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Exploring family-based immigrant youth substance use prevention programs: A scoping review protocol

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3 **Exploring family-based immigrant youth substance use prevention programs: A**
4 **scoping review protocol**
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For peer review only

Exploring family-based immigrant youth substance use prevention programs: A scoping review protocol

Abstract

Introduction: Canada has one of the highest rates of problematic opiate and alcohol use in the world. It was also the second country in the world to legalize marijuana for recreational use. As Canada is an immigrant-receiving country, newcomers and immigrants contend with a substance use landscape that was likely absent in their countries of origin. Although immigrants have lower rates of substance use than the host population, the risk of substance use, especially among youth, increases with acculturation and peer pressure. While parents are best placed to mitigate the risks for substance use among their youth, immigrant parents often do not have the knowledge and skills to do so. Therefore, culturally adaptable family-based interventions must be explored to build immigrant parents' capacities to mitigate substance use risks.

Aim and purpose: The aim of this scoping review is to explore family-based substance use prevention interventions for immigrant youth, which will be guided by two questions:

1. What is known about family-based interventions for preventing immigrant adolescents' substance use?
2. What are the characteristics and outcomes of these intervention protocols?

Methods and analysis: We will apply Arksey and O'Malley's procedure for reporting scoping review and report study findings based on the PRISMA guidelines for scoping reviews.

Discussion: We hope that the knowledge translation emanating from this review will increase immigrant parents' knowledge of substance use and enable them to effectively intervene to prevent substance use among their youth. We also hope that this work can inform policy development on best practices for substance use prevention and for the creation of culturally sensitive programs and services for immigrant youth.

Keywords: Public Health; Family Relations; Emigrants and Immigrant; Substance-Related Disorders

Strengths and limitations of this study

1. This study will provide insights into family-focused substance use prevention interventions for immigrant youth that can be adapted and applied to a local setting.
2. This study will help reorient the role of families in substance use prevention and identify strategies that may help families play that role.
3. The scoping review is limited to family-based, immigrant-focused substance use interventions that are published in English.

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- 4. The exclusion of interventions that do not target immigrants may limit the research by excluding relevant programs that may be applicable to the population of interest.

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Background

The use of both licit and illicit substances is a growing problem in Canada. Canada has the second-highest consumption of prescription opioids in the world caused by the over-prescription of these strong analgesics.[1] This over-prescription causes opioid use disorder, a problematic pattern of opioid use that leads to clinically significant impairment or distress and that impacts people's qualities of life, occupations and relationships.[2] In 2017, a total of 21.3 million prescriptions for opioids were dispensed in Canada.[3] However, street drugs contaminated by fentanyl have increased opioid overdoses and opioid-related deaths in Canada.[4] In 2019, 12 people were hospitalized each day on average due to opioid poisoning, and 3,823 opioid-related deaths were reported.[5]

Canada also has one of the highest per capita alcohol consumptions worldwide. In 2018, Canadians consumed 8.2 litres of alcohol per capita, spending more than \$756 per household on alcohol.[6] Alcohol use among children in grades 7 to 12 is high, with 44% reporting alcohol consumption in 2018.[6] In 2017, alcohol-related hospitalization was higher than hospitalization for heart attacks at 249 per 100,000 and 243 per 100,000, respectively.[6]

In 2018, Canada became the second country to legalize cannabis,[7], which is the second-most used substance in Canada.[8] In 2019, more than 5.1 million Canadians reported having used cannabis in the past three months.[9] In the third quarter of 2019, about 26% of adolescents and young adults (aged 15–24) reported having used cannabis, [10] while 18% of students (about 374,000) in grades 7 to 12 reported using cannabis in 2018–2019.[11] Adolescents' cannabis use is associated with an increased risk of mental health illnesses, poor academic outcomes and personal disadvantages.[9] Methamphetamine use is also prevalent among youth and young adults, with 1.2% of Canadian students in grades 7 to 12 reporting using it in 2015.[12]

In 2017, substance use and addiction contributed \$13.1 billion in healthcare costs and led to more than 175,000 hospitalizations and about 75,000 deaths in Canada.[13] Moreover, problematic substance use was associated with an estimated \$20 billion in lost productivity in 2017.[13] From 2015 to 2017, the per-person cost of substance use has increased from \$1,218 to \$1,258.[13]

Canada is a popular destination for international migration, and immigrants have become an important driver of population and economic growth. The 2016 Census showed that immigrants accounted for 21.9% of the Canadian population.[14] International students and visitors contributed \$31 billion to Canada's economic growth in 2016-2017.[15] In 2017–2018, 80% of Canada's population growth was driven by international immigrants, and in 2019, 313,580 new immigrants landed in Canada.[16, 17] Immigrants to Canada are expected to assimilate into Canadian culture. The prevailing socio-cultural climate of the destination country can impact how immigrants and newcomers acculturate themselves. One of the realities that immigrants are confronted with is the perversity of substances that may not be available or legal in their countries of origin. Generally, compared to native Canadians, new immigrants are less likely to experiment with substances; however, their risk of substance use increases with their length of stay.[18] Immigrants adapt to a new culture by speaking the local language and adopting cultural beliefs, values, attitudes and behaviors, including those that are deemed risky.[19, 20]

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Immigrants' attitudes towards substances may be informed by their exposure to, their experience of, and the acceptability of those substances in their country of origin. For instance, immigrants who come from countries where plant products are commonly used are more likely to accept cannabis than those who do not.[21, 22] Similarly, since alcohol and marijuana are easily accessible and socially acceptable substances in Canada, immigrants without prior exposure to them may be inclined to start using them for recreation purposes.[23] Moreover, immigrants' risk for substance use might be aggravated by immigration-related stress, which increases the risk of developing mental health illnesses.[24] Thus, new immigrants may use substances as a maladaptive coping mechanism to deal with stress induced by immigration and resettlement processes.

