THE OPIOID CRISIS AND HARM REDUCTION IN VANCOUVER'S DTES: AN APPRECIATIVE INQUIRY OF ADULT EDUCATION APPROACHES AND THE CHALLENGES OF SOCIAL MEDIA USE BY PUBLIC HEALTH WORKERS AND PEER EDUCATORS

by

DENNEISHA TRACEY-ANN GRIFFIN-PINNOCK

MS. Ed. (Hons.), Walden University, 2018

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE AND POSTDOCTORAL STUDIES

(Educational Studies)

THE UNIVERSITY OF BRITISH COLUMBIA

(Vancouver)

June 2021

The following individuals certify that they have read, and recommend to the Faculty of Graduate and Postdoctoral Studies for acceptance, the thesis entitled:

The Opioid Crisis and Harm Reduction in Vancouver's DTES: An Appreciative Inquiry of Adult Education Approaches and the Challenges of Social Media Use by Public Health Workers and Peer Educators

submitted by Denneisha Tracey-Ann Griffin-Pinnock in partial fulfillment of the requirements for

the degree of Master of Arts

in Educational Studies

Examining Committee:

Pierre Walter, Professor, Educational Studies, UBC
Supervisor

Michelle Stack, Associate Professor, Educational Studies, UBC
Supervisory Committee Member

Shauna Butterwick, Professor Emeritus, Educational Studies, UBC
Additional Examiner

Abstract

This qualitative study focused on how public health workers as adult educators in Vancouver's Downtown Eastside (DTES) are creating supportive environments to foster community, education for equitable participation, empowerment and improved educational programming to address the current opioid crisis. Drawing on the theory of community empowerment as a conceptual framework, the study sought to answer four research questions through a process of Appreciative Inquiry: (a) What challenges and successes do grassroots approaches to public health encounter in promoting harm reduction activities? (b) What educational roles do residents of the Downtown Eastside play in harm reduction strategies? (c) How do health workers use social media as part of their work in Vancouver? (d) What public education strategies could be used to heighten the vitality of public health education in the Downtown Eastside?

An appreciative inquiry methodology was employed to understand the current working relationships and aspects of community culture and public education that are proving effective in addressing the opioid crisis in the Downtown Eastside, and how social media platforms or apps are used for education and positive social change. Data for the study was collected through a view of media and other sources, and AI interviews with four academic experts on the opioid crisis in Vancouver. Interviews were recorded, transcribed, and coded for themes.

The four study findings were: (a) grassroots efforts such as face to face meetings by public health workers have proven effective in engaging with people who use drugs; (b) social media usage by public health workers for increased harm reduction has potential, but also a number of limitations; (c) social media as a community support requires deeper consideration and investigation for more positive results in communities affected; and (d) a two-way adult

education and learning process is taking place in these communities, where people who use drugs are seen as experts alongside others involved in community education around the opioid crisis. These study results have important implications for community empowerment theory and public health programmes designed for adult learners situated in settings where there is high evidence of opioid addiction and overdose.

Lay Summary

This study looked at how residents at the Downtown Eastside and other communities experiencing high levels of opioid overdose have benefited from community-based approaches by public health workers to promote harm reduction.

Four academic experts on public health education and the opioid crisis were interviewed for the study. They reported that social media may potentially encourage community education and support for people who use drugs, but the most effective methods of community education, involvement and advocacy have come mainly through face-to-face meetings with people with lived and living experiences and public health professionals within the Downtown Eastside. Participants also reported that partnerships with journalists and independent activists have contributed to community empowerment.

This study is important for adult educators interacting and engaging with people who use drugs and, in general, adult learners in public health education, affected communities, and social networking settings.

Preface

This thesis is original, unpublished, independent work by the author, Denneisha Tracey-Ann Griffin-Pinnock, and was granted ethical approval by the University of British Columbia Behavioural Research Ethics Board – Certificate Number H20-03327.

Table of Contents

List of Figures

Acknowledgements

I am greatly indebted to all those who assisted me during this research process. In particular, I would like to thank Professors Pierre Walter and Michelle Stack for their continued support in navigating the research process and for patiently answering all my questions at various stages of working on the project. Also, I must pause to thank persons who, during my professional career, openly shared with me their struggles with opioid addiction and the role community support played in helping them to overcome drug addiction and become better agents of positive social change.

I would also like to acknowledge the help and support received from my close friends and family during these very unprecedented times: your assistance has been invaluable. Most importantly I am grateful to my Creator, in whom I find strength to pursue that which I am made to do.

Dedication

To my beloved cousin Bevon, who is the inspiration for this research study and to my beautiful daughters Davina, Gabriel and Daniellia who make me want to be a better version of myself.

Chapter 1: Introduction

Throughout my fourteen-year career as an educator (K-12) and mentor, I have interacted with a number of youths and adults who have struggled with drug addiction and feelings of isolation due to their illness. In an effort to offer holistic educational and family support, I have often taken a community-based approach to fostering bonds from within the school community and by extension into the wider community to facilitate positive social change. Due to this desire to have a more extensive reach, I completed a graduate degree in Teacher Leadership, and subsequently pursued a graduate degree in adult learning and education so that I could further understand the dynamics of adult learning and programme planning to be better equipped to engage with, train, and support diverse adult learners.

Based on the nature of my training, I see public health workers as adult educators, constantly imparting knowledge and enabling people to become more responsible for their own health and that of their communities, with the understanding that public health needs to be addressed as a collective concern (Mayfield-Johnson, 2011). Further, my own lived experience and concern for those dealing with the impacts of opioid addiction significantly contributed to narrowing my MA research focus to adult educators working on the ground in the Downtown Eastside. Of greatest interest to me is how their roles contribute to increased harm reduction efforts via trainings, workshops and social gatherings. Due to the fact that learning is a lifelong experience, in this technologically driven era, I also believe it is imperative that we explore other innovative social media strategies that could potentially result in greater collective support for harm reduction. It is based on these premises that I have chosen community empowerment theory (Wallerstein and Bernstein, 1994; Persily and Hildebrandt, 2008) as the conceptual framework for this research project. The field of public health benefits greatly from the

integration of adult education programme planning and evaluation to make significant contributions to positive social change in communities.

A small sample of expert academics in the field of public health, opioid addiction and harm reduction strategies who have done research and work in the Downtown Eastside (DTES) and other such communities, reported having observed the remarkable achievements of these communities through peer-support and collaboration with public health workers and other stakeholders. Their medical and or research perspectives have helped to shape the narrative of this research. These academic health workers are working assiduously to ensure they develop, and plan programmes based on the explicitly stated needs of the community for equitable participation, empowerment and education. Their experiences and knowledge of public health education on the DTES are detailed and examined in this thesis.

In this study, I argue that it is useful to explore how community empowerment theory has been a meaningful feature of the aforementioned communities, and how social media can potentially be employed in adult learning contexts not only for educational purposes, but also to develop an inclusive space for shared experiences, empowerment, and advocacy for change in relation to increased harm reduction measures.

In the remainder of this introductory chapter, I provide definitions of adult learning, community empowerment theory, harm reduction and social media, and explain the rationale and purpose of the study; the research questions I sought to answer and the study's significance.

Defining Adult Learning and Education

Adult educator Eduard C. Lindeman (1926) defined adult education as a lifelong process that is an inclusive concept where one's whole life experience is based on continuous learning, and therefore renders education as being more than what is taught by way of a structured curriculum (p. 6). It is instead informal learning, a non-authoritarian, cooperative venture "the chief purpose of which is to discover the meaning of experience. A quest of the mind which digs down to the roots of the preconceptions which formulate our conduct" (Lindeman, 1956, p. 66). Lindeman also postulated that the learner's experience is the highest value in adult education because it is not hinged or tied to anyone else's perspectives but is internal processing that involves simultaneously gaining knowledge and thinking. It influences how one views and navigates life.

Malcolm Knowles later introduced the term andragogy, which simply means helping adults learn (Knowles, 1978). Knowles further developed five assumptions or characteristics of how adult learners engage in the learning process based on their: a) self-concept, b) learning experience, c) readiness to learn, d) orientation to learning, and e) motivation to learn. Like Lindeman, Knowles (1978) saw the concept of experiential analysis and perspective as being foundational to adult learning. He too emphasised the need for adult learners to be able to contribute to the learning process based on their own lived experiences, therefore being able to share in discussions, debates and forums that reflect the organization of shared perspectives for some form of social purpose (p. 16).

Both Lindeman's (1926) and Knowles' (1978) definitions are of great significance to this research study as they offer insight on the major role adult learners play in the learning process. They also reiterate the point that it is the shared lived experience that allows for a more collective and committed response in working towards achieving a particular goal.

Defining Community Empowerment

The World Health Organisation (2009) defines community empowerment as a means of enabling communities to regain or increase control over their lives. The Royal Society of Edinburgh (2014) further states that an empowered community is one "which is confident, resilient, independent and energetic, which has the capacity to identify problems and design solutions at the local level, and which is inclusive and voluntary" (p. 8). In so doing, the members "take the lead" in ensuring that the community gets what it needs to function "optimally". This therefore means that persons in the community not only recognize a problem but further identify ways in which they may be able to influence change or contribute to the design and implementation of services that leads to collective support in addressing the issue (The Royal Society of Edinburgh, 2014).

For this study, I have adopted The Royal Society of Edinburgh's definition of community empowerment. It encapsulates the essence of how an empowered society functions and further supports my own belief that those within a community determined to initiate and develop practices that can potentially result in positive changes must exhibit characteristics such as determination, innovation, being opened to learning new methods/models for growth, a willingness to form partnerships and embrace an integrative approach to learning, all of which are hallmarks of Knowles (1973) principles of andragogy. In Chapter 2, I will further examine the literature on community empowerment and Knowles' principles of andragogy to support The Royal Society of Edinburgh's (2014) definition in general as well as from a public health perspective.

Defining Harm Reduction

HealthLink BC (2021) defines harm reduction as a public health approach that focuses on reducing harms related to substance use. The Canadian Mental Health Association (2021) further describes harm reduction as being evidence-based, and client-centred approaches that aim to reduce the health and social harms associated with addiction and substance use by providing people who use drugs (PWD) with options or strategies to minimize harms and living safer and healthier lives.

Defining Social Media

According to the online Merriam Webster dictionary (2021), social media are forms of electronic communication (such as websites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (such as videos). Bekalu, McCloud and Viswanath (2019) noted that social media networks enable individuals and communities to develop and maintain social capital or resources such as information and support from other members within the network. This will be explored in depth in the literature review and findings.

Situating Myself, the Researcher

This study is connected to both my personal and professional interests and experiences throughout the years.

Personal experiences

I was born in the capital city of Kingston, Jamaica during a period of high political unrest. The white supremacist ideology still flourished post British independence (1962). Heads

of government were mainly white and any opposition against their leadership often opened the door for more political divide and tension in an already highly stratified Jamaican society. The fact that I was born and raised in an inner-city community by a single mom, during the 1980s, around the time of the bloodiest election in the nation's history (Helps, 2012), meant that I was at the lowest rung of the ladder.

I grew up exposed to a number of illicit activities and was, like many of my peers, likely to become a victim of my circumstances. It was during those formative years of my life that I heard my playmate's mom being called a 'drug mule' and I queried what the term meant. Subsequent to my learning what her mom was doing, I witnessed vicious drug related crimes and also saw some of the young men that I grew up with change before my very eyes. Some became both loud and aggressive, seemingly very dangerous as they were always talking to themselves or threatening to attack others, while others became withdrawn, afraid and frail, almost a shadow of their former selves. Many others were murdered, and some died by overdose.

During my late teens, my cousin's marijuana was laced with more powerful drugs by someone he had hosted a number of times at his house parties. Due to this, he was later diagnosed with schizophrenia, which severely impacted the entire family; the reality that mental illness through drug consumption was not selective, hit us hard. This was not supposed to happen to a member of our family though both us and the neighbours knew that particular illicit substances were everywhere in sight and that illicit activities were taking place at his parties. Did we all just ignore what was happening? Or were we more concerned about not being considered 'an informa'?

The realities of the devastating impacts of the drug trade became more pronounced when I left my island's shores to take up the position of Literacy Specialist in a rural community of a

neighbouring Caribbean Island. While there, I quickly realized that this monstrous trade of drug trafficking could be found everywhere. Some of my students' parents were inebriated by the 'white lady' that flowed to their shores making some rich and depraved, some able to continue their daily lives, be active parents and employees, while others turned to stealing to get a 'quick fix'. I also learned that the cellphone played a major role in marketing the drug as soon as it was readily available. Once again, I witnessed young men caught up in a web of either selling or buying drugs. The number of persons affected by substance abuse often overwhelmed the public health workers, as in some instances they had very little resources available and had to refer patients overseas for treatment. In all of this, it was common practice for persons in small communities to sit and talk about who they knew were selling the illegal drugs, but no one was willing to share this information with the police.

Professional career

After seeing what happened to my cousin and others from the different communities in which I lived, my resolve for wanting to impact positive social change grew. This I was able to accomplish as an educator, public speaker and mentor to youths (males in particular), who came from 'broken' or impoverished homes and communities where it was deemed necessary to 'hustle' in order to live what they termed 'a decent life' and also to those who participated in illicit drug related activities for gang affiliation. Throughout my fourteen years in the classroom, I took a community approach to fostering awareness. I intentionally collaborated with guidance counselors or drama teachers to host events such as Boy's Day and Girl's Day and used speech and drama activities to highlight topical issues related to youth empowerment and support. Further, I hosted and also participated in workshops with teens and 'troubled youths', and in so doing identified innovative, cooperative measures to building self-confidence and self-esteem, along with

generating support from the school communities at large. I was also employed at the Jamaican Foundation for Lifelong Learning as a Literacy Development Officer, where I applied my training in Life Skills and mentorship to engage persons one-on-one at adult education centres (AECs) in both rural and inner-city communities wanting to advance socially, to pursue educational paths for upward mobility. The various roles held as an educator and experiences had, led to my being invited to speak to graduating classes, giving presentations at forums on youth leadership and empowerment along with forging relationships with community leaders and gaining access to share in structured activities both in Jamaica and abroad.

During my first semester at UBC in 2018, while watching CTV news, I was devastated by the grim statistics of the number of persons who had already died by drug overdose halfway through the year. Further, on my first trip to Vancouver's Waterfront via East Hastings Street, I not only saw a number of homeless persons but also drug users, jay walking or crouched on a corner dazed or begging. In the same space, people went about their usual business seemingly unperturbed by the devastating impacts of the opioid epidemic in their communities. It was as if the issue of substance abuse and overdose were exclusive only to the homeless and impoverished. Immediately I had flashbacks of the communities where my cousin, friends, former students, and others resided, and of the lack of collective support that contributed to their demise. As an educator and social advocate, this led me to explore ways in which the public could develop a greater concern for the lives of others and possibly join forces with public health workers to increase harm reduction efforts. More so, I wondered where social media could fit in all of this, as so many of us are members of one media site or the other and have continuous access through our phones.

Many innovative and effective community-based initiatives for health promotion and empowerment have been implemented in Vancouver, perhaps most importantly those that have

promoted harm reduction. In this age of technology and the evolution of social media, various modes of communication are being employed by public health workers to address the growing opioid epidemic on Vancouver's Downtown Eastside (DTES). However, not all residents of Vancouver's DTES have access to these technologies, nor are all social media efforts for health promotion and empowerment for those who do have access to cell phones or computers always effective. Thus, I initially focused my study on how public health workers as adult educators are creating supportive environments, using social media to foster community education for equitable participation, empowerment and improved educational programming to address the current opioid crisis, and to promote harm reduction in particular. I wanted to know as well what challenges health workers faced with the use of social media as a community support strategy, and to understand what are the main reasons preventing DTES residents engaged in drug use from more actively engaging in harm reduction efforts.

Rationale

A number of harm reduction policies and initiatives related to drug abuse have been implemented over the years, including Vancouver's opening of a medically supervised safe injection facility (SIF) in 2003 (Wood, Tyndall, Lai, Montaner and Kerr, 2006), driven by the desire to 'save' lives through "promoting the use of sterile syringes and providing emergency care in the event of overdose" (British Columbia Centre for Excellence in HIV/AIDS, 2009, p. 7). Still, efforts to meet the demands of this crisis have faced the ongoing challenge of an inability of "targeted groups to access programs designed for their benefit" (Kerr, Mitra, Kennedy and McNeil 2017, p.13), along with resistance from policymakers, some local residents and the greater Vancouver community, who fear that the services provided may attract more substance abusers and contribute to a spike in crime (Wood et al., 2006).

I have read numerous documents on public health approaches to the crisis, including the *BC Harm Reduction Strategies and Services Committee Policy Indicators Report* (2014) and *Vancouver's Approach to the Overdose Crisis* (2020), but I have not found research that captures grassroots community education on harm reduction mobilizing through social media. Also, in the academic literature, there appears to be little or no research on why more people in the affected communities are not more actively engaged in coming up with solutions to the problem or joining forces with those leading the charge against the opioid crisis. This has led me to wonder how public health workers as adult educators are creating a supportive environment, what barriers they face and how they work to overcome these; and in particular, how they use social media to foster education for equitable participation, empowerment and improved programming. My aim is to understand how community health and adult education professionals in Vancouver's DTES, in addressing the opioid crisis, work towards community empowerment and harm reduction among drug using residents.

Purpose of Study and Research Questions

The purpose of this research was to examine what effective community-based harm reduction strategies are already in place in the Downtown Eastside and to further understand how public health workers are using or could potentially use social media to foster community, education for equitable participation, empowerment and improved educational programming in an effort to combat the opioid crisis. Further, being very aware as an educator that the interconnectivity of public health awareness programmes and community involvement are imperative in changing the present narrative, the study has the following research questions:

(a) What challenges and successes do grassroots approaches to public health encounter in promoting harm reduction activities?

