe both the population and concept of interest. For instance, problematic substance use has grown from the pejorative language of the 'addict' to a health-oriented view of 'substance dependent populations' and now onto the more person-focused discourse of 'people with problematic substance use'.[44, 45] Likewise, patient-centered care has also been indexed using a variety of terms reflecting its progression from psychology (i.e., 'client centered therapy', 'person-focused care') to its recent arrival in medicine (i.e., 'patient-centered care'). Adding to this complexity, specific PCC principles such as 'collaborative care', and 'whole-person' care have also been reported.[27, 29] To overcome this sensitivity-related challenge, we have engaged in an extensive consultation process with an experienced Health Science Librarian (at the University of British Columbia) as well as the knowledge users represented in our team (authors SM and SH). The search strategy will also be peer reviewed (i.e., PRESS) to promote its rigor and feasibility.[46]

Given our interest in undertaking a comprehensive review of existing research and clinical guidelines related to PCC in the addictions field, both empirical (primary studies, previous reviews), and grey literature documents (conference abstracts, reports and clinical guidelines) will be included in our search. The search for empirical sources will be conducted in the most important electronic databases for the medical and social sciences: Medline (Ovid), Embase (Ovid), PsycINFO, CINAHL and ISI Web of Science. The search strategy will be developed in Medline (Ovid), will undergo PRESS, and will then be adapted to the other databases. The search strategy will include subject headings, related terms, and keywords as necessary for the research question. Boolean logic and operators (i.e., 'and', 'or', 'not') will be used to combine search terms and concepts.

For the grey literature search strategy, we will utilize recommended resources[47] and consult with the Health Sciences Librarian and our team's knowledge users to devise a database specific approach. The search for abstracts, reports and clinical guidelines will be carried out in several Canadian-specific databases: British Columbia Guidelines and Protocols Databases, CPG Infobase, the Registered Nurses' Association Clinical Practice Guidelines Program, and Des Libris. For international grey literature documents, we will search National Guideline Clearinghouse, TRIP, Google and Google Scholar databases.

3.3. Stage 3: Study Selection

A two-stage collaborative review process will be used to select references. Eligibility criteria have been developed *a priori*, in consultation with the study team. The screening form will be piloted on the first 20 citations of the initial Medline (Ovid) search to test both the criteria and reviewer agreement. Two independent reviewers (authors KM and SB) will apply eligibility criteria during the initial title/abstract review. After each review stage, the reviewer's agreement will be assessed and a third reviewer (author EOJ) will be consulted in cases of disagreement, until consensus is achieved.

A title/abstract (or executive summary for reports and guidelines) will be eligible for full text screening if it:

a) Referred to people with problematic substance use (including tobacco, alcohol, cannabis, stimulant or opioid use);

b) Was about delivering patient-centered care or one of its components (including collaborative care, comprehensive care, care that enhances the patient-provider relationship, and care that attends to personal meaning of illness and recovery); and

c) Was set in a health-oriented context (including inpatient or outpatient hospital settings, emergency departments, community-based or primary care health settings, and any specialized drug treatment or low-threshold agencies and programs; excluding prison-based health programs and self-help models such as narcotics or alcoholics anonymous);

d) Was published between January 1, 1960 and March 1, 2018 in English, French, Spanish, Italian, Portuguese and German.

Full text empirical articles, reports and guidelines will then be obtained for titles/abstracts meeting these above criteria and will undergo further screening. In addition to the title/abstract criteria, full texts will be included in the review if:

e) It provided an operational definition of the patient-centered care framework that was delivered to people with problematic substance use in the health-oriented context; and

f) It observed at least one outcome (e.g., treatment compliance, treatment satisfaction) of the patient-centered treatment approach (this criterion pertains to empirical articles only).

As such, articles that provide only a recommendation to adopt PCC or an opinion of how PCC should be implemented in health-oriented settings for people with problematic substance use will not be included.

3.4. Stage 4: Data Extraction

Results of the search will be collated in DistillerSR,[43] allowing the research team to de-duplicate and perform data extraction. We will follow recommended data charting methods[36, 41] to systematically capture relevant details for studies/reports and guidelines (Table 1). Data charting forms will be piloted with the first 5 empirical and grey literature references and may be adapted thereafter (with input from the teams' knowledge users).

Table 1. Data extraction and charting for empirical and grey literature sources

Domain/Subdomain	Description
1. General Document Details	
1.1 Reference Type	Empirical study, case study, review, commentary, report, guideline
1.2 Publication Year	Year of publication
1.3 Country and Location	Country of publication (and location if provided)
1.4 Publication Language	Language of publication
2. Empirical Study References (if applicable)	
2.1 Research objective	What was the research objective or specific question to be tested (if relevant)
2.2 Study design	Was the study design observational, experimental or qualitative?
2.3 Study population	What were the eligibility criteria? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant or comorbid substance use and mental illness?
2.4 Patient-centered care intervention	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)? How long was the intervention provided or observed for?
2.5 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?
2.6 Study outcomes	For quantitative studies, what were the primary and secondary outcomes measured? For qualitative studies, what outcomes were described?
2.7 Important results	What were the main results of the study? Were there any important sub-group analyses (e.g., by sex and gender, by primary substance, by health care provider)?
2.8 Limitations	What limitations did the authors describe? What others might there be?
3. Grey Literature References (if applicable)	
3.1 Target audience	Is there a target audience specified for the guideline/report (e.g., policy/decision maker, health care provider, patient/client/family)
3.2 Reference population	If available, how was the target patient population defined? Any specific eligibility criteria used? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant or comorbid substance use and mental illness?
3.3 Patient-centered care operational definition	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)?
3.4 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?

3.5 Intervention and outcomes	If applicable, was a specific patient-centered intervention described (e.g., a training module, a clinical approach)? Were any outcomes reported (e.g., patient or provider satisfaction)?
3.6 Program evaluation	If available, results of any ongoing program evaluations?

3.5. Stage 5: Collating, Summarizing and Reporting the Results

We will present a descriptive overview (including numerical summaries; e.g., effect size if available) of the eligible full texts.[36] In addition to basic tables and charts of the studies and guidelines, we will also summarize studies by each broader category of substances primarily used (i.e., tobacco, cannabis, alcohol, opioid, or stimulant). Displaying information in this way will enhance understanding of population-specific similarities and differences in the patient-centered approach, its definition and outcomes. This will greatly facilitate the identification of future directions for research and practice. All tables and charts will include narrative summaries, relating the findings to the review's research question. Additionally, we will develop a final report of the review,[41] according to relevant aspects of the PRISMA guidelines.[39]

Given that this review aims to understand *how* PCC has been implemented in health care services for people with problematic substance use, a directed content analysis will be carried out on included guidelines. Specifically, we are interested in qualitatively analyzing the definition of PCC adopted in the guidelines, how they were developed, what health care providers were involved, and any outcomes or ongoing evaluations of the program. To do so, data from the guidelines will be imported to MAXQDA, version 12,[48] a qualitative analysis software program that supports a multi-user approach. This analysis will be conducted by authors KM, SB and EOJ, who have prior experience conducting thematic analysis on similar topics.[49, 50] As is common in directed content qualitative analysis,[51] a coding framework will be developed a priori, and will be applied by authors KM and SB independently. Results from this analysis will be summarized and where relevant numerical summaries may also be used to provide additional context to the themes (e.g., number of clients treated, number of staff).

3.6. Stage 6: Consultation Process and Engagement of Knowledge Users

The ultimate aim of this review is to generate evidence that can be used to inform decision-makers and health care providers on the feasibility, implications and potential outcomes associated with PCC for substance use treatment. To achieve this goal, we have engaged a multi-disciplinary team of knowledge users who represent the needs of people with problematic substance use, health care providers and decision makers. This team will be engaged at each stage of the project to discuss and refine eligibility criteria, data extraction and analysis. For example, our team's drug policy knowledge user (author JW) represents a national organization of people who use drugs and will contribute this critical perspective to ensure that all aspects of this review are rooted in the client-centered needs of this diverse population. Similarly, consulting with the team's health care providers (authors SM and SH) and decision-makers

(authors SH and DCM) will promote a methodology that reflects the realities of patient-provider roles and the health care system's organization. Lastly, through this team's diverse network, there will also be opportunities to disseminate findings directly to patients, health care providers, decision makers and drug policy experts. The planned consultation process will therefore empower knowledge users with a broad understanding of how PCC has been conceptually defined and its potential for improving health care outcomes among people with problematic substance use.