Generally, immigrant youth in Canada have a significantly lower level of substance use than their Canadian counterparts. According to Hamilton et al.,[25], 13% of first-generation immigrant youth residing in Ontario reported using cannabis before, while 9.8% drink alcohol regularly. In the same research, 22.6% of second-generation immigrant adolescents reported having used cannabis, and 16.8% consumed alcohol regularly.[25] The acculturation process has been cited as a risk factor for the initiation of substance use among immigrant youth.[21, 26] Immigrant youth may feel pressured to conform to the practices of their receiving country and feel the need to belong with their peers, who may introduce them to substances.[21, 26, 27]

Due to the increased risk of substance use among immigrant youth in Canada, the research team, who themselves are first-generation immigrants, identified a need to equip parents, guardians and caregivers with skills to mitigate this risk. Consultations with service providers at an immigrant settlement agency in a mid-sized prairie city in Canada revealed that most immigrants and newcomers, especially those with limited English language proficiency, need help to build capacity to a) understand substance use trends and the risks that their children may face; b) detect early signs of substance use among youth; c) find available resources to mitigate the risks and learn skills to support their youth; and d) learn family-based intervention strategies to mitigate youth's potential substance use initiation. Significant empirical evidence demonstrates that effective parenting, characterized by parental warmth and close supervision of children, can delay or prevent substance use initiation.[27-29] In addition, parents' zero tolerance of and clear rules about substance use can prevent substance use initiation.[29-31]

Family-based substance use prevention programs for immigrant youth need to be culturally safe and able to equip parents with effective strategies that can help their youth manage risks for substance use.[32, 33] These programs can be conducted in group settings with active family participation to help foster understanding between family members to support youth at risk of substance use.[34, 35] They may entail interventions that simultaneously engage parents and teenagers in the same or different programs or can take a curriculum-based approach where the learning activities are organized in modules.[29] Role playing, discussion groups and videos help participants to integrate and apply lessons learned, improve communication and identify obstacles that parents may encounter in supporting youth and preventing substance use.[29, 36]

A good family-based substance use prevention program for immigrant youth must consider skills and behavioral and cultural factors when developing or adapting it.[37] These include understanding language limitations, the acculturation process, and the

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3 available support systems. It also needs to highlight family's role in protecting and
4 supporting youth in the acculturation process.[38]
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6 7 **Aim and purpose**

8 The aim of this review is to explore the types and characteristics of family-based
9 substance use prevention interventions for immigrant youth. The purpose of this project
10 is to identify and describe family-based substance use prevention interventions that could
11 potentially be adapted to support immigrant families in mitigating the risk of substance
12 use initiation facing youth.
13

14 15 **Methods**

16 We will conduct a scoping review of family-based substance use prevention
17 programs for immigrant youth to identify and describe these interventions. A scoping
18 literature review focuses on an under-researched or complex research area and seeks to
19 summarize key concepts, principles, main sources and evidence under that topic.[39] This
20 scoping review will be guided by community-based research principles, a collaborative,
21 equal partnership between researchers and community members during the research
22 process.[37, 40, 41] We will depend on stakeholders within the immigrant community to
23 identify and refine the research problem, develop an appropriate knowledge translation
24 tool and thereafter seek mechanisms for developing a culturally appropriate intervention
25 for immigrant families.[41] This scoping review will begin with the formation of the
26 community advisory council (CAC) comprising of people who provide and access
27 settlement services for newcomers and immigrants. Potential members of the CAC
28 include social service providers, health care providers and recent newcomers and
29 immigrants. This CAC will meet with the research team to advise them throughout the
30 review. The scoping review will be guided by Arksey and O'Malley's [42] steps of
31 conducting a scoping review, which are outlined below.
32

33
34 **Step 1: Identify the research question:** The CAC will assist in formulating the
35 search terms, which will be used to develop the research question. Before embarking on
36 the scoping review process, a search will be conducted on PubMed, Web of Science and
37 Prospero to ensure that no such scoping review has been done. The scoping review will
38 be guided by two broad research questions: 1) what is known about family-based
39 interventions for preventing immigrant youth's substance use? and 2) what are the
40 characteristics and outcomes of these intervention protocols?
41