(a) What educational roles do residents of the Downtown Eastside play in harm reduction strategies?

(b) How do health workers use social media as part of their work in Vancouver?

(c) What public education strategies could be used to heighten the vitality of public health education in the Downtown Eastside?

Embracing a transformative worldview, I take the concept of community empowerment posited by Wallerstein and Bernstein (1994), and further integrated and enhanced by Persily and Hildebrandt (2008) in the field of nursing as a bid to "improving health in communities" (p.131). I argue that social media educates the public about substance abuse by magnifying the power of networking for advocacy and providing effective remediation.

Significance of the research

This research investigates some of the current, effective harm reduction practices in place in the Downtown Eastside. It looks at local context and the role adult education plays in generating community involvement and empowerment for best practices and positive results. Further, the research is geared towards identifying how social media as a tool can be effective in harm reduction approaches, improving public health, and changing behavior (Smith, 2016). Two assumptions are duly acknowledged and considered, which are: a) communication and networking are effective in activating positive change and b) recognition of various approaches to combatting a crisis is important.

This thesis can be understood as interdisciplinary work, promoting learning between the fields of adult education, public health, and communication studies by drawing on literature from across these diverse disciplines.

The remainder of this thesis is organized as follows: Chapter 2 is a review of the literature on adult education, community empowerment, social media and harm reduction as partially determined by sociological factors. Chapter 3 details the study's methodology. In Chapter 4, I present the study findings. Finally, in Chapter 5, I discuss the findings and their implications for educational policy and practice.

Chapter 2: Literature Review

The objective of this literature review is to understand how the integration of adult learning and community empowerment frameworks can contribute to positive changes in harm reduction contexts, and by extension the role social media could play in making public health workers more extensive in their reach. The literature review is arranged in three parts. Part I examines adult education and learning theory, specifically Knowles' (1984) assumptions on adult learning along with the role of the adult educator, to bring into perspective the fact that public health workers are adult educators. Part II examines the impacts of the opioid crisis and the integration of community empowerment theory for positive social change. Part III is an exploration of social media usage in the field of public health for public education, engagement, and collective support.

Part I: Adult education and learning

International organizations including UNESCO have stated the importance of adult education and lifelong learning for a just, inclusive, democratic, and sustainable society. Yet the purpose of adult education is contested. The OECD, for example, focuses on education as central to the economy; whereas Paulo Freire spoke of the importance of adult education in learning to read the word in order to read the world (Freire, 1983).

Lindeman (1926) noted that adult education, unlike conventional education, is built around the learner's "needs and interests" (p. 8) which are inextricably linked to situations such as family life, work, recreation, and community life that regularly require making adjustments. He further noted that the adult learner's lived experiences become a learner's "living textbook," thereby making one able to significantly contribute to his or her own learning and to that of others. He proposed that,

> if we are to create opportunities which will call forth contributory personalities, small beginnings in the realm of the manageable will bring more rapid progress than attempts at reforming such vast and unwieldly units as industry and the state. Each of us is capable of bringing intelligent influence to bear somewhere- in home, neighbourhood, community, trade union, cooperative society, trade association, et cetera. Adult education specifically aims to train individuals for a more fruitful participation in those smaller collective units which do so much to mould significant experience (pp. 56-57).

It is therefore clear that adult learners possess a wealth of experience that, when combined, can become a two-way learning experience for all involved and can also be expansive in serving both self and community.

Adult learning assumptions

In developing his theory, Knowles (1984) cites Lindeman's (1926) perspective of andragogy as clearly articulating the "unique characteristics of adults as learners and the need for methods and techniques for helping them learn" (p. 3) due to being situation-motivated, and experience-centered. Knowles further highlighted the fact that unlike children, adult learners have independent self-concepts and can be self-directed in their learning. Based on this, Knowles (1980) proposed the following assumptions about adult learners: a) they are more self-directed; b) they have a wealth of experience that is an excellent resource for learning; c) readiness to learn is linked to their social roles; d) they are more problem-centered than subject-centered in learning; e) they are intrinsically motivated (Knowles & Associates, 1984); and f) they need to know the reason for learning something (Knowles,1984). Each assumption, as noted by Merriam

and Bierema (2013), “has implications for program design and instruction” by adult educators (p. 47).

Who are adult educators?

According to Knowles (1980), an adult educator is “one who has some responsibility for helping adults to learn” (p. 26). The Institute for International Cooperation of the German Adult Education Association, (DVV International), endorsed this by stating that adult educators are those who “support the development and “updating” of skills aligned to the current and future needs of our societies,” one such skill being active citizenship (2019, p. 7). The adult educator can therefore be seen as,

> someone who works with adults, persons beyond the compulsory school age, for the purpose of learning. We are talking about a relationship in which one aims to facilitate change in the capacity of an adult person or groups of persons. But more than that, an adult educator is someone who, while facilitating learning and change for the learner, is also conscious of his or her own inner learning and growth, and of how that impacts his or her work.
>
> (DVV International, 2019, p. 7).

Knowles (1980) further highlighted the fact that based on the nature of their duties, adult educators who have to work “directly with adult learners on a face-to-face basis” carry out a number of functions such as: a) helping learners diagnose their needs for particular learnings (the diagnostic function); b) planning with learners a sequence of experiences that will produce the desired learnings (the planning function); c) creating conditions that will cause the learners to want to learn (the motivational function); d) selecting the most effective methods and techniques for producing the desired learnings (the methodological function);

e) providing the human and material resources necessary to produce the desired learnings (the resource function); and f) helping the learners measure outcomes of the learning experiences (the evaluative function, pp. 26-27). Knowles (1980) also reiterated the point that adult educators are guided by a desire to accomplish their mission of satisfying three distinct needs and goals:

1) **The needs and goals of individuals** - the main needs are the prevention of obsolescence (p. 27), achieving complete self-identity (p. 28). and the need for maturity (p. 29).
2) **The needs and goals of institutions** - these are served by adult- educational means: a) the development of individuals in the institution's constituency in the direction of the institution's goals for them (p. 33); b) the improvement of institutional operation (p. 34); and c) the development of public understanding and involvement (p. 35).
3) **The needs and goals of society** - which contribute to the development of the kind of citizens visualised as required for the maintenance and progress of that society (p. 36).

Public health workers, based on the criteria outlined by Knowles and the DVV International, are undoubtedly adult educators. Adult education is an integral component of their job description as they continuously engage with members of the society as change agents, by helping to improve the lives of community members. In a bid to properly execute their duties and fulfil their mandates, they have to ensure that all times they are satisfying the three distinct needs and goals listed above.

The Public Health Agency of Canada (2021) states that its role is, "to promote and protect the health of Canadians through leadership, partnership, innovation and action in public health." The reality, however, is that their mission, though significant, can become quite complex as the character of their role continuously changes. Many activists and scholars note there is a need to pay much greater attention to the social determinants of health (Raphael, 2011).

For example, Indigenous people, due to historical and current systemic racism, are more likely to experience and have to deal with poor health outcomes (Hardeman et al., 2018). Aptly stated by Knowles (1980), the demands on adult educators "to prepare more carefully for performing the role have increased proportionately" (p. 36), as has been the case for public health workers in communities greatly impacted by the opioid crisis.

Part II: The opioid crisis and community-based initiatives

According to Philpott (2020), opioid related overdoses are Canada's "most significant public health threat since 1919, when 55,000 people died from the Spanish flu" (p. 17). She further notes that an estimated one million Canadians are at risk of being exposed to toxic opioid products. Of note also is the fact that out of an estimated 8,000 injection drug users (IDU) who are residents of Vancouver, approximately 4,700 live in the DTES, rendering that community more than any other neighbourhood in Canada to be, likely to have high levels of HIV infections, Hepatitis C virus (HCV) and overdose deaths (Jozaghi, 2012). According to Jozaghi and Andresen (2013), people who use drugs face several issues that warrant immediate action provincially and nationally. They further note that statistically, in 2013 in British Columbia, it was already "estimated that there [were] approximately 20,000 injection drug users whose lives [were] further marked by extreme poverty, mental illness and homelessness" (p.1).

This opioid crisis is oppressive, not only for those who are drug users, but also for those communities that are inundated by the large presence of people addicted to opioids, along with the harsh reality that the next victim could very well be their own. As noted by Freire (1970), "oppression – overwhelming control – is necrophilic; it is nourished by love of death, not life" (p. 77). In Vancouver's current opioid situation, this is seemingly true. However, adult education

in the form of liberatory pedagogy could help to demystify the systemic issues surrounding the opioid crisis. Community-led initiatives such as naloxone distribution kits and overdose first aid training are not enough. Rather, community-based initiatives such as more social media health education and networking may be helpful, as health workers and other professionals in the field are struggling to address the problem with the limited resources available.

It is possible that a renewed, dynamic, technologically driven and participatory public education approach, among others, which builds on existing community capacities, will help harm reduction efforts. The CMHA (2018) highlighted the fact that "there is strong evidence to suggest that a public health approach to managing problematic substance use is much more effective than policies that punish and criminalize people who use substances, as failed anti-drug and "war on drugs" policies have shown" (p. 3). It takes community effort to properly address this issue as "community is often seen as the engine of health promotion, the vehicle of empowerment" (Labonte, 1994, p. 260).

Community empowerment

According to the World Health Organisation's (2009) definition of community empowerment, communities regain or increase control over their lives, through the work of local members who become the main assets to social change while external agents or groups are the catalysts to the community acquiring power. Empowerment then becomes a process which comprises, "self-reliance, participation in decision-making, dignity and respect, belonging and contributing to community" (WHO, 2010, p. 1). Hence it is liberatory, as individuals become confident in their abilities to activate positive social change, and along with stakeholders, apply their skills and resources collectively to influence decisions and changes in the larger social

system (Israel et al., 1994). The Royal Society of Edinburgh (2014) reiterated this point by noting that,

> if communities can be empowered and enabled to mobilise around local issues, they are likely to achieve solutions better tailored to the local people than the state, operating in a top-down, centre-to-locality way, ever could. These solutions may not be perfect, but for many people they will be more ideal solutions than those delivered from outside, by local or national government (p. 4).

However, a critical pedagogy approach would go beyond seeing communities that merely need education to be empowered and instead would look at power. What education counts? Who is seen as having knowledge? What knowledge is part of the pedagogic process and not? A critical pedagogy approach starts with the assumption that all have knowledge to share – no learner comes as a blank slate. Critical pedagogy looks at the need for struggle and to see those cast as "addicts" as people with knowledge, often ignored because they are marginalized through structural oppression.

This is the transformative power of the collective that Freire believed in, where through participatory education, community members develop a "sense of identification with a group" (Israel et al., 1994, p. 153), becoming "actors in history, able to name their problems and their solutions to transform themselves in the process of changing oppressive circumstances" (Wallerstein and Bernstein, 1994, p. 142). Apart from being able to articulate and address their own needs, what is even more beneficial to the community is the ability to partner with stakeholders and in so doing lead to a 'co-production' that "can actually remove inequalities which the State has inadvertently introduced" (The Royal Society of Edinburgh, 2014, p. 6).

In response to the opioid crisis, the Provincial Chief Coroner of British Columbia developed a task force that produced the "Cain Report" which recommended that Vancouver

should explore safe injection sites "given the experience with these facilities in Europe. However, no immediate plans were initiated by local health authorities to implement SIFs [Supervised Injection Facilities]" (Kerr, Mitra, Kennedy and McNeil, 2017, p. 1). According to Small, Palepu and Tyndall (2006), due to the unorthodox nature of this healthcare initiative, it took some time before it gained support and traction from public health officials in the community:

> In 2001, it was difficult to find people in authority who would publicly support SIFs and stand by the basic assertion that addiction is primarily a health and social issue, rather than principally a criminal justice issue. By the end of 2002, Vancouver was on the edge of transformation. The narrative that addicts were deserving of caring and life rather than punishment and death was overtaking the conventional narrative supporting law enforcement at all costs (p. 74).

The major challenge came from the stigma associated with drug use and the belief that safe consumption sites "promote addiction and keep people on drugs" (Small, Palepu and Tyndall, 2006, p. 74). However, according to Small, Palepu and Tyndall (2006), based on research of similar sites in Europe and Australia, safe injection sites could help to provide basic health care for members of the society that were difficult to reach. Philpott (2020) highlighted the fact that the Swiss embraced the idea of safe supply after learning that "people live longer, healthier, more productive lives with physician supervised heroin injections as an alternative to street heroin" (p. 18). Despite the negative responses to safe injection sites from the Department of Public Health, those in the community witnessing the increased number of deaths strengthened their resolve to finding ways to save lives and continued to pursue needle distribution and engaging public health officials for policy reform (Kerr, Mitra, Kennedy and McNeil, 2017).

Contrary to the belief held that safe injection sites promote drug addiction, Jozaghi and Andresen (2013, p. 2) argued that "improving access to, and availability of supervised injection through expansion may help reduce persistent risk" of HIV/AIDS and HCV infections along with reduced overdose deaths (as seen in Figure 1). The determination to promote harm reduction in the Downtown Eastside gradually led the City of Vancouver to release its Four Pillar Drug Strategy in 2000-2001, followed by the opening of the Insite Supervised Injection Site (SIS) in 2003 (Kerr, Mitra, Kennedy and McNeil, 2017).

Figure 1: Before and After Safe Injection Sites, Vancouver

Before	***After***
Before the SIS opened, 35% of 598 intravenous drug users were admitted to hospital in a 3-year period, 15% for skin infections.	• Of 1083 SIS users over 4 years, 9% were admitted with cutaneous injection-related infections (including osteomyelitis and endocarditis). • Near one SIS, average monthly ambulance calls with naloxone treatment for suspected opioid overdose decreased from 27 to 9 (relative risk reduction of 67%). • About 6 to 57 HIV infections per year are prevented by the SIS according to mathematical modeling. • There is about 1 overdose at the SIS per 1000 injections; no fatal overdoses have been reported

Source: Ng, Sutherland, Kolber (2017) *Does evidence support supervised injection sites?*

The Insite SIS in the Downtown Eastside not only provide supervised injections but also sensitized and educated people who use drug about the risks of syringe borrowing (Ng, Sutherland, Kolber, 2017).

For public health workers, the theory of community empowerment serves as a way of structuring a community involvement approach that "enables community people to increase their knowledge and health care decision making capabilities" (Persily and Hildebrandt, 2008, p. 131). This is based on the fact that the community is where the public health problem has emerged and continuously evolves. In order to properly address a problem, it has to become a community

concern. Through the process of reflection and action (praxis) the community and stakeholders act to effect positive social change, and public health workers then conceive of power as "an expanding commodity" (Israel et al., 1994, p.153-154). Persily and Hildebrandt (2008) in their research on community participation confirmed that,

> involvement or participation occurs when community people identify their common ground of needs, resources, and barriers, and are able to build support or coalitions to mount a response to a problem through planning, implementing, and intervening. Health care professionals facilitate involvement when they share information and control with community residents by teaching and supporting consumers in identifying and participating in the management of health problems for self, family, and community (p. 133).

That is, community health issues can be resolved or minimized through 'vision and voice' which community empowerment theory endorses through its three active components of community involvement, lay workers (local community members) and reciprocal health (pp. 132-133).

Part III: Social media and public health

Currently, one effective strategy being employed by many medical organizations is the integration of social media platforms like Facebook into programme planning for public education and networking (community organizing) and as quick response or immediate points of contact. In fact, Ventola (2014) argues that,

> Health Care Professionals can use social media to potentially improve health outcomes, develop a professional network, increase personal awareness of news and discoveries, motivate patients, and provide health information to the community (p. 491).

Careless (2015a) endorses this by highlighting the fact that social media tools can be used to "identify and address the needs of adult learners through customization, personalization,

collaboration, and networking" (p. 51).

In Vancouver, health educators are engaged and adept in this approach to "collective action for social change" (Israel, Checkoway, Schulz and Zimmerman, 1994, p. 150). Such an approach is two-way in the sense that health educators not only serve as a resource but more importantly engage as partners (Wallerstein and Bernstein, 1994). With the help of community members, they design programmes that are wide-reaching and are better able to meet the needs of the community, which generates a higher degree of success in developing strategies that work (Persily and Hildebrandt, 2008). With regards to the opioid crisis in Vancouver, Jozaghi (2014) highlighted the fact that in 1998, the Vancouver Area Network of Drug Users (VANDU) became "the first public health supported organization of current and former drug users in North America" (p. 215), which significantly contributed to the opening of North America's first sanctioned supervised injection facility. Jozaghi further reiterated the point that several drug user groups have forged partnerships with the Department of Public Health which has resulted in a number of structured initiatives. Among these are health education trainings and workshops where information is disseminated about the availability of medical and other services. Further, harm reduction and education are done by the Ministry of Health in the form of face-to-face outreach programmes that,

> deliver information, resources and services to hard to reach populations of drug users and establish links between isolated drug users and critical health services. Outreach programs provide literature about HIV and hepatitis C risk reduction, promote teaching and modelling of risk reduction by leaders of drug user networks, distribute condoms and bleach kits, make referrals to services, provide counselling and support community development.
> (Harm Reduction: A British Columbia Community Guide, 2005, p. 7)

There is also an eight-stage harm reduction municipal plan that takes a community action plan approach to addressing the opioid crisis in parts of British Columbia where "the integration of harm reduction into municipal planning has not yet been achieved" (p. 13). However, according to Jozaghi (2014), of all initiatives in place, peer support groups seem to be most extensive or far reaching as they are most effective in addressing "many of the micro-environmental factors that drive sharing behaviour or overdose risk and enhance individual ability to employ overdose prevention practices" (p. 216).