4. DISCUSSION

As substance use disorders are increasingly recognized as chronic and relapsing conditions, the public health care system is considering how existing treatment and intervention approaches can be optimized to meet the long-term and evolving goals of clients.[18] A structured patient-centered approach may be one such opportunity. To our knowledge, this review will be the first to systematically examine the extent and nature of existing evidence of PCC in addiction research and clinical practice.

By taking into account both empirical and grey literature from the broader field of addictions, we will gain a comprehensive understanding of how PCC has been defined, measured and implemented. Specifically, empirical literature will provide evidence regarding the possible outcomes of PCC and grey literature (especially the reports and guidelines) will yield evidence informing how PCC has already been implemented in the various health-oriented contexts. Together, this evidence will inform the development of a consistent operational definition of PCC, which is needed for future standardization in clinical practice and ongoing measurement. Additionally, bringing this evidence together will provide a deeper understanding of the value that particular principles bring to treatment outcomes. For example, across populations and settings, we might find that shared-decision making is particularly beneficial for pharmacological medication adherence, while whole-person care improves health and social outcomes. These combined findings will provide a description of how PCC could be defined, implemented and tested. Such evidence is critical to offering clients the opportunity to participate in treatment that is comprehensive, individualized and empowering.

AUTHOR CONTRIBUTIONS:

KM (review guarantor) led the design and conceptualisation of this review and drafted the protocol with primary support from SB and EOJ. SB, SH, and EOJ were involved in refining the search strategy, including key words. SM, SH, and JW, were involved in establishing eligibility criteria and data extraction forms. All authors provided feedback on the manuscript and approval to the publishing of this protocol manuscript.

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Supplement Table: Ovid-Medline Search Strategy

Search number	Search term that entered to Ovid-Medline	No. of Hits[a]
1	exp Substance-Related Disorders	258404
2	exp Street Drugs	11238
3	substance abus*	49574
4	substance dependen*	2731
5	substance misus*	2166
6	Problematic substance adj2 (use* or usage or using)	254
7	(people who inject drug*) or PWID	1767
8	injection drug "(use or user or usage or using)" or IDU	2800
9	"people who use drugs" or PWUD	348
10	(illicit or street or illegal) adj2 (drug or substance) adj2 (use* or usage or using)	5855
11	opioid adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	15436
12	opiate adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	3474
13	narcotic adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	1278
14	heroin	17876
15	"stimulant use disorder"	41
16	exp crack cocaine	1343
17	exp cocaine smoking	3
18	((cocaine or crack) adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*))	11821

19	(amphetamine or crystal methamphetamine or crystal meth) adj1 (addict* or abus* or dependen* or misus* or problem* or disorder*)	591
20	alcohol adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	50198
21	cannabis adj2 (addict* or abus* or dependen* or disorder*)	1917
22	(tobacco or nicotine or smok*) adj2 (dependen* or disorder* or cessation)	45596
23	Diagnosis, Dual (Psychiatry)	3378
24	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23	337401
25	exp Patient-Centered Care	16521
26	((patient or client or person) adj1 cent?red adj1 (care or treatment* or therap*))	20613
27	((patient or client or person) adj1 focus?ed adj1 (care or treatment* or therap*))	425
28	Patient participation	22542
29	collaborative adj1 (care or practic* or treatment* or plan*)	3781
30	(shared or joint or collaborative) adj2 decision making	6241
31	Comprehensive health care	6395
32	Professional-Patient Relations	25040
33	therapeutic alliance	2068
34	relational practic*	45
35	(professional or physician or doctor or nurse or health professional or health provider) adj1 patient adj1 (relationship* or alliance*)	21872
36	(professional or physician or doctor or nurse or health professional or health provider) adj1 patient adj1 communication*	3015
37	Holistic Nursing	3453
38	trauma adj1 (cent?red or informed) adj1 (care or approach or treatment* or therap*)	262

39	cultural* adj1 (safe or sensitive) adj1 (care or approach or treatment* or therap*)	394
40	Family Systems Nursing	64
41	Expert patient program*	27
42	25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41	106450
43	24 and 42	2598

Notes: a) Run date: May 22 2018

PRISMA-P Checklist

		Reporting Item	Page Number
Identification	#1a	Identify the report as a protocol of a systematic review	1
Update	#1b	If the protocol is for an update of a previous systematic review, identify as such	NA
	#2	If registered, provide the name of the registry (such as PROSPERO) and registration number	2
Contact	#3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contribution	#3b	Describe contributions of protocol authors and identify the guarantor of the review	9
	#4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	NA
Sources	#5a	Indicate sources of financial or other support for the review	10
Sponsor	#5b	Provide name for the review funder and / or sponsor	10
Role of sponsor or funder	#5c	Describe roles of funder(s), sponsor(s), and / or institution(s), if any, in developing the protocol	10
Rationale	#6	Describe the rationale for the review in the context of what is already known	3
Objectives	#7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4
Eligibility criteria	#8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be used as criteria for eligibility for the review	6

Information sources	#9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	5
Search strategy	#10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	16
Study records - data management	#11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	4
Study records - selection process	#11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	6
Study records - data collection process	#11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	7
Data items	#12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	7
Outcomes and prioritization	#13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
Risk of bias in individual studies	#14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	See note 1
Data synthesis	#15a	Describe criteria under which study data will be quantitatively synthesised	8
	#15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any planned exploration of consistency (such as I2, Kendall's τ)	8
	#15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	8

	#15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8
Meta-bias(es)	#16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	See note 2
Confidence in cumulative evidence	#17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	See note 3

Author notes

1. NA for scoping review
2. NA for scoping reviews
3. NA for scoping reviews

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Patient-Centered Care for Addictions Treatment: A Scoping Review Protocol

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Patient-Centered Care for Addictions Treatment: A Scoping Review Protocol

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ABSTRACT:

Introduction: Substance use disorders are chronic conditions that require a multidimensional treatment approach. Despite ongoing efforts to diversify such treatments, evidence continues to illuminate modest rates of treatment engagement and perceived barriers to treatment. Patient-centered care (PCC) is one approach that may strengthen the responsiveness of treatments for people with problematic substance use. The aim of this scoping review is to explore how the principles of patient-centered care have been implemented and operationalized in health care settings for people with problematic substance use.

Methods and analysis: This scoping review follows the iterative stages of the Arksey and O'Malley framework. Both empirical (from Medline, Embase, PsycINFO, CINAHL and ISI Web of Science) and grey literature references will be considered if they focused on populations with problematic substance use and described or measured PCC or one of its principles in a health-oriented context. Two reviewers will independently screen references in two successive stages of title/abstract screening and then full-text screening for references meeting title/abstract criteria. A descriptive overview, tabular and/or graphical summaries, and a directed content analysis will be carried out on extracted data. This scoping review has been registered with Open Science Framework (https://osf.io/5swvd/).

Ethics and dissemination: This review will examine the nature and extent to which the principles of PCC have been implemented, defined, and measured. Such evidence will contribute to the operationalization of PCC for people with problematic substance use. A multidisciplinary team has been gathered to represent the needs of people with problematic substance use, health care providers, and decision makers. The team's knowledge users will be engaged throughout this review and will participate in dissemination activities (e.g., workshops, presentations, publications, reports).

ARTICLE SUMMARY: (Strengths and Limitations of this Study)

- This is the first scoping review to systematically explore which principles of patient-centered care have been implemented and their operationalization among people with problematic substance use.
- A multidisciplinary team composed of drug policy advocates, health care providers, decision makers, and academics will lead this scoping review.
- Both the population (people with problematic substance use) and concept of interest (patient-centered care) have been indexed using a variety of terms, which poses a challenge to ensuring breadth of the search.
- A comprehensive search strategy has been developed in consultation with a health sciences librarian to promote a sensitive scope of empirical and grey literature sources.

- This iterative scoping review study has been registered with Open Science Framework to enhance its transparency (https://osf.io/5swvd/).

