

TAPPING INTO MENTAL HEALTH

TAPPING INTO MENTAL HEALTH: EXPLORING INDIGENOUS WATER
AND MENTAL HEALTH ISSUES THROUGH CANADIAN MEDIA

by

Emma Cruddas

Submitted in partial fulfilment of the requirements
for the degree of Bachelor of Arts with Honours in Sociology

at

Dalhousie University
Halifax, Nova Scotia
April 2017

© Copyright by Emma Cruddas, 2017

TAPPING INTO MENTAL HEALTH

ABSTRACT

It seems both unjust and ironic that the first peoples on the land now known as Canada are some of the last to obtain access to their fundamental human rights. This research explores the occurrence of relationship, region, and responsibility in Canadian print media articles that address water and mental health issues for on-reserve Indigenous peoples. Employing both quantitative and qualitative analysis, this research demonstrates that there is a relationship between water and mental health for some reserves, that regions such as northern Ontario and British Columbia have higher rates of reporting and/or mental health and water issues on reserves, and that the two issues are constantly left to the blame game of various parties in media reporting while no one appears to want to accept responsibility for the issues. This work does not demonstrate a causal relationship between water insecurity and poor mental health, but rather points to print media portrayals of the co-occurrence of the two issues and the gaps in solid actions toward change. Though achieving water security is not the only step needed to address mental health issues for Indigenous Canadians, it could be a necessary drop that creates a ripple of action towards the protection of rights for Indigenous communities.

TAPPING INTO MENTAL HEALTH

ACKNOWLEDGEMENTS

I would like to acknowledge that Dalhousie University sits on unceded, unsundered Mi'kmaq territory and that we are all Treaty People. Additionally, it is important to understand that I am of settler ancestry and therefore my positionality in this research is not from an Indigenous perspective.

It is with deep humility that I wish to address the many supporters of my research.

First, Dr. Martha Radice for her encouragement, support, input, and incomparably detailed feedback! Your mentorship was invaluable.

Second, Dr. Howard Ramos for his statistical analysis know-how, his brainstorming skills in a time of unavailable data, his encouragement, and his expectations of me, which push me to strive for higher.

Third, Professor Diana Lewis whose course on *Contemporary Social, Health, and Environmental Issues Impacting Canada's Indigenous Peoples* informed and broadened my research in ways I never anticipated.

Fourth, Dr. Margaret Robinson whose input in the beginning stages of my research helped me to more fully understand the uniqueness of Indigenous mental health through the writings of Chandler and Lalonde.

Fifth, my SOSA Honours classmates for their brainstorming, article sharing, material swapping, writing input, and overall support. What a wonderful journey to have gone on together!

And finally, to my incredible parents for instilling in me a belief that “only a life lived for others is a life worth living,” and my siblings for supporting, encouraging, and listening to me now and always. I am eternally grateful for you all.

This research is dedicated to Indigenous peoples everywhere who have, for too long, been abused, silenced, and ignored. Your stories, your voices, your cultures, and your lives are valuable and make this world stronger and more inspired.

TABLE OF CONTENTS

Abstract

Acknowledgements

Introduction	1
Exploring Indigenous Water and Mental Health Issues on Canadian Reserves	1
Literature Review: Water and Mental Health	2
Mental Health	2
Infrastructural Deficits as Environmental Racism	3
Water Insecurity and Infrastructural Deficits	4
Water and Mental Health	5
Theoretical Contributions of the Present Research	7
Methods: Print Media Analysis	9
Generating the Population	10
Quantitative Approach (Graphs and Mapping)	12
Qualitative Approach (Responsibility, Terminology, Action, Explanation)	13
Analysis	14
Relationship	14
Region	16
Responsibility	19
Conclusion	24

Appendices

Bibliography

TAPPING INTO MENTAL HEALTH

INTRODUCTION

It seems both unjust and ironic that the first peoples on the land now known as Canada are some of the last to obtain access to their fundamental human rights. In the last year, many reserves have called a state of emergency for two very important reasons: suicide rates soaring above the national average and excessively long boil water advisories. Many studies have been conducted on mental health outcomes among Indigenous peoples in Canada, pointing to the harmful impacts of cultural discontinuity, hopelessness, historical and intergenerational trauma, cyclical poverty, familial abuse, community violence, and lack of access to high quality education, basic health care, and social services (Bombay, Matheson, & Anisman, 2009; Hallett, Chandler & Lalonde, 2007; Kirmayer & The Indigenous Healing Foundation, 2007; Manzo, Tiesman, Stewart, Hobbs & Knox, 2015; Webster, 2016). Many researchers mention the possibility of socioeconomic factors and infrastructural deficits as causes for poor mental health, but do not methodically explore these factors (Dussault, Erasmus & Royal Commission on Indigenous Peoples, 1995; Goldsmith & Institute of Medicine, 2002).

My review of the current scholarship on Indigenous mental health issues in Canada produced a lack of research linking water access issues with poor mental health, despite scholarly connections made between mental health and water security in other global contexts (Stevenson et al., 2012; Wutich & Ragsdale, 2008). The overwhelming presence of mental health and water issues for Indigenous Canadians combined with the studies in other contexts suggesting a connection between water and mental health made me curious to see how that relationship played out in the Indigenous Canadian context. This gap in the literature led me to propose the following question: does water insecurity impact mental health outcomes for on-reserve Indigenous populations? I carried out this research in an effort to contribute to the body

TAPPING INTO MENTAL HEALTH

of knowledge around conditions for on-reserve Indigenous populations and ultimately to encourage governmental, national, and community-level actions designed to foster mental health. The following pages will explore the literatures that informed this research study around the possible link between water safety and Indigenous mental health. I did so through the following themes: mental health, infrastructural deficits as environmental racism, water insecurity and infrastructural deficits, and water and mental health.