Community empowerment facilitates this mutual exchange of learning and growth as it creates the "conditions for professionals and communities to engage in empowering practice together" (Wallerstein and Bernstein, 1994, p. 142). Reciprocity is experienced as public health professionals and members of the community work together, sharing and respecting each other's input for best results (Persily and Hildebrandt, 2008). In order to be more extensive in their reach, public health workers need to be able to continuously liaise with those on the ground, forging relationships and networks that enhance community empowerment. Social media can potentially contribute to this; however, from all the research materials read to date, none speaks to the possible integration of social media for increasing social networking and increasing harm reduction in British Columbia.

Social media platforms and apps

Careless (2015a) emphasizes the fact that "the rapid pace of technological evolution in society has dramatically altered the way most people live, work, socialize, and learn" (p. 51). In fact, in the last two decades, social media platforms have been increasingly used professionally and personally for educational purposes, instant messaging, knowledge sharing, networking and coordinating (Li, Lin, Feng, Le, Hsieh, Nguyen and Ngyuen, 2019).

Increasing numbers of people are today exposed to or have access to social media sites, although certainly not everyone. According to Ventola (2014), in 2012, there were over one billion Facebook users worldwide, which amounts to "one-seventh of the world's population" (p. 491). Social media has indeed "exploded as a sociocultural practice of communicating with others and sharing knowledge" (Careless, 2015a, p. 51). This is due to the fact that social media tools such as Facebook, Twitter, YouTube and WhatsApp allow for video calling, instant messaging, quick access to videos and presentations, along with enabling users to engage in social networking. These collaborative tools "free, ubiquitous, and nonhierarchical" (Careless, 2015a, p. 50), are excellent for building community, promoting relationships between individuals and among groups as well as facilitating community discourse (Warburton, 2013; Careless, 2015b). Li et al (2019) reiterated this when they noted, for example, that in Vietnam,

> in the medical field, Facebook, as one of the most popular social media platforms, has been used extensively in a variety of research and service provision activities, ranging from recruiting hard-to-reach study participants, enhancing patient provider communications, conducting health promotion intervention, engaging/linking patient to care, to providing medical education and training. Social media could also be utilized to overcome the barriers associated with geographic distance and system fragmentation to promote cross-agency communication (p. 3176).

Public health workers as adult educators who develop a critical understanding of these tools can embrace their use as a means of changing the banking form of education or communication for more active social learning (Careless, 2015a).

Social media for public health education and community empowerment

The reality is, social media "can be used to improve or enhance professional networking and education, organizational promotion, patient care, patient education, and public health programs" (Ventola, 2014, p.491), which in turn can lead to well needed social activism. Though social media is not accessible to everyone and is fraught with risks, such as poor quality or unreliable information, damage to professional image, breaches in patient privacy, licensing and legal issues, identity theft, and more, public health workers can apply ethical guidelines for the use of social media platforms (as outlined in Appendix A) for effective results. If these guidelines are wisely and prudently enforced by health care professionals when using social media sites, they will be better able to extensively offer and promote individual and public health within the communities they serve both locally and virtually (Ventola, 2014).

Social networks are gradually having a bigger role in building community along with mobilizing community organizing and social action (Niven, 2011). Careless (2015a) aptly states, "social media are undeniably a rich site of learning in contemporary society – free, unlimited access to global discourse and knowledge" (p. 52), and most importantly, emphasizes accountability of and honouring varying perspectives. If structurally designed (proper guidelines to prevent risk) and utilized by the public health department with a community empowerment approach (Ventola, 2014), social media may just contribute to social reformation and transformation in Vancouver for those who have access to it.

Conceptual Framework

In order to explore the research questions, the research drew on a transformative worldview using the concept of community empowerment (Wallerstein and Bernstein, 1994; Persily and Hildebrant, 2008). This concept encapsulates the idea of community education and lifelong learning through various media and sees public health workers as adult educators effectively integrating the theory into programme planning as a means of communicating and retrieving power. With regards to public health and intervention, "social marketing and education are strategies that seek to change people's knowledge and attitudes about health, risk factors and determinants" (National Academy of Sciences, 2012, p. 34). However, one significant limitation in the field of change management is that it often lacks or overlooks exactly (what appreciative inquiry highlights): what Cooperrider and Whitney (2005) call the "*positive core"* of organizational or community life. They further note that "the single most important action a group can take to liberate the human spirit and consciously construct a better future is to make the positive core the common and explicit property of all" (p. 277). In so doing, the community strengthens "its collective wisdom, builds energy and resiliency for change and extends its capacity to achieve extraordinary results" (Cooperrider and Whitney, 2005, p. 277). This is because adults in the community experience high levels of awareness on major issues of concern, are engaged, are able to contribute to and develop community-led initiatives, and are supported by all major stakeholders (Reininger, et al., 2006; Persily and Hildebrandt, 2008). This process of change is mainly psychological and takes place in phases as outlined in Figure 2.

Figure 2: Features of the organization or community supporting states of the individual change process

Phase in Psychological Process of Change	Supporting features of Community
Exposure	Social setting with access to media
Attention	Interest of family, peers, and other significant persons
Comprehension	Group discussion and feedback, question and answer sessions
Belief	Direct persuasion and social influence, actions of informal leaders
Decision	Group decision making, public commitments, and repeated encouragement, which build self confidence
Learning	Demonstrated and guided practice with feedback and continued, advice, and direct assistance.

Source: Green and McAlister, 1984.

Based on this, the theory of community empowerment – steeped in community psychology, social psychology, the liberatory and popular education philosophy of Paulo Freire, the Saul Alinsky and Myles Horton traditions of community organizing, and the critical theory, feminist and post-modernist schools (Wallerstein and Bernstein, 1994) – is clearly articulated in all aspects of this research and is further revealed through the use of Appreciative Inquiry (Boyd and Bright, 2007), as outlined in the next chapter on Study Methodology.

Chapter Summary

In conclusion, the objective of this literature review was to highlight the multidimensionality of adult learning and to further endorse the need for this study's integration of community empowerment theory for more expansive harm reduction efforts within the context of an opioid crisis. The three parts of this review examined the literature on adult learning and adult educators, the opioid crisis, community-based initiatives, the relevance of

community empowerment theory and how social media could potentially enhance public education and networking. The next chapter focuses on the study's methodology.

Chapter 3: Methodology

The following research questions informed the design and methodology for this study: (1) What challenges and successes do grassroots approaches to public health encounter in promoting harm reduction activities? (2) What educational roles do residents of the Downtown Eastside play in harm reduction strategies? (3) How do health workers use social media as part of their work in Vancouver? and (4) What public education strategies could be used to heighten the vitality of public health education in the Downtown Eastside?

To carefully examine the nature of harm reduction work being undertaken by public health workers and community members in the Downtown Eastside (and wider Metro Vancouver), an appreciative inquiry approach was taken to address these research questions.

This chapter begins with an overview of case study as a methodology, followed by an argument from community empowerment theory to support an appreciative inquiry (AI) approach. Subsequent sections describe the recruitment process, study participants, sampling method, ethical considerations, and rigour. The chapter concludes with a section on data collection and analysis.

What is case study?

This AI qualitative case study focused on adult educators working in Vancouver's Downtown Eastside, specifically public health workers and how their roles contribute to increased harm reduction efforts via trainings, workshops, and social gatherings. Of focus also was the potential use of social media for networking, rapid response and support of people who use drugs.

O'Leary (2017) noted that case study as methodology is "the study of elements of our social fabric through comprehensive description and analysis of a single situation or case" (p.

143), while Heale and Twycross (2018) view it as "an intensive, systematic investigation of a single individual, group, community or some other unit in which the researcher examines in-depth data relating to variables" (p. 7). This approach to research therefore facilitates the "exploration of a phenomenon within its context using a variety of data sources" (Baxter and Jack, 2008, p. 544). In essence, this allows for a holistic approach to understanding the phenomenon under research by providing a "framework for evaluation and analysis of complex issues" (Heale and Twycross, 2018, p. 8).

The process of investigation is intensive and systematic due to the fact that there are no 'shortcuts' as case studies require one delving into detail and context in order to discover the rich experiences of the individual, event, community group or organization being explored (O'Leary, 2014, p. 215). The researcher therefore becomes heavily dependent on information garnered from a variety of sources. Heale and Twycross (2018) have recommended the following steps for when using case study as research methodology:

a) Define or identify the case or multiple cases to be used
b) Conduct search to determine what is known about the case (s) for example literature review, media, reports etc. in order to gain a basic understanding of the case and further informs the development of research questions.
c) Triangulate as a requirement in ensuring reliability and validity of sources.
d) Develop themes based on analysis of data

O'Leary (2014) also asserted that the type of case study selected as methodology is dependent upon a number of variables such as exploring phenomenon within the data (exploratory), describing the natural phenomenon informed by the data question (descriptive), examining the data in-depth in order to explain the phenomenon (explanatory), supporting or challenging

assumptions about concepts (interpretive) or contributing to the phenomenon based on data analysis (evaluative) (pp. 41-42).

Based on the nature of this research project, an interpretive case study was employed. Chetty (2013) noted that interpretive case studies allow the researcher to "interpret the data by developing conceptual categories, supporting or challenging the assumptions made regarding them" (p. 42). Since this research focused primarily on exploring assumptions, complexities, and context of how the concept of community participation through education and empowerment using social media can increase harm reduction efforts and help the community regain control, this type of case study was ideal.

Methods

According to Chetty (2013), triangulation is the "combining of methods so that diverse viewpoints or standpoints can cast light upon a topic" (p. 41). Case studies require the use of various methods for data collection and analysis, however, due to the current pandemic and the health restrictions in place, the main method employed was interviewing. Also, through the process of document analysis (review of reports and newspaper articles by notable journalists working in the Downtown Eastside), the researcher was able to improve reliability and validity (Dainty, Bagilhole and Neale, 1997) to achieve precision in representation and a clearer understanding of the phenomenon (Bhattacherjee, 2012). These data tools allowed for the gathering of relevant and credible information for in depth analysis.

To understand the complexities of community-based educational initiatives of public health workers in addressing the opioid crisis, the study adopted an Appreciative Inquiry (AI) approach. Rogers and Fraser (2003) opined that appreciative inquiry (AI) is "based on the heliotropic principle: that people and organizations move toward those things that give them

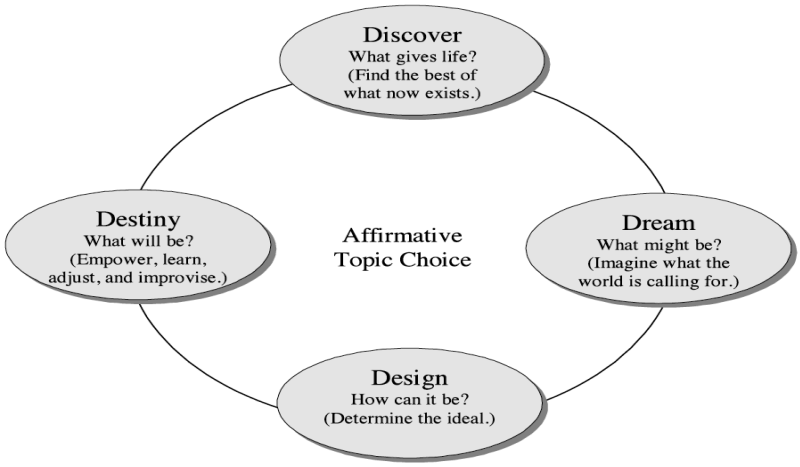
energy and life" (p. 77). Boyd and Bright (2007) further noted that AI "aims to create change through a focus on elevating strengths and extending communities" (p. 1021), while Cooperrider and Whitney (2005) aptly describe the approach as being,

> the cooperative, co-evolutionary search for the best in people, their organizations and communities, and the world around them. It involves systematic discovery of what gives "life" to an organization or community when it is most effective, and most capable in economic, ecological, and human terms (p. 276).

In sum, Calabrese and Cohen (2013) see appreciative inquiry as both a "theoretical research perspective and change methodology" (p. 6). While this research study embraced both the theoretical and change aspects of AI, the focus was not on change but rather what currently gives the Downtown Eastside "life," along with the possibilities that the integration of social media could present in enhancing harm reduction strategies already in place. Further, the use of the AI approach, highlights the liberatory principles of adult learning.

AI interview questions seek to uncover or identify community strengths through stories about the community or lived experiences of the respondents (Cooperrider and Whitney, 2005, p. 277). For this research project, appreciative inquiry's 4-D model of discovery, dream, design, destiny (see Figure 3) guided the structure of the open-ended questions asked and allowed the researcher the opportunity to carefully listen to and acquire perspectives from the respondents (Creswell, 2012) as they discussed their knowledge of the various public health programmes, along with the achievements and challenges of public health workers operating within the DTES. The model also helped to organize the approach to data collection and analysis. The model chosen includes the four separate stages of the AI 4-D Cycle of Discovery, Dream, Design, and Destiny, and provides clear descriptors of what should likely occur at each stage.

Figure 3. Appreciative Inquiry Model



Source: "Appreciative Inquiry in the Office of Research and Development: Improving the Collaborative Capacity of Organization," by D. S Bright, D. L. Cooperrider, and W. B. Galloway 2006.

At the start of each interview, the researcher introduced the first AI 4-D Cycle, Discovery (what gives life) which was the overarching focus of the study that would drive the other areas of the cycle. The purpose of this introductory phase of the interview was to ensure that participants understood the nature of their contribution and to channel their focus to the positives of the Downtown Eastside instead of focusing on deficits. Questions were then asked in stages according to the AI 4-D Cycle, Discovery (what gives life), Dream (what might be?), Design (How can it be?) and Destiny (What will be?), all of which guided participants on how to recognize "successful past practices, identify personal and group strengths, and identify foundational values" (Calabrese and Cohen, 2013, p. 6).

Areas explored in interviews were a) the ways in which public health organizations have been using social media to help increase harm reduction efforts, b) the benefits or impacts of social media usage for collective support in communities with high levels of substance abuse, and c) the ways in which communities like the Downtown Eastside have been actively involved in developing harm reduction programmes for community empowerment.

Recruitment process

The original intent of the researcher was to conduct a qualitative empirical research study by visiting specific locations and outreach programmes in the Downtown Eastside. This would have allowed for the interviewing of directors and programme coordinators of harm reduction and other community-based public health organisations, along with observation of public health initiatives or programmes that are working well in the community. However, due to the current Covid-19 pandemic and the restrictions in place for human safety, that plan was aborted. To achieve the research purpose, expert academics who have done research and work in the Downtown Eastside and other such communities were contacted and interviewed instead.

For the study, I depended heavily on the experts guide or directory of three major public universities and snowball sampling in order to recruit participants. Each university's website page provides a list of expert academics based on the topics searched (harm reduction, addiction, substance abuse, social media etc.) and the nature of their academic interests and or work along with their contact information. Specifically for this research, the researcher used the topics "public health, health promotion, substance use, harm reduction, illicit drug dependence and treatment, community development and health along with social communication, social media and public health," to identify a list of academic experts needed for interview. Based on that, I was able to carefully develop a list of 21 prospective participants. I then sent each of them letters of invitation via email (see Appendix B).

Of the 21 persons contacted, 10 did not respond, 7 responded to say that they were not able to properly contribute or speak to the use of social media for harm reduction, and only 4 responded favourably. While social media was not the focal point of the research, based on the responses, I am of the opinion that many of the academic experts became totally uninterested in

participating just from reading the original study title: “Vancouver’s Distress: How Public Health Workers Use Social Media to Combat the Opioid Crisis”, even though the content of the letter provided more insight. Based on this experience, I am convinced that had my research title been more specific to adult education approaches or practices in the Downtown Eastside and drew more attention to what I intended on exploring (as the current one), I would have had more favourable responses.

Another deterrent is the current COVID-19 pandemic that has significantly reduced face-to-face contacts and has further caused major restrictions for, and undue stress to, persons working on the frontline of healthcare. However, I was grateful for those who were able to schedule interviews because they provided a wealth of information that could adequately address the four research questions.

Study participants

The 4 study participants were from two public universities in British Columbia. Of the academic experts, 3 are professors in the Department of Public Health in their respective institutions (one practiced as a public health nurse in the DTES for a few years) and the other is a professor in the Department of Medicine with a focus on social medicine. All the experts, though not representative of the total public health population of BC, are highly recognized and regarded in their fields for their contributions (research, implemented programmes, trainings, and partnerships) to promote harm reduction initiatives and policies, public health education (including the use of social media platforms), public health advocacy and reform.

Sampling method

Three methods of sampling were incorporated in the study. The first was "extreme case sampling," which is a method of selecting participants to learn about a case that is “noticeable for its success or failure” (Creswell, 2012, p. 208); the second was purposeful sampling, which is the careful selection of research participants “to optimize data sources for answering the research question” (Johnson, Adkins and Chauvin, 2020, p. 141); and the third was snowball sampling, which is the act of asking participants to identify other potential participants to become members of the sample (Creswell, 2012). All three methods of sampling provided opportunities for careful selection of participants who are quite knowledgeable about the work and various initiatives or programmes in the Downtown Eastside. With regards to the latter (snowball sampling), based on collaborative work done on harm reduction research and the opioid crisis, respondents were able to make recommendations of other notable academic experts who could potentially provide support to the research. Each was contacted, but none of them responded favourably. Nonetheless, consistent with qualitative research, the sampling method for this study was highly purposeful in that participants were able to provide “information rich” or meaningful data in order to understand a central phenomenon (Creswell, 2014).