1. INTRODUCTION

Alcohol, tobacco, and illicit substance use continues to be a significant public health concern that accounts for 11.2% of the global burden of disease and 21.1% of all deaths.[1] People with substance use disorders are at an increased risk of mortality and morbidity;[2 3] and some may be further affected by lost family and social support, criminal justice involvement, and social marginalization.[4] However, not all people with problematic substance use follow the same trajectory. Instead, there are individual variations in the personal meaning of substance use, in the intensity and frequency of use, and its associated harms.[4-6] This heterogeneity in substance use disorders contributes to the complexity of its treatment.

It is increasingly accepted that there is no 'one size fits all' treatment approach for problematic substance use and that a range of treatments are required to meet the diverse needs and preferences of this population.[5 6] For example, effective pharmacological therapies are available to assist with the treatment of some, but not all, substance use disorders (e.g., tobacco, alcohol, opioid dependence).[7]Treatment may also include psychosocial interventions (e.g., cognitive behavioural therapy, contingency management, or strengths-based treatment) either in combination with pharmacological therapies or alone.[8 9] Regardless of the treatment provided, the main goal is to engage clients in care, since treatment engagement is widely recognized as one of the most important predictors of substance use outcomes.[10 11]

As such, tremendous efforts have been made towards improving client engagement. Examples include: diversified treatment settings that offer traditional residential and hospital-based programs, specialized outpatient programs, and more recently, integrated service models.[7 12] To increase the rate of detection and treatment engagement, opportunities for screening and brief intervention have also been incorporated and expanded outside of specialized substance use treatment programs.[13] Various problem-to-services matching designs have also been developed to increase successful treatment engagement by strengthening alignment between client's needs and services offered.[14-17]

In spite of these important developments, research continues to demonstrate quite mixed uptake of these practices,[17] as well as varying rates of treatment engagement. [7 12] Globally, it is estimated that 1 out of every 6 people in need of substance use treatment is able to receive it; and this does not imply receipt of evidence- or human-rights based treatments.[18] Even when examining evidence-based treatments, such as opioid agonist treatment, recent systematic reviews suggest a wide range in the rate of treatment retention (e.g., from 37%–91% at 12-month follow-up).[19] There is also a substantial body of qualitative research that has revealed several areas in which clients (and in some cases providers) have perceived challenges with engaging in treatment. A few examples include perceived provider misunderstanding of treatment goals,[20] discrepancies between client and provider's treatment goals,[21] a lack of treatment

responsiveness to client's perceived needs,[22 23] challenges with involving clients in treatment planning and delivery,[24] and perceived power imbalances, stigma and discrimination.[25-27] This evidence suggests that there remains a need to explore *how* treatment processes can be designed to increase client engagement better respond to client's unique needs, while also considering the diversity of treatments and settings required.

Patient-centered care (PCC) is one potential approach warranting further exploration. PCC is rooted in a philosophy that *'puts the person first'*, endeavoring to meet their unique needs and preferences, enhancing their experiences with care, and involving them in all elements of treatment planning and delivery.[28] Some of its origins can be traced back to Carl Rogers' client-centered therapy, which emphasized unconditional positive regard, empathy, and genuineness in the therapeutic process.[29] Over the last two decades, as the concept of PCC has garnered increased attention across the health and social sciences[30 31], its operationalization has included a refinement and expansion of the role of the therapeutic relationship. For example, in nursing, empirically based conceptual frameworks[32-34] agree that PCC entails an approach to care that is holistic, individualized, respectful, and empowering. In medicine, the proposed frameworks converge around similar, but slightly reframed dimensions. Here, emphasis is on a biopsychosocial perspective, seeing the 'patient-as-person', enhancing the therapeutic alliance, and sharing power and responsibility.[35-40] These differences across disciplines (in the conceptual meaning of PCC) have resulted in varying operationalizations.

That the meaning of PCC is currently somewhat context-specific poses challenges to determining the relationship between PCC and treatment process and outcome indicators. For example, a recent meta-analysis showed mixed effects of PCC (defined as shared control or decisions and/or consultations focused on whole person) on improved quality of care, treatment satisfaction and health outcomes.[41] It also found support for generally positive effects of PCC on consultation process measures (e.g., communication about treatments; levels of empathy),[41] suggesting that these approaches might overcome some of the challenges clients have historically experienced engaging in substance use treatment.

It is important to recognize that elements of PCC have been recommended or defined as part of some addiction treatment approaches.[6] For example, principles of respect, empathy, or empowerment are integral to some treatments (e.g., motivational interviewing, strengths-based treatment). However, to our knowledge, it is not known to what extent each of the dimensions of PCC have been purposefully implemented or tested across the spectrum of treatment approaches for people with problematic substance use. Bringing this evidence together in a systematic scoping review has the potential to identify cross-setting, discipline and population dimensions of PCC that have been defined, implemented and empirically explored.

2. OBJECTIVE

The present scoping review will systematically explore how the principles of patient-centered care have been implemented and operationalized in health care settings for people with

problematic substance use. Specifically, this review aims to examine the extent and nature of existing evidence of PCC in addiction research and clinical practice.

3. METHODS AND ANALYSIS

This scoping review methodology will apply the classic framework developed by Arksey and O'Malley,[42][36] and recent enhancements[43-45] including best practices for conducting and reporting systematic reviews (i.e., Preferred Reporting Items for Systematic Review and Meta-Analysis for Protocols and Scoping Reviews (PRISMA-P and PRISMA-ScR; Supplement 1).[46 47] Accordingly, a reflexive and iterative approach will be maintained; particularly during the study screening and data extraction phases, which may become more refined throughout the review. The protocol has been registered through Open Science Framework (https://osf.io/5swvd/).[48] DistillerSR software for systematic reviews[49] will be used by both reviewers for screening, extraction, monitoring, and to support synthesis and summarizing of findings.

3.1. Stage 1: Defining the Research Question

The research question was developed as a broad framing of the population (i.e., people with problematic substance use), the concept (i.e., patient-centered care) and the context (i.e., health-oriented settings) to be explored. Thus, this scoping review asks:

1. Which patient-centered care principles have been implemented in health-oriented settings for people with problematic substance use?

2. How have these patient-centered care principles been operationalized when used in health-oriented settings for people with problematic substance use?

3. What outcomes from the implementation of patient-centered care principles have been empirically measured or tested?

3.2. Stage 2: Identifying Relevant Literature

Our goal in developing this search strategy (Supplement 2) is to undertake a comprehensive review of the existing evidence base. However, this particular research question poses a challenge to keyword selection due to the evolution of terms used to describe both the population and concept of interest. For instance, problematic substance use has grown from the pejorative language of the 'addict' to a health-oriented view of 'substance dependent populations' and now onto the more person-focused discourse of 'people with problematic substance use'.[50 51]

Likewise, as described above, conceptual frameworks of PCC have varied, adding to the complexity of this search. To overcome this challenge, we have developed a search strategy informed by the principles of PCC that have been most consistently (in the previously mentioned frameworks) identified and operationalized, as well as keywords and MeSH terms from systematic reviews[52 53] and empirical references[54-56] previously conducted among our population of interest: (1) *understanding the whole person* to account for the biological, psychological and social aspects of patients' illnesses; (2) *exploring the disease and illness*

experience to understand the personal meaning of illness and treatment for the patient; (3) *finding common ground* where power, knowledge and responsibility are shared between the patient and provider; and (4) *enhancing the patient-provider relationship* to improve the positive outcomes of treatments provided. We have also engaged in an extensive consultation process with an experienced Health Science Librarian (at the University of British Columbia) as well as the knowledge users represented in our team (authors SM and SH). The search strategy will also be peer reviewed (i.e., PRESS) to promote its rigor and feasibility.[57]

Given our interest in undertaking a comprehensive review of existing research and clinical guidelines related to PCC in the addictions field, both empirical (primary studies, previous reviews) and grey literature documents (conference abstracts, reports, and clinical guidelines) will be included in our search. The search for empirical sources will be conducted in the most important electronic databases for the medical and social sciences: Medline (Ovid), Embase (Ovid), PsycINFO, CINAHL, and ISI Web of Science. The search strategy has been developed in Medline (Ovid) and will be adapted to the other databases. The search strategy will include subject headings, related terms, and keywords as necessary for the research question. Boolean logic and operators (i.e., 'and', 'or', 'not') will be used to combine and refine search terms and concepts.