LITERATURE REVIEW: Water and Mental Health

Mental Health

The issue of mental health, outside of institutionalization contexts, has not been robustly studied in sociology; however, suicide, the most extreme manifestation of poor mental health, is a well-studied field in the social sciences, beginning with the work of Emile Durkheim in the late nineteenth century. Durkheim is, to this day, one of the most cited theorists on the topic. He took an original approach to suicide by suggesting that it was not simply an act of individual immorality, but was tightly bound up with social context, social causes, and social exclusion (Tomasi, 2000). He explained the necessity of social stability in the human desire for life by highlighting how “social man necessarily presupposes a society which he expresses or serves. If this dissolves, if we no longer feel it in existence and action about and above us... we are bereft of reasons for existence” (Durkheim, 1897, as cited in Jones, 1986, p. 95-96). This means that humans require social inclusion and strive for sociability in their day to day lives. Durkheim’s work on suicide as a form of social exclusion is particularly useful for understanding the issue of Indigenous mental health issues, because it indicates that mental health may not be affected solely by individual immorality or neurological structure, but also by social exclusion. If social exclusion has a major impact on mental health, then certain groups will be at a higher risk of

TAPPING INTO MENTAL HEALTH

poor mental health outcomes than others. Indigenous populations, who are continuously challenged by exclusion, subordination, and inequity, experience mental health crises more often than their non-Indigenous neighbours (Goldsmith & Institute of Medicine, 2002; Manzo et al., 2015; McQuaid et al., 2015). Though exact numbers are contested, Indigenous suicide rates in Canada could be anywhere from six to twenty-five times the national average (Webster, 2016). To start my exploration of the social and material risks that could contribute to Indigenous mental health outcomes, I turn to deficiencies in infrastructure.

Infrastructural Deficits as Environmental Racism

Though claims could be made that infrastructural deficits in Indigenous communities are simply the product of distance from urban centres, they more arguably constitute a case of environmental racism. Environmental racism “refers to environmental policies, practices, or directives that differently affect or disadvantage (whether intentionally or unintentionally) individuals, groups or communities based on race or colour” (Bullard, 2002, p. 35). Historical power imbalances, ongoing colonialism, white supremacy, and racially stigmatized spaces are all contributing factors for environmental racism (Bullard, 2002; Pulido, 2016). A prominent case of environmental racism in the United States is that of the water contamination problem in Flint, Michigan. Before the nineteenth century, Flint was primarily an Indigenous community, then became repopulated by a largely white demographic, but is now home to a predominantly poor, black population. During the twentieth century, Flint’s water supply was poisoned by runoff contaminants from a car manufacturing plant that was built in the community by outside investors (Pulido, 2016). In addition to the water contamination, urban infrastructure was neglected after the mass exodus of the white population following the manufacturing plant’s closure (Pulido, 2016). To say that current residents’ complaints about the water supply were

TAPPING INTO MENTAL HEALTH

dismissed is an understatement and it took years before their pleas to decontaminate their water supply were recognized (Pulido, 2016).

The case of Canada's Indigenous populations has similar undertones to the case in Flint. Despite continued boil water advisories and obvious water contamination problems, Indigenous communities from coast to coast still lack basic water safety. To claim that Indigenous populations are faced with environmental racism is far from a radical suggestion, and is supported by many researchers in the field (Gamble, 2006; Gilby & Dalhousie University Faculty of Law, 1996; Westra, 1999). Water problems are a clear manifestation of environmental racism for Canadian Indigenous populations and are apparent in a number of infrastructural deficits.

Water Insecurity and Infrastructural Deficits

Infrastructural deficits can range from poor roads to fallen telephone poles to water insecurity. Water insecurity is defined as “the lack of sufficient water to meet all requisite water needs as well as the inability to adapt to major water disasters” (Norins, J., Weiner, R., Farsakh, L. & Keating, 2011, p. 9). Two specific cases from Bolivia and Ethiopia focus on the dynamic ways that people faced with water insecurity manage the inner tensions of unpredictability, safety, and human rights (Stevenson et al., 2012; Wutich & Ragsdale, 2008). In Bolivia, researchers found that when water insecurity was rampant, people were forced to make sacrifices in household cleaning and personal hygiene, and often resorted to drinking contaminated water (Wutich & Ragsdale, 2008). In Ethiopia, water insecurity was noted to lead to personal financial loss due to the time costs of accessing safe water and the relationship costs that arose because water insecurity led to disputes between families and community members (Stevenson et al., 2012). The absence of certain infrastructural utilities, such as water, is often associated with the

TAPPING INTO MENTAL HEALTH

deficiency of other major utilities such as energy, roads, sanitation, and telecommunications (Larkin, 2013; Parikh, Fu, Parikh, McRobie & George, 2015). Such major infrastructural deficits, on their own and in conjunction with each other, are associated with high levels of poverty and experiences of family breakdown and despair (Silversides, 2007). This is a crucial point because it demonstrates that infrastructural deficits can have deep mental health ramifications.

Water and Mental Health

According to many scholars, issues of water insecurity are inextricably linked to mental health problems and psychosocial distress (Stevenson et al., 2012; Wutich & Ragsdale, 2008). Research conducted through participant observation, surveys, interviews and focus groups suggests that water insecurity can lead to emotional distress for a number of reasons including “time costs and physical illness, but also social conflict, shame, and failure to take part in customary communal events” (Stevenson et al., 2012, p. 396; Wutich & Ragsdale, 2008). Concluding that water issues can have an impact on mental health seems far from surprising in the context of Indigenous peoples because of the unique relationship many Indigenous peoples have with the land, water, and environment as a whole.