42 **Step 2: Identify relevant studies:** The research team, with the help of a health
43 sciences librarian, will develop a strategy to search for published articles and grey
44 literature. A concept map based on the following keywords will be developed to guide
45 the search for relevant publications: "family," "prevention," "immigration," "youth,"
46 "substance use" and types of substances. Appendix 1 shows a prototype of a concept map
47 that will be improved on to guide the review. A test search on MEDLINE will be
48 conducted to assess its feasibility. Thereafter, the following databases will be searched
49 for relevant studies: Ovid MEDLINE, 1946 to present; CINAHL (EBSCO); EMBASE,
50 1947 to present; Web of Science, 1900 to present; and APA PsycInfo, 1806 to present.
51 For this scoping review, only literature published from 2010 to 2020 will be included. All
52 relevant studies will be downloaded and saved in Mendeley, a reference management
53 software, and all duplicate references will be removed. Then, all selected literature will
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3 be input in Covidence, a systematic review management software. Besides searching
4 literature in databases, grey literature will also be included in this scoping review. The
5 research team will search for grey literature from Canadian organizations related to
6 substance use, including the Canadian Centre on Substance Use and Addiction (CCSA),
7 the Centre for Addiction and Mental Health (CAMH) and the Canadian Agency for
8 Drugs and Technologies in Health (CADTH).
9

10 Both the CCSA and CAMH are leading Canadian research centers for substance
11 use and addiction, providing guidelines to care, research and education.[43, 44] The
12 CADTH is a non-profit organization that provides evidence for health care
13 decisionmakers [45] The keywords used to search the electronic databases will be applied
14 for the grey literature search.
15

16 **Inclusion criteria:** To be included in the review, studies must a) discuss a family-
17 focused substance use prevention intervention; b) have the immigrant youth (aged 12–17
18 years) as the intervention target; c) be published in English and d) be conducted in
19 Canada, the United States, Europe, Australia, or New Zealand. These regions have been
20 chosen because they are key destinations for international migrants.
21

22 **Exclusion criteria:** Interventions that are not family focused, focus on youth
23 older than 17 years or focus on native-born populations will not be included in the study.
24 Also, literature reviews, letters to the editors and opinion pieces will be excluded from
25 the study.
26

27 **Step 3: Study Selection:** The search results will be exported to a reference
28 management system, and the inclusion and exclusion criteria will be applied. Two
29 reviewers will be involved in the screening process. A third reviewer will be involved as
30 a tie breaker in instances where the two reviewers cannot agree on whether to include or
31 exclude an article.
32

33 **Step 4: Charting the data:** The research team will extract information from the
34 articles using a table with the following columns: (1) author(s), year of publication and
35 title, (2) characteristics of intervention and (3) outcomes and significant findings.
36

37 **Step 5: Collating, summarizing and reporting results:** The purpose of
38 conducting the scoping review is to map out findings and provide an overview of the
39 topic.[42] We will report the research results based on the PRISMA guidelines, a method
40 for reviewing literature that is useful in reviewing health care interventions.[46]
41 Therefore, firstly, we will provide a basic numerical description of the articles included in
42 the study, including their locations, the interventions studied and the approaches used in
43 the interventions. Secondly, we will synthesis the data and identify common themes that
44 emanate from the extracted data. A narrative description of these themes will be
45 developed to convey the main findings.
46

47 **Step 6: Sharing the study findings/ patient and public involvement:** We will
48 present this scoping review's preliminary findings to the CAC and thereafter to the wider
49 stakeholders involved in providing services to newcomers and immigrants with limited
50 English abilities. During this meeting, we will seek their feedback regarding the
51 presentation and initiate the process of identifying an intervention from the presentation
52 that can be adapted to serve the local immigrant community. Data collected in this phase
53 will inform grant applications for intervention development and implementation.
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55 Discussion

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4 The decision to conduct a scoping review of family-based substance use
5 prevention interventions for immigrant youth has been informed by stakeholders, who
6 observed that there is a dearth of literature on substance use interventions and
7 programming that focus on immigrant youth. Moreover, immigrant parents have
8 expressed a desire to build capacity to prevent and mitigate the risks of substance use that
9 the youth face. Parents' active engagement in preventing their youth's substance use can
10 help youth realise the consequences of substance use and hopefully help them avoid
11 engaging in these practices.[29-31] The scoping review is therefore set in such a manner
12 that it applies the community-based research principles from the conceptualisation of the
13 idea to the eventual implementation of a family-based substance use prevention
14 intervention for immigrant youth. Researchers and community stakeholders are set to
15 work collaboratively in hopes that this partnership will increase parental knowledge of
16 substance use, address critical societal issues related to substance use, contribute to public
17 health and enhance ownership and uptake of the research findings.[47, 48]

19 This research project is grounded on the understanding that newcomers and
20 immigrants are a vulnerable population. While they may have better health indicators
21 than the native population at the time of immigration, this advantage tends to wane with
22 the increasing length of stay in the host country.[49] Therefore, supporting newcomers
23 and immigrants navigate one of the imminent risks that they face even before they
24 acclimatize and settle in their new county is needed. This work also takes a social justice
25 lens because of the socioeconomic and health inequalities that newcomers and
26 immigrants face, which make them vulnerable to health conditions. For instance, besides
27 contending with cultural shock, racial issues, and a new way of life, most newcomers and
28 immigrants often struggle to secure employment that matches their skills and
29 qualifications.[50] Hence, most are at a higher risk of living in poverty than the native
30 population.[51] This low socioeconomic status increases their risks of developing mental
31 illnesses, limits their ability to parent effectively and even increases their risk of engaging
32 in maladaptive behaviors to deal with the ensuing stress.[24, 52]

