

Special Article - Homeless Persons

The Impact of COVID-19 Isolation Practices on Service Delivery to Persons Experiencing Homelessness and Concurrent Disorders

Young M^{1*} and Van Tuyl R²¹School of Humanitarian Studies, Royal Roads University, Victoria, B.C, Canada²Doctoral Candidate, College of Interdisciplinary Studies, Royal Roads University, Victoria, B.C, Canada Canada

*Corresponding author: Michael Young, School of Humanitarian Studies, Royal Roads University, Victoria, B.C, Canada

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Abstract

This research examines the effect of COVID-19 isolation protocols on service provision to persons experiencing homelessness and concurrent disorders (PEHCD) in the province of British Columbia, Canada. Using mixed methods, 119 service providers completed a survey about experiences with COVID-19 isolation protocols. Of those, 25 participated in semi-structured interviews. In addition to documenting the challenges experienced by service providers, the results illustrate the creative and effective ways that service provision to PEHCD was maintained in the face of restrictions. This research builds on a pilot project conducted in Victoria, Canada in 2021, examining early impacts of COVID-19 isolation protocols on service delivery to PEHCD. This study extends the research to urban, rural, and remote communities across British Columbia.

Keywords: COVID-19; PEHCD; British Columbia**Introduction**

While COVID-19 presented a significant challenge to society at large, its impact in British Columbia (BC), Canada was exacerbated by ongoing housing affordability and opioid crises. As such, COVID-19 stood to further increase morbidity and mortality rates amongst persons experiencing homelessness and concurrent disorders (PEHCD). Since the declaration of the Opioid Crisis in 2016, BC has recorded more than 8,800 deaths related to overdose, primarily opioids. COVID-19 was implicated in the surge of overdose-related deaths, which rose from 76 in February 2020 to 170 in May 2020, 93 percent higher than the same period a year earlier [1]. This research project explores the impact of COVID-19 isolation protocols on service provision to PEHCD across BC to inform policy development for service delivery during pandemics and other broad scale emergencies.

Literature Review**PEHCD: Part of society and community**

The primary theoretical paradigm driving this research is sociology, a discipline that proposes social life consists of the experiences of people within a given society. Within this paradigm, sociological theories examine the relationships of organizations to PEHCD within the broader context of social structures and social processes [2]. Emerging from this paradigm are sociological perspectives that bare directly on this research, including the sociology of health and the sociology of deviance (societal reaction theory) [3,4]. In this research, these perspectives give rise to theoretical propositions that explore: (1) the generation of structurally marginalized groups like PEHCD; (2) the identification of health needs and services; (3) responses of the justice system to the actions of PEHCD; and (4) the possibility of collaboration between service providers working with PEHCD. This last point highlights the importance of public policy analysis,

which positions this research into an interdisciplinary framework [5]. As Gethmann [6] observes, interdisciplinarity can inform the developments of new relationships between service providers and the justice system by opening dialogue for collaboration and interagency cooperation related to problem solving. Moreover, Turner and Krecsy [7] suggest that interdisciplinary approaches can be applied to current and future epidemics and pandemics.

As individuals experiencing socio-structural inequities, PEHCD have social services and healthcare needs. Whether they live in homeless encampments like tent cities or reside in shelters or alternative housing settings, PEHCD often depend on community resources for survival [8,9]. These resources include housing, food, and clothing; financial assistance and family counselling; and acute and long-term medical and mental health services [10,11]. In non-crisis times, members of this population face numerous and extreme barriers to resources which are exacerbated by other factors, such as race, gender identity, and disabilities to name a few.