Many authors explore the ways in which Indigenous peoples have culturally specific relationships with the natural world through terms as “ensoulment” or “therapeutic landscapes,” which speak to the way that the “mind, spirit and matter are not separate; they are one and the same” (Wilson, 2003; Cajete, 1994, p. 82). As environmental degradation accelerates, researchers have explored how the harm to the natural world negatively impacts the mental state of those most intimately affected by the physical damage (Albrecht et al., 2007). Cunsolo Willox, Landman, and Houle (2012) note that “changes in climate and environment have the

TAPPING INTO MENTAL HEALTH

capacity to impact and undermine human health and well-being at the deepest mental and emotional levels” (p. 3-4). Finding strength in the environment is an essential element of the Indigenous relationship with the environment, which is important for understanding how a healthy environment with water security could be a protective factor against poor mental health for Indigenous peoples. As Kirmayer, Dandeneau, Marshall, Phillips, and Williamson (2011) note, “approached with respect, the natural environment provides not only sustenance but also sources of soothing, emotion regulation, guidance, and healing” (p. 89). The growing body of work linking Indigenous health to environmental stability and safety is indisputable and extremely valuable for looking at the ways in which water insecurity, such as contamination or scarcity, could have a negative impact on Indigenous mental health.

The material reviewed thus far can be summarized as follows. First, social exclusion and neglect through environmental racism are linked to water insecurity for Indigenous populations on reserves. Second, regions that lack water security are frequently marked with broader infrastructural deficits in areas such as sanitation, roads, and telecommunications, because infrastructure is often provided (or withheld) as a package. Third, those who lack basic water security are likely to struggle with experiences of distress as they face problems of unpredictability, safety, and human rights. Finally, the established links between infrastructural deficits and poverty are common causes of hopelessness and despair. This conclusion allows for a connection to be made between water insecurity and social experiences of hopelessness. However, the story remains incomplete. There is another major facet of mental health concerns that stem from issues of water insecurity: water contamination and the brain.

Stepping away from the social risks of water insecurity on mental health for a moment, a glance to the scholarship around arsenic in water offers a compelling addendum. Research from

TAPPING INTO MENTAL HEALTH

Mongolia, Hungary, and Bangladesh indicates that in regions where drinking water is contaminated by the toxic element of arsenic, mental health is negatively affected (Chowdhury, Krause & Zimmermann, 2015; Fujino et al., 2004; Rihmer et al., 2015). Based on a preliminary seven-year Hungarian study, researchers were able to demonstrate that water contaminated by arsenic was linked with the occurrence of depression and depressive thoughts (Rihmer et al., 2015). Along with issues of “fatigue, appetite loss and gastrointestinal symptoms,” symptoms of distress and poor mental health are also major arsenic-induced reactions (Fujino et al, 2004, p. 1971).

Looking to the Canadian context, investigators have shown that “two-thirds of all First Nation communities in Canada have been under at least one drinking water advisory at some time in the last decade” (Levasseur, Marcoux, & CBC News, 2015). These drinking water advisories were ordered to protect people in those areas from dangerous drinking water caused by “bad pipe connections, low pressure, improper filtration and disinfection right up to contamination with bacteria” as well as “high levels of arsenic and manganese”(Levasseur, Marcoux & CBC News, 2015; McCue & CBC News, 2015). If, as these water advisories suggest, water contamination is a major problem for Indigenous communities, then the incidence of arsenic and its effects on the brain need to be considered in discussions of mental health. The purpose of my research is not to specifically look into arsenic contamination, but to illustrate some of the problems that can be wrapped up in the issues of water insecurity and mental health.

Theoretical Contributions of the Present Research

By synthesizing the research on the themes of mental health, environmental racism, water insecurity, infrastructural deficits, and mental health, a few important inferences can be made. First, social exclusion and neglect of Indigenous populations as manifested through

TAPPING INTO MENTAL HEALTH

environmental racism, poor infrastructure, and contamination of Indigenous water supplies are critical issues facing reserves across the country. Second, the result of such infrastructural deficits can be linked to experiences of poor mental health. Finally, while providing mental health services for on-reserve populations would be a beneficial contribution to mitigating mental health crises, digging into the deeper roots of mental health crises can offer precautionary as opposed to solely reactionary support. Addressing infrastructural deficits is important for understanding the ability of populations to respond to unprecedented changes. If water insecurity were the only pressing issue facing Indigenous communities, then they would be very likely be able to manage mental health problems. However, without a firm base of water security, any additional issues that may impact the lives of Indigenous peoples (such as the traumas of the residential school system, intergenerational trauma, addictions, and more) may be the push over the edge that brings people to states of severe mental health crisis. Infrastructural deficits make Indigenous communities vulnerable. No doubt, water is only a small part of the issue of Indigenous mental health crises, but any contribution to vulnerability should be thoroughly examined.

A turn to the impact of so-called natural disasters on various regions is a helpful frame for understanding the concept of vulnerability. One pertinent example is that of the Chicago heat wave in the summer of 1995. In less than a week, excessive temperatures hovering around forty degrees Celsius claimed the lives of nearly two hundred people, and continued to seize an average of over seventy lives with each passing day after week one (Klinenberg, 2002). In contrast, the heat wave of 2013 that hit central Canada only claimed two lives despite comparable temperatures and duration to the one in Chicago (CBC News, 2013). With similar temperatures and durations, there must be additional factors that explain the divergent death

TAPPING INTO MENTAL HEALTH

tolls. Two main differences between the two cases and were vulnerability and access to resources.

In Chicago, poverty, race, social isolation, inadequate health insurance, and old age were all contributing risk factors that led to the high death toll. The excessive heat was the cause of death, but the risk factors already in place heightened people's vulnerability. The preconditions of social inequality faced by African Americans, seniors, and the poor made them the most vulnerable (Klinenberg, 2002). In the case of the heat wave in Canada, socialized health insurance combined with access to air conditioners and extended hours for outdoor swimming pools allowed Canadians to manage and mitigate some of their vulnerability (whether due to age, race, or class) to keep the challenge of heat from claiming their lives (CBC News, 2013). Though heat waves are not the same experience as water insecurity, as they are temporary and non-preventable, they offer a helpful illustration of the concept of vulnerability. Whether it be due to poverty, poor health insurance, inadequate mental health services, or water insecurity, living in conditions of vulnerability can be disastrous when additional challenges strike. In the case of my research study, understanding the influence of pre-existing vulnerability is useful for examining the influence of water insecurity on mental health crises.