Ethical considerations

Prior to starting the research, I identified three risks to the participants. The first was misrepresentation of the population in question, as the participants’ contributions or voices are primary to the research process (Leavy, 2017). Their views might be incorrectly expressed through the researcher's narrative, description, detailing and dialogue. In order to minimize this risk, I ensured that I read through a few published articles by the academic experts interviewed and ensured that each participant was fully aware of the research focus. I further notified each

that he or she could choose to not respond to questions that proved unfamiliar contextually. At given points, some participants did not answer parts or all of a question because they stated that they were not the authority on the subject thus unable to provide enough information.

The second risk for participants was that of potentially being coerced into answering questions in a subjective manner based on the information provided or questions asked by the researcher. To minimize this risk, I tried not to prompt the participants into answering questions and reassured them that their experiences and most honest responses were what was of greatest value to the research. Another step taken to avoid possible coercion was rewording questions that seemed ambiguous or asking follow-up questions for clarity or for more context.

The third and greatest risk was that of confidentiality. This since the participants are from specific faculties in their institutions and could become identifiable based on the nature of their work. In order to ensure their anonymity, personal data was coded and securely stored. Personal identity will only be shared or released based on consent of the participant. The following procedures to ensure consent and confidentiality were also followed:

Informed consent. After confirming interest in participating in the research study, each participant received an emailed copy of the consent form (see Appendix C). Prior to being interviewed (via Zoom or over the telephone), participants signed and returned the consent form days in advance of the agreed upon interview date. Also, immediately before starting each interview, the consent form was read by the researcher to the participant, and I further addressed any question regarding consent or confidentiality.

Confidentiality. The researcher took three precautions in order to maintain the confidentiality of study participants. First, a participant number was assigned to each participant which in turn led to each consent form being identified by a participant number instead of the

participant's actual name. Further, for identification purposes, after the interviews had been transcribed, the participant's pseudonym was printed on each transcript. A master file was also created on a USB flash drive, linking participant names to their assigned pseudonyms and participant numbers and was kept in a file in a locked filing cabinet in my home office.

Second, as transcriptionist, I made every effort to omit potentially identifying information – names of participants, the institution at which they were employed, along with their specific department from the transcript. Third, printed documents (transcribed interview transcripts, and signed consent forms) will be stored by the principal investigator, and the USB drive containing digital files (audio recordings of interviews) for five years, after which time they will be shredded or erased.

I also considered other aspects of doing good qualitative research, as follows:

Rigour. In qualitative research, rigour means "being very exact, careful, or with strict precision or the quality of being thorough and accurate" (Cypress, 2017, p. 254). As best as possible, the researcher presented the information provided in an accurate manner and avoided subjectivity. This was achieved through rapport building and triangulation of data.

Rapport building. As this was a case study and the fact that appreciative inquiry is a highly interactive and engaging process, rapport building proved critical in enhancing the methodological rigour of this research project. In order to build rapport with each participant, I first introduced myself, reemphasised the high level of confidentiality that would be maintained throughout the process, assured each participant that the information provided was greatly appreciated, and at points asked follow-up or reworded questions that allowed for more open, and in-depth responses. I also shared my own professional background as an educator along with some of my own lived experiences and how I came to develop an interest in the research project.

In so doing, a 'climate of trust' (Knight, 2009) was built, and the conversations became free flowing.

Triangulation. For this research study, both primary (appreciative inquiry-expert interviews) and secondary sources (document analysis: newspaper articles along with surveys and reports) of data were used to strengthen reliability and validity (Creswell, 2014). The use of both methods simultaneously, allowed for effective data collection, analysis and triangulation. The researcher also examined or observed a larger arena of practice (the work undertaken by the academic experts) as evidenced by the contributions they have been making with regards to harm reduction and the opioid crisis (published articles, work with the BC Centre for disease control, affiliation with the BC Ministry of Health etc.).

Data Collection

For this study, data sources were mainly one-on-one interviews with academic experts along with document analysis, specifically reports or surveys and newspaper articles written by investigative journalists Andrea Woo, Travis Lupic and Jen St. Denis. The method of appreciative inquiry used in the study employs dialogue (questioning) among participants in order to identify the highpoint of their experiences, the things they value and what gives life to the organization or community to which they are connected (Cooperrider and Whitney, 2005). Of the four interviews conducted, three were done via Zoom (UBC) and one via telephone. The interviews were semi-structured (Creswell, 2012) that lasted approximately 60 minutes to enable each participant to elaborate on the six open-ended questions posed (Appendix D). The questions were informed by the appreciative inquiry 4-D model of discovery, dream, design, destiny, I was

particularly interested in identifying the community empowerment and public health strategies already in place on the DTES and the potential social media has in strengthening these.

Documents such as the BC Centre for Disease Control's 2019 and 2020 Harm Reduction surveys, and the *BC Coroner's Report 2008-2018,* prepared by the Ministry of Public Safety and Solicitor General BC, proved helpful in providing background information and supporting details. Finally, the aforementioned journalists, were continuously referenced by the academic experts as persons who do extensive coverage of the Downtown Eastside community, thereby being rich sources of information. Quite notably was the continuous acknowledgment of Travis Lupic's (2017) award winning book *Fighting for Space,* on harm reduction activism in the Downtown Eastside which has also been used as a data source for this study. The information gathered from the articles and book, corroborated findings and helped to reduce potential bias by the researcher. The selected data tools also allowed for triangulation which according to Mertler (2017) is a process where a "given finding is supported by integrating inferences and demonstrating that independent measures of it tend to agree with each other or at least do not directly contradict each other" (p.142).

Data Transcription and Analysis

Each interview was recorded (using a digital voice recorder and an embedded computer audio recorder as back up) and carefully transcribed verbatim by the researcher who continuously checked for accuracy. The transcribed interviews provided the opportunity to identify recurring themes in the data which were used to create meaningful categories.

The study followed a phase-by-phase approach to transcription and analysis. During the interview process the researcher used an observation form to note each respondent's expression

and body language based on questions asked (laughter, intonation, passion, frustration, hopefulness etc.) which added more context to the data collected. Further, the interview recordings were transcribed and reviewed on several occasions to ensure accuracy and to fill in parts of the text that were originally inaudible. The researcher also arranged participant scripts into chronological order (based on code/pseudonym) and then read through responses question by question, noting the patterns and themes that emerged. After that, a short-list of common themes was created either by combining sub-themes into main ones or based on the most concise descriptors from the interview responses. The researcher then developed four themes consistent with the 4-D model of discovery, dream, design, destiny. These core themes comprised the study's four main findings.

Following this, a spreadsheet was created to help organize and identify relevant quotes that could support the narrative and four main findings identified in response to the 4-D model of discovery, dream, design, destiny. Through this approach, the researcher gained important insights into the participants' experiences and knowledge base of community empowerment, harm reduction and social media usage in the Downtown Eastside and adjoining communities.

The final step in the single case study data analysis is the interpretive phase that details and describes "lessons learned" from the data that either confirms or diverges from past information, as well as the researcher's personal experiences (Creswell, 2014). Due to the exploratory nature of the study and the narrative being developed, the interpretive phase is mainly included within the discussion chapter. In the next chapter, I elaborate on the study's four main findings.

Chapter Summary

In this chapter, I provided a rationale for framing appreciative inquiry as the most suitable method for this study and highlighted its alignment with community empowerment and in answering the research questions. I further described how a single case study method would adapt to both community empowerment theory and the research questions posed. Also, I outlined the recruitment process, ethical considerations, data collection methods and storage, along with transcription and analysis necessary for the study.

Chapter 4: Findings

This chapter presents the study findings focusing on four different, but interrelated themes developed through the AI 4-D Cycle of Discovery (What gives life), Dream (What might be?), Design (How can it be?) and Destiny (What will be?) that emerged from the interview data. Each theme reflects the participants' perspectives on adult education and harm reduction work being undertaken by community members and public health workers in the Downtown Eastside based on their work and lived experiences. Pseudonyms are used throughout the discussion in order to maintain confidentiality and anonymity of participants.

The chapter is introduced with a description of the context of the case through the exploration of organizational strategies or practices at both the community and public health levels. Then, each theme from the data is described in depth. The findings are presented and categorised only by themes that have been developed using the AI 4-D Cycle. Of note also is that this single case study presents the perspectives of academic experts within the Departments of Public Health and Medicine in two public higher education institutions in British Columbia.

Context of the Case

According to Creswell (2012), qualitative researchers choose themes in their findings that are layered or organized to tell a story, or they may also be interconnected to portray the complexity of the phenomenon. The story that is presented for this case study illustrates the central point of growth and change that has and continues to take place in the Downtown Eastside through all levels of the AI 4-D cycle.

Through AI four stage analysis, the researcher identified four core themes. The first theme describes how community relationships act as the main life sustaining force in the Downtown Eastside through advocacy, activism and education. The second theme describes how public health workers as adult educators, identify themselves as change agents and have forged important partnerships between community members, and journalists which are necessary for increased public education through the various types of media. The third theme speaks to the need for innovation and networking between community members, public health workers, and other adult educators in the Downtown Eastside in order to meet the needs of their clients. Finally, the fourth theme recognises the need for a different approach to programme planning and preparation of future public health workers for work in the Downtown Eastside, through cultural awareness training.

Discovery (What gives life?)

Theme 1: Community relationships and grassroots approaches for harm reduction

As highlighted by Lupic (2017) in his book *Fighting for Space*, community relationships are important as they offer a sense of security and the feeling of being part of a group that cares. In fact, these offer the opportunity of really "knowing people, having relationships, and an understanding about what somebody is going through" (p. 109).

When the four academic experts were asked to share some of the things they valued deeply, specifically with regards to their research work on the current opioid crisis and also the work being undertaken by organizations in the Downtown Eastside that emphasise harm reduction (Interview Question 1), their responses varied. This question was asked as a means of directing participants to discovering the strength of the work they do in the Downtown Eastside

and the strengths of the community. Nonetheless, they all emphasized the value of working with people who use drugs, the commitment by those working in the community and also the need for advocacy and activism that can potentially activate positive contributions and changes by community members and other stakeholders.

Sarah noted that for her to speak of the things she valued most regarding her work in the Downtown Eastside would be considered "self-serving," as she noted that all the work she does is a way of "adding my very small piece here using every skill I have, every ounce of passion I can spear, every ounce of humility I can have to advance the cause. That's, that's what I do." She further noted that for her as an academic in the field of public health, "harm reduction is just a word. What we do is human rights and patient care." Chloe, on the other hand, noted that the two things she valued the most were,

> a) relationships and community, because the work means nothing without that and b) speaking out and the ability to do that. Those are really the two things, that in my work I care the most about. There are a lot of things that don't make sense if those two things are not there.

She further stated that as an academic and former frontline worker on the Downtown Eastside, when it comes to the work being done by the organizations there, of greatest value to her is the "nonstop innovation that is by community for community and it's just been consistent since the 90s it has never stopped and it's the consistency and the power and the organization, they're just, relentless."

Karen also shared how forging relationships with persons in the community contributes to the consistent work being done. In fact, she highlighted the fact that the work being undertaken in the community, by community members, researchers and organizations in the Downtown Eastside is mutually beneficial. This has been the case where her research is

"informed by community-based participatory action methods." She further stated that she works with a number of youths who act as co-researchers and in other capacities within the youth advisory council, which allows for collaborations on projects. While this approach is fairly new to her as a medical anthropologist, she has found it to be of great value based on the work she has been doing with young people who use drugs throughout Greater Vancouver and in the Downtown Eastside. In fact, she pointed out some other valuable aspects of working in the Downtown Eastside when she declared,

> I greatly appreciate the opportunity to spend so much time listening and learning from the young people who participate in my research about the things that matter to them and the different, forces that shape their lives and how they think about their lives and how they think about their futures. I also really value, increasingly my collaborations with those working on the frontlines of the overdose crisis and of the youth substance use service system. There are so many incredible individuals working in hospitals, clinics, treatment centres, recovery houses, safe houses, drop-in centres. People who are doing tremendous work and often without the recognition that they deserve and the compensation that they deserve.

She went on to acknowledge the work of organizations like Vancouver Area Network of Drug Users (VANDU), Western Aboriginal Harm Reduction Society (WAHRS) and the British Columbia Association People on Opiate Maintenance (BCAPOM) whom she noted as being, "the drug user activists in Vancouver who have fought so hard and so long for harm reduction services in the DTES but also you know, throughout the city." Candice also acknowledged the valuable contribution of VANDU and other such organizations in the Downtown Eastside. However, she stated that while a lot has been learned from them, it is important to get a broader scope of what is needed for people in communities affected by the opioid crisis, which she

believes has to come from people with lived and living experiences provincewide. In fact, she noted that,

> From my perspective often we use convenient samples and it's convenient if I'm wanting to try a survey, make sure that it makes sense before rolling it out. Well then, often we have to go in person down to VANDU or somewhere in the Downtown Eastside, it has been in the past where we've tended to go to but we now have a provincial group of folks with lived and living experiences and they're the ones we tend to take things now to get that different perspective.

When asked about what she valued about her own research work in these communities, she stated unequivocally, "I think I'm passionate about involving people with lived and living experience in all aspects of policy development or planning of evaluation." This was due to the fact that:

> There's absolutely no point in saying this is what we need if it's not going to be relevant or acceptable to people with lived and living experience so for me that's one of the most important pieces is engaging and involving people who use or have used substances.

Her responses provided more context of the need for improved community relations amongst people with lived and living experiences, public health and other stakeholders for harm reduction purposes, not only in the Downtown Eastside but throughout British Columbia. She reiterated the point that based on her sources, the opioid epidemic was not as localized as originally thought. She stated that "we have good information that the overdose crisis is throughout the province. The rates in our health authorities of Vancouver are the same if not more at times."

Community relationships

The benefits of community relationships were repeatedly mentioned, when participants were asked to identify the core factor that gives vitality and life to the Downtown Eastside (Interview Question 2), all four academic experts concurred that above all else, it is the people who are the light, and driving force in the community. Though considered quite paradoxical in the social and health domains, the Downtown Eastside, aptly stated by academic expert Chloe, is a "small part of the city that is actually so great and then so sad at the same time." She highlighted the fact that despite the high number of overdose deaths, almost everyone in the community, "even the workers in the Downtown Eastside, they take pride, like this deep connection with the city." She further stated that it is that sense of commitment and connection by the people of Downtown Eastside that led her as a nurse at the time to want to practice in British Columbia: "it really is the people, they're just fantastic and they've inspired me to come to BC…it was a big part of me coming to work in BC." She noted too, that much of her research interest in the Downtown Eastside stemmed from it being "where all the harm reduction pioneers were" and that to her "it was very obvious that the leaders in Harm Reduction Nursing, were all in the Downtown Eastside." She also lauded the Downtown Eastside as being "the first ones to start everything" and at this point she referenced the Insite supervised consumption site which she noted opened the door for many of her major professional collaborations.

Sarah stated that based on her experience of working in the Downtown Eastside and relationships developed, the members of the community are most connected to the realities that exist and "understand their tremendous, painful, beautiful stories" and work extremely hard in making changes because they are the ones "who are working day in day out" to change the narrative. Other academic experts reiterated the point that the Downtown Eastside remains

resilient because of the relationships built in the community and reinforced the point that "the work means nothing without that" (Chloe). Karen acknowledged the efforts of the drug user activists in the Downtown Eastside by highlighting the fact that without them, most of what has been achieved in harm reduction would not have been possible:

> I don't think we have anything that we have without the tireless activism of you know, people who use drugs in Vancouver and that's why we are very famous in a lot of ways for our harm reduction infrastructure. That's really because of the efforts of people who use drugs to organize and demand change and demand a safe injection site. So, I think that at the heart of those services is the activism of people who use drugs themselves.

The continued selflessness exhibited by those members of the Downtown Eastside and other such communities province-wide who are greatly invested in forging deeper connections amongst members and other stakeholders for holistic support, has proven to be their greatest asset.

Comments such as the following are typical responses the academic experts made: "One of the things that I see in the Downtown Eastside is a lot of people that care" (Sarah). Another went further to highlight the fact that for the members, it is more than just caring, but rather "it really is about those relationships and that sense of community" (Chloe).

Academic expert Candice, also shared the value of community relationships for positive change as she stated that it's not just people with lived experience,

> but also, some of the service providers as well who are committed to making a difference and often with lots of barriers, it's that commitment, that passion and really just keep trying. I mean when you see so many people, so many deaths, so many tragedies… I think it's really important to really just listen to people and identify what we can do to help.

This comment highlights the fact that operating within the Downtown Eatside community is a collective force that is driven by the desire to save lives and as best as possible identifying the most suitable approaches based on shared knowledge and lived experiences.

Grassroots approaches for harm reduction

What was most revelatory for me in the findings was the high levels of reciprocal learning and active peer-led adult education programmes by people with lived experiences and the major commitment to increasing harm reduction by service providers, people who use drugs and community activists as highlighted by the academic experts. Prior to conducting the research, I was of the mindset, based on statistics provided on the number of deaths in the last ten or more years (Appendix E), that the situations surrounding the people of the Downtown Eastside community are proving to be quite problematic to society in a number of ways and the challenges in addressing their needs were dependent on public health. I was also of the opinion that residents of the DTES had a number of deficits that rendered them incapable of effecting any positive social change with regards to harm reduction. However, this is not what I have discovered in my findings. What I identified were high levels of intrinsic motivation, collegiality, a wealth of shared knowledge, innovation and so much more existing in the Downtown Eastside community that is not highlighted enough in mainstream media. Therefore, what is presented in my findings counter the dominant narrative of deficit and provide insight on the strength of the community. This was reinforced by Candice who aptly stated, “I think there’s a huge underestimation of what people in the community can do.”