For the grey literature search strategy, we will utilize recommended resources[58] and consult with the Health Sciences Librarian and our team's knowledge users to devise a database specific approach. The search for abstracts, reports, and clinical guidelines will be carried out in several Canadian-specific databases: British Columbia Guidelines and Protocols Databases, CPG Infobase, the Registered Nurses' Association Clinical Practice Guidelines Program, and Des Libris. For international grey literature documents, we will search National Guideline Clearinghouse, TRIP, Google, and Google Scholar databases.

3.3. Stage 3: Study Selection

A two-stage collaborative review process will be used to select references. Eligibility criteria have been developed *a priori*, in consultation with the study team. The screening form will be piloted on the first 20 citations of the initial Medline (Ovid) search to test both the criteria and reviewer agreement. Two independent reviewers (authors KM and SB) will apply eligibility criteria during the initial title/abstract review. After each review stage, the reviewer's agreement will be assessed and a third reviewer (author EOJ) will be consulted in cases of disagreement, until consensus is achieved.

A title/abstract (or executive summary for reports and guidelines) will be eligible for full text screening if it:

a) Refers to people with problematic substance use (including tobacco, alcohol, cannabis, stimulant, opioid use, or dual diagnoses);

b) Is about delivering patient-centered care or one of its principles (including care that understands the whole person; explores the disease and illness experience; finds common ground and enhances the patient-provider relationship);

c) Is set in a health-oriented context (including inpatient or outpatient hospital settings, emergency departments, community-based or primary care health settings, and any specialized drug treatment or low-threshold agencies and programs; excluding prison-based health programs and self-help models such as narcotics or alcoholics anonymous); and

d) Was published between January 1, 1960 and July 1, 2018 in English, French, Spanish, Italian, Portuguese or German.

Full text empirical articles, reports and guidelines will then be obtained for titles/abstracts meeting these above criteria and will undergo further screening. In addition to the title/abstract criteria, full texts will be included if:

e) It provided an operational definition of the patient-centered care framework that was delivered to people with problematic substance use in the health-oriented context; and

f) It observed at least one outcome (e.g., treatment compliance, treatment satisfaction) of the patient-centered treatment approach (this criterion pertains to empirical articles only).

As such, articles that provide only a recommendation to adopt PCC or an opinion of how PCC should be implemented in health-oriented settings for people with problematic substance use will not be included.

3.4. Stage 4: Data Extraction

Results of the search will be collated in DistillerSR,[49] allowing the research team to de-duplicate and perform data extraction. We will follow recommended data charting methods[42 47] to systematically capture relevant details for studies/reports and guidelines (Table 1). Data charting forms will be piloted with the first 5 empirical and grey literature references and may be adapted thereafter (with input from the teams' knowledge users).

Table 1. Data extraction and charting for empirical and grey literature sources

Domain/Subdomain	Description
1. General Document Details	
1.1 Reference Type	Empirical study, case study, review, commentary, report, guideline
1.2 Publication Year	Year of publication
1.3 Country and Location	Country of publication (and location if provided)
1.4 Publication Language	Language of publication
2. Empirical Study References (if applicable)	
2.1 Research objective	What was the research objective or specific question to be tested (if relevant)

2.2 Study design	Was the study design observational, experimental, or qualitative?
2.3 Study population	What were the eligibility criteria? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant, or comorbid substance use and mental illness?
2.4 Patient-centered care intervention	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)? How long was the intervention provided or observed for?
2.5 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?
2.6 Study outcomes	For quantitative studies, what were the primary and secondary outcomes measured? For qualitative studies, what outcomes were described?
2.7 Important results	What were the main results of the study? Were there any important sub-group (e.g., by sex and gender, by primary substance, by health care provider) analyses?
2.8 Limitations	What limitations did the authors describe? What others might there be?
3. Grey Literature References (if applicable)	
3.1 Target audience	Is there a target audience specified for the guideline/report (e.g., policy/decision maker, health care provider, patient/client/family)
3.2 Reference population	If available, how was the target patient population defined? Any specific eligibility criteria used? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant, or comorbid substance use and mental illness?
3.3 Patient-centered care operational definition	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)?
3.4 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?
3.5 Intervention and outcomes	If applicable, was a specific patient-centered intervention described (e.g., a training module, a clinical approach)? Were any outcomes of PCC reported (e.g., patient or provider satisfaction)?
3.6 Program evaluation	If available, what results were reported from any ongoing program evaluations?

3.5. Stage 5: Collating, Summarizing and Reporting the Results

We will present a descriptive overview (including tabular and/or graphical summaries) of the eligible full texts.[42] We will also summarize studies by each broader category of substances primarily used (i.e., tobacco, cannabis, alcohol, opioid, stimulant, dual diagnosis). Displaying information in this way will highlight population-specific similarities and differences in PCC, its

definition and outcomes. This will facilitate the identification of future directions for research and practice. All tables and charts will include narrative summaries, relating the findings to the review's research question. Additionally, we will develop a final report of the review[47] according to PRISMA-ScR guidelines.[46]

Given that one aim of this review is to understand *how* PCC has been defined and implemented in health care services for people with problematic substance use, a directed content analysis will be carried out on included guidelines. This approach has been deemed most suitable to the present review, since it allows existing theory (in our case, principles of PCC defined a priori to guide the coding and analysis), while still allowing new evidence to emerge.[59] Specifically, we are interested in qualitatively analyzing the definition of PCC adopted in the guidelines, how it was developed, which health care providers were involved, and any outcomes or ongoing evaluations of the program. To do so, data from the guidelines will be imported to MAXQDA, version 12,[60] a qualitative analysis software program that supports a multi-user approach. This analysis will be conducted by authors KM, SB, and EOJ, who have prior experience conducting thematic analysis on similar topics.[61 62] As is common in directed content qualitative analysis,[59] a coding framework will be developed a priori, and will then be applied by authors KM and SB independently. Results from this analysis will be summarized and—where relevant—numerical summaries may also be used to provide additional context to the themes (e.g., number of clients treated, number of staff).

3.6. Stage 6: Consultation Process and Engagement of Knowledge Users

The ultimate aim of this review is to generate evidence that can be used to inform decision-makers and health care providers on the feasibility, implications, and potential outcomes associated with PCC for substance use treatment. To achieve this goal, we have engaged a multi-disciplinary team of knowledge users who represent the needs of: people with problematic substance use, health care providers, and decision makers. Consulting with the teams' health care providers and decision-makers (authors SH, SM, and DCM) will promote a methodology that reflects the realities of patient-provider roles and the health care system's organization. Also, our team's drug policy knowledge user (author JW) represents a national organization of people who use drugs and this critical perspective will ensure that all aspects of this review are rooted in the client-centered needs of this diverse population. The specific contributions of the Knowledge Users to each stage of this review have been defined throughout. At this time, Knowledge Users have reviewed early drafts of the search strategy, identifying additional terms that are important for inclusion given the population, concept, and contexts of interest (e.g., trauma-informed care and culturally-safe care). Knowledge Users have also provided several grey-literature references (clinical guidelines and reports) to be considered for inclusion. As the project continues to evolve, all Knowledge Users will be involved in supporting the interpretation of findings and their dissemination.

4. ETHICS AND DISSEMINATION

As substance use disorders are increasingly recognized as a chronic conditions often marked by cycles of relapse and recovery, the public health care system is considering how existing treatment and intervention approaches can be optimized to meet the long-term and evolving goals of clients.[18] Adopting patient- or person-centered approaches may increase the responsiveness of existing treatments to individual client needs, expectations, and preferences. To our knowledge, this review will be the first to systematically examine the extent and nature of existing evidence of PCC in addiction research and clinical practice.

Our dissemination strategy will utilize traditional approaches, including open-access peer-reviewed publication(s), scientific presentations, and a report. Additionally, we are committed to promoting further action based on the potential findings of this review. Therefore, we will host a half-day roundtable meeting—bringing together people with problematic substance use, health care providers (from diverse settings), and decision-makers to brainstorm potential opportunities for future areas of research and clinical practice work. For example, we may engage in a concept mapping exercise, using the findings of this review to integrate stakeholders' knowledge, interpretations, and priorities into practice. The multidisciplinary nature of this team will facilitate and support our goal of bringing together these different representatives together.