METHODS: Print Media Analysis

My research employed both quantitative and qualitative print media analysis to explore patterns of relationality on the topics of water insecurity and mental health crises, expressions of morality in media coverage of Indigenous mental health crises and water safety issues, discussions of jurisdictional responsibility and action, and explanatory narratives of causation around water safety and mental health issues. This methodology allowed me to spot trends in geographical instability, possible overlap in the two issues, and public opinion of the crises as

TAPPING INTO MENTAL HEALTH

formulated by Canadian print media. Additionally, it allowed me to track which regions of the country receive media coverage and compare how mental health crises are covered in comparison with how water crises are covered. For example, what moral or political themes are attached to each crisis? Is the water crisis seen as a failing of the reserve or of the federal government? Is poor mental health portrayed as a personal, cultural, historical, or government issue? Finally, are there common themes in the coverage of both issues?

I chose the methodology of print media content analysis for my research for three main reasons. First, as the topic of Indigenous mental health crises is a sensitive issue, the unobtrusive nature of print media content analysis is ideal compared to a survey, interview, or participant observation approach (Bryman, Bell & Teevan, 2012). Second, using print media content analysis allowed me to study a topic that is difficult to do through other forms of quantitative research because the statistics for on-reserve Indigenous populations are tremendously difficult to access as an undergraduate researcher. Third, studying media portrayals of Indigenous mental health and water crises provides insight into public opinion and the forming of public opinion on these issues. This particular methodology was used by Anderson and Robertson (2011) to understand how print media produces and reinforces “mainstream common sense” with regards to Canadian Indigenous populations. The way the media portrays these pressing issues helps to offer insight into the ways that the Canadian public thinks and acts on these issues.

Generating the Data

My data for this research included all newspaper articles that mention Indigenous mental health and/or on-reserve water insecurity issues. To generate my corpus of articles, I used the Factiva online newspaper database, and searched for articles from *The Globe and Mail* and *The National Post* relating to the themes of Indigenous mental health crises and water insecurity. I

TAPPING INTO MENTAL HEALTH

chose these two print media sources in particular because, though they are both Toronto-based papers, they are styled as national newspapers and offer coverage of stories from across the country. Since the two sources I chose to draw upon tend to have different readerships, sponsors, and writing approaches (with *The Globe and Mail* more centre-left/liberal leaning and *The National Post* more right leaning), I attempted to include different political views so that I could more holistically grasp the “public opinion” of Indigenous mental health and water crises.

My search terms encompassed the breadth of vocabulary used to discuss Indigenous populations including “First Nations,” “Aboriginal,” and “Indigenous” and when generating my population of water insecurity stories, I used the terms “boil water advisory,” “water contamination,” “drinking water,” “wastewater,” “running water,” and “water quality” to speak to issues of water insecurity more broadly. I wish to disclose here the vocabulary I employed in my searches and therefore the bias in the data I explored. Because coverage of Indigenous mental health issues in the media is primarily only covered in cases of crisis, my searches aimed to find articles that mentioned extreme examples of mental health problems such as suicide or suicidal ideation. A more comprehensive and accurate portrayal of the mental health experiences of on-reserve communities would come from a project based on mental health self-assessment data, but unfortunately, the size and scope of my research did not allow for me to collect that. That is why I opted to create my own dataset, though it admittedly offers an incomplete story. I looked at the reporting of these two crises over a one-year time period from January 1, 2016 to December 31, 2016. I chose to use a one-year frame because other research projects using similar methods and scope found a corpus of this size to be a manageable selection for review (see Humphries, 2015 and McLellan, 2015). It is important to note here that I am of settler ancestry and therefore my positionality in this research is not from an Indigenous perspective.

TAPPING INTO MENTAL HEALTH

I conducted my corpus creation in three stages. First, I searched for articles in *The Globe and Mail* and *The National Post* that fit my search terms for Indigenous mental health crises and, in a comprehensive spreadsheet, I coded for when the article was written (day/month/year), where in the country the issue arose (by reserve/settlement/village and region), and if there was mention of Indigenous mental health crises, Indigenous water issues, or both. Second, I searched for articles in *The Globe and Mail* and *The National Post* that fit my search terms for Indigenous on-reserve water insecurity issues and coded for when the article was written (day/month/year), where in the country the issue arose (by reserve/settlement/village and region), and if there was mention of Indigenous mental health crises, Indigenous water issues, or both. These four searches (two categories of searches multiplied by the two newspapers) generated a total of 246 articles with 9 duplicates in *The Globe and Mail* and 7 duplicates in *The National Post* because of articles that were collected based on their mention of both water and mental health issues. Third, I generated a sample of each of the four searches in order to do qualitative coding of the articles along four themes according to their portrayals of the two issues: placement of responsibility, use of terminology, mention of action, and explanation for the problem in focus (see Table 1: Coding Themes). I chose to use both quantitative and qualitative analysis because by pairing the two I was able to both point to patterns of cooccurrence and see the framing of the two issues.

Quantitative Approach (Maps and Graphing)

By taking note of where in the country the articles in my population made reference to, I was able to generate a map that indicates where water and mental health issues are situated across the country. For this element of synthesizing the data, I utilized the Maptive online tool to place pins (coded for the themes of water and mental health) on a map of Canada to indicate

TAPPING INTO MENTAL HEALTH

which regions and reserves/settlements/villages are mentioned with regards to each of the subjects found in my sample articles. Articles that mentioned no specific location or mentioned a region without mentioning a particular reserve/settlement/village were excluded from this element of the analysis as they did not help me to decipher specific locations of crossover of the two issues.