35 Immigrant parents are important resources for the youth and can influence their
36 behavior by transmitting values, beliefs, and rules on substance use.[29] However, raising
37 children and supporting youth in a foreign country with no social support or extended
38 family may prove to be an additional challenge for many parents who already face
39 cultural and social challenges.[53, 54] Nevertheless, resources for immigrants that would
40 help them avoid substance use are urgently required. Early onset of substance use
41 increases risks for poor educational outcomes, substance use disorders, substance-related
42 death and even suicides.[55, 56] Such resources could help immigrant youth avoid
43 behaviors and practices that would hinder their ability to achieve academic and future
44 success.[57, 58]

47 This scoping review could contribute to the growing knowledge about
48 immigrants' substance use, inform policy development on best practices in substance use
49 prevention programs for immigrant youth, and help create culturally sensitive programs
50 and services for the immigrant population.

52 **Limitations of the review**

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54 Limiting the studies included in this review to those published in English means
55 that literature that would have been relevant for our study will be omitted. Also, including
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3 only substance use prevention interventions aimed at immigrant youth deprives this study
4 of potentially relevant interventions that could be culturally adapted to support the
5 affected community.
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7 8 **Patient and Public Involvement**

9 As this is a scoping review protocol, the public and community stakeholders will be
10 involved in the presenting data stage. Researchers will show research results via a one-
11 day knowledge event, and the public and community stakeholders will provide feedback
12 regarding the presentation and initiate the process of identifying an intervention from the
13 presentation that can be adapted to serve the local immigrant community.
14

15 16 **Acknowledgements**

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18 University of Saskatchewan) for his insightful suggestions on developing search
19 strategies.
20

21 22 **Contributors**

23 YL was responsible for writing the protocol. GM provided in-depth input to the protocol
24 by refining the protocol and providing edits and suggestions. He proofread the drafts and
25 approved the final manuscript. MP and JA edited and proofread the protocol. YF
26 reviewed the final draft and provided feedback.
27

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31 Misuse (CRISM).
32

33 34 **Competing interests**

35 None declared
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37 38 **Ethics and dissemination**

39 As a scoping review, this project does not require ethics approval.
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APPENDIX 1: SEARCHING KEYWORDS FOR THE SCOPING REVIEW

Family	Adolescent	Prevention	Immigration	Substance Use
Family	Adolescent	Prevent*	Immigrat*	Substance use
Families	Youth		Alien*	Drug use
Familial			Emigrant*	Marijuana
Mother*			Foreigner*	Cocaine
Parent*			Immigrant*	Heroin
Sibling*			Refugee*	Alcohol
Grandparent*			migrant*	Cigarette
Elder*			asylum	methamphetamine
Aunt*			newcomer*	
Uncle*				
Cousin*				
Brother*				
Sister*				

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Exploring family-based immigrant youth substance use prevention programs: A scoping review protocol

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Secondary Subject Heading:	Addiction, Public health, Qualitative research
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2 2 **scoping review protocol**

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12 55 **Exploring family-based immigrant youth substance use prevention programs: A**
13 56 **scoping review protocol**
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16 58 **Abstract**

17 59 **Introduction:** Canada has one of the highest rates of problematic opiate and alcohol use
18 60 in the world. It was also the second country in the world to legalize marijuana for
19 61 recreational use. As Canada is an immigrant-receiving country, newcomers and
20 62 immigrants contend with a substance use landscape that was likely absent in their
21 63 countries of origin. Although immigrants have lower rates of substance use than the host
22 64 population, the risk of substance use, especially among youth, increases with
23 65 acculturation and peer pressure. While parents are best placed to mitigate the risks for
24 66 substance use among their youth, immigrant parents often do not have the knowledge and
25 67 skills to do so. Therefore, culturally adaptable family-based interventions need be
26 68 explored to build immigrant parents' capacities to mitigate substance use risks.
27 69

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29 70 **Aim and purpose:** The aim of this scoping review is to explore family-based substance
30 71 use prevention interventions for immigrant youth, which will be guided by two questions:

- 31 71
32 72 1. What is known about family-based interventions for preventing immigrant
33 73 adolescents' substance use?
34 74 2. What are the characteristics and outcomes of these intervention protocols?
35 75

36 76 **Methods and analysis:** We will apply Arksey and O'Malley's procedure for reporting
37 77 scoping review and report study findings based on the PRISMA guidelines for scoping
38 78 reviews.
39 79

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41 80 **Discussion:** We hope that the knowledge translation emanating from this review will
42 81 increase immigrant parents' knowledge of substance use and enable them to effectively
43 82 intervene to prevent substance use among their youth. We also hope that this work can
44 83 inform policy development on best practices for substance use prevention and for the
45 84 creation of culturally sensitive programs and services for immigrant youth.
46 85

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48 86 **Keywords:** Public Health; Family Relations; Emigrants and Immigrant; Substance-
49 87 Related Disorders
50 88