Face-to-face meetings

In the Downtown Eastside, much of what has been accomplished started with community-led face-to-face meetings in response to the dire conditions, high infection rates and death experienced within the community. Lupic (2019) noted that a number of monthly meetings were held at a café called La Quena on Commercial Drive where "the group mostly talked about how to fight for better conditions for the unemployed and held workshops on how to navigate different government bureaucracies in which the poor so often find themselves lost" (p. 37). However, meeting agendas quickly evolved into focusing on finding ways to address the HIV/AIDS epidemic. The crisis was of grave concern because of how widespread the disease was to the point that "you could just feel the HIV spreading. It clawed at your heart" (p. 38). Lupic (2017) stated that in an effort to get help from public health,

> a pair of Downtown Eastside activists named Bud Osborn and Ann Livingston attended a series of Vancouver health board meetings to talk about HIV/AIDS. Researchers had just confirmed that their neighbourhood had the highest rate of HIV/AIDS infections outside of Sub-Saharan Africa.

This effort led Bud Osborn to continuously pursue the public health department to recognize the HIV/AIDS situation in the Downtown Eastside, and "on September 25, 1997, the board finally did. It marked a turning point in the city's fight against HIV/AIDS and the start date from which politicians finally took the crisis seriously." Since then, a number of face-to-face meetings have been held across the community on varying issues. This grassroots approach has been one of the most effective means of effecting change in the community.

Karen highlighted the importance of these face-to-face meetings when she stated that "we get together in a space where everybody feels really comfortable and share a meal and we just

make it a really nourishing experience all around." Sarah says that the face-to-face meetings is a means of saying "okay we took data from you and now we're sharing what we did." While Candice stated that the meetings are extensive in reaching other members of the community:

> If I wanted to reach a large number of folks who use substances, just going down to VANDU and one of their meetings helps because you have a huge amount of people there who will listen and respond and give feedback and take the message out and that works.

Apart from engaging people and getting messages out, another important aspect of face-to-face meetings, as shared by Karen, is that in these meetings, "people are really acknowledged, not just as people who use drugs, as research participants or even as co-researchers but where people are acknowledged as people." It is during these meetings that much reciprocal learning takes place, activism and advocacy are birthed and peer-led trainings positively impact lives. The fact that those with lived experiences are sharing their knowledge, active in their own learning, and leading training exercises reflects their lives as being living textbooks. As noted by Lindeman (1926), they can make "more fruitful participation in those smaller collective units" (p. 57).

Activities such as overdose prevention training exercises in the use of Naloxone, clean needle and syringe distribution, social activism and advocacy for marginalised members of the community, the distribution of Naloxone kits (for opioid reversal overdose), and the establishment of safe consumption sites, are just a few initiatives that are examples of the independent self-concepts and self-directed learning Knowles (1978) highlighted in his assumptions about adult learners.

Candice also sees these acts as being driven by "the passionate people involved… people with lived and living experience who have that passion, who are supportive of their community

and others in the community." Each peer-led activity contributes to accountability of its members and breeds hope. In fact, with regards to the take-home Naloxone programme, Candice noted,

> it excites me to see the education around that and how people with lived and living experience are running sessions with their colleagues. So, I think there is a lot of hands-on education that is led by people with lived experience for people with living experience.

Karen echoed similar sentiments when she stated that for her it was a privilege and joy to be working with both young people with lived experiences, advocates, counsellors and physicians who are,

> doing the incredibly important and very difficult work of trying to help young people in the context of an overdose crisis that has claimed the lives now of well over a thousand young people under the age of thirty in the last four years.

This approach to adult education is what Candice considers to be a bottom-up approach to social change. This due to the fact that the community members are key members of decision-making and are confident in their contributions to activating social change through their participation. She further noted that:

> What we do with the peer-to-peer project is to involve and engage people with lived experience in what the needs are so instead of it being a top-down, it's going to be bottom-up. We did focus groups to find out what people needed and what people wanted. We've identified things but then we're trying to work with organisations and agencies including those in the Downtown Eastside like Vancouver Coastal at the Molson, to see what's offered, what we can do to make it sustainable.

This bottom-up approach is crucial to community empowerment and increased harm-reduction. St. Denis (2021b) reiterated this point when she noted that:

> Peer workers have current or previous lived experience using drugs and are vital to the operation of overdose prevention sites and other harm reduction programs. The workers use their own experience and knowledge to make vulnerable people feel comfortable enough to use the life-saving services.

Aptly stated by Lupic (2017), much of the successes of the Downtown Eastside community has come from its peer-to-peer social movement, comprising active drug users as they are the ones who have played an integral role in humanizing the issue of addiction. The most notable role being that of the Vancouver Area Network of Drug Users (VANDU).

Safe drug-sites

The experts went on to acknowledge and credit the people of the Downtown Eastside for their major success in charting the way for Insite, North America's first sanctioned safe injection site:

> We owe so much to the drug user activists and their allies who didn't wait for harm reduction to become professionalised but went out there and did that work when there wasn't a lot of support for it in the city and when people were actively working against it" (Karen).

Chloe sees the overdose prevention sites as the community's greatest accomplishment and shared that they have unquestionably "been the most amazing thing I have witnessed, and I've been part of and has had like a national impact and I do think that that started as a very unique Downtown Eastside thing."

Lupic (2017) confirmed that indeed the overdose prevention sites in Canada can be considered as originating with the Downtown Eastside site, and further provided the historical context to how this great life-saving venture started. As he explained,

> a recovering addict named John Turvey began walking the Downtown Eastside's back alleys, handing out packaged syringes from a backpack he carried. Soon enough, he turned those walks into a registered nonprofit that became the neighbourhood's distribution system for clean syringes. Turvey called it the Downtown Eastside Youth Activities Society, or DEYAS. Today, dozens of sites across Vancouver offer clean needles free of charge and with no exchange requirement and no questions asked (p. 26).

This historical account of how one person presented a heliotropic opportunity for intravenous drug users (IDUs) sharing injection needles during the HIV/AIDS epidemic and inadvertently changed the tide for people who use drugs in the Downtown Eastside, proves the strength and resilience of the people within the community. However, Lupic (2017) further stated that this effort was not without its challenges: distributing syringes at the time was against the law. However, without any outside source of redress, Turvey witnessed the daily impacts of the HIV/AIDS epidemic and did what he thought necessary to quell its spread. Based on Lupic's account of the time, it seemed the BC government was not aware of what was happening on the ground until the release of a medical report in 1996 which highlighted the fact that,

> in 1989 forty people who identified as intravenous drug users were diagnosed with HIV in BC. Five years later, in 1994, that number was 198. "Of the 688 people who first tested positive in 1995," the report continues, "333—about one a day—cited injection drug use among their personal risk behaviours." The vast majority of IV-drug users diagnosed with HIV then were not distributed across the province but were living in one neighbourhood consisting of less than twenty square blocks (Lupic, 2017, p. 26).

This report showed that high levels of infection were concentrated in one community, and this was indeed a cause for concern. Lupic (2017) further noted that in the case of the Downtown Eastside, based on the devastating impacts of the opioid crisis in 1998, VANDU and other

activists took the initiative to draft what is considered to be the very first proposal for a safe, supervised injection site but again "it never went anywhere" (p. 104).

Academic expert Chloe, saw the community's response to the pushback from the Department of Public Health at that time as the "community taking care of each other and not taking no for an answer and just continuing despite the risk." In Vancouver, this approach to harm reduction meant that not only would the number of HIV/AIDS transmissions and death by overdose decrease, but it would also change the face of traditional approaches to healthcare. In this regard Sarah stated, "the system has to change its perspective. Let it go. If we know that some systems work, implement them. Stop with the task forces, we don't need more task forces. They work, implement them." Candice endorsed this view when she said, "I think it's really important to really just listen to people and identify what we can do to help."

Lupic (2017) highlighted the fact that Insite's opening was "the first time that community and NGO and institution and bureaucracy all came together in an attempt to be as equitable as possible" (p. 109). Chloe attributed that merger by stakeholders striding to provide equitable healthcare to the Downtown Eastside as a response to the grassroots movement for harm reduction. In fact, she noted that not only was Insite established, but the community's efforts "forced the province to issue a provincial order to open more than 25 overdose prevention sites but it also showed the entire world and country how to do that." She beamed with pride when she made reference of the overdose prevention sites, as she stated that:

> I came here and I learned from how people were doing it. I was then able to join a group of people who opened a pop-up overdose prevention site in Ottawa and that was the most important experience of my entire life to be a part of that group….and then I went to other countries like Scotland, and they would site the Downtown Eastside pop-up sites as like an example and they

> Would show us how to do it. So, it had like an international impact.

Karen stated that "it's fantastic that we have, spaces, more and more spaces where people can use drugs more safely." She further explained that,

> all of the safer consumption rooms, and tents and sites that have become more and more common in recent years, where people can use under the supervision of another person and receive medical care if they overdose, I think that's tremendously important to have spaces like that for people and of course so many lives have been saved by the existence of those spaces.

According to St. Denis (2021a), some of these safe consumption sites are open 24 hours daily, supervising drug consumption and have been preventing or reversing opioid overdose especially during periods "when people receive their social assistance cheques and drug use, and overdoses tend to rise." These supervised overdose prevention sites are proving to be quite valuable in the fight against the opioid crisis as a number of deaths have been reversed with minimal casualties recorded (St. Denis, 2021a; Lupic, 2018, Woo, 2019a).

However, a combination of strategies including overdose prevention peer-led trainings, the use of public health personnel like street nurses, safe consumption sites and public education strategies are deemed necessary in an effort to combat the current opioid epidemic.

Public health workers and public education strategies

The work on harm reduction done by public health workers as adult educators is one that requires the exchange of ideas between health professionals, researchers, those with lived experiences and other stakeholders. It is also being opened to learning new approaches and being willing to integrate them into programme planning.

When the topic of public education for increasing harm, reduction came up (Interview Question 3), the academic experts provided responses based on their experiences as educators,

the initiatives they are involved in, and the supports offered by some organizations to people of the Downtown Eastside and province wide. They also mentioned the need for partnerships with journalists for more extensive reach in educating the public about harm reduction initiatives and other educational projects in the Downtown Eastside and province-wide through the use of social media.

Sarah pointed out that, as a professor at the School of Population and Public Health at one of the country's institutions of higher learning, she has had the privilege of engaging with different adult learners on varying academic and professional paths. She further noted that she found "the politics of drug use" to be very complicated and shared that her role as an educator is to try to steer students in their own path so that they view the issue of harm reduction as a whole instead of in parts. This she shared is attained when they:

> can have the evidence, can have the voice of the institutions and can have the voice of the providers and can have the voice of the patients. If you can have all those pieces together and move that information, I think that would be fantastic.

Her approach to public health education, and in particular, harm reduction, is one of fitting a puzzle together and in so doing ensures that everyone is represented, duly acknowledged and benefits from the process of efficient healthcare:

> Sometimes we – or most of the time – are missing one piece of the puzzle or we have a very strong community-based portion or we have the patients and the providers and maybe institutional presence but we are lacking the research and evidence.

This holistic and partnership-based strategy of public education though seemingly ideal for this academic expert, proved to be different from the approaches employed by the other academic experts.

In fact, Candice noted, while also a professor at the School of Population and Public Health at an institution of higher learning, that based on the nature of her current research work, she is involved in projects that explore "the resources and the education that can help support people who are working in overdose environments." She noted that there are also face-to-face educational programmes and others put on by institutions such as Vancouver Coastal Health and the BC Campus project. This approach to public education is based on an exchange of knowledge between different institutions, where they "work together to try and identify who's the best to do what and then make sure it happens." This approach she stated is geared towards sustainability.

She noted that based on information gathered from focus groups in trying to identify how best to engage and share with people who use drugs, and by extension the public, there needs to be something that is more sustainable:

> There's a lot of education that goes on that is face-to-face and one-offs and very reliant on individual people and what we're aiming is trying to have something that is more sustainable, have resources that people can use but that it doesn't necessarily have to be face-to-face.

She further noted that her team of researchers have developed anti-stigma modules that come with a facilitator's guide and other materials. She considers these to be sustainable, as the resource materials are accessible and can be shared amongst different communities. One of the videos Candice helped to produce is called "#Peerlife," which she explains is about "all the different things peers do," that is people with lived and living experience who are doing their part in trying to save lives and trying to change the narrative surrounding drug addiction. The idea of the video, she stated, was "so that we could take it to meet and greets." These videos and

other available educational resource materials, she noted, are important, especially in the current climate where the Covid-19 pandemic has impacted interaction:

> It's changed the way we've done things, so it's a bit challenging because we know how important it is for people to have those face-to-face interactions and connections.

Karen has also integrated anti-stigma and awareness videos in her harm reduction programme plan. The prospect of creating sustainable education through the mode of producing and providing educational materials in the form of videos, narrated by young people who use drugs, she hopes will "generate discussion, build empathy among the public and greater understanding." She pointed out that the videos would be "short, digestible, powerful summaries of information" that would highlight some of the complexities surrounding drug use "in the context of an overdose crisis that's killed thousands of people." This is a collaborative venture that she believes helps to build community as it is a "shared exercise in telling stories together."

Karen also hopes that the videos will help to change people's perspectives in that they can see people who use drugs through a different lens. They may think, "that's interesting" or "yeah that was my experience" or "oh that's different from my experience," and in so doing start to "understand what some of the realities are for people who use drugs in the city." Candice concurred, as she noted that, "within a healthcare environment, one is just looking at the stigma from the general public around the hierarchy of substance use." Both of these academic experts agree that these types of videos could potentially be shared on online platforms for more extensive reach. Chloe endorsed that view; in that she believes that one of the most effective ways of engaging the public through social media is by having a "connection to the ground and having a story to tell."

During the interview with Karen, she acknowledged the fact that amongst the participants within the project that she currently runs for young people who use drugs "a lot of them have dropped out of school and are not in the formal education system." Hence, during the process of sharing with their peers and the researchers "they really are being educated." She further acknowledged that "the public health workers working with them are really their educators." She also reiterated the point, that based on her training and practice, she originally held different perspectives of who and what qualifies one as being considered an adult educator. She noted that she didn't really think of her work in the Downtown Eastside as being educational, based on the type of interaction and scope of work covered simply because "when you're not in education, you don't think of it that way."

Dream (What might be?)

Theme 2: Increased public education through social media

The Dream Stage started by asking participants to share their thoughts on the use of social media for programme planning and engaging members of the public (Interview Question 4 and 5). All the academic experts concurred that the concept of integrating social media into public health programme plans for more expansive networking, education and collective support sounds viable. In fact, some mentioned how social media platforms like Twitter and Facebook have been used by public health personnel, journalists and members of the Downtown Eastside community. Two academic experts highlighted the Crackdown podcast while another acknowledged existing life-saving apps that are accessible to people who use drugs in the Downtown Eastside and provincewide. However, the reality is in the Canadian public health

context and in the context of an opioid crisis, the use of social media will look differently to many and may not seem quite plausible for a lot of reasons.

Candice shared that for the purposes of recruiting research participants social media is a good way of "trying to recruit people", especially youths. She also said that the platforms of choice for connecting with others for research projects and public education, are Facebook and Twitter. Each is used seemingly dependent on the people one is trying to connect with and the motive. According to Karen, Facebook is mainly used by "people who are edging up towards thirty", while Sarah says that she finds it unappealing because it has "too much advertisement and too much people checking out what you're doing" but finds Twitter to be "very lean." Based on the comments, some public health organizations may use Facebook for connecting with older clients and for the purpose of advertising or marketing programmes and products. However, for engaging the public in educational debates and to attract particular audiences, so that they can be more extensive in their reach, public health workers could use Twitter as highlighted by Karen that it is "a fantastic venue for political debate and for connecting with like-minded individuals and for, you know generating support and activism."

However, for Sarah social media "is a complicated thing" as she is of the belief that "so far I don't think any, none of us have been able to see how we can work around social media." Chloe however, is of the opinion that social media is an effective tool for the main reason that "it gives you control over how you tell your story and what you're asking….and then you can control the narrative and this is also one strategy in organizing that is very important" For some this power of being able to construct a narrative can prove somewhat problematic as confirmed by Sarah who explained that there are those whose actions cause more harm than anything else, who are deemed "aggressive people that will say whatever" who do so without getting the facts

or “double checking…? they just do it and there is no consequence.” Karen noted “I think social media is potentially important for some people but potentially not for everybody” this due to the fact that for many in the Downtown Eastside, faced with challenges, social media will not come across as an engaging or inclusive space because they are,

> navigating the constant everyday emergencies of poverty, unstable housing, addiction in terms of substance use so it’s very, very hard to be involved in political organizing when you’re absolutely exhausted from the day in day out process of, you know staying alive.

She also shared similar perspectives of social media being a political tool. This she said was based on the premise that based on her observations and experience it “seems like Twitter is a good space for like reaching government, activists and people who are already politically engaged.” Chloe confirmed that when she stated that “I think Twitter is a speaking to power tool” and further shared that from her own experience there are those from the Downtown Eastside who are very much engaged in the use of certain social media platforms solely for political purposes:

> Twitter, remains a place where it’s possible to connect with journalists, with you know investigative reporters, with lawyers, with politicians and for me it continues to be the one that I keep because it gives you access to people who would not otherwise be accessible in that way and you can really present ideas and have a really fast, big, impact.

She also confirmed that spaces like Twitter are not only used for organizing but also for the widespread of information by journalists and others in the Downtown Eastside. She stated “I can name at least ten huge voices on Twitter that are all on the Downtown Eastside like journalists” she went on to say that,

> they are Twitter savvy, they are respected, they are like these big voices and everyone follows them in media and considers them like kind of these big voices and they get interviewed and they get a lot of information out there this way.

From this comment it is evident that there are some, even public health personnel who believe journalists are great assets to public education and as a result have partnered with them for the benefit of being heard.

Design (How can it be?)