For the second element of my quantitative analysis, I used the data analysis and statistical software, Stata, to generate cross tabulations and graphs of bi-variate relationships between the five main variables of interest (VOIs) that I chose to manipulate: VOI 1: Articles that make reference to Indigenous mental health crises; VOI 2: Articles that make reference to Indigenous water insecurity issues; VOI 3: Articles that mention both mental health and water issues for Indigenous peoples; VOI 4: Month of publication; and VOI 5: Region of publication. By analyzing the occurrence of articles that discuss Indigenous mental health crises and articles that mention issues of Indigenous water insecurity on their own and in relation to each other, the region of focus, and month of publication, I was able to spot patterns of co-occurrence of the two Indigenous issues in focus.

Qualitative Approach (Responsibility, Terminology, Action, Explanation)

Once I generated my population for quantitative analysis I went back to my searches and through systematic sampling I selected every fourth *Globe and Mail* article generated from my search terms on Indigenous mental health crises (29 articles), every second *Globe and Mail* article generated from my search terms on Indigenous water issues (35 articles), every second *National Post* article generated from my search terms on Indigenous mental health crises (21 articles), and every *National Post* article generated from my search terms for Indigenous water issues (30 articles). I used this methodology in order to look at a roughly equivalent number of

TAPPING INTO MENTAL HEALTH

articles on each topic from each source (between 21 and 35 articles each) and because analyzing roughly one hundred articles was a sufficient number for analysis. I proceeded by coding the articles into Indigenous mental health crisis mention, Indigenous water issues mention, and both as my first level of analysis. I then moved on to code the articles along the four qualitative themes of placement of responsibility, use of terminology, mention of action, and explanation for the problem in focus (see Table 1: Coding Themes).

I selected these themes because Anderson & Robertson (2011), who studied the portrayals of Indigenous peoples in Canadian newspapers, found that Indigenous Canadians are portrayed through “three essentialized sets of characteristics – depravity, innate inferiority, and a stubborn resistance to progress” (p. 6). These three sets of characteristics inspired my categorization of codes into placement of responsibility, use of terminology, mention of action, and explanation for the problem in focus. They enabled me to see if depravity is discussed through demeaning or crisis terminology, if innate inferiority is suggested through blame placed on Indigenous cultures or communities, and if resistance to progress comes up as a comment on the explanation of issues of water insecurity or mental health.

ANALYSIS

Relationship

The six main bi-variate relationships I explored in this study were the relationships between 1) articles that mention Indigenous mental health crises and articles that mention Indigenous water issues; 2) articles that mention Indigenous mental health crises and their month of publication; 3) articles that mention Indigenous water issues and their month of publication (to see whether there is a similarity between this relationship and relationship number two); 4)

TAPPING INTO MENTAL HEALTH

articles that mention Indigenous mental health crises and their listed regions of focus; 5) articles that mention Indigenous water issues and their listed regions of focus; and finally, 6) total articles listed by their regions of focus.

In my analysis of the relationship between articles that mention Indigenous mental health issues and articles that mention Indigenous water issues, I was able to make two preliminary assertions. First, by graphing the occurrence of articles that mention both of the two issues, I found that 25 articles, or 1+0.16% of the corpus, mentioned both mental health and water crises (see Figure 1, Appendix B). Second, by measuring the proportions of mental health crisis articles that also mention water issues, I discovered that of the 128 articles that discuss mental health crises, almost 30% of those articles also mention water issues (see Table 2, Appendix C). Though this is not a very strong association, it does demonstrate a relationship between the two issues at hand. Of the six bi-variate relationships under examination, these two relationships are most strongly associated with the literature reviewed above because they reaffirm the conclusions of Greene et al. (2012) and Wutich and Ragsdale (2008), who argued that there is a relationship between water insecurity and poor mental health.

My bi-variate analyses of articles that mention Indigenous mental health issues by their month of publication and articles that mention Indigenous water issues by their month of publication also yielded some interesting conclusions, so I will address these two relationships together. The relationship between month of publication and Indigenous mental health issues demonstrated a spike in April of 2016 with 49 of the articles mentioning Indigenous mental health issues at that time (see Figure 2, Appendix D). By comparison, the relationship between month and water issues showed its highest frequency in the months of March and April with sixteen and fifteen articles written respectively (see Figure 3, Appendix E). The explanation for

TAPPING INTO MENTAL HEALTH

the high occurrence of reporting of both issues in April is most logically the issue at that time of the suicide crisis in Attawapiskat, a community that has experienced many water related problems over the years. This particular crisis offers at least a partial explanation for why both issues have such high reporting in April.

I did conduct a preliminary exploration into regression models to find out if there were any grounds for causal claims around water, mental health, time of year, or province, but found that there was not enough data nor were there any relationships strong enough to make causal claims. Had the data I was analyzing been more systematically broken down by reserve/settlement/village, it would have been easier to run regression models to find out if certain reserves/settlements/villages experience a co-occurrence of mental health and water insecurity issues. This is important because though this research does put forth a claim for a possible relationship between water insecurity and mental health, it was only able to demonstrate associational as opposed to causal relationships.

Region

My fourth and fifth bi-variate relationships under analysis are the relationships between stories that mention Indigenous mental health crises by region of focus, and stories that mention Indigenous water issues by region of focus. These two relationships offer extensive insight into the issue of co-occurrence and the possibility of communities being plagued by more than one serious issue at a given time. As some authors have written, the absence of one infrastructural utility, such as water, is often associated with the deficiency of other essential services such as energy, roads, or sanitation as well (Larkin, 2013; Parikh, Fu, Parikh, McRobie & George, 2015). The is relevant because, as noted in my literature review, multiple infrastructural inadequacies

TAPPING INTO MENTAL HEALTH

have been associated with high levels of poverty, family breakdown and despair (Silversides, 2007).