51 89 **Strengths and limitations of this study**
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- 53 90
54 91 1. This study will provide insights into family-focused substance use prevention
55 92 interventions for immigrant youth that can be adapted and applied to a local setting.
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3 93 2. This study will help reorient the role of families in substance use prevention and
4 94 identify strategies that may help families play that role.
5 95 3. The scoping review is limited to family-based, immigrant-focused substance use
6 96 interventions that are published in English.
7 97 4. The exclusion of interventions that do not target immigrants may limit the research by
8 98 excluding relevant programs that may be applicable to the population of interest.
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For peer review only

Background

Substance and addiction landscape in Canada

The use of both licit and illicit substances is a growing problem in Canada. Canada has the second-highest consumption of prescription opioids in the world due to over-prescription and non-medical use of these strong analgesics [1–3]. The use of opioids for non-medical purposes for both licit and illicit drugs is a serious public health problem causing opioid use disorder, a problematic pattern of opioid use that leads to clinically significant impairment or distress, and significantly impacts people's qualities of life, occupations and relationships [2, 3, 4]. In Canada, youth has become the fastest-growing population for opioids overdoses, which requires hospital care [5]. Alcohol use among children in grades 7 to 12 is high, with 44% reporting alcohol consumption in 2018 [6]. In Ontario, about 14% of teens have reported using prescription opioids for extra-medical use [7]. About 55% of vehicle accidents that involve youth are caused by alcohol or drugs, and car accidents and are the leading cause of youth death in Canada [8].

In 2018, Canada became the second country to legalize cannabis [9], which is the second-most used substance in Canada [10]. In the third quarter of 2019, about 26% of adolescents and young adults (aged 15–24) reported having used cannabis [11], while 18% of students (about 374,000) in grades 7 to 12 reported using cannabis in 2018–2019 [12]. Adolescents' cannabis use is associated with an increased risk of mental health illnesses, poor academic outcomes and personal disadvantages [13]. Methamphetamine use is also prevalent among youth and young adults, with 1.2% of Canadian students in grades 7 to 12 reporting using it in 2015 [14]. In 2017–2018, 23,580 hospitalizations among youth were caused by substance misuse [15]. Among these youth, about 17% of them had more than one hospitalization in the same year and about two-thirds of them had concurrent mental health issues [15].

Immigrants and attitude towards substance use

Canada is a popular destination for international migration, and immigrants have become an important driver of population and economic growth. The 2016 Census showed that immigrants accounted for 21.9% of the Canadian population [16]. In 2017–2018, 80% of Canada's population growth was driven by immigrants, and in 2019, 313,580 new immigrants landed in Canada [17,18]. Although Canada pursues a multicultural policy, immigrants to Canada, especially the youth acculturate at a higher rate than adults[19,20]. The prevailing socio-cultural climate of the destination country i.e. Canada, impacts how immigrants and newcomers acculturate [21]. One of the realities that immigrants are confronted with is the perversity of substance use that differs from their countries of origin [22]. Yet, although new immigrant youth are less likely to experiment with substances, their risk of substance use increases with their length of stay [23]. In so doing, they embrace beliefs, values, attitudes and behaviors of the host nations that their parents may deem risky or unsafe[21,24].

Immigrants' attitudes towards substances may be informed by availability and acceptability of these substances at home and in their host country. For instance, immigrants who come from countries where plant products are commonly used are more likely to accept cannabis than those who do not [25,26]. Also, since alcohol and

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3 146 marijuana are easily accessible and socially acceptable substances in Canada, immigrants
4 147 without prior exposure to them may be inclined to start using them for recreation
5 148 purposes [27]. Moreover, immigrants' risk for substance use might be aggravated by
6 149 immigration-related stress, which increases the risk of developing mental health illnesses
7 150 [28]. Thus, new immigrants may use substances as a maladaptive coping mechanism to
8 151 deal with stress induced by immigration and resettlement processes.

9 152

11 153 *Immigrant youth and risk of substance use*

12 154 Generally, new immigrant youth in Canada have a significantly lower level of
13 155 substance use than their Canadian counterparts. For instance, a study by Hamilton et al.
14 156 on subjective social status, immigration generations and substance use among youth,
15 157 [29], 13% of first-generation immigrant youth in Ontario reported using cannabis before,
16 158 while 9.8% drink alcohol regularly. In the same research, 22.6% of second-generation
17 159 immigrant adolescents reported having used cannabis, and 16.8% consumed alcohol
18 160 regularly [29]. The acculturation process has been cited as a risk factor for the initiation
19 161 of substance use among immigrant youth [25,30]. Thus, immigrant youth may feel
20 162 pressured to conform to the practices of their receiving country and feel the need to
21 163 belong with their peers who may be using substances [25,30,31].

22 164 To mitigate the risks of substance use for immigrants, family-based substance use
23 165 prevention programs are needed. Such programs must be culturally safe and empowering
24 166 to parents with effective strategies to help youth navigate these risks [32,33]. Cultural
25 167 safety is underpinned by principles of social justice and is grounded in critical theoretical
26 168 perspectives, and draws attention to the impact of racialization, culturalization,
27 169 discrimination, and disparities in health and access to health care among marginalized
28 170 communities [34,35]. Family-based substance use prevention programs can be
29 171 implemented in group settings with active family participation through role-plays,
30 172 curriculum-based approaches, videos and youth-parent collaborative activities [34-37].