5. PATIENT AND PUBLIC INVOLVEMENT

This scoping review protocol has engaged the expertise of a national organization of people who use(d) drugs through the involvement of this organizations' President. This knowledge user (author JW) has made contributions to the development of the research question and will also be extensively involved during the interpretation and dissemination phases of this project.

AUTHOR CONTRIBUTIONS:

KM (review guarantor) led the design and conceptualisation of this review and drafted the protocol with primary support from SB, MTS, and EOJ. SB, SH, and EOJ were involved in refining the search strategy, including key words. SM, SH, DCM, and JW were involved in establishing eligibility criteria and data extraction forms. All authors provided feedback on the manuscript and approval to the publishing of this protocol manuscript.

AMENDMENTS: Not applicable

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PRISMA-P Checklist

		Reporting Item	Page Number
Identification	#1a	Identify the report as a protocol of a systematic review	1
Update	#1b	If the protocol is for an update of a previous systematic review, identify as such	NA
	#2	If registered, provide the name of the registry (such as PROSPERO) and registration number	2
Contact	#3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contribution	#3b	Describe contributions of protocol authors and identify the guarantor of the review	10
	#4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	NA
Sources	#5a	Indicate sources of financial or other support for the review	10
Sponsor	#5b	Provide name for the review funder and / or sponsor	10
Role of sponsor or funder	#5c	Describe roles of funder(s), sponsor(s), and / or institution(s), if any, in developing the protocol	10
Rationale	#6	Describe the rationale for the review in the context of what is already known	3-4
Objectives	#7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4-5
Eligibility criteria	#8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be	6-7

		used as criteria for eligibility for the review	
Information sources	#9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	5-6
Search strategy	#10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Supplement 2
Study records - data management	#11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	4
Study records - selection process	#11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	6
Study records - data collection process	#11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	7
Data items	#12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	7-8
Outcomes and prioritization	#13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
Risk of bias in individual studies	#14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	See note 1
Data synthesis	#15a	Describe criteria under which study data will be quantitatively synthesised	8-9
	#15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any	8-9

		planned exploration of consistency (such as I2, Kendall's τ)	
	#15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	8-9
	#15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8-9
Meta-bias(es)	#16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	See note 2
Confidence in cumulative evidence	#17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	See note 3

Author notes

1. NA for scoping review
2. NA for scoping reviews
3. NA for scoping reviews

Table 1. Medline (Ovid) search strategy

Search term/line number	Conceptual term of interest	Search term entered into Ovid-Medline	Number of hits
1	Substance-Related Disorders	exp Substance-Related Disorders	258462
2	Street Drugs	exp Street Drugs	11263
3	Substance abuser	substance abus*	49532
4	Substance dependent	substance dependen*	2720
5	Substance misuse	substance misus*	2150
6	Problematic substance use	Problematic substance adj2 (use* or usage or using)	254
7	People who inject drugs	(people who inject drug* or PWID)	1740
8	Injection drug use	injection drug "(use or user or usage or using)" or IDU	2794
9	People who use drugs	"people who use drugs" or PWUD	343
10	Illicit substance use	(illicit or street or illegal) adj2 (drug or substance) adj2 (use* or usage or using)	5848
11	opioid dependence	opioid adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	15537
12	opiate dependence	opiate adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	3475
13	narcotic dependence	narcotic adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	1279
14	heroin	heroin	17865
15	stimulant use disorder	"stimulant use disorder"	40

16	exp crack cocaine	exp crack cocaine	1343
17	exp cocaine smoking	exp cocaine smoking	4
18	cocaine dependence	((cocaine or crack) adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*))	11806
19	amphetamine dependence	(amphetamine or crystal methamphetamine or crystal meth) adj1 (addict* or abus* or dependen* or misus* or problem* or disorder*)	592
20	alcohol dependence	alcohol adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	50104
21	cannabis dependence	cannabis adj2 (addict* or abus* or dependen* or disorder*)	1917
22	tobacco dependence	(tobacco or nicotine or smok*) adj2 (dependen* or disorder* or cessation)	45598
23	Diagnosis, Dual (Psychiatry)	Diagnosis, Dual (Psychiatry)	3372
24		1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23	337412
25	exp Patient-Centered Care	exp Patient-Centered Care	16653
26	Patient centered care	((patient or client or person) adj1 cent?red adj1 (care or treatment* or therap*))	20713
27	Patient focused care	((patient or client or person) adj1 focus?ed adj1 (care or treatment* or therap*))	425
28	Patient participation in treatment planning, process, decisions	(patient or client) adj1 (autonom* or involve* or control or empower*) adj1 (decision making or care or practic* or treatment* or plan*)	126
29	Collaborative care	collaborative adj1 (care or practic* or treatment* or plan*)	3803
30	Shared decision-making	(shared or joint or collaborative) adj2 decision making	6279
31	Therapeutic alliance	therapeutic alliance	9027
32	Relational practice	relational practic*	44

33	Enhanced patient-provider relationship	(physician or doctor or nurse or professional or provider) adj1 (patient or client) adj1 (enhanc* or alliance* or empower* or support*)	304
34	Enhanced patient-provider communication	(physician or doctor or nurse or professional or provider) adj1 (patient or client) adj1 communicat*	4230
35	Holistic Nursing	Holistic Nursing/	3135
36	Trauma informed care	trauma adj1 (cent?red or informed) adj1 (care or approach or treatment* or therap*)	263
37	Culturally safe care	cultural* adj1 (safe or sensitive) adj1 (care or approach or treatment* or therap*)	395
39	Family Systems Nursing	Family Systems Nursing	64
39	Expert patient program	expert patient program*	27
40		25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39	40281
41		**24 and 40**	**896**

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Patient-Centered Care for Addictions Treatment: A Scoping Review Protocol

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ABSTRACT:

Introduction: Substance use disorders are chronic conditions that require a multidimensional treatment approach. Despite ongoing efforts to diversify such treatments, evidence continues to illuminate modest rates of treatment engagement and perceived barriers to treatment. Patient-centered care (PCC) is one approach that may strengthen the responsiveness of treatments for people with problematic substance use. The aim of this scoping review is to explore how the principles of PCC have been implemented and operationalized in health care settings for people with problematic substance use.

Methods and analysis: This scoping review follows the iterative stages of the Arksey and O'Malley framework. Both empirical (from Medline, Embase, PsycINFO, CINAHL and ISI Web of Science) and grey literature references will be considered if they focused on populations with problematic substance use and described or measured PCC or one of its principles in a health-oriented context. Two reviewers will independently screen references in two successive stages of title/abstract screening and then full-text screening for references meeting title/abstract criteria. A descriptive overview, tabular and/or graphical summaries, and a directed content analysis will be carried out on extracted data. This scoping review has been registered with Open Science Framework (https://osf.io/5swvd/).

Ethics and dissemination: This review will systematically examine the extent and nature of existing evidence of PCC in addiction research and clinical practice. Such evidence will contribute to the operationalization of PCC for people with problematic substance use. A multidisciplinary team has been gathered to represent the needs of people with problematic substance use, health care providers, and decision makers. The team's knowledge users will be engaged throughout this review and will participate in dissemination activities (e.g., workshops, presentations, publications, reports).

ARTICLE SUMMARY: (Strengths and Limitations of this Study)

- This is the first scoping review to systematically explore which principles of patient-centered care have been implemented and their operationalization among people with problematic substance use.
- A multidisciplinary team composed of drug policy advocates, health care providers, decision makers, and academics will lead this scoping review.
- Both the population (people with problematic substance use) and concept of interest (patient-centered care) have been indexed using a variety of terms, which poses a challenge to ensuring breadth of the search.
- A comprehensive search strategy has been developed in consultation with a health sciences librarian to promote a sensitive scope of empirical and grey literature sources.
- This iterative scoping review study has been registered with Open Science Framework to enhance its transparency (https://osf.io/5swvd/).