When I graphed the articles that mention Indigenous mental health issues by their regions of focus, I noticed that the top four regions for coverage were Ontario, Saskatchewan, British Columbia and Manitoba with 52, 16, 7, and 7 articles respectively (see Figure 4, Appendix F). When I examined articles that mention Indigenous water issues in relation to their regions of focus, I found that though Saskatchewan and Manitoba are replaced by Ontario/Manitoba (Shoal Lake 40 First Nation) and Quebec in the top four (with 4 articles each), Ontario again reigns with highest frequency of articles at 28, with British Columbia behind with 9 articles (see Figure 5, Appendix G). This continues to tell the story of the co-occurrence of the two issues particularly by region. Most notably in the regions of Ontario and British Columbia, there is a high level of reporting on both of the primary issues of interest.

The final relationship under examination for regional analysis is the relationship between total articles found in my dataset's population and their regions of focus. By looking at this sum of articles, I could secure my assertion from the previous two analyses of relationships because, once again, Ontario, British Columbia, and Saskatchewan receive the most coverage (see Figure 6, Appendix H). With a population of this size (only 246 articles), it is difficult to surmise for certain whether regions with water issues are likely to also experience mental health crises (and vice versa), but the high levels of reporting on both of the two issues in Ontario and, to a lesser extent, British Columbia demonstrate a relationship between Indigenous mental health and water issues.

A bi-variate analysis of the total sum of articles and their reserve/settlement/village of focus was difficult to run because only about half of the articles in my dataset included specific

TAPPING INTO MENTAL HEALTH

reserves/settlements/villages of focus. Therefore, I decided to map the layout of these reserves/settlements/villages as opposed to graphing them (see Map 1, Appendix H). By doing this, I was able to see more nuanced patterns of the regionalization of where the total sum of articles fell (see Figure 6, Appendix I). Though the sum of the articles by reserve/settlement/village was somewhat spread out across central Canada and the Western provinces, when I mapped the articles that mentioned both water and mental health issues as well as specific reserves/settlements/villages, I found that only communities in Ontario were represented therein (see Map 2, Appendix J). The reason for this finding is two-fold: first, though many of the articles that mentioned both water and mental health issues occurred in British Columbia as well as Ontario, Ontarian reserves/settlements/villages were more often mentioned by name than those in British Columbia. Second, as a province, Ontario boasts the highest population density for Indigenous persons in Canada with roughly 21.5% of the total population, so was logically more likely to have a greater number of articles written on that province (Minister of Industry, 2013). For these two reasons, the maps included in the appendices should be understood as useful visual aids for spotting the crossover between Indigenous water and mental health concerns by reserve/settlement/village of focus, but not as a comprehensive or exhaustive representation of the geographical crossover between the two issues.

A preliminary reading of the graphs and tables generated to describe the bi-variate relationships between articles written on Indigenous mental health issues and water security problems, month of publication, and region of focus shows that there is a degree of co-occurrence between issues of mental health and water insecurity. Ideally, this study would cover a longer duration of time and pull from other print media sources that are written in regions other than Ontario, which would allow for more cases and, hopefully, better representation of the

TAPPING INTO MENTAL HEALTH

Atlantic region and the territories. As Figure 6 shows in Appendix I, Nova Scotia, Prince Edward Island, and the Yukon are entirely absent from the 246 articles in my dataset, despite major issues of water contamination on Nova Scotian reserves such as Potlotek First Nation and concerns around mental health for Indigenous youth in the Yukon (MacDonald, 2016; CBC News, 2015).

Responsibility

In considering media representations of the two issues in focus, I chose to group my qualitative codes into four categories: responsabilization, use of terminology, discussion of action, and explanations of cause. My analysis found that *The Globe and Mail* was most likely to place responsibility on government bodies and historical injustices as opposed to Indigenous communities themselves or the Canadian public as large: “as the country confronts its past and its relationship with indigenous peoples, the future of La Loche and communities facing similar challenges will put into stark focus Canada’s journey toward reconciliation” and “we must renounce any political, economic or social policy that reinforces the colonial trauma of disempowerment, loss and dispossession” (Stueck, Tait, & Blaze Baum, 2016, para. 16; Maté, 2016, para. 12).

The Globe and Mail also tended to talk about the issues of mental health or water insecurity in terms of crisis with an occasional touch of hope. For instance:

Dozens of others in the community of about 6,000 have made attempts in the past three months, and more than 150 students – in a school of about 1,200 – are on a suicide-watch list. This week, band leaders declared a *state of emergency*, catapulting *the crisis* into the headlines and highlighting what Canada’s top indigenous chief has deemed a *national*

TAPPING INTO MENTAL HEALTH

suicide epidemic that reaches well beyond Pimicikamak. (emphasis added, Blaze Baum, 2016, para. 4)

In terms of recognition of action, *The Globe and Mail* discussed the actions of both government and local communities as actors, but gave the most credit to the Canadian government for its policies, projects, or investments in Indigenous communities. Prime Minister Justin Trudeau's first budget, which made "historic investments" in Indigenous communities through "education, housing, and clean drinking water," was mentioned quite regularly, particularly in articles on water insecurity, but also in connection with mental health issues (Curry & Fife, 2016, para. 16). Admittedly, the actions of local community members were also acknowledged in statements such as, "family and friends have been pouring into Pikangikum from across the country to mourn and offer support," but these were less emphasized and subtler in tone than mentions of government actions (Gignac, 2016, para. 5).