31 173 Due to the increased risk of substance use among immigrant youth in Canada, the
32 174 research team, who majority of them are first-generation immigrants with diverse lived
33 175 experiences, together with stakeholders involved in settlement programs identified a need
34 176 to equip parents, guardians and caregivers with skills to mitigate this risk. This scoping
35 177 review is guided by principles of community-based research, and as such, the research
36 178 focus was informed by community partners. Any intervention that will emanate from this
37 179 review will also be selected by the community partners. Community consultation is
38 180 essential in grounding this review to foster ownership of the process and the
39 181 outcome[38]. Therefore, this consultation yielded the following objectives that guide the
40 182 scoping review: a) to understand substance use trends and the risks that their children
41 183 may face; b) to detect early signs of substance use among youth; c) identify resources to
42 184 mitigate the risks for immigrant youth substance use and to build capacity for families to
43 185 intervene to delay or prevent substance use initiation. Although the definition of youth
44 186 varies, for the purpose of this review, youth will be referred to those whose are range
45 187 between 12-17 years of age.

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3 191 Studies suggest that parents are important resources for substance use prevention
4 192 among immigrant youth. Effective parenting, characterized by parental warmth and close
5 193 supervision of children, can delay or prevent substance use initiation [31,39,40]. In
6 194 addition, parents' zero tolerance of and clear rules about substance use can prevent
7 195 substance use initiation [39,41,42]. A good family-based substance use prevention
8 196 program for immigrant youth need to consider skills and behavioral and cultural factors
9 197 when developing or adapting it [38]. These include understanding language limitations,
10 198 the acculturation process, and the available support systems. It also needs to highlight
11 199 family's role in protecting and supporting youth in the acculturation process [43].
12
13 200

201 **Aim and purpose**

202 The aim of this review is to explore the types and characteristics of family-based
203 substance use prevention interventions for immigrant youth. The purpose of this project
204 is to identify and describe family-based substance use prevention interventions that could
205 potentially be adapted to support immigrant families in mitigating the risk of substance
206 use initiation facing youth.
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208 **Methods**

209 We will conduct a scoping review of family-based substance use prevention
210 programs for immigrant youth to identify and describe these interventions. A scoping
211 literature review focuses on an under-researched or complex research area and seeks to
212 summarize key concepts, principles, main sources and evidence under that topic [44].
213 This scoping review will be guided by community-based research principles, a
214 collaborative, equal partnership between researchers and community members during the
215 research process [38,45,46]. We will depend on stakeholders within the immigrant
216 community to identify and refine the research problem, develop an appropriate
217 knowledge translation tool and thereafter seek mechanisms for developing a culturally
218 appropriate intervention for immigrant families [46]. This scoping review started with the
219 consultation with community partners involved in providing settlement and integration
220 services for immigrants. These partners will later be constituted to a community advisory
221 committee (CAC) and will oversee the completion of the scoping review, knowledge
222 translation and development of an intervention suitable for the targeted community.
223 Immigrant youth will be involved in the knowledge event where the research team will
224 present the results. Also, those youth will provide feedback regarding the review's
225 findings. The scoping review will be guided by Arksey and O'Malley's [47] steps of
226 conducting a scoping review, which are outlined below.

227 **Step 1: Identify the research question:** Through community consultation, the
228 search terms were suggested which contributed to the formulation of research questions.
229 A search has been conducted on PubMed, Web of Science and Prospero to ensure that no
230 such scoping review has been done. The scoping review will be guided by two broad
231 research questions: 1) what is known about family-based interventions for preventing
232 immigrant youth's substance use? and 2) what are the characteristics and outcomes of
233 these intervention protocols?

234 **Step 2: Identify relevant studies:** The research team, with the help of a health
235 sciences librarian, has developed a strategy to search for published articles and grey
236 literature. A concept map based on the following keywords has been developed to guide

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3 237 the search for relevant publications: “family,” “prevention,” “immigration,” “youth,”
4 238 “substance use” and types of substances. Appendix 1 is a prototype of a concept map that
5 239 will be used to guide the review. A test search on MEDLINE has been conducted to
6 240 assess its feasibility. Thereafter, the following databases will be searched for relevant
7 241 studies: Ovid MEDLINE, 1946 to present; CINAHL (EBSCO); EMBASE, 1947 to
8 242 present; Web of Science, 1900 to present; and APA PsycInfo, 1806 to present. For this
9 243 scoping review, only literature published from 2000 to 2020 will be included. Limiting
10 244 publications in the past 10 years is because substance use dynamic and interventions are
11 245 changing and interventions older than 20 years may not suitable for current situation [48].
12 246 All relevant studies will be downloaded and saved in Mendeley, a reference management
13 247 software, and all duplicate references will be removed. Besides searching literature in
14 248 databases, grey literature will also be included in this scoping review. The research team
15 249 will search for grey literature from Canadian organizations related to substance use,
16 250 including the Canadian Centre on Substance Use and Addiction (CCSA), the Centre for
17 251 Addiction and Mental Health (CAMH) and the Canadian Agency for Drugs and
18 252 Technologies in Health (CADTH). Searching for grey literature will be based on the
19 253 keywords in the concept map, and specific steps will be adjusted based on the search
20 254 engines’ results.