Theme 3: Partnerships for increased social media use

From the academic experts' points of view, the most ideal way of integrating social media into public health programme plans and for voicing concerns, would be to engage journalists into partnering with public health workers. However, while this method seems most appealing, one academic expert highlighted the fact, that based on the high levels of bureaucracy that exist within public health organizations, the main reasons public health workers would want to partner with journalists is that they fear that they would not be able to share their concerns or add to a social cause and remain anonymous.

Chloe noted that "there are limits to people depending on the type of employment they have." Sarah, however, is not of this view, as she contends that public health workers "independently ... can do and say whatever as far as they say my thoughts are my own." However, Chloe is adamant that this is not in fact the experience of many public health workers. She noted that as a former frontline worker in the Downtown Eastside, "my reality is that every single nurse I know out there cannot really be vocal on social media because their employer can come back and you know, discipline them." She shared that one of the major risks in being

"publicly identifiable" on social media platforms like Twitter as an employee of a hospital or clinic is getting "fired..., and there are risks to their careers." This she says is due to the fact that one might be considered to be representing the organization to which one is employed (even if that is not the case) and can further be chided for saying "something that might be seen as not professional." She then shared her own story of why she believes more than anything that public health personnel should partner with journalists. She noted that early in her career, she

> ...ended up doing a shift at Insite with the nurses and we did like a lot of back and forth on Facebook, with messenger at the time and they were like "if you come here, you can shed light on what nurses were going through because you're not from here but we trust you.

That trusting relationship led her to write a number of opinion pieces that triggered much attention on social media which in turn contributed to "provincial-wide meetings in Vancouver with all the big nursing organizations because of the pieces that I had written." The nurses who contributed to the opinion pieces remained anonymous, but they got the result they were hoping for because of a nurse who wore two hats: one as public health worker and the other as writer for the *Georgia Straight*. This example clearly articulates the boundaries within which public health workers like nurses have to operate when engaging with social media. They have to consciously do so within the ethical and legal domains of their profession. A relationship with journalists may prove beneficial given the fact that, based on the nature of their jobs, they have more freedom of expression on social media platforms and to a high degree can ensure source protection or confidentiality.

Another reason for wanting to partner with journalists as pointed out by Sarah is that they are considered to be the ones who can "handle social media better than anybody else right now." Other academic experts concurred. Karen commented,

> there are some reporters who we work with quite often who, who do a fantastic job of covering the issues fairly and who are really interested [may I just speak to the youth aspect of things], who are really interested in understanding what young people are thinking about the overdose crisis and about substance abuse and about harm reduction and are interested in getting out those kind of things in the media.

Chloe noted, "I think folks in the Downtown Eastside have really developed some very strong relationships with those reporters." She further acknowledged the work of Jen St. Denis: "she is the designated Downtown Eastside reporter, so her entire job is to report on that small block of the city. She's amazing." Andrea Woo was also mentioned as the public health reporter for the *Globe and Mail*. Karen highlighted the work of Travis Lupic from the *Georgia Straight* and his book *Fighting for Space* on "harm reduction activism in Vancouver." Sarah aptly stated that journalists "understand how this moves, they understand the power of images, they understand the power of words, they know how to say two or three things with few words. We need to partner with them."

Barriers to social media use

Based on the comments made by the academic experts, one would hasten to say that public health workers should definitely forge relationships and partnerships with journalists in order to generate community support for harm reduction, for public education and advocacy. However, the academic experts were also very clear on highlighting some of the obvious challenges to using social media. Karen highlighted the fact that one of the major challenges for

people who use substances is access to technology. While they may have some access to computers or internet at libraries or in some business establishments, “people who use drugs are kicked out of a lot of spaces that have free Wi-Fi.” She was also quick to note that when it comes to personal devices, people have false assumptions, especially when it comes to young people who use drugs, by thinking that “they must have smartphones, they must be online.” She stated emphatically,

> we need to be careful about assuming that social media being this inclusive space, that is always going to draw everyone together because I think social media and the internet does function like that for a lot of us if you’ve got access to you know an internet connection and a laptop or smartphone, but people who are living in entrenched poverty in the city don’t necessarily have access to those things.

Candice endorsed this view and further provided evidence from two BC Harm Reduction surveys (see Appendix F), of which she said,

> we found in our survey which was in 2018 and again in 2019 only about 50% of people have a phone and those that do have a phone may or may only have it at the beginning of the month when they get their social assistance payment, and they sell it again later on in the month.

This comment identifies layers to the reasons why social media usage for networking, public education, and support in the Downtown Eastside may seem impractical. Karen believes there are “real barriers to being online.” She further expounded on the challenges that exist for people who use drugs and why technological devices like phones and social media platforms are not considered inviting or priorities. She highlighted the fact that unlike many other places in the world where she has worked and lived, she believes that owning a phone in Canada “is so expensive here.” She highlighted the fact that in other jurisdictions, people can purchase phone

credit “a dollar at a time.” This is most cost effective for those who are struggling with “navigating homelessness and all the crises and emergencies that come with that.” Sarah is of the opinion that if people who use drugs get some type of financial remuneration to join social media platforms, then probably “once you pay them, you’ll have that power imbalance.”

Another reason Karen believes that people who use drugs would not necessarily be drawn to social media is that they may struggle with the idea of “how to present yourself online.” Sarah shared similar sentiments when she mentioned that some of her clients have beautiful stories to share. She noted that a client she worked with named “John” had a story she believed needed to be shared, and that he could have benefited from having a social media account like Twitter to bring awareness to drug use issues. The support she believes she could offer him as an ally would be in the form of ensuring his story is well presented, telling him, “John that story is fantastic and needs structure.” For those like “John,” Karen believes that social media is not necessarily the space for them: not only is it not an “inclusive space,” but it is also “the most democratic” which in and of itself poses too many risks. These responses rule out the possibility of social media being able to foster community for many members of the Downtown Eastside and further erode the chances of it providing equitable participation and empowerment.

Technologies and innovations

In the absence of social media platforms, Karen believes, for the purpose of sharing stories by people who use drugs and for public education, that digital audio files like the Crackdown podcast hosted by Garth Mullins is an excellent platform. She pointed out that the podcast is a space where “we hear from people who use drugs and their allies about the evolution of harm reduction in Vancouver.” She further highlighted the benefits of hearing stories

presented by people with lived and living experiences in their most authentic form: “I think for me and for many of my students, that’s incredibly informative and educational to hear that story told in that format.” Chloe also added that the host is someone who “uses Twitter really well” and is extensive in his reach in sharing stories of people who use drugs. Based on the comments by the academic experts, it is fair to say that the Crackdown podcast seems to be that safe space for persons who use drugs to air those beautiful, impacting stories without being so concerned about structure and presentation.

Life-saving apps

I was pleasantly surprised to learn that apart from community efforts and social media spaces for advocacy and increased harm reduction, that publicly funded life-saving apps exist and are available to people who use drugs. Radar and Lifeguard, for example, function as overdose prevention tools that offer connection to a community of support when a user is in the process of using substances. Candice noted that people who use drugs can register for both Radar and Lifeguard. She further explained how each works. Radar, she noted, is an alert system on identified substances that are of concern. It is shared “with other organisations who themselves will use their resources to move forward on that (alerts).” Lifeguard, on the other hand, has a different mode of application. It is for,

> when you’re about to use substances, you kind of check-in and say “I’m just about to use” and there’s an alarm that goes off for a minute and if you don’t answer it, it gets louder and louder and starts flashing and vibrating. And then if you still don’t answer, they will mobilise the paramedics, emergency health services to come.

There is also a third app that was mentioned named Brave which is peer-supported and is a type of "virtual observed substance use," where persons do not have to go to supervised consumption sites but instead have the option of connecting with someone on the phone. In the event something happens, there is somebody "who knows where you are and alert services if need be."

All three apps speak to the strength of a community where both public health personnel and people who use substances have joined forces in trying as best as possible – in this technologically driven era– to be innovative in developing programmes within the context of users of drugs and harm reduction. However, as highlighted by Candice, "it's all very well saying we've got these apps and we've got these various things, but how do you reach people and it's not always through social media, it's word of mouth, it's so important in this community." Karen concurred when she commented, "we still need to make sure we're doing the old fashion work, sitting together in rooms, you know, advocating and talking about these issues, speaking about how we can come together to create these changes." Candice also reiterated the point that in order to be effective in reaching people, trust has to be earned as,

> there are different stakeholders and folks who may come with different perspectives and when you have paramedics and police or you know a counsellor, you know that trust has to be earned. It's not automatically cause somebody has training because they don't have that understanding of the realities of living on the street or using substances and what it's like to be in withdrawal and you know not able to get what you need to be healthy.

What is quite evident is that for the community of the Downtown Eastside, nothing can substitute face-to-face connections and communication for effective responses. It is also clear that for the way forward, more work needs to be done in terms of public health partnerships and mobilising to change the dominant narrative of a "broken community in need of rescuing."

Destiny (What will be?)

Theme 4: Programme planning: Integrating new strategies

In a bid to advance the cause for increased harm reduction in the Downtown Eastside and Greater Vancouver, the academic experts had varying ideas about developing public education strategies using social media to heighten the vitality of public health workers (Interview Question 6). The three main points that came up were: a) community awareness training, b) continued collaborations, and c) commitment to service. The points are presented as integrated and overlapping.

Chloe believes that it is imperative that future public health personnel receive training in community awareness where they can understand the context of the Downtown Eastside and foster a better appreciation of it through guided questions like: a) What is the history of that neighbourhood? b) How did it come to be known as the DTES? c) What are some of the big moments in the history? d) Who are the champions, the leaders? She also believes that understanding "how to be a good ally" and "knowing your rights" are excellent components to heightening their vitality. Karen agrees that public health workers need to understand the community in a more in-depth way in order to be more effective. For her, this can be accomplished through educating public health workers on:

> The social determinants of health or what other people call structural competencies like you know, how factors external to individuals shape their health. Like you know, the colonial past and present is a great example, racism more broadly. You know, entrenched poverty, and income and equality. Everyone needs to understand those are huge factors in shaping whether someone ends up living and using drugs in the Downtown Eastside.

Continued collaborative efforts by people who use drugs and education for healthcare providers also helps to answer questions such as a) How do you be an activist and an ally within the healthcare system? b) How do you change it? c) How do you connect with people and really work for change consistently? Karen believes addressing these questions are steps in the right direction. Sarah reiterated the need for partnerships with journalists but also emphasized the need for increased funding. Candice on the other hand highlighted the importance of "finding the right people." She further explained that,

> there's a lot of folks who may be in public health and may be doing well but they may not have the credibility or the understanding so to really have that vitality and be involved and make a difference… we either have to be selective of who we're engaging and who's leading that, or we have to ensure that there is and it's not just education you can't learn, you have to be submerged and you have to have that understanding and you have to be a certain personality too.

In short, it is clear that there are many variables to consider in terms of programme planning when engaging public health workers for the Downtown Eastside.

In essence, all the ideas provided by the academic experts can be synthesized into a programme similar to the one suggested by Dr. Keith Ahmad, medical director for the regional addiction programme at Vancouver Coastal Health, as highlighted by Woo (2019b). Here the emphasis is on investing in "primary-care models that are integrated with harm reduction while simultaneously funding and regulating evidence-based treatment and addressing social determinants of health." Presumptively, this is a more holistic approach to healthcare programme planning and can potentially address some of the existing challenges and take into account the need for more collaborative efforts and policy changes. These requirements of such a programme

are major components of healthcare service delivery in the context of the opioid crisis. Public health workers as adult educators also have to be equipped with all the necessary resources in order to efficiently support reciprocal learning. Aptly stated by Candice, the focus is empowerment, “we need to empower, it’s not that we need to educate and tell people what they need to do,” but rather, as stated earlier, it is listening to them, understanding their situations and providing the supports needed.

Chapter Summary

Four main findings of this research study were presented following the AI 4-D model. The first finding examined the role of community relationships and grassroots harm reduction initiatives effecting positive changes in healthcare in the Downtown Eastside. The second explored social media use for more extensive community support by public health workers. The third described the partnerships that seem most viable by public health workers for community awareness, advocacy and activism. The last finding examined effective public education strategies that can be integrated into programme planning for public health workers.

Chapter 5: Discussion and Conclusion

In this chapter, I examine the importance of the main findings of the study. First, I present a summary of the research questions and locate findings within the related literature. Secondly, I consider the implications of the study and its limitations. Finally, I close the chapter with a reflection and concluding remarks.

Summary of Key Findings

The purpose of this study was to examine the community-based harm reduction initiatives and strategies existing in the Downtown Eastside, and to further explore the potential use of social media by public health workers to foster community, education for equitable participation empowerment and improved educational programming in an effort to combat the opioid crisis. Four main findings were identified using the AI 4-D model. Each finding built on the previous one, providing clear insights as they collectively addressed the study's research questions. The themes also helped to develop a narrative of the evolving process of change "designed to meet the unique challenges" (Cooperrider and Whitney, 2005, p. 278) of the Downtown Eastside community.

Of particular relevance were the following research questions: 1) What challenges and successes do grassroots approaches to public health encounter in promoting harm reduction activities? And 2) What educational roles do residents of the Downtown Eastside play in harm reduction strategies? The answers to both questions provided a unique contribution to the literature on liberatory pedagogy as understood within adult education and public health. This was especially true in the context of planning and designing programmes for those living and working in the Downtown Eastside. Despite obvious social determinants to healthcare, the

members of the Downtown Eastside have demonstrated that they possess a wealth of knowledge and experience that is shared widely within the community and beyond and continues to positively impact the way we view harm reduction. In fact, prior to the research process, I was of the belief that the community members were solely recipients of knowledge on harm reduction strategies imparted to them by The Department of Public Health. Since conducting the research, I have been enlightened on how Freirean principles of praxis (reflection and action) along with participatory education have been actively operating within the DTES and have helped to shape the common identity (Israel et al.,1994) of struggle for liberation, that has existed in the Downtown Eastside for several years.

Throughout the findings there is evidence of high levels of reciprocal adult learning taking place in the community: peer-to-peer, healthcare worker to patients, and vice versa. This learning is a major component of the DTES' vitality and community empowerment (Persily and Hildebrandt, 2008). This two-way learning, often occurring during face-to-face meetings, stimulates a call to action which is reflective of all aspects of Knowles' (1980) adult learning assumptions. The research further highlights the fact that the reciprocal learning that takes place in the Downtown Eastside has led to a number of revolutionary works and continues to be a major component to addressing the community's needs. Also, the peer-led initiatives demonstrate the resilience that is a reflection of community empowerment, which comprises belonging and contributing to community, self-reliance and participation (WHO, 2010). The findings have demonstrated that the role and mission of adult educator (Knowles,1980) within the Downtown Eastside, is not limited to trained public health personnel and their efforts at harm reduction, but rather it is twofold, both peer-led and led by public health workers. It is a union of lived experience and professional training that fosters community empowerment (Wallerstein

and Bernstein, 1994) that has clearly been revealed through the AI 4-D model findings and has reinforced the community's strengths-based approach to change (Cooperrider and Whitney, 2005). The findings from both research questions have significantly contributed to the study's deviation or departure from the traditional deficit model often expressed by many when characterising the Downtown Eastside community.

Another major finding was not only the limitations to social media use, but also the significant dependence on journalists by frontline public health workers, as highlighted by the third research question, how do health workers use social media as part of their work in Vancouver? And what challenges, if any are associated with its use as a community support strategy? While I am aware of the ethical and professional confines in which public health workers operate and also the risks associated with social media use, I was not aware of the high dependence on journalists to act as a medium for advocacy, activism, and public education within the Downtown Eastside. All four academic experts highlighted the need for partnership between public health workers and journalists as a means of enlightening and engaging the public and government officials for policy reforms and collective support.

Also, I was certainly not aware of the limited access to the internet by people who use drugs in the Downtown Eastside. I entered the research with the assumption that in this day of technology, almost everyone has access to phones, computers and internet. The findings provided a rude awakening that limited access to technology is inextricably linked to social determinants to healthcare in communities where people use drugs. The fact that almost 50% of people who use drugs do not own a cellular phone or are not allowed access to some places that offer free Wi-Fi is disturbing. These findings erode the concept of community support and empowerment when the tools needed to strengthen communication and relationships are lacking.

It is evident that if this gap is not addressed, face-to-face meetings will remain the most efficient form of communication. However, in a pandemic where no one is able to detect how long it will last, and social distancing is key to safety, it is also clear that, that means of communication may become increasingly limited in these communities.

Finally, the research findings confirmed the fact that while social media could potentially be an excellent means of engaging people and building community discourse and support (Warburton, 2013; Careless, 2015b), it is also not a very inclusive and safe space for many. However, I was pleasantly surprised to learn of the Crackdown podcast, and that it is an excellent medium for public education where people who use drugs can share their experiences in a most authentic way. I was even more surprised to learn about the life-saving apps Lifeguard and Radar that are available to people who use drugs, and also the virtual consumption app BRAVE. These apps highlight the collaborative nature of technologies (Careless, 2015a). They also reveal the innovation and determination of public health personnel and people with lived and living experiences to change the narrative of deficit and defeat to focusing on the innumerable possibilities of technology use in contributing to increasing harm reduction efforts. Also, they highlight the need to further explore how the integration of technological apps can heighten the vitality of public health workers in the Downtown Eastside for harm reduction. However, as stated earlier, these are technological apps. If one does not have the requisite device, the app is of no use to them, hence the need to address these "factors external to individuals" (Karen), so that we, and they, can improve their health outcomes.