At the same time, this population represents a challenge to community order maintenance. Although their crimes are not necessarily severe, members of this population are overrepresented in all levels of the criminal justice system and occupy an inordinate amount of police attention [12,13]. In addition to the services provided by social and healthcare workers, law enforcement occupies a unique para-care position in that they are often the first responders to PEHCD in crisis and provide referrals to social services and healthcare [14]. To support PEHCD, police departments can seek to understand the local context of homelessness in their communities/community, develop applicable policies and goals, provide relevant training to officers, liaise with social services through an assigned officer/unit, and help identify housing options and day centers [15]. This understanding from police departments is critical to support PEHCD during a pandemic.

Secondary impacts and social vulnerabilities during crises

Epidemics and pandemics impact people unequally. The Canadian Human Rights Commission asserts that inequality has been amplified by the COVID-19 crisis, including people in need of housing or facing food insecurity, such as PEHCD. The social determinants of health of people impacted by poverty, racialized communities and individuals, and structurally marginalized populations [16], such as PEHCD, need to be considered in pandemic planning, response, and recovery. Research on disasters and major social crises identifies significant uptake in substance abuse in PEHCD populations ([17,18]. Concurrently, service delivery is compromised in these contexts [19,20].

As illustrated above, COVID-19 has amplified the impact of the opioid crisis in BC. “Social distancing”, later renamed “physical distancing” during the pandemic, presents a significant risk to PEHCD. Prior to the pandemic, many PEHCD using substances would reduce the risk of overdoses through the use of a “buddy system,” not taking opioids in isolation. At the same time, crowded shelters and weakened immune systems put homeless persons at risk of infection during an outbreak [21]. This was demonstrated during the early days of the pandemic when 299 shelter residents were tested for SARS-CoV-2 (a virus that causes COVID-19) in Rhode Island from April 19 to April 24, 2020, with 11.7 percent positive test results [22]. Karb et al.’s findings showed “Shelters with positive cases of SARS-CoV-2 were in more densely populated areas, had more transient resident populations, and instituted fewer physical distancing practices compared to shelters with no cases” (2020, para. 3).

Although the need for emergency response teams during crises and pandemics is recognized in research and public policy, literature on their collaboration and/or effectiveness is minimal (SUDD). A notable study emerged in response to the emergence of H1N1 in 2009, which involved a multi-city study to explore pandemic planning and response in the context of homeless populations in Victoria, British Columbia; Calgary, Alberta; Regina, Saskatchewan; and Toronto, Ontario. The findings from the study presented six important factors—planning support, infection control, system capacity, inter-sectoral collaboration, communications and training, and increased unpredictability [23]. The Victoria study found that cross-sector, regional, and inter-agency collaboration was foundational to the response efforts [24]. Another notable H1N1 study recommended:

- Defining structurally marginalized and at-risk groups as relevant to the pandemic;
- Increasing collaboration;
- Adapting pandemic plans;
- Supporting ease of access to digital sources for people working with structurally marginalized populations;
- Addressing accessibility issues for structurally marginalized populations;
- Developing adequate pipeline of support personnel before a pandemic;
- Improving access to vaccines;

- Addressing shelter, sanitation, and hygiene needs;
- Improving communication ([25] for additional information).

The current research builds on these findings to explore the impact of COVID-19 isolation protocols on service delivery to PEHCD to inform policy development and future preparedness. As such, this research responds to the BC’s Office of the Human Rights Commissioner’s call for human rights oversight of government responses to the COVID-19 pandemic, related to isolation practices that impacted service delivery to PEHCD.

Homelessness in Canada context

Isolation practices resulting from COVID-19 resulted in the closure of shelters and the near elimination of health and social services for PEHCD during the early months of the pandemic. This presented a critical challenge for Canada, where it is estimated that at least 200,000 people are homeless every year due to causes related to structural factors, system failures, and individual/relational factors [26]. At the time of the study, some PEHCD in urban centers were moved to encampments, while others have been relocated in single room occupancy (SRO) motels [8,27]. Although Canada’s response to homelessness has made some progress, from simply managing the crisis (via overreliance on shelters, emergency services, law enforcement, etc.) to developing strategic, coordinated efforts, there is still much work to be done in addressing structural conditions that underpin homelessness [28]. For Canada’s 200,000+ homeless community members, this requires considering secondary impacts [29] and social vulnerabilities [30,31] alongside immediate medical considerations during pandemic planning, response, and recovery.