24 255 Both the CCSA and CAMH are leading Canadian research centers for substance
25 256 use and addiction, providing guidelines to care, research and education [49,50]. The
26 257 CADTH is a non-profit organization that provides evidence for health care
27 258 decisionmakers [51] The keywords used to search the electronic databases will be applied
28 259 for the grey literature search.

30 260 **Inclusion criteria:** To be included in the review, studies must a) discuss a family-
31 261 focused substance use prevention intervention; b) empirical studies except reviews; c)
32 262 have the immigrant youth (aged 12–17 years) as the intervention target; d) be published
33 263 in English and e) be conducted in Canada, the United States, Europe, Australia, or New
34 264 Zealand. These regions have been chosen because they are key destinations for
35 265 international migrants. Also, considering the development stage and needs to be supervised
36 266 by parents, participants’ age in this study will be between 12 to 17.

38 267 **Exclusion criteria:** Interventions that are not family focused, focus on youth
39 268 older than 17 years or focus on native-born populations will not be included in the study.
40 269 Also, literature reviews, letters to the editors and opinion pieces will be excluded from
41 270 the study.

42 271 **Step 3: Study Selection:** The search results will be exported to a reference
43 272 management system, Rayyan, and the inclusion and exclusion criteria will be applied.
44 273 The research team will screen for title/abstract first to determine the suitability of the
45 274 article to be included in the review. Two reviewers will be involved in the screening
46 275 process. A third reviewer will be involved as a tie breaker in instances where the two
47 276 reviewers cannot agree on whether to include or exclude an article.

49 277 **Step 4: Charting the data:** The research team will extract information from the
50 278 articles using a table with the following columns: (1) author(s), year of publication and
51 279 title, (2) characteristics of intervention and (3) outcomes and significant findings.

53 280 **Step 5: Collating, summarizing and reporting results:** The purpose of
54 281 conducting the scoping review is to map out findings and provide an overview of the
55 282 topic [47]. We will report the research results based on the PRISMA guidelines, a method
56 283 for reviewing literature that is useful in reviewing health care interventions [52].

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3 284 Therefore, firstly, we will provide a basic numerical description of the articles included in
4 285 the study, including their locations, the interventions studied and the approaches used in
5 286 the interventions. Secondly, we will synthesis the data and identify common themes that
6 287 emanate from the extracted data. A narrative description of these themes will be
7 288 developed to convey the main findings.

8 289 **Step 6: Sharing the study findings/ patient and public involvement:** We will
9 290 present this scoping review's preliminary findings to the CAC and thereafter to the wider
10 291 stakeholders involved in providing services to newcomers and immigrants with limited
11 292 English abilities. During this meeting, we will seek their feedback regarding the
12 293 presentation, scoping review's findings and initiate the process of identifying an
13 294 intervention from the presentation that can be adapted to serve the local immigrant
14 295 community. Data collected in this phase will inform grant applications for intervention
15 296 development and implementation.
16 297

17 298 **Discussion**

18 299 The decision to conduct a scoping review of family-based substance use
19 300 prevention interventions for immigrant youth has been informed by stakeholders, who
20 301 observed that there is a dearth of literature on substance use interventions and
21 302 programming that focus on immigrant youth. Moreover, immigrant parents have
22 303 expressed a desire to build capacity to prevent and mitigate the risks of substance use that
23 304 the youth face. Parents' active engagement in preventing their youth's substance use can
24 305 help youth realise the consequences of substance use and hopefully help them avoid
25 306 engaging in these practices [39,41,42]. The scoping review is therefore set in such a
26 307 manner that it applies the community-based research principles from the
27 308 conceptualisation of the idea to the eventual implementation of a family-based substance
28 309 use prevention intervention for immigrant youth. Researchers and community
29 310 stakeholders are set to work collaboratively in hopes that this partnership will increase
30 311 parental knowledge of substance use, address critical societal issues related to substance
31 312 use, contribute to public health and enhance ownership and uptake of the research
32 313 findings [53,54].

33 314 This research project is grounded on the understanding that newcomers and
34 315 immigrants are a vulnerable population. While they may have better health indicators
35 316 than the native population at the time of immigration, this advantage tends to wane with
36 317 the increasing length of stay in the host country [55]. Therefore, supporting newcomers
37 318 and immigrants navigate one of the imminent risks that they face even before they
38 319 acclimatize and settle in their new country is needed. This work also takes a social justice
39 320 lens because of the socioeconomic and health inequalities that newcomers and
40 321 immigrants face, which make them vulnerable to health conditions. For instance, besides
41 322 contending with cultural shock, racial issues, and a new way of life, most newcomers and
42 323 immigrants often struggle to secure employment that matches their skills and
43 324 qualifications [56]. Hence, most are at a higher risk of living in poverty than the native
44 325 population [57]. This low socioeconomic status increases their risks of developing mental
45 326 illnesses, limits their ability to parent effectively and even increases their risk of engaging
46 327 in maladaptive behaviors to deal with the ensuing stress [28,58].