In addressing the social causes of the water insecurity or mental health crises, *The Globe and Mail* spoke to the contexts of overcrowding, seclusion, unemployment and the frequent lack of mental health support:

Like so many remote, predominately aboriginal communities in the country, it [La Loche] is struggling to balance an abundance of youth... unemployment hovers around 50 per cent... distressed students have little access to counselling and other mental-health help that would be commonplace in more populated areas. (White, 2016, paras. 4, 5, and 15)

These expressions of causation speak volumes to the conclusions of Anderson and Robertson (2011), who addressed the "three essentialized sets of characteristics [of Indigenous

TAPPING INTO MENTAL HEALTH

representation in media] – depravity, innate inferiority, and a stubborn resistance to progress” (p. 6). Housing, unemployment, and lack of mental health support all fall under the categorization of depravity, demonstrating the applicability of Anderson and Robserston’s conclusions more than five years after their book, *Seeing Red*, was published. Of Anderson and Robertson’s (2011) three characteristics, depravity figured most predominately in the writings of *The Globe and Mail*, which I analyzed for this research.

In contrast, *The National Post* largely ignored anyone’s responsibility for the two issues and more often talked about the problems of water insecurity or mental health crises without identifying who was to blame. One article reported that “coupled with substance abuse, the crowded conditions are fertile ground for abuse and despair – factors that play directly into the headline-grabbing suicide crisis afflicting the residents,” and continued by quoting a local resident who stated that “I don’t blame anybody” (Perkel, 2016, paras. 9 and 23). This failure to address who should be responsible for taking action leaves readers feeling ambiguous about who is to blame and certainly provides them with no course of action as to what they as citizens could possibly do to make a change.

Similarly to *The Globe and Mail*, *The National Post* also used crisis terminology, but in a drastically more demeaning way. One article, which was the perfect example of this demeaning crisis talk, wrote that “these reserves had experienced an epidemic of youth suicide attempts,” and later referred to the reserve in question by saying that the men in the community “have no social function at all,” that the “old skills required to live off the land” are “unnecessary to modern life,” and that Indigenous peoples were destined to “appallingly impoverished reserves... doomed to exist in a hellish limbo” in “hopeforsaken places” (Kay, 2016, paras. 8, 13, 14, 17, & 18). There were some references made to government responsibility for the issues plaguing

TAPPING INTO MENTAL HEALTH

Indigenous communities, occasional hints at historical injustices, or the problems with Indigenous cultures themselves, but primarily, the issues were discussed without explicit mention of blame or placement of responsibility. Articles from this source seemed to frequently engage in a “blame game” or sorts in which the need for responsibility was passed off onto other actors and rarely owned by any group.

In looking at who received credit for their actions, *The National Post* chose to focus more on government actions than the actions of Indigenous people. Mentions of federal investments in Indigenous communities were prevalent, as well as discussions of politicians visiting communities that had recently experienced either water or mental health crises:

Ontario Health Minister Eric Hoskins, Children and Youth Minister Tracy MacCharles... landed with the promise of up to \$2 million in emergency funding, including the services of more than a dozen health and psychological workers, most of it to be spent within 30 days. (Payne & the Ottawa Citizen, 2016, paras. 29 & 31)

Finally, *The National Post* tended to focus on issues of overcrowding, seclusion, unemployment and infrastructural deficits as the primary causes of water insecurity and mental health issues. *The National Post* often referenced former Prime Minister Jean Chretien’s suggestion of moving Indigenous communities into urban centres as a solution to mental health crises, putting the blame and responsibility on the Indigenous communities themselves: “There is no economic base there for having jobs and so on, and sometimes they have to move, like anybody else” (as cited in Robson, 2016, para. 9). The consistent application of Jean Chretien’s quote in *The National Post* articles was a key identifier of the ways that *The National Post* utilized the third characteristic of the representation of Indigenous peoples in Canadian media: a supposed “stubborn resistance to progress” (Anderson & Robertson, 2011, p. 6).

TAPPING INTO MENTAL HEALTH

Turning to both papers' portrayals of both water and mental health crises for a moment, it was disconcerting to me how little attention was paid to the effects of the residential school system or cultural destruction through continued coloniality. My concern around this is that although my present research examining the relationship between water insecurity and mental health is relatively novel in the Canadian context, research on the impact of cultural destruction and its effect on emotional wellbeing has been around for more than a decade, thanks to the work of Hallett, Chandler, and Lalonde (2007). They wrote that "any threat to the persistence of personal or cultural identity poses a counterpart threat to individual or community wellbeing" (Hallett, Chandler, & Lalonde, 2007, p. 392). Hallett, Chandler, and Lalonde's work was referred to in only one of the 246 articles I analyzed for this research, and Bombay, Matheson, and Anisman's (2009) work on intergenerational trauma and Indigenous leader Natan Obed's conclusions (as cited in Webster, 2016) about the harmful impacts of historical trauma and lack of access to quality education and health care were entirely ignored. Additionally, any mention of the Indigenous cultural connection to the land and water was left out of the articles I analyzed.

These missing pieces point to the glaring gaps between academic and journalistic writing and therefore the uninformed portrayals of the issues of water insecurity and mental health that are then related to the Canadian public. Since my work was inspired by Anderson and Robertson (2011), who argue that print media produces and reinforces "mainstream common sense" with regards to Indigenous peoples, the lack of incorporation of academic research on the topics of mental health and water insecurity leads to an uninformed and uninspired Canadian public. Given that the issues of water insecurity and mental health are well-studied in academia, one wonders why this information is being kept from the general Canadian public.