Methods

This research is exploratory and descriptive in nature, and because the researchers have no influence on the emergence or impact of COVID-19 on participants or the clients they serve, it was a unique quasi-experimental opportunity [32,33]. The research setting also allowed for causal inference in that the researchers can make comparisons of the impact on participants before and after the arrival of COVID-19. While confidence in the results are challenged by the lack of a true experimental model [34], the applied focus of this research allows for the generation of results that can be used by agencies participating in the project for developing policies and procedures [33-35], as well as exploring alternatives to the current service provision model.

Participants

Working directly alongside disadvantaged groups through their representatives or indirectly through service providers is integral to understanding lived experiences and informing future pandemic planning and response [36]. As demonstrated by Leung, et al.’s study following the severe acute respiratory syndrome (SARS) outbreak in 2003, homeless service providers and public health officials were key for understanding lessons learned, such as using two-way communication systems, providing staff training, accessing supplies, responding to homeless shelter closures and staff shortages, and having a clear plan to quarantine and treat those who became ill (2008). As an interdisciplinary study [6], this research recruited participants involved in service provision to PEHCD working in

social services, healthcare, and criminal justice.

Data

The research design involved mixed methods, utilizing quantitative and qualitative approaches [35]. A survey was developed for this research to capture participants' experiences regarding service delivery before and after the advent of COVID-19. Participants were also invited to participate in an interview containing four semi-structured questions. The data was collected through virtual/none face-to-face digital technology between March and November 2021 and involved two phases. Phase 1 was a pilot study in Victoria, BC [37] and Phase 2 expanded the research across BC.

Procedure

Ethical approval for this research was provided by the Research Ethics Board at Royal Roads University. The survey and interview guide was developed by the research team and reviewed by two peer service providers prior to initiating a pilot study in Victoria, BC. The pilot study took place between March and May 2021. Following the pilot study, the survey and interview guide were slightly modified to encompass expanded communities and regions. Phase 2, the expanded study, took place between June and November 2021.

Four community-based research assistants (RAs) were hired to support survey outreach and conduct regional interviews for Phase 2. Training and a community-based research toolkit were provided to support consistency in approach across the RAs. Regions and communities were divided amongst the four RAs based on their familiarity with the sector in those geographical locations.

Participants were then invited to partake in the research by reaching out to organizations providing services to PEHCD across BC. Once an agency was contacted and service providers were interested in the research, a snowball approach [38] was used to identify other participants and organizations. Participants first completed the survey (N=119), and if interested, signed up for an interview. All interviews (n=25) were conducted virtually due to the COVID-19 pandemic.

Analytical approach

The survey contained both quantitative and qualitative questions. The quantitative questions were analyzed descriptively in SPSS. The qualitative responses from the surveys were analyzed thematically in NVivo. The interviews were transcribed and analyzed in NVivo alongside the qualitative survey comments, using a combination of priori codes/deductive analysis and emerging codes/inductive analysis.

Results

Service provision challenges

A total of 119 service providers (N=119) from 75 organizations participated in the research. The majority of survey participants identified as female (70.33%). Age ranged from 20 to 70 plus. The median age range was 40-49. Of those who participated in the survey, 25 (n=25) volunteered to be interviewed. 46 organizations supported more than 100+ people/day.

Regarding impact, only 19 participants indicated that the pandemic had not limited services. Since March 2020, 82% of staff

Table 1: Challenges Delivering Services to PEHCD during the COVID-19 Pandemic.