47 328 Immigrant parents are important resources for the youth and can influence their
48 329 behavior by transmitting values, beliefs, and rules on substance use [39]. However,
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3 330 raising children and supporting youth in a foreign country with no social support or
4 331 extended family may prove to be an additional challenge for many parents who already
5 332 face cultural and social challenges [59,60]. Nevertheless, resources for immigrants that
6 333 would help them avoid substance use are urgently required. Early onset of substance use
7 334 increases risks for poor educational outcomes, substance use disorders, substance-related
8 335 death and even suicides [61,62]. Such resources could help immigrant youth avoid
9 336 behaviors and practices that would hinder their ability to achieve academic and future
10 337 success [63,64].

11
12 338 This scoping review could contribute to the growing knowledge about
13 339 immigrants' substance use, inform policy development on best practices in substance use
14 340 prevention programs for immigrant youth, and help create culturally sensitive programs
15 341 and services for the immigrant population.
16 342

17 343 **Limitations of the review**

18
19 344 Limiting the studies included in this review to those published in English means
20 345 that literature that would have been relevant for our study will be omitted. Also, including
21 346 only substance use prevention interventions aimed at immigrant youth deprives this study
22 347 of potentially relevant interventions that could be culturally adapted to support the
23 348 affected community.
24 349

25 350 **Patient and Public Involvement**

26
27 351 Since this review is guided by the principles of community-based research, community
28 352 advisory committee (CAC) will be actively involved in all the phases of the study
29 353 including knowledge translation and dissemination and selection of an intervention. The
30 354 research team will share the findings of the study with the targeted community in the
31 355 region by organising a one-day knowledge exchange event. Thereafter the community
32 356 will provide feedback on the content and initiate the process of identifying an
33 357 intervention that can be adapted to address community needs.
34 358

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36
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38 361 University of Saskatchewan) for his insightful suggestions on developing search
39 362 strategies.
40 363

41 364 **Contributors**

42
43 365 YL was responsible for writing the protocol. GM provided in-depth input to the protocol
44 366 by refining the protocol and providing edits and suggestions. He proofread the drafts and
45 367 approved the final manuscript. MP and JA edited and proofread the protocol. YF
46 368 reviewed the final draft and provided feedback.
47 369

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49
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52 373

53 374 **Competing interests**

54
55 375 None declared
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Ethics and dissemination

As a scoping review, this project does not require ethics approval.

For peer review only

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APPENDIX 1: SEARCHING KEYWORDS FOR THE SCOPING REVIEW

Family	Youth	Prevention	Immigration	Substance Use
Family	adolescent	Prevent*	Immigrat*	Substance-related disorders
Families	Teen*		Alien*	
Familial	Youth*		Emigrant*	Chemical dependence*
Mother*	Adolescen*		Foreigner*	
Parent*			Immigrant*	Drug abuse
Sibling*			Refugee*	Drug addiction
Grandparent*			migrant*	
Elder*			asylum	Drug dependence
Aunt*			newcomer*	Drug use disorder*
Uncle*				
Cousin*				Substance abuse*
Brother*				
Sister*				Pharmaceutical misuse
				Substance addict*
				Substance dependen*
				Substance use
				Cannabis
				Marijuana
				Cocaine
				Cigarette*
				Smok*
				Alcohol
				Drug use
				Meth*
				Methamphetamine

Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist

SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
TITLE			
Title	1	Identify the report as a scoping review.	2
ABSTRACT			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	3/4/5
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	5
METHODS			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	N/A
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	6
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	5/6
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	5/6; Appendix 1
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	6
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes for obtaining and confirming data from investigators.	6
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	5/6
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	N/A



SECTION	ITEM	PRISMA-ScR CHECKLIST ITEM	REPORTED ON PAGE #
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	6/7
RESULTS			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	N/A
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	N/A
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	N/A
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	N/A
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	N/A
DISCUSSION			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	N/A
Limitations	20	Discuss the limitations of the scoping review process.	1-2
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	N/A
FUNDING			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	8

JBI = Joanna Briggs Institute; PRISMA-ScR = Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews.

* Where *sources of evidence* (see second footnote) are compiled from, such as bibliographic databases, social media platforms, and Web sites.

† A more inclusive/heterogeneous term used to account for the different types of evidence or data sources (e.g., quantitative and/or qualitative research, expert opinion, and policy documents) that may be eligible in a scoping review as opposed to only studies. This is not to be confused with *information sources* (see first footnote).

‡ The frameworks by Arksey and O'Malley (6) and Levac and colleagues (7) and the JBI guidance (4, 5) refer to the process of data extraction in a scoping review as data charting.

§ The process of systematically examining research evidence to assess its validity, results, and relevance before using it to inform a decision. This term is used for items 12 and 19 instead of "risk of bias" (which is more applicable to systematic reviews of interventions) to include and acknowledge the various sources of evidence that may be used in a scoping review (e.g., quantitative and/or qualitative research, expert opinion, and policy document).

From: Tricco AC, Lillie E, Zarin W, O'Brien KK, Colquhoun H, Levac D, et al. PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation. *Ann Intern Med.* 2018;169:467–473. doi: 10.7326/M18-0850.



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