1. INTRODUCTION

Alcohol, tobacco, and illicit substance use continues to be a significant public health concern that accounts for 11.2% of the global burden of disease and 21.1% of all deaths.[1] People with substance use disorders are at an increased risk of mortality and morbidity;[2 3] and some may be further affected by lost family and social support, criminal justice involvement, and social marginalization.[4] However, not all people with problematic substance use follow the same trajectory. Instead, there are individual

variations in the personal meaning of substance use, in the intensity and frequency of use, and its associated harms.[4-6] This heterogeneity in substance use disorders contributes to the complexity of its treatment.

It is increasingly accepted that there is no 'one size fits all' treatment approach for problematic substance use and that a range of treatments are required to meet the diverse needs and preferences of this population.[5 6] For example, effective pharmacological therapies are available to assist with the treatment of some, but not all, substance use disorders (e.g., tobacco, alcohol, opioid dependence).[7] Treatment may also include psychosocial interventions (e.g., cognitive behavioural therapy, contingency management, or strengths-based treatment) either in combination with pharmacological therapies or alone.[8 9] Regardless of the treatment provided, the main goal is to engage clients in care, since treatment engagement is widely recognized as one of the most important predictors of substance use outcomes.[10 11]

As such, tremendous efforts have been made towards improving treatment engagement. Examples include: diversified treatment settings that offer traditional residential and hospital-based programs, specialized outpatient programs, and more recently, integrated service models.[7 12] To increase the rate of detection and treatment engagement, opportunities for screening and brief intervention have also been incorporated and expanded outside of specialized substance use treatment programs.[13] Various problem-to-services matching designs have also been developed to increase successful treatment engagement by strengthening alignment between client's needs and services offered.[14-17]

In spite of these important developments, research continues to demonstrate quite mixed uptake of these practices,[17] as well as varying rates of treatment engagement. [7 12] Globally, it is estimated that 1 out of every 6 people in need of substance use treatment is able to receive it; and this does not imply receipt of evidence- or human-

rights based treatments.[18] Even when examining evidence-based treatments, such as opioid agonist treatment, recent systematic reviews suggest a wide range in the rate of treatment retention (e.g., from 37%–91% at 12-month follow-up).[19] There is also a substantial body of qualitative research that has revealed several areas in which clients (and in some cases providers) have perceived challenges with engaging in treatment. A few examples include perceived provider misunderstanding of treatment goals,[20] discrepancies between client and provider's treatment goals,[21] a lack of treatment responsiveness to client's perceived needs,[22 23] challenges with involving clients in treatment planning and delivery,[24] and perceived power imbalances, stigma and discrimination.[25-27] This evidence suggests that there remains a need to explore *how* treatment processes can be designed to better respond to client's unique needs, while also considering the diversity of treatments and settings required.

Patient-centered care (PCC) is one potential approach warranting further exploration. PCC is rooted in a philosophy that *'puts the person first'*. It aims to meet client's unique needs and preferences, enhance their experiences with care, and involve them in all elements of treatment planning and delivery.[28] Some of its origins can be traced back to Carl Rogers' client-centered therapy, which emphasized unconditional positive regard, empathy, and genuineness in the therapeutic process.[29] Over the last two decades, as the concept of PCC has garnered increased attention across the health and social sciences[30 31], its operationalization has expanded beyond the role of the therapeutic relationship. For example, in nursing, empirically based conceptual frameworks[32-34] agree that PCC entails an approach to care that is holistic, individualized, respectful, and empowering. In medicine, the proposed frameworks converge around similar, but slightly reframed dimensions. Here, emphasis is on a biopsychosocial perspective, seeing the 'patient-as-person', enhancing the therapeutic

alliance, and sharing power and responsibility.[35-40] Differences in the conceptual meaning of PCC across disciplines have resulted in varying operationalizations.

That the meaning of PCC is currently somewhat discipline-specific poses challenges to determining the relationship between PCC and treatment process and outcome indicators. For example, a recent meta-analysis showed mixed effects of PCC (defined as shared control or decisions and/or consultations focused on whole person) on improved quality of care, treatment satisfaction and health outcomes.[41] It also found support for generally positive effects of PCC on consultation process measures (e.g., communication about treatments; levels of empathy),[41] suggesting that PCC might overcome some of the challenges clients have historically experienced engaging in substance use treatment.

Indeed, elements of PCC have been recommended or defined as part of some addiction treatment approaches.[6] For example, principles of respect, empathy, or empowerment are integral to some treatments (e.g., motivational interviewing, strengths-based treatment). However, to our knowledge, it is not known to what extent each of the dimensions of PCC have been purposefully implemented or tested across the spectrum of treatment approaches for people with problematic substance use. Bringing this evidence together in a systematic scoping review has the potential to identify cross-setting, discipline and population dimensions of PCC that have been defined, implemented and empirically explored.

2. OBJECTIVE

The present scoping review will systematically explore how the principles of patient-centered care have been implemented and operationalized in health care settings for people with problematic substance use. Specifically, this review aims to examine the extent and nature of existing evidence of PCC in addiction research and clinical practice.

3. METHODS AND ANALYSIS

This scoping review methodology will apply the classic framework developed by Arksey and O'Malley,[42] recent enhancements[43-45] and best practices for conducting and reporting systematic reviews (i.e., Preferred Reporting Items for Systematic Review and Meta-Analysis for Protocols and Scoping Reviews (PRISMA-P and PRISMA-ScR; Supplement 1).[46 47] Accordingly, a reflexive and iterative approach will be maintained; particularly during the study screening and data extraction phases, which may become more refined throughout the review. The protocol (and any potential revisions) has been registered through Open Science Framework (https://osf.io/5swvd/).[48] DistillerSR software for systematic reviews[49] will be used by both reviewers to support screening, extraction, monitoring, and the synthesis of findings.

3.1. Stage 1: Defining the Research Question

The research question was developed as a broad framing of the population (i.e., people with problematic substance use), the concept (i.e., patient-centered care) and the context (i.e., health-oriented settings) to be explored. Thus, this scoping review asks:

1. Which patient-centered care principles have been implemented in health-oriented settings for people with problematic substance use?
2. How have these patient-centered care principles been operationalized when used in health-oriented settings for people with problematic substance use?
3. What outcomes from the implementation of patient-centered care principles have been empirically measured or tested?

3.2. Stage 2: Identifying Relevant Literature

Our goal in developing this search strategy (Supplement 2) is to undertake a comprehensive review of the existing evidence base. However, this particular research

question poses a challenge to keyword selection due to the evolution of terms used to describe both the population and concept of interest. For instance, problematic substance use has grown from the pejorative language of the 'addict' to a health-oriented view of 'substance dependent populations' and now onto the more person-focused discourse of 'people with problematic substance use'.[50 51]

Likewise, as described above, conceptual frameworks of PCC have also varied, adding to the complexity of this search. To overcome this challenge, we have developed a search strategy informed by the most consistently identified and operationalized principles of PCC (in the abovementioned frameworks), as well as keywords and MeSH terms from systematic reviews[52 53] and empirical references[54-56] previously conducted with our population of interest: (1) *understanding the whole person* to account for the biological, psychological and social aspects of patients' illnesses; (2) *exploring the disease and illness experience* to understand the personal meaning of illness and treatment for the patient; (3) *finding common ground* where power, knowledge and responsibility are shared between the patient and provider; and (4) *enhancing the patient-provider relationship* to improve the positive outcomes of treatments provided. We have also engaged in an extensive consultation process with an experienced Health Science Librarian (at the University of British Columbia) as well as the knowledge users represented in our team (authors SM and SH). The search strategy will also be peer reviewed (i.e., PRESS) to promote its rigor and feasibility.[57]

Given our interest in undertaking a comprehensive review of existing research and clinical guidelines related to PCC in the addictions field, both empirical (primary studies, previous reviews) and grey literature documents (conference abstracts, reports, and clinical guidelines) will be included in our search. The search for empirical sources will be conducted in the most important electronic databases for the medical and social sciences: Medline (Ovid), Embase (Ovid), PsycINFO, CINAHL, and ISI Web of Science.

The search strategy has been developed in Medline (Ovid) (Supplement 2) and will be adapted to the other databases. The search strategy will include subject headings, related terms, and keywords as necessary for the research question. Boolean logic and operators (i.e., 'and', 'or', 'not') will be used to combine and refine search terms and concepts.