Challenge	Percent	n
Access to COVID-19 information	21.11%	19
Understanding of COVID-19 information*	42.22%	38
Access to supplies (e.g., masks and hand sanitizer)	35.56%	32
Existing facility design/space*	65.56%	59
Meal program provision	24.44%	22
Health service provision	18.89%	17
Social service provision	33.33%	30
Lack of funding	30.00%	27
Increased risk of overdoses due to isolation*	51.11%	46
Staff shortages due to COVID-19 exposure/illness*	60.00%	54
Working remotely*	37.78%	34
Access to/distribution of digital technologies	27.78%	25
Other challenges		
Loss of funding		
Redesign services (e.g., food delivery)		
Poor/conflicting information from authorities		
Misinformation (COVID-19 & services)		
Available safe space		
Limit of programs offered		
Population left vulnerable/no shelter		

received COVID-19 training and most organizations adapted their services in response to COVID-19. Adapting services included responding to new and expanding service groups. New and expanding service groups were reported by 50% of participants and included: (1) people who were experiencing homelessness for the first time due to pandemic-related job loss, (2) people who are low income and experiencing food insecurity, (3) more complex mental health needs, (4) seniors, (5) students, and (6) family members fleeing violence in the home (e.g., intimate partner violence and child abuse).

Significantly, 90 participants indicated challenges experienced during the COVID-19 pandemic. Table 1 provides a distribution of the challenges identified by participants. The most reported challenges experienced by participants included: (1) existing facility design/space (65.56%), (2) staff shortages due to COVID-19 exposure/illness (60%), (3) increased risk of overdoses due to isolation (51.11%), (4) understanding COVID-19 information (42.22%), and (5) working remotely (37.78%). The quantitative and qualitative findings from the pilot study were then triangulated with the data from the other cities. Next, the quantitative findings were triangulated with the quantitative and qualitative survey comments and interviews from the pilot study. We then triangulated these quantitative findings with the quantitative pilot study and qualitative survey comments and interviews. The time lapse between the pilot study (March and May 2021) and the expanded study (June to November 2021) explains how access to supplies (e.g., masks and hand sanitizer), indicated as a key challenge in the pilot study, becomes replaced by working remotely as a key challenge during the expanded study.

Start with understanding latent privilege

COVID-19 myth:

“We’re all in the same boat.”

Reality:

*“We’re not on the same boat
because you have a luxury boat,
and we have rowboats.”*

(shelter, food solutions & community services provider)

At the beginning of the pandemic when communities were locked down overnight, in many cases PEHCD went several weeks before services could be reopened, and in some cases, months. This is problematic because PEHCD do not have the privilege of sheltering at home from a pandemic and require community services for survival. Various participants discussed the impact of services being shut down overnight. The closing of public washrooms and showers meant many PEHCD did not have access to hygiene and sanitation facilities. The closing of libraries meant PEHCD were often cut off digitally from the rest of the world, including loved ones and COVID-19 information from health authorities. In severe cases where shelters closed rather than adapted, this meant more PEHCD were left to sleep rough on the street or in tent encampments. These findings highlight the need for community and social services to be deemed essential services during pandemics, epidemics, outbreaks, and extreme weather events.

Meet people where they are at

“We couldn’t see them. We couldn’t meet with them. We couldn’t transport them...Individuals could not access the help that they needed to get through the day.”

(supportive recovery & homeless outreach services provider)

Several service providers noted that bureaucracy was rearranged to enable interdisciplinary and interagency collaboration and adaptation. This often involved working across boundaries to meet PEHCD where they are at. Key services were adapted to meet PEHCD’s needs, such as pop-up clinics, mobile services, takeout meals, and continued service provision aided by plexi-glass screens. Recognizing that PEHCD have different information access needs than people who are housed and digitally connected, participants commonly helped PEHCD learn about service changes and COVID-19 information through in-person communication (83.33%) and printed communications (67.78%) (In contrast to 31.11% digitally/online and 26.67% over the phone). One service provider shared about a creative communication strategy that involved an on-street kiosk where PEHCD could go to access reliable information. These findings build on the results of previous infectious disease studies [23-25,36,39] that highlighted the importance of communicating service changes and safety protocols during pandemics, epidemics, outbreaks, and extreme weather events.