CONCLUSION

This research explored Indigenous mental health crises in relation to safe water access by asking, does water insecurity impact mental health outcomes for on-reserve Indigenous populations? Led by this question, I was able to understand more fully how infrastructural deficits on reserves contribute to poor mental health outcomes for Indigenous communities through a lens of print media. I concluded that though a causal relationship is yet unknown, there is an associational relationship between water insecurity and mental health for on-reserve Indigenous communities in Canada. The three most important outcomes of this research are as follows: 1) to contribute to the body of knowledge on Canadian Indigenous mental health issues, 2) to spark future research on the topic of water insecurity and mental health and, more broadly, 3) to understand one of the important factors in Indigenous mental health outcomes in Canada. The Cree community of Attiwapiskat was faced with eleven suicide attempts on a single day in April of 2016, a ten-year-old girl in Deschambault Lake, Saskatchewan took her own life in October of 2016, and the community of Neskantaga has “been without safe tap water for 22 years” (Markewich & CBC News, 2016; Porter, 2016). The issues that currently confront Canadian Indigenous populations are not disappearing with any haste, making prompt research into these issues important.

I have taken a couple of valuable lessons away from this research and they are that first, there is more to the story or mental health issue than what is currently fed to the Canadian public through print media, and perhaps socioeconomic and infrastructural issues are a part of what needs to be explored and portrayed to the general populace. Though the known harmful impacts of cultural discontinuity, hopelessness, historical and intergenerational trauma, cyclical poverty, familial abuse, community violence, and lack of access to quality education, basic health care,

TAPPING INTO MENTAL HEALTH

and social services should be acknowledged and acted upon, moving towards water security for Indigenous populations could also be a protective factor for mental health.

Second, we need more data about on-reserve populations, collected by on-reserve populations, and for on-reserve populations. In the beginning stages of this research project, I scoured Canadian open-source databases for information about on-reserve Indigenous populations that I could examine for the present research. However, though I was able to find information on water and wastewater systems for on-reserve populations, mental health self-assessment data was inaccessible to me. If we as a Canadian public wish to see positive and impactful research done by, for, and with Indigenous populations, then enabling them to generate and access data about themselves is essential. They have as much of a right to be counted as the non-Indigenous Canadian population. Moving towards reconciliation requires the valuing of Indigenous voices, life stories, and experiences.

Third, the unique relationship between Indigenous populations and the Earth is not a side note; it is central to the story. If we return to Wilson (2003), Cajete (1994), Albrecht et al. (2007), and Cunsolo Willox, Landman, and Houle (2012), who discuss deeply the interplay between environmental health and mental and emotional health, it becomes apparent that “approached with respect, the natural environment provides not only sustenance but also sources of soothing, emotion regulation, guidance, and healing” (Kirmayer, Dandeneau, Marshall, Phillips and Williamson, 2011, p. 89). Protecting the natural environment is essential for protecting ourselves: physically, emotionally, and spiritually.

Finally, discussions around jurisdictional issues and responsibility need to be cleared up in journalism so that the Canadian public can start to get a clearer sense of the reality of the issues of mental health and water insecurity on reserves and who needs to bear responsibility for

TAPPING INTO MENTAL HEALTH

tackling them. Without holistic and informed media representation, the responsibility blame game will continue without the Canadian public feeling the need to put pressure on our provincial and federal governments for immediate and long-term action on issues of water insecurity and mental health for Indigenous Canadians. Indigenous peoples have been and continue to be resilient, but they deserve justice in support of their strength. Though achieving water security is not the only step needed to address mental health issues for Indigenous Canadians, it could be a ripple of action towards the protection of rights for Indigenous communities.

TAPPING INTO MENTAL HEALTH

Appendix A

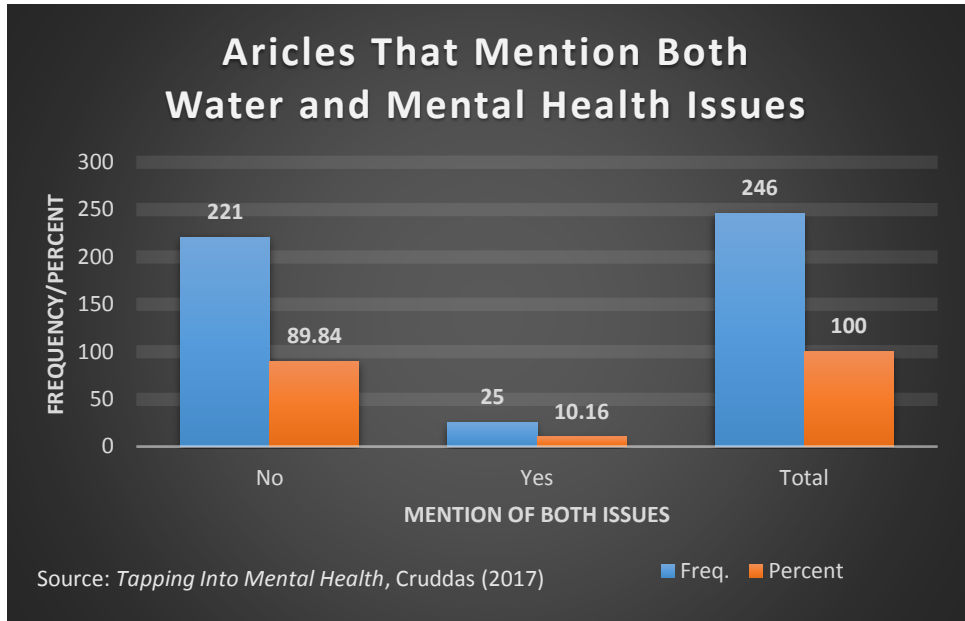
Table 1: Coding Themes

PLACEMENT OF RESPONSIBILITY:
1. Responsibility placed on federal government
2. Responsibility placed on provincial government
3. Responsibility placed on Indigenous community/culture
4. Responsibility placed on historical injustice/reconciliation
5. Responsibility placed on Canadian community
USE OF TERMINOLOGY:
1. Moralizing terminology used
2. Crisis terminology used
3. Demeaning terminology used
4. Hopeful terminology used
MENTION OF ACTION:
1. Government action/policies/projects
2. Community action/elders
3. Individual action
EXPLANATIONS GIVEN FOR ISSUE AT HAND:
1