For the grey literature search strategy, we will use recommended resources[58] and consult with the Health Sciences Librarian and our team's knowledge users to devise a database specific approach. The search for abstracts, reports, and clinical guidelines will be carried out in several Canadian-specific databases: British Columbia Guidelines and Protocols Databases, CPG Infobase, the Registered Nurses' Association Clinical Practice Guidelines Program, and Des Libris. For international grey literature documents, we will search National Guideline Clearinghouse, TRIP, Google, and Google Scholar databases.

3.3. Stage 3: Study Selection

A two-stage collaborative review process will be used to select references. Eligibility criteria have been developed *a priori*, in consultation with the study team. The screening form will be piloted on the first 20 citations of the initial Medline (Ovid) search to test both the criteria and reviewer agreement. Two independent reviewers (authors KM and SB) will apply eligibility criteria during the initial title/abstract review. After each review stage, the reviewer's agreement will be assessed and a third reviewer (author EOJ) will be consulted in cases of disagreement, until consensus is achieved.

A title/abstract (or executive summary for reports and guidelines) will be eligible for full text screening if it:

a) Refers to people with problematic substance use (including tobacco, alcohol, cannabis, stimulant, opioid use, or dual diagnoses);

b) Is about delivering patient-centered care or one of its principles (including care that understands the whole person; explores the disease and illness experience; finds common ground and enhances the patient-provider relationship);

c) Is set in a health-oriented context (including inpatient or outpatient hospital settings, emergency departments, community-based or primary care health settings, and any specialized drug treatment or low-threshold agencies and programs; excluding prison-based health programs and self-help models such as narcotics or alcoholics anonymous); and

d) Was published between January 1, 1960 and July 1, 2018 in English, French, Spanish, Italian, Portuguese or German.

Full text empirical articles, reports and guidelines will then be obtained for titles/abstracts meeting these above criteria and will undergo further screening. In addition to the title/abstract criteria, full texts will be included if:

e) It provided an operational definition of the patient-centered care framework that was delivered to people with problematic substance use in the health-oriented context; and

f) It observed at least one patient outcome (e.g., treatment engagement, substance use behaviours, treatment satisfaction) and/or treatment process outcome (e.g., provider communication skills) of the patient-centered care approach (this criterion pertains to empirical articles only).

As such, articles that provide only a recommendation to adopt PCC or an opinion of how PCC should be implemented in health-oriented settings for people with problematic substance use will not be included.

3.4. Stage 4: Data Extraction

Results of the search will be collated in DistillerSR,[49] allowing the research team to de-duplicate and perform data extraction. We will follow recommended data charting

methods[42 47] to systematically capture relevant details for studies/reports and guidelines (Table 1). Data charting forms will be piloted with the first 5 empirical and grey literature references and may be adapted thereafter (with input from the teams' knowledge users).

Table 1. Data extraction and charting for empirical and grey literature sources

Domain/Subdomain	Description
1. General Document Details	
1.1 Reference Type	Empirical study, case study, review, commentary, report, guideline
1.2 Publication Year	Year of publication
1.3 Country and Location	Country of publication (and location if provided)
1.4 Publication Language	Language of publication
2. Empirical Study References (if applicable)	
2.1 Research objective	What was the research objective or specific question to be tested (if relevant)
2.2 Study design	Was the study design observational, experimental, or qualitative?
2.3 Study population	What were the eligibility criteria? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant, or comorbid substance use and mental illness?
2.4 Patient-centered care intervention	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)? How long was the intervention provided or observed for?
2.5 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?

2.6 Study outcomes	For quantitative studies, what types of patient outcomes and/or process outcomes were measured (e.g., treatment engagement, changes in substance use behaviours, health status, treatment satisfaction, provider communication)? For qualitative studies, what outcomes were described?
2.7 Important results	What were the main results of the study? Were there any important sub-group (e.g., by sex and gender, by primary substance, by health care provider) analyses?
2.8 Limitations	What limitations did the authors describe? What others might there be?
3. Grey Literature References (if applicable)	
3.1 Target audience	Is there a target audience specified for the guideline/report (e.g., policy/decision maker, health care provider, patient/client/family)
3.2 Reference population	If available, how was the target patient population defined? Any specific eligibility criteria used? Would the population be classified as primarily: tobacco, cannabis, alcohol, opioid, stimulant, or comorbid substance use and mental illness?
3.3 Patient-centered care operational definition	What was the operational definition of patient-centered care used (including the definition of specific principles, if available)?
3.4 Context/setting	What health-oriented context was the PCC intervention apart of? What health professionals were involved?
3.5 Intervention and outcomes	If applicable, was a specific patient-centered intervention described (e.g., a training module, a clinical approach)?

	Were any patient outcomes and/or process outcomes of PCC reported (e.g., treatment engagement, substance use outcomes, treatment satisfaction, provider communication)?
3.6 Program evaluation	If available, what results were reported from any ongoing program evaluations?

3.5. Stage 5: Collating, Summarizing and Reporting the Results

We will present a descriptive overview (including tabular and/or graphical summaries) of the eligible full texts.[42] We will also summarize studies by each broader category of substances primarily used (i.e., tobacco, cannabis, alcohol, opioid, stimulant, dual diagnosis). Displaying information in this way will highlight population-specific similarities and differences in PCC, its definition and outcomes. This will facilitate the identification of future directions for research and practice. All tables and charts will include narrative summaries, relating the findings to the review's research question. Additionally, we will develop a final report of the review[47] according to PRISMA-ScR guidelines.[46]

Given that one aim of this review is to understand *how* PCC has been defined and implemented in health care services for people with problematic substance use, a directed content analysis will be carried out on included guidelines. This approach has been deemed most suitable to the present review, since it allows existing theory (in our case, principles of PCC defined a priori to guide the coding and analysis), while still allowing new evidence to emerge.[59] Specifically, we are interested in qualitatively analyzing the definition of PCC adopted in the guidelines, how it was developed, which health care providers were involved, and any outcomes or ongoing evaluations of the program. To do so, data from the guidelines will be imported to MAXQDA, version 12,[60] a qualitative analysis software program that supports a multi-user approach.

This analysis will be conducted by authors KM, SB, and EOJ, who have prior experience conducting thematic analysis on similar topics.[61 62] As is common in directed content qualitative analysis,[59] a coding framework will be developed a priori, and will then be applied by authors KM and SB independently. Results from this analysis will be summarized and—where relevant—numerical summaries may also be used to provide additional context to the themes (e.g., number of clients treated, number of staff).

3.6. Stage 6: Consultation Process and Engagement of Knowledge Users

The ultimate aim of this review is to generate evidence that can be used to inform decision-makers and health care providers on the feasibility, implications, and potential outcomes associated with PCC for substance use treatment. To achieve this goal, we have engaged a multi-disciplinary team of knowledge users who represent the needs of: people with problematic substance use, health care providers, and decision makers. Consulting with the teams' health care providers and decision-makers (authors SH, SM, and DCM) will promote a methodology that reflects the realities of patient-provider roles and the health care system's organization. Also, our team's drug policy knowledge user (author JW) represents a national organization of people who use drugs and this critical perspective will ensure that all aspects of this review are rooted in the client-centered needs of this diverse population. The specific contributions of the Knowledge Users to each stage of this review have been defined throughout. At this time, Knowledge Users have reviewed early drafts of the search strategy, identifying additional terms that are important for inclusion given the population, concept, and contexts of interest (e.g., trauma-informed care and culturally-safe care). Knowledge Users have also provided several grey-literature references (clinical guidelines and reports) to be considered for inclusion. As the project continues to evolve, all Knowledge Users will be involved in supporting the interpretation of findings and their dissemination.

3.7 PATIENT AND PUBLIC INVOLVEMENT

This scoping review protocol has engaged the expertise of a national organization of people who use(d) drugs through the involvement of this organizations' President. This knowledge user (author JW) has made contributions to the development of the research question and will also be extensively involved during the interpretation and dissemination phases of this project.