Don’t forget the big picture

“Socially engage, safely...isolation is hard.”

(shelter & community services provider)

Even prior to the COVID-19 pandemic, BC and much of Canada

have been experiencing housing affordability and opioid crises. Both housing affordability and the opioid crises are amongst the secondary impacts that have gotten worse over the course of the pandemic. As highlighted by the social provision challenges experienced during the pandemic, increased risk of overdose due to isolation amongst PEHCD was reported by 51.11% participants. These research findings were triangulated with reports from the BC Coroners Service. BC saw a surge of overdose-related deaths during the initial lockdown phase, where deaths rose from 76 in February 2020 to 170 in May 2020, 93 percent higher than the same period a year earlier [1]. Since the declaration of the Opioid Crisis in 2016, BC has recorded more than 8,800 deaths related to overdose, primarily opioids, with 2021 alone seeing 2,224 deaths [40,41]. By April 2021, BC was reporting an average of six deaths per day related to illicit drug overdoses [41,42]. We hypothesize the increase in overdose-related deaths during the pandemic is due to the substance use buddy system (e.g., not using alone) being broken and emergency medical response altered by social isolation protocols. Addressing sociostructural causes of homelessness and opioid use via preventative policy development for housing affordability and integrated healthcare is critical across BC and the rest of Canada.

Plan for increasing environmental stressors

In addition to BC’s significant housing and healthcare needs, BC and many other parts of the world are experiencing catastrophic environmental stressors. During Phase 2 of this research, over the course of six months, BC experienced:

- A heat dome, characterized by historical temperature highs in many communities across the province;
- A severe wildfire season, resulting in human fatalities and ecosystem and wildlife loss;
- Atmospheric rivers, with catastrophic damage to communities, agrifood and livestock loss, and in some cases, total loss of homes;
- Rare snowstorms, paralyzing roads and communities.

Planning for environmental stressors is critical because extreme weather events require service providers to redirect their attention to these emergency situations. When service provision is caught in a cycle of reactive response to environmental stressors alongside ever-changing pandemic restrictions, preventative, long-term efforts to end homelessness get put on pause. Environmental stressors warrant further research related to service delivery to PEHCD.

Discussion

This research shows how socioeconomic disparity is an integral part of the intersectional conversation on structurally disadvantaged groups. As highlighted in former infectious disease studies [29-31], our findings confirm the need for secondary impacts and social vulnerabilities to be considered alongside immediate medical considerations to ensure health equity in pandemic planning, response, and recovery. Increasingly, environmental stressors also need to be considered alongside social vulnerabilities and secondary impacts. These guiding principles can be used to identify social vulnerabilities, secondary impacts, and environmental stressors during future pandemics, epidemics, outbreaks, and extreme weather events:

- Start with understanding latent privilege
- Meet people where they are at
- Don't forget the big picture
- Plan for increasing environmental stressors

Pandemic planning, response, and recovery that only considers immediate medical needs is detrimental to social determinants of health (e.g., access to income and social protection, housing, food and basic necessities, childcare, healthcare for non-pandemic acute and chronic health needs, etc.), particularly amongst structurally marginalized groups such as PEHCD.

While pandemic planning, response, and recovery is complex, this complexity can be lessened when governments and health authorities start with what is already known. For example, pre-pandemic literature could have been used as a starting place for pandemic planning and response [23-25,29-31,36,39]. Furthermore, basic epidemiology information on airborne viral transmission seems to have been forgotten by centers of disease control at the beginning of the pandemic (e.g., first informing the public that masks are an ineffective protection measure, and then correcting this statement based on existing healthcare knowledge). Since the onset of the COVID-19 pandemic, additional research has emerged on the need to consider diverse socioeconomic characteristics during pandemics [43-48]. This calls for connecting research with policymaking and practice to avoid siloed, one-size-fits-all pandemic planning, recovery, and response efforts.