Implications of Research Findings

This study has important implications for current and incoming public health workers who are engaging with people who use drugs. First, it highlights the importance of ensuring that persons are trained in the skills needed to foster an awareness and appreciation for the knowledge base of people within those communities. These include ensuring relationships are built with people with lived and living experiences as well as valuing their inputs and integrating their voices into structured programmes where they can participate and share with others (peers, police officers, public health personnel etc.). Second, the study highlights how the social determinants to healthcare are greatly impacting the way people who use drugs are viewed and treated. It further provides suggestions provided by the academic experts on how public education and programme planning can potentially contribute to positive changes. This is important because until these social determinants to healthcare are addressed, the opioid epidemic will continue to have devastating impacts on Vancouver, and by extension, British Columbia, for years to come. Aptly stated by Karen: "what your project is getting at, is the step that we could take which is one step further, is to educate the people about how to be activists, to really work within the system, to change the system."

Limitations of the Study

Study participants may not have fully represented the public health population in the Downtown Eastside and provincewide. Due to the current COVID-19 pandemic and safety restrictions in place, the researcher experienced challenges in procuring a more diverse group of participants. The original intent of the researcher was to conduct one-on-one interviews with directors and programme coordinators along with other members of staff of outreach

programmes in the Downtown Eastside. However, based on the increased number of COVID-19 cases province-wide and the rise in variants, it was recommended that I instead interview academic experts who have done extensive work in the community. The challenge of having a more diverse representation was further compounded by the fact that people have been working from home, which in and of itself poses many challenges and reduces motivation to participate.

Secondly, since this is a case study using the AI method of inquiry to understand harm reduction methods in the Downtown Eastside, it requires in-depth research and analysis. However, because this research project was for my MA thesis, time was of the essence. The desire, though, is to conduct follow-up research that will be more participatory and extensive.

Reflection and Concluding Remarks

I was travelling on the bus today reflecting on my research journey and was amused at the number of ideas I had prior to the start of the research. I was even more amazed at the outcome of the research. This was simply because I held the notion that I was going to go to the Downtown Eastside, clad in my super-hero's cape, and investigate ways in which I could save the community from itself. However, the journey, like many others, was filled with twists and turns, and led me to a place of personal reflection on several occasions.

I must first note that I had to make numerous changes in perspectives and approaches in order to accomplish a well-developed research project, in the height of a pandemic. During the research proposal phase, I considered doing a participatory action research which I discussed with my supervisor. However, due to the demands of that type of methodology (community participants acting as collaborative researchers) and the fact that COVID-19 hit a few months before submission of the proposal to the Behavioural Research Ethics Board (BREB), I had to

review different approaches to the study. Not only did I change my methodology to that of a case study, but I was also introduced to the appreciative inquiry method by my research committee (for which I am extremely grateful), which was totally new to me. I also had to change my research questions and the title several times, as I found myself faced with the challenges of navigating the research project. The current title is the revised version to the one on my letters of invitation to participate and consent which was developed post my oral examination, based on suggestions by my examining committee to have one that is more specific and reflects the research undertaken.

During the actual research, I was reminded of the fact that people who use drugs have been exposed to social determinants to health like poverty, colonialism, racism, inequitable access to education and a myriad more that have significantly contributed to them resorting to substance use. I have many times throughout the course of this research, paused and reflected on my cousin, whose mom left him as a teenager with relatives in search of 'a better life' in the U.S. I have now developed a greater understanding of how that significantly impacted him and led to his dependence on alcohol and substances.

I further reflected on my own life in Jamaica, where I grew up in poverty, was exposed to drugs, guns, violence, and other social determinants to health but am now better able to credit those from the inner-city communities in which I lived, who initiated public health awareness and youth programmes. My earliest recollection is that of my formative years growing up in East Kingston, during the HIV/AIDS epidemic where, in an effort to foster awareness and community empowerment, community members developed numerous public health initiatives. Promotional activities around safe sex practices through workshops along with structured condom distribution programmes were established and remain to this day. Each effort helped to reduce the fear of

contracting the disease and the feeling of hopelessness brought on by poverty. Now, as an aspiring academic, I am more determined to shed light on community-based initiatives within marginalised communities that bring hope and to also advocate for those who are struggling to overcome social stratifications and social constructs that keep them from living full lives.

I also reflected on the resilience of the members of the Downtown Eastside community as while research participants have suggested public health workers partnering with journalists to share their stories, I recently learned that the residents are doing it on their own. They are writing and sharing their stories in a local street newspaper called Megaphone and are proving to many that educationally, they host a wealth of knowledge and skills, that if supported, can positively contribute to increased harm reduction while reducing existing inequities. This research project has helped to highlight the fact that those within places of power need to address the social determinants to healthcare so that issues like access to technology for increased communication, community relations and support, due to poverty can become a thing of the past.

Finally, in my reflections, I have pondered whether or not my research questions were answered. I am satisfied that not only were they answered, but they have also led to interesting discoveries and findings about the Downtown Eastside, that have exceeded my expectations. The hope is that the findings from this research will represent new, exploratory contributions to understanding perspectives on adult education, specifically in public health education. Further, it has helped to highlight the fact that people with lived and living experiences should be respected as knowledge keepers. The AI framework used, has provided a guide for both individuals and organizations on how to identify the strengths of the Downtown Eastside community and capitalize on them.

References

Baxter, P. and Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. Retrieved from: https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1573&context=tqr

BC Centre for Disease Control (2020). Harm reduction client survey. Retrieved from: http://www.bccdc.ca/health-professionals/data-reports/harm-reduction-client-survey

BC Harm Reduction Strategies and Services (2014). BC Harm Reduction Strategies and Services Committee Policy Indicators Report. Retrieved from: http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/Other/BCHRSS2012PolicyIndicatorsReportDRAFTJuly2014.pdf

Bekalu, M., McCloud, R. and Viswanath, K. (2019). Association of social media use with social well-being, positive mental health, and self-rated health: Disentangling routine use from emotional connection to use. Retrieved from: https://journals.sagepub.com/doi/full/10.1177/1090198119863768

Bhattacherjee, A. (2012). *Social Science Research: Principles, Methods, and Practices* (2nd ed.). Tampa, FL: University of South Florida.

Boyd, N. and Bright, D. (2007). Appreciative inquiry as a mode of action research for community psychology. Retrieved from: https://onlinelibrary.wiley.com/doi/epdf/10.1002/jcop.20208

British Columbia Centre for Excellence in HIV/AIDS. (2009). Findings from the evaluation of Vancouver's pilot medically supervised safe injection facility – insite. Retrieved from: https://www.bccsu.ca/wpcontent/uploads/2016/10/insite_report-eng.pdf

Calabrese, R. and Cohen, E. (2013). An appreciative inquiry into an urban drug court: cultural transformation. Retrieved from: https://files.eric.ed.gov/fulltext/EJ1004996.pdf

Canadian Mental Health Association. (2018). Care not Corrections: Relieving the opioid crisis in Canada. Retrieved from: https://cmha.ca/wp-content/uploads/2018/04/CMHA-Opioid-Policy-Full-Report_Final_EN.pdf

Canadian Mental Health Association. (2021). Harm reduction. Retrieved from: https://ontario.cmha.ca/harm-reduction/

Careless, E. (2015a). Perspectives in AE— "Typing Back": Social media as space for critical discourse. *New Horizons in Adult Education and Human Resource Development*, *27(3),* 50-55.

Careless, E. (2015b). Social media for social justice in Adult Education: A critical theoretical framework. Journal of Teaching and Learning, 10 (1), 13-26 Retrieved from: https://ojs.uwindsor.ca/index.php/JTL/article/download/3972/pdf/

Chetty, L. (2013). Innovative qualitative case study research method aligned with systems of theory for physiotherapy and rehabilitation research: A review of the methodology. Retrieved from: file: https://www.ajol.info/index.php/ajprs/article/view/109240

City of Vancouver (2020). Vancouver's approach to the Overdose Crisis. Retrieved form: https://vancouver.ca/people-programs/drugs.aspx

Cooperrider, D. and Whitney, D. (2005). *Appreciative inquiry: A positive revolution in change.* Berrett-Koehler Publishers.

Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* (4th ed.) Pearson: India.

Creswell, J. (2014). *Research design: Qualitative, quantitative and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage.

Cypress, B.S. (2017). Rigor or reliability and validity in qualitative research: Perspectives, strategies, reconceptualization, and recommendations. Retrieved from: https://journals.lww.com/dccnjournal/Fulltext/2017/07000/Rigor_or_Reliability_and_Validity_in_Qualitative.6.aspx

Dainty, A R J, Bagilhole, B M and Neale, R H (1997) Analytical strategies for dealing with qualitative data in construction management research. In: Stephenson, P (Ed.), 13th *Annual ARCOM Conference, 15-17*, September 1997, King's College, Cambridge. Association of Researchers in Construction Management, Vol. 2, 484-93.

DVV International (2019). Introducing the good adult educator. Retrieved from: https://www.dvv-international.de/fileadmin/files/Inhalte_Bilder_und_Dokumente/Microsite_AED/Ausgabe_86/DVV-AED-EN-86.pdf

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Herder and Herder.

Freire, P. (1983). The importance of the act of reading. Retrieved from: https://serendipstudio.org/exchange/files/freire.pdf

Hardeman, R., Murphy, K., Karbeah, J., and Kozhimannil, K. (2018). Naming Institutionalized Racism in the Public Health Literature: A Systematic Literature Review. Retrieved from: https://journals.sagepub.com/doi/pdf/10.1177/0033354918760574

Heale, R. and Twycross, A. (2018). What is a case study? Retrieved from: https://ebn.bmj.com/content/ebnurs/21/1/7.full.pdf

HealthLink BC (2021). Substance use: Harm reduction. Retrieved from: https://www.healthlinkbc.ca/healthlinkbc-files/substance-use-harm-reduction

Helps, H.G. (2012). The bloody general election that changed Jamaica. Retrieved from: https://www.jamaicaobserver.com/news/The-bloody-general-election-that-changed-Jamaica

Israel, B., Checkoway, B., Schulz, A and Zimmerman, M. (1994). Health education and community empowerment: Conceptualizing and measuring perceptions of individual, organizational and community control. Retrieved from: file:///Users/admin/Downloads/10.1177_109019819402100203.pdf

Jozaghi, E. (2012). 'A little heaven in hell': The role of a supervised injection facility in transforming place. *Urban Geography*, *33(8),* 1144–1162.

Jozaghi, E. and Andresen, M. (2013). Should North America's first and only supervised injection facility (InSite) be expanded in British Columbia, Canada? Retrieved from: https://harmreductionjournal.biomedcentral.com/track/pdf/10.1186/1477-7517-10-1.pdf

Jozaghi, E. (2014). The role of drug users' advocacy group in changing the dynamics of life in the Downtown Eastside of Vancouver, Canada. *Journal of substance use*, *19 (1-2),* 213-218.

Johnson, J., Adkins, D., and Chauvin, S. (2020). A review of the quality indicators of rigor in qualitative research. Retrieved from: https://www.ajpe.org/content/ajpe/84/1/7120.full.pdf

Kerr, T., Mitra, S., Kennedy, M. and McNeil, R. (2017). Supervised injection facilities in Canada: past, present and future. Retrieved from: https://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-017-0154-1

Knight, S. (2009). *NLP at Work: The Essence of Excellence*. (3rd ed.) London UK: WS Bookwell.

Knowles, M. S. (1978). Andragogy: Adult Learning Theory in Perspective. Retrieved from: file:///Users/admin/Downloads/Knowles-%20Andragogy.pdf

Knowles, M. S. (1980). The modern practice of adult education: From pedagogy to andragogy. Retrieved from: https://www.umsl.edu/~henschkej/articles/a_The_%20Modern_Practice_of_Adult_Education.pdf

Knowles, M.S. (1983). The adult learner: A neglected species. Retrieved from: https://files.eric.ed.gov/fulltext/ED084368.pdf

Knowles, M. S., and Associates (1984). *Andragogy in Action: Applying Modern Principles of Adult Learning.* San Francisco: Jossey-Bass.

Labonte, R. (1994). Health Promotion and Empowerment: Reflections on Professional Practice. *Health Education Quarterly*, *21, (2),* Special Issue: Community Empowerment, Participatory Education, and Health—Part I, 253-268.

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches.* Guilford Press, New York.

Li, L., Lin, C., Feng, N., Le, T., Hsieh, J., Nguyen, D., and Nguyen, T. (2019). Using social media to enhance provider network for HIV and harm reduction service integration in Vietnam. Retrieved from: https://pubmed.ncbi.nlm.nih.gov/31154559/

Lindeman, E. C. (1926). *The meaning of adult education.* New York: New Republic.

Lindeman, E. C. (1956;1927). Selected Writings. In R. Gessner (Ed.), *The Democratic Man: Selected Writings of Eduard C. Lindeman.* Boston: Beacon Press.

Lupic, T. (2017). *Fighting for space: How a group of drug users transformed one city's struggle with addiction.* Arsenal Pulp Press, Vancouver.

Lupic, T. (2018). Overdose-response advocate Sarah Blyth announces run for Vancouver city council. Retrieved from: https://www.straight.com/news/1059946/overdose-response-advocate-sarah-blyth-announces-run-vancouver-city-council

Mayfield-Johnson, S. (2011). Adult learning, community education, and public health: Making connections through community health advisors. Retrieved from: https://onlinelibrary.wiley.com/doi/pdfdirect/10.1002/ace.411

Merriam, S. and Bierema, L. (2013). Adult learning: Linking theory and practice. Retrieved from: https://ebookcentral.proquest.com/lib/ubc/reader.action?docID=1376941

Merriam Webster (2021). Definition of social media. Retrieved from: https://www.merriam-webster.com/dictionary/social%20media

Mertler, C. A. (2017). *Action research: Improving schools and empowering* educators (5th ed.). Thousand Oaks, CA: Sage.

Ministry of Health. (2005). Harm reduction: A British Columbia community guide. Retrieved from: https://www.health.gov.bc.ca/library/publications/year/2005/hrcommunityguide.pdf

Ministry of Public Safety and Solicitor General (2018). Illicit drug overdose in BC. Retrieved from: https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-

divorce/deaths/coroners-service/statistical/illicitdrugoverdosedeathsinbc-findingsofcoronersinvestigations-final.pdf

National Academy of Sciences (2012). An integrated framework for assessing the value of community-based prevention. Retrieved from: https://www.ncbi.nlm.nih.gov/books/NBK206926/

Ng, J., Sutherland, C., and Kolber, M. (2017). Does evidence support supervised injection sites? Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5685449/pdf/0630866.pdf

Niven, R. (2011). The role of social media in community building and development. Retrieved from: https://www.theguardian.com/voluntary-sector-network/community-action-blog/2011/dec/08/facebook-social-media-community-development

O'Leary, Z. (2014). *The essential guide to doing your research project* (3rd ed.). Thousand Oaks, CA: SAGE Publications, Inc.

Persily, C.A and Hildebrant, E. (2008). Theory of community empowerment. In Smith, M.J. & Lierhe, P.R. *Middle Range Theories for Nursing* (2nd Eds.). New York, NY: Springer Publishing Company.

Philpott, J. (2020). The courage to save lives. In *Maclean's 2020: The year ahead* (January Eds.). Toronto, Ontario: St. Joseph Communication.

Raphael, D. (2011). Mainstream media and the social determinants of health in Canada: is it time to call it a day? *Health Promotion International, 26 (2),* 220-229.

Reininger, B., Martin, D., Ross, M., Sinicrope, P. and Dinh-Zarr, T. (2006). Advancing the theory and measurement of collective empowerment: A qualitative study. Retrieved from: https://journals.sagepub.com/doi/pdf/10.2190/8588-68K4-07M3-7164

Rogers, P. and Fraser, D. (2003). Appreciating Appreciative Inquiry. Retrieved from: https://onlinelibrary-wiley-com.ezproxy.library.ubc.ca/doi/pdfdirect/10.1002/ev.101

Small, D., Palepu, A. and Tyndall, M (2006). The establishment of North America's first state sanctioned supervised injection facility: A case study in culture change. Retrieved from: http://www.bccdc.ca/resource-gallery/Documents/Statistics%20and%20Research/Publications/Epid/Other/12_A_case_study_in_culture_change.pdf

Smith, M. (2016). Can social media help prevent opioid abuse? Retrieved from: https://www.sciencemag.org/news/2016/07/can-social-media-help-prevent-opioid-abuse

St. Denis, J. (2021a). Inside Strathcona Park's 24-hour overdose prevention site. Retrieved from: https://thetyee.ca/News/2021/04/30/Vancouver-Only-24-Hour-Overdose-Prevention-Site-Closing/

St. Denis, J. (2021b). After long fight, overdose prevention site peer workers join union. Retrieved from: https://www.thestar.com/news/canada/2021/01/18/after-long-fight-overdose-prevention-site-peer-workers-join-union.html

The Public Health Agency of Canada (2021). About the agency. Retrieved from: https://www.canada.ca/en/public-health/corporate/mandate/about-agency.html

The Royal Society of Edinburgh (2014). Advice paper: Community empowerment and capacity building. Retrieved from: https://www.rse.org.uk/wp-content/uploads/2016/09/AP14_08.pdf

Ventola, L. (2014). Social Media and Health Care Professionals: Benefits, Risks, and Best Practices. Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103576/pdf/ptj3907491.pdf

Wallerstein, N. and Bernstein, E. (1994). Introduction to community empowerment, Participatory Education and Health. Retrieved from: http://journals.sagepub.com/doi/pdf/10.1177/109019819402100202

Warburton, S. (2013). *Digital identity and social media*. Hershey, PA: Information Science Reference, IGI Global.