4. ETHICS AND DISSEMINATION

As substance use disorders are increasingly recognized as a chronic condition often marked by cycles of relapse and recovery, the public health care system is considering how existing treatment and intervention approaches can be optimized to meet the long-term and evolving goals of clients.[18] Adopting patient- or person-centered approaches may increase the responsiveness of existing treatments to individual client needs, expectations, and preferences. To our knowledge, this review will be the first to systematically examine the extent and nature of existing evidence of PCC in addiction research and clinical practice.

Our dissemination strategy will utilize traditional approaches, including open-access peer-reviewed publication(s), scientific presentations, and a report. Additionally, we are committed to promoting further action based on the potential findings of this review. Therefore, we will host a half-day roundtable meeting—bringing together people with problematic substance use, health care providers (from diverse settings), and decision-makers to brainstorm potential opportunities for future areas of research and clinical practice work. For example, we may engage in a concept mapping exercise, using the findings of this review to integrate stakeholders' knowledge, interpretations, and

priorities into practice. The multidisciplinary nature of this team will facilitate and support our goal of bringing together these different representatives together.

AUTHOR CONTRIBUTIONS:

KM (review guarantor) led the design and conceptualisation of this review and drafted the protocol with primary support from SB, MTS, and EOJ. SB, SH, and EOJ were involved in refining the search strategy, including key words. SM, SH, DCM, and JW were involved in establishing eligibility criteria and data extraction forms. All authors provided feedback on the manuscript and approval to the publishing of this protocol manuscript.

AMENDMENTS: Not applicable

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PRISMA-P Checklist

		Reporting Item	Page Number
Identification	#1a	Identify the report as a protocol of a systematic review	1
Update	#1b	If the protocol is for an update of a previous systematic review, identify as such	NA
	#2	If registered, provide the name of the registry (such as PROSPERO) and registration number	2
Contact	#3a	Provide name, institutional affiliation, e-mail address of all protocol authors; provide physical mailing address of corresponding author	1
Contribution	#3b	Describe contributions of protocol authors and identify the guarantor of the review	10
	#4	If the protocol represents an amendment of a previously completed or published protocol, identify as such and list changes; otherwise, state plan for documenting important protocol amendments	NA
Sources	#5a	Indicate sources of financial or other support for the review	10
Sponsor	#5b	Provide name for the review funder and / or sponsor	10
Role of sponsor or funder	#5c	Describe roles of funder(s), sponsor(s), and / or institution(s), if any, in developing the protocol	10
Rationale	#6	Describe the rationale for the review in the context of what is already known	3-4
Objectives	#7	Provide an explicit statement of the question(s) the review will address with reference to participants, interventions, comparators, and outcomes (PICO)	4-5
Eligibility criteria	#8	Specify the study characteristics (such as PICO, study design, setting, time frame) and report characteristics (such as years considered, language, publication status) to be	6-7

		used as criteria for eligibility for the review	
Information sources	#9	Describe all intended information sources (such as electronic databases, contact with study authors, trial registers or other grey literature sources) with planned dates of coverage	5-6
Search strategy	#10	Present draft of search strategy to be used for at least one electronic database, including planned limits, such that it could be repeated	Supplement 2
Study records - data management	#11a	Describe the mechanism(s) that will be used to manage records and data throughout the review	4
Study records - selection process	#11b	State the process that will be used for selecting studies (such as two independent reviewers) through each phase of the review (that is, screening, eligibility and inclusion in meta-analysis)	6
Study records - data collection process	#11c	Describe planned method of extracting data from reports (such as piloting forms, done independently, in duplicate), any processes for obtaining and confirming data from investigators	7
Data items	#12	List and define all variables for which data will be sought (such as PICO items, funding sources), any pre-planned data assumptions and simplifications	7-8
Outcomes and prioritization	#13	List and define all outcomes for which data will be sought, including prioritization of main and additional outcomes, with rationale	7
Risk of bias in individual studies	#14	Describe anticipated methods for assessing risk of bias of individual studies, including whether this will be done at the outcome or study level, or both; state how this information will be used in data synthesis	See note 1
Data synthesis	#15a	Describe criteria under which study data will be quantitatively synthesised	8-9
	#15b	If data are appropriate for quantitative synthesis, describe planned summary measures, methods of handling data and methods of combining data from studies, including any	8-9

		planned exploration of consistency (such as I2, Kendall's τ)	
	#15c	Describe any proposed additional analyses (such as sensitivity or subgroup analyses, meta-regression)	8-9
	#15d	If quantitative synthesis is not appropriate, describe the type of summary planned	8-9
Meta-bias(es)	#16	Specify any planned assessment of meta-bias(es) (such as publication bias across studies, selective reporting within studies)	See note 2
Confidence in cumulative evidence	#17	Describe how the strength of the body of evidence will be assessed (such as GRADE)	See note 3

Author notes

1. NA for scoping review
2. NA for scoping reviews
3. NA for scoping reviews

Table 1. Medline (Ovid) search strategy

Search term/line number	Conceptual term of interest	Search term entered into Ovid-Medline	Number of hits
1	Substance-Related Disorders	exp Substance-Related Disorders	258462
2	Street Drugs	exp Street Drugs	11263
3	Substance abuser	substance abus*	49532
4	Substance dependent	substance dependen*	2720
5	Substance misuse	substance misus*	2150
6	Problematic substance use	Problematic substance adj2 (use* or usage or using)	254
7	People who inject drugs	(people who inject drug* or PWID)	1740
8	Injection drug use	injection drug "(use or user or usage or using)" or IDU	2794
9	People who use drugs	"people who use drugs" or PWUD	343
10	Illicit substance use	(illicit or street or illegal) adj2 (drug or substance) adj2 (use* or usage or using)	5848
11	opioid dependence	opioid adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	15537
12	opiate dependence	opiate adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	3475
13	narcotic dependence	narcotic adj2 (addict* or abus* or dependen* or misus* or problem or disorder*)	1279
14	heroin	heroin	17865
15	stimulant use disorder	"stimulant use disorder"	40

16	exp crack cocaine	exp crack cocaine	1343
17	exp cocaine smoking	exp cocaine smoking	4
18	cocaine dependence	((cocaine or crack) adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*))	11806
19	amphetamine dependence	(amphetamine or crystal methamphetamine or crystal meth) adj1 (addict* or abus* or dependen* or misus* or problem* or disorder*)	592
20	alcohol dependence	alcohol adj2 (addict* or abus* or dependen* or misus* or problem* or disorder*)	50104
21	cannabis dependence	cannabis adj2 (addict* or abus* or dependen* or disorder*)	1917
22	tobacco dependence	(tobacco or nicotine or smok*) adj2 (dependen* or disorder* or cessation)	45598
23	Diagnosis, Dual (Psychiatry)	Diagnosis, Dual (Psychiatry)	3372
24		1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23	337412
25	exp Patient-Centered Care	exp Patient-Centered Care	16653
26	Patient centered care	((patient or client or person) adj1 cent?red adj1 (care or treatment* or therap*))	20713
27	Patient focused care	((patient or client or person) adj1 focus?ed adj1 (care or treatment* or therap*))	425
28	Patient participation in treatment planning, process, decisions	(patient or client) adj1 (autonom* or involve* or control or empower*) adj1 (decision making or care or practic* or treatment* or plan*)	126
29	Collaborative care	collaborative adj1 (care or practic* or treatment* or plan*)	3803
30	Shared decision-making	(shared or joint or collaborative) adj2 decision making	6279
31	Therapeutic alliance	therapeutic alliance	9027
32	Relational practice	relational practic*	44

33	Enhanced patient-provider relationship	(physician or doctor or nurse or professional or provider) adj1 (patient or client) adj1 (enhanc* or alliance* or empower* or support*)	304
34	Enhanced patient-provider communication	(physician or doctor or nurse or professional or provider) adj1 (patient or client) adj1 communicat*	4230
35	Holistic Nursing	Holistic Nursing/	3135
36	Trauma informed care	trauma adj1 (cent?red or informed) adj1 (care or approach or treatment* or therap*)	263
37	Culturally safe care	cultural* adj1 (safe or sensitive) adj1 (care or approach or treatment* or therap*)	395
39	Family Systems Nursing	Family Systems Nursing	64
39	Expert patient program	expert patient program*	27
40		25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39	40281
41		**24 and 40**	**896**

Update and Run Date: June 27, 2018