Moving forward: A New Paradigm for Research with PEHCD

Transdisciplinary research offers a more holistic and realistic approach to address homelessness, with a "...consensus that transdisciplinary approaches involve integrating and transcending individual disciplines enabling development and application of new research strategies and knowledge..." [49]. Transdisciplinary research/approaches need to be balanced, equitable, inclusive, and non-hierarchical, including community members with lived/living experience. While many communities across Canada have established homeless coalitions that bring together service providers and various levels of government, there is often a lack of representation from people with lived/living experience and private sector housing stakeholders (e.g., developers, suppliers, etc.). Previous research on tent cities in BC showed that the absence of PEHCD in discussions related to their lives related to the lack of affordable housing and integrated healthcare, paternalism, and ineffective services often trap PEHCD in a cycle of homelessness. The result is the development of tent cities/encampments as a form of community and as social protest [50]. Furthermore, when industry/commerce does not have a seat at the table, we continue to underestimate the significant impact that neoliberal government policies (i.e., free market trade) has on housing affordability, hindering collective solutions moving forward (e.g., inclusionary zoning, mixed zoning, community housing, etc.).

To move forward towards a true collective approach to address homelessness, transdisciplinary research/approaches should include teams with diverse representation from PEHCD, social work, healthcare, justice services, employment services, volunteers,

education, research, policy makers/government, and industry/commerce. What starts as transdisciplinary research can expand to interagency collaboration in the development and delivery of services to PEHCD. Notably, the experiences of service delivery organizations during the early days of COVID-19 exemplify their abilities to respond effectively and efficiently to a unique and challenging situation.

Conclusion

This research shows that several gaps emerged in services to PEHCD with the isolation practices associated with COVID-19. Yet, organizations have been effective in adapting service delivery to meet newly formulated safety protocols. Despite challenges, service providers largely continued to meet their clients' needs. However, in many cases PEHCD went several weeks before services could be reopened, and in some cases, months. Social isolation practices and the gaps in services resulting from the virus have further marginalized a disadvantaged population. Planning, response, and recovery efforts for future pandemics, epidemics, outbreaks, and extreme weather events require secondary impacts, social vulnerabilities, and environmental stressors to be prioritized alongside medical actions and guided by transdisciplinarity.

Declarations

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- There are no conflicts of interest between the authors and other agencies or persons.
- Ethical approval was obtained by the research Ethics Office of Royal Roads University and is available upon request.

References

1. The Canadian Press. Feds should take action on B.C.'s overdose epidemic as it has with COVID-19: chief coroner. CBC. 2020.
2. Bankston CL. Sociology basics (Ser. Magill's choice). Salem Press. 2020.
3. Gallagher EB, Ferrante J. Medicalization and social justice. *Social Justice Research*. 1987; 1: 377-392.
4. Wardrope, A. Medicalization and epistemic injustice. *Medicine, Health Care and Philosophy: A European Journal*. 2015; 18: 341-352.
5. Repko AF. *Interdisciplinary research: process and theory* (2nd ed). SAGE Publications. 2012.
6. Gethmann CF. *Interdisciplinary research and trans-disciplinary validity claims* (Ser. Ethics of science and technology assessment). Springer. 2014; 43.
7. Turner A, Krecsy D. Bringing It All Together: Integrating Services To Address Homelessness [SPP Research paper]. University of Calgary School of Public Policy Publications. 2019; 12.
8. Britten L. Closed Surrey rec centre to provide self-isolation space for homeless people. CBC News. 2020.
9. Clow C. COVID-19: Vernon emergency shelter first in province to add sleeping pods. Maple Ridge-Pitt Meadows News. 2020.
10. Canavan R, Barry MM, Matanov A, et al. Service provision and barriers to care for homeless people with mental health problems across 14 European capital cities. *BMC Health Serv Res*. 2012; 12: 222.
11. Stergiopoulos V. Collaborative Approaches to Community-Based Mental Health Care for Homeless People: Toronto's Inner City Health Associates. In Guirguis-Younger M, McNeil R, Hwang SW. (Eds.), *Homelessness & Health in Canada*. Les Presses de l'Université d'Ottawa. 2014.
12. Public Safety Canada. Homelessness, victimization and crime. 2007.