WHO (2009). Community empowerment: 7th Global conference on health promotion. Retrieved from: https://www.who.int/healthpromotion/conferences/7gchp/track1/en/

WHO (2010). User empowerment in mental health- a statement by the WHO Regional Office for Europe. Retrieved from: https://www.euro.who.int/__data/assets/pdf_file/0020/113834/E93430.pdf

Woo, A. (2019a). Unsanctioned overdose-prevention site opens in Maple Ridge, renewing debate over drug use and homelessness. Retrieved from: https://www.theglobeandmail.com/canada/british-columbia/article-unsanctioned-overdose-prevention-site-opens-in-maple-ridge-renewing/

Woo, A. (2019b). Vancouver health experts warn federal committee to expand focus in addiction treatments. Retrieved from: https://www.theglobeandmail.com/canada/british-columbia/article-vancouver-health-experts-warn-federal-committee-to-expand-focus-in/

Wood, E., Tyndall, M., Lai, C. Montaner, J. and Kerr (2006). Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime.

Retrieved from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1471778/pdf/1747-597X-1-13.pdf

Appendices

Appendix A

Common guidelines for the use of social media by Health Care Professionals

Context	*Concept*
Professional ethics	▪ Do not make false or misleading claims. ▪ Disclose any in-kind or financial compensation received.
Self-identification	▪ Identify yourself on professional sites. ▪ Make sure that your credentials are correctly stated ▪ Specify whether or not you are representing an employer.
Content Credibility	▪ Share only information from credible sources. ▪ Refute any inaccurate information you encounter.
Legal concerns	▪ Remember that the content you author may be discoverable. ▪ Comply with federal and state privacy laws. ▪ Respect copyright laws.
Licensing concerns	▪ Know professional licensure requirements for your state.
Networking practices	▪ Do not contact patients with requests to join your network. ▪ Direct patients who want to join your personal network to a more secure means of communication or to your professional site.
Patient privacy	▪ Avoid writing about specific patients. ▪ Make sure you are in compliance with state and federal privacy laws. ▪ Obtain patient consent when required. ▪ Protect patient information through “de-identification”. ▪ Use a specific tone when discussing patients.
Personal privacy	▪ Use the most secure privacy settings available. ▪ Keep personal and professional profiles separate.

Excerpt from: The National Council of State Boards of Nursing’s (NCSBN) *White Paper: A Nurse’s Guide to the Use of Social Media*, 2011.

Appendix B

LETTER OF INVITATION TO PARTICIPATE IN RESEARCH

Vancouver's Distress: How Public Health Workers Use Social Media to Combat the Opioid Crisis

Dear [Name and Position of Coordinator/Expert],

My name is Denneisha Griffin-Pinnock. I am an educator from Jamaica, where for 14 years I have worked as a community and school-based advocate for youth who use drugs. I work with youth, their families, schools and communities to help foster awareness, build capacity for change, and promote harm reduction through drama workshops, public events and community-based activities. I currently live in Vancouver and am enrolled in the Adult Learning and Education MA program at UBC, under the supervision of faculty members Pierre Walter (Supervisor) and Michelle Stack (Committee member).

I invite you, as an academic expert to participate in my MA study about the successes and challenges of initiatives to promote harm reduction efforts for drug users in the DTES community. I would like to interview you about your knowledge and experience of how public health workers use public education strategies, including social media, to combat the opioid crisis in the DTES. The interview would be about 60 minutes over Zoom, scheduled at your convenience, and audio- or video-taped with your permission. I will use the method of appreciative inquiry in the interview, where I will ask you open-ended, appreciative questions about community-based work.

The goal of my study is to identify and understand how public health workers as adult educators use social media as grassroots, community spaces for equitable participation, education, empowerment and positive social change in communities most affected by the opioid crisis. I am interested in hearing about your experiences, insights and suggestions. The results of my study may be shared at conferences and publications and may contribute to garnering more support in improving structures already in place.

I am hoping in the future to reside and work with experts, activists and adult educators in Vancouver; directors and programme coordinators such as yourself who use collective approaches to support wellness initiatives and activism for residents of the DTES. The knowledge I gain will also provide me opportunities to share with professionals and community activists working at the Jamaica Addiction Treatment Centres, who welcome new approaches or initiatives that can be easily implemented and have the potential to increase harm reduction efforts.

If you are interested in participating in the project or would like more information, please contact:

Denneisha Griffin-Pinnock, MA researcher
Pierre Walter, Professor, Educational Studies

Thank you in advance for considering participating in my research study.

Sincerely,

_____
Denneisha Griffin-Pinnock

Appendix C

CONSENT FORM

Vancouver's Distress: How Public Health Workers Use Social Media to Combat the Opioid Crisis

STUDY TEAM
Denneisha Griffin-Pinnock, Co-Investigator, MA researcher.
Pierre Walter, Principal Investigator, Professor, Educational Studies.

PURPOSE OF STUDY: The aim of this study is to identify and understand how public health workers as adult educators use social media as grassroots, community spaces for equitable participation, education, empowerment and positive social change in communities most affected by the opioid crisis.

PROCEDURES: We invite you to speak to us about your knowledge and experiences as an academic expert of how public health workers use public education strategies, including social media, to combat the opioid crisis in the Downtown Eastside (DTES), in an interview conducted by Denneisha Griffin-Pinnock, MA student in the Department of Educational Studies at UBC. In the interview, you will be asked to reflect on the successes and challenges of initiatives to promote harm reduction efforts for drug users in the DTES community. The interview would be about 60 minutes over Zoom, scheduled at your convenience, and audio- or video-taped with your permission. Upon logging in for the interview, you should do so using a pseudonym or research code that will be provided ahead of time by the researcher. Also, you may turn off your camera and mute your microphone when needed. I (Denneisha) will use the method of appreciative inquiry in the interview, where I will ask you open-ended, appreciative questions about your community-based work. You will have the opportunity to review a transcript of your interview.

STUDY RESULTS:
The results of this study will be used for Denneisha Griffin-Pinnock's MA thesis and may be presented at conferences and published in research journals. I (Denneisha) am hoping in the future to reside and work with experts, activists and adult educators in Vancouver; directors and programme coordinators such as yourself who use collective approaches to support wellness initiatives and activism for residents of the DTES. The knowledge I gain will also provide me opportunities to share with professionals and community activists working at the Jamaica Addiction Treatment Centres, who welcome new approaches or initiatives that can be easily implemented and have the potential to increase harm reduction efforts.

RISKS & BENEFITS OF PARTICIPATION: We do not believe there is anything in this study that presents any potential harm.

CONFIDENTIALITY: We will maintain your privacy in several ways. In all reports, presentations and publications we will not use your real name but will instead use pseudonyms. All of the information we collect will be kept on a password-protected computer and all identifying information will be

anonymized, except for this consent form which will kept in a locked filing cabinet in the Principal Investigator's office.

Research data including the audio recordings of interviews will be retained for 5 years. They will be securely stored at UBC in the Principal Investigator's office. After 5 years, consent forms will be shredded, and the encrypted, password secured data will be deleted.

WHO TO CONTACT FOR INFORMATION ABOUT THIS STUDY: If you have questions or concerns about this study, please contact a member of the research team. The names and contact information are at the top of the page.

If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at 604-822-8598 or if long distance e-mail RSIL@ors.ubc.ca or call toll free 1-877-822-8598.

CONSENT AND SIGNATURE: You have the right to refuse to participate in this study. If you decide to take part, you may choose to withdraw at any time without giving a reason and without any negative impact on you or your participation in the climate justice organization of which you are a part.

- Your signature below indicates that you have received a copy of this consent form for your own records

- Your signature below indicates that you consent to participate in this study (by taking part in an audio-recorded interview and focus group discussions)

Participant Signature	Date
Printed Name of Participant	Date

Appendix D

Appreciative Inquiry Interview Questions

1. Could you tell me some things you value deeply, specifically
   a) Your research work on the current opioid crisis and
   b) The work being undertaken by organizations in the Downtown Eastside that emphasise harm reduction

2. What do you believe is the core factor that gives vitality and life to the Downtown Eastside and How do grassroots approaches to public health promote harm reduction activities?
   a) What grassroots means of communication and networking do you find seem to be most effective for the residents of the DTES in activating positive change?

3. Public health workers and other professionals have been using diverse means of increasing harm reduction efforts in the Downtown Eastside (DTES), based on the nature of the work being undertaken, which public education strategy are you most excited about? And why?

4. Some non-profit organizations in the DTES build on "proven strengths" and have a history of being pioneers in community organizing, including the use of social media.
   a) Based on your research, have you identified social media as a significant feature of programme planning in some organisations in the DTES? If so, in what ways is it used to educate, empower and generate public support and participation?
   b) In your opinion, what is the most effective method of generating community support, engagement, empowerment through the use of social media?
   c) What social media platform(s) do you think is most effective for public health workers to use in engaging people in the DTES?
   d) Can social media be considered an effective means of getting the community involved in increasing harm reduction efforts and retrieving power in the DTES? Why?
   e) What are the most obvious challenges faced by public health workers and others

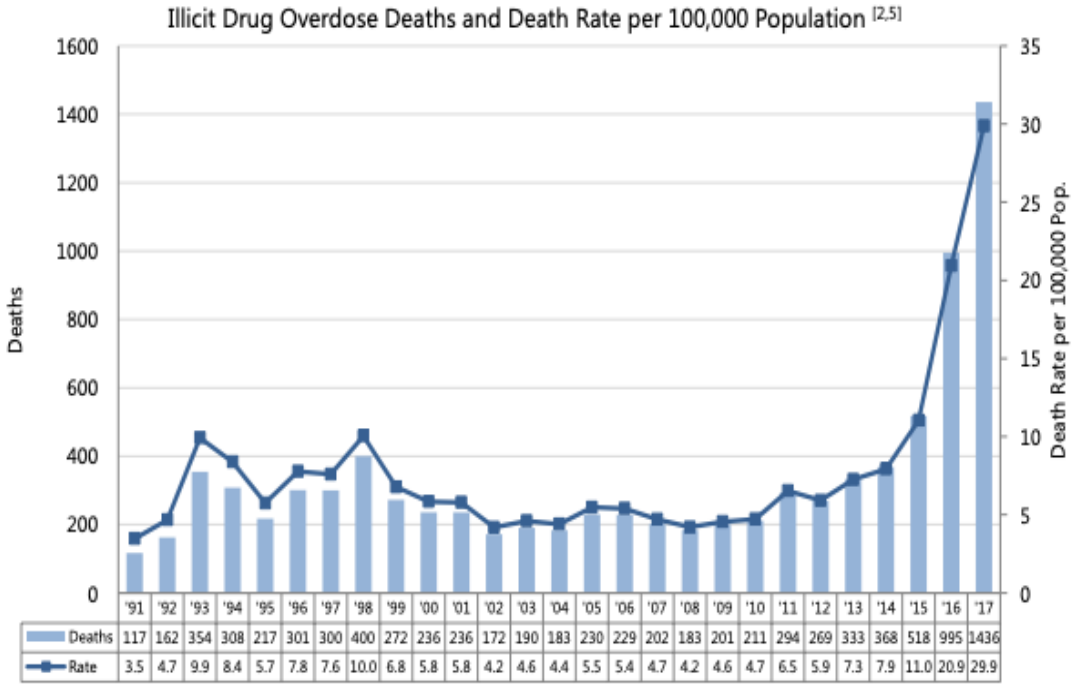
working in the DTES in trying to use social media as a community support strategy for increased harm reduction?

f) Apart from social media, what other effective means of community engagement, public education and advocacy have you identified or noticed in the DTES? Why do you consider them effective?

5. What are the main reasons preventing DTES residents engaged in drug use from being more actively engaging in harm reduction efforts? And how do you propose public health workers can get them more engaged in becoming the main assets to social change?

6. If you could help develop public education strategies for public health workers in the DTES and Greater Vancouver, what three things would you do to heighten their vitality; particularly the use of social media for increased harm reduction and community empowerment.

Appendix E



Illicit Drug Overdose Deaths by Month, British Columbia, 2008-2018[2]

Month	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Jan	18	23	16	24	20	20	23	42	86	142	125
Subtotal	18	23	16	24	20	20	23	42	86	142	125
Feb	8	15	14	24	17	21	38	31	60	121	-
Mar	17	10	15	25	25	33	28	31	77	131	-
Apr	18	8	9	26	31	31	29	34	72	149	-
May	18	19	22	22	19	28	40	41	50	140	-
Jun	18	16	21	22	25	25	29	34	70	121	-
Jul	24	19	23	33	29	38	25	37	74	116	-
Aug	16	27	24	22	19	21	37	51	64	122	-
Sep	12	16	20	22	16	28	31	47	61	92	-
Oct	10	13	18	23	19	19	35	53	76	97	-
Nov	9	18	18	27	28	31	28	49	141	105	-
Dec	15	17	11	24	21	38	25	68	164	100	-
Total	183	201	211	294	269	333	368	518	995	1,436	125
Average	15.3	16.8	17.6	24.5	22.4	27.8	30.7	43.2	82.9	119.7	125.0

Graph showing illicit drug-involved death rates in British Columbia from 2008-2018. Credit: BC Coroners Service.

Appendix F

BC Overall

2018 BC Harm Reduction Client Survey

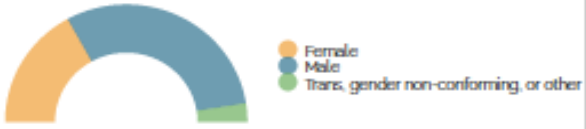
The B.C. Harm Reduction Program administered a survey to harm reduction supply distribution site clients across BC in 2018 to assess regional differences in drug use and inform harm reduction planning and quality improvement.

Who took part?

22 communities | 27 sites | 486 participants

Fraser | Interior | Island | Northern | Vancouver Coastal

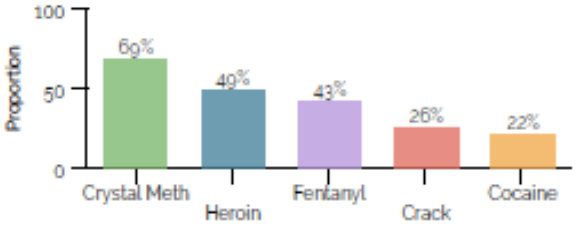
Self-identified gender



Drug use

More than half of respondents identified SMOKING or INHALATION as the preferred method of drug use, while 34% preferred injection, and 6% preferred snorting.

Past week self-reported drug use



Overdose

19% experienced an OPIOID OVERDOSE in the past six months

15% experienced a STIMULANT OVERDOSE in the past six months

57% witnessed an OPIOID OVERDOSE in the past six months

Potential harms

Of 318 people that used pipes from harm reduction sites to smoke drugs:
- 27% used a second-hand pipe
- 20% injected instead when they couldn't find unused smoking equipment

Of 214 people that injected drugs in the past month:
- 24% had trouble getting unused needles
- 13% had fixed with a needle used by someone else

About half of participants reported using drugs alone some of the time. Reasons for using drugs alone included:
- convenience and comfort;
- not having anyone else around;
- not wanting to share drugs; and,
- not wanting others to know.

Keeping safe and harm reduction

About two thirds of participants owned a Take Home Naloxone kit, but less than half owned a cell phone.

Half of those that injected drugs had injected at an Overdose Prevention Services site in the past month.

Of 245 people that had tried to access opioid agonist therapy (OAT) in the past six months, 1 in 4 reported difficulties including:
- 38% unable to find a prescribing physician
- 19% prescription stopped due to positive urine test
- 19% worry about being stigmatized at clinic
- 16% were not offered preferred OAT

Health Canada | Santé Canada | towardtheheart.com

BC Overall

2019 BC Harm Reduction Client Survey

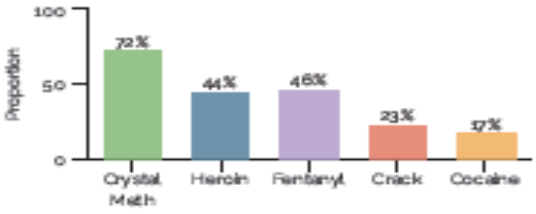
The B.C. Harm Reduction Program administered a survey to harm reduction supply distribution site clients across BC from October to December 2019 to assess regional differences in drug use and inform harm reduction planning and service quality improvement. Key findings from the survey are presented here. The total number of respondents for each question may differ.

Who took part?

Self-identified gender

Substance use patterns

Past 3-days self-reported drug use



The median number of substances reported used in the past 3 days was 3.

Mode of substance use

Among those that reported heroin use:
- 50% injected; 73% smoked

Among those that reported fentanyl use:
- 48% injected; 67% smoked

Overall, 69% of respondents identified SMOKING or INHALATION as the preferred method of drug use, while 28% preferred injection, and 4% preferred snorting.

Overdose

17% experienced an OPIOID OVERDOSE in the past six months

57% witnessed an OPIOID OVERDOSE in the past six months

12% experienced a STIMULANT OVERDOSE in the past six months

Potential harms

Of 497 people that used glass pipes to smoke drugs in the past 6 months:
- 32% used a second-hand pipe
- 20% injected instead when they couldn't find unused smoking equipment

Of 283 people that injected drugs in the past 6 months:
- 10% had trouble getting unused needles
- 8% had fixed with a needle used by someone else

More than half of participants (51%) reported using drugs alone often or always. Reasons for using drugs alone included:
- convenience and comfort;
- not having anyone else around;
- not wanting to share drugs; and,
- not wanting others to know.

Keeping safe and harm reduction

69% of participants owned a Take Home Naloxone kit, but less than half (48%) owned a cell phone.

Of those that injected drugs, 55% had used drugs at an Overdose Prevention Services site in the past 6 months.

Of 334 people that had tried to access opioid agonist therapy (OAT) in the past six months, 80% did not report difficulties while 20% reported difficulties, including:
- unable to find a prescribing physician
- were not offered preferred OAT
- worry about being stigmatized at clinic
- prescription stopped due to use of positive urine test
- had no pharmacies nearby

Updated: September 11, 2020