13. Reichert J & Mayer C. The intersection of homelessness and the criminal justice system. Illinois Criminal Justice Information Authority. 2018.
14. Ali N. Addiction, law enforcement & homelessness. Homeless Hub. 2016.
15. Hartmann McNamara R, Crawford C, Burns R. Policing the Homeless: Policy, Practice, and Perceptions. *Policing: An International Journal of Police Strategies & Management*. 2013; 36: 357-374.
16. Benfer EA, Mohapatra S, Wiley LF, Yearby R. Health Justice Strategies to Combat the Pandemic: Eliminating Discrimination, Poverty, and Health Disparities During and After COVID-19 (SSRN Scholarly Paper ID 3636975). Social Science Research Network. 2020.
17. Settembrino MR. Hurricane sandy's impact on the predisaster homeless and homeless shelter services in new jersey. *Journal of Emergency Management (Weston, Mass.)*. 2016; 14: 7-16.
18. SUDD (Substance Use Disorders and Disasters).
19. Boustead B, LaTourrette T; for RAND Safety and Justice Program. NIOSH Disaster Science Research Initiative: Summary of the July 2014 DSRI Workshop. National Institute for Occupational Safety and Health. 2014.
20. SAMSA (Substance Abuse and Mental Health Services Administration). 2020.
21. Basrur S. Tuberculosis Prevention and Control Services for Homeless/Underhoused Persons and Inmates of Correctional Facilities. City of Toronto, Medical Officer of Health. 2004.
22. Karb R, Samuels E, Vanjani R, Trimbur C, Napoli A. Homeless Shelter Characteristics and Prevalence of SARS-CoV-2. *Western Journal of Emergency Medicine*. 2020; 21: 1048-1053.
23. Buccieri K, Schiff R. (Eds.). *Pandemic Preparedness & Homelessness: Lessons from H1N1 in Canada*. Canadian Observatory on Homelessness. 2016.
24. Pauly B, Perkin K, Cross G. Pandemic Planning and Preparedness in the Context of Homelessness: The Case of Victoria, British Columbia. In K Buccieri & R Schiff (Eds.), *Pandemic Preparedness & Homelessness: Lessons from H1N1 in Canada*. Canadian Observatory on Homelessness. 2016.
25. International Centre for Infectious Diseases. *Issues in Pandemic Influenza Responses for Marginalized Urban Populations: Key Findings and Recommendations from Consultation Meetings and Key Informant Interviews*. 2010.
26. Gaetz S, Donaldson J, Richter T, Gulliver T. *The State of Homelessness in Canada 2013*. Homeless Hub. 2013.
27. Woo A & Stueck W. A look at B.C.'s effort to move homeless people indoors during the COVID-19 pandemic. *The Globe and Mail, B.C.* 2020.
28. Gaetz S. *The Struggle to End Homelessness in Canada: How We Created the Crisis, and How We Can End it*. *The Open Health Services and Policy Journal*. 2010; 3: 21-26.
29. Kass NE, Otto J, O'Brien D, Minson M. Ethics and Severe Pandemic Influenza: Maintaining Essential Functions through a Fair and Considered Response. *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science*. 2008; 6.
30. O'Sullivan T, Bourgoin M. *Vulnerability in an Influenza Pandemic: Looking Beyond Medical Risk*. 2010.
31. Mosher J. Accessing Justice Amid Treats of Contagion. In K Buccieri & R Schiff (Eds.), *Pandemic Preparedness & Homelessness: Lessons from H1N1 in Canada*. Canadian Observatory on Homelessness. 2016.
32. Fawcett J, Garity J. *Evaluating research for evidence-based nursing practice*. Philadelphia: F.A. Davis Publishing. 2009.
33. Byrne D. *Research design*. SAGE. 2017.
34. Dane FC. *Evaluating research: methodology for people who need to read research (2nd ed.)*. Sage Publications. 2018.
35. Creswell JW, Creswell JD. *Research design: Qualitative, quantitative and mixed methods approach (5th ed.)*. SAGE Publications. 2018.
36. Uscher-Pines L, Duggan PS, Garoon JP, Karron RA, Faden RR. *Planning for an Influenza Pandemic: Social Justice and Disadvantaged Groups*. The Hastings Center Report. 2007; 37: 32-39.
37. Young MG & Van Tuyl R. Identifying the impact of COVID-19 isolation practices on persons experiencing homelessness with concurrent disorders. *Research and Review Insights*. 2021; 5.
38. Palys TS and Chris Atchison. *Research Decisions: Quantitative, Qualitative, and Mixed Method Approaches*. 5th ed. Toronto: Nelson Education. 2014.
39. Leung CS, Ho MM, Kiss A, Gundlapalli AV, Hwang SW. Homelessness and the Response to Emerging Infectious Disease Outbreaks: Lessons from SARS. *Journal of Urban Health*. 2008; 85: 402-410.
40. The Canadian Press. Panel calls for urgent action on safer drug supply in B.C. *APTN News*. 2022.
41. Wadhvani A. 6 people died per day from B.C.'s toxic drug supply last year. *Victoria News*. 2022.
42. The Canadian Press. Almost six people died every day of drug overdoses in B.C. in April, coroner service says. *The Globe and Mail*. 2021.
43. Stojkoski V, Utkovski Z, Jolakoski P, Tevdovski D, Kocarev L. The Socio-Economic Determinants of the Coronavirus Disease (COVID-19) Pandemic (SSRN Scholarly Paper ID 3576037). Social Science Research Network. 2020.
44. Zambakari C, Lipsitch M, Ioannidis JPA, Fuller J, et al. *The Great Disruption: COVID-19 and the Global Health Crisis* (SSRN Scholarly Paper ID 3670455). Social Science Research Network. 2020.
45. Joseph S. *COVID 19 and Human Rights: Past, Present and Future* (SSRN Scholarly Paper ID 3574491). Social Science Research Network. 2020.
46. Benfer EA, Mohapatra S, Wiley LF, Yearby R. Health Justice Strategies to Combat the Pandemic: Eliminating Discrimination, Poverty, and Health Disparities During and After COVID-19 (SSRN Scholarly Paper ID 3636975). Social Science Research Network. 2020.
47. Hellman D & Nicholson K. Rationing and disability: The civil rights and wrongs of state triage protocols (SSRN Scholarly Paper ID 3570088). Social Science Research Network. 2021.
48. Bardosh K, Figueiredo A. de, Gur-Arie R, Jamrozik E, Doidge JC, Lemmens T, et al. *The Unintended Consequences of COVID-19 Vaccine Policy: Why Mandates, Passports, and Segregated Lockdowns May Cause more Harm than Good* (SSRN Scholarly Paper ID 4022798). Social Science Research Network. 2022.
49. Pineo H, Turnbull ER, Davies M, Rowson M, Hayward AC, Hart G, et al. *A new transdisciplinary research model to investigate and improve the health of the public*. *Health Promotion International*. 2021; 36: 481-492.
50. Young MG, Abbott N, Goebel E. Telling their story of homelessness: Voices of Victoria's Tent City. *Journal of Social Distress and Homelessness*. 2017; 26: 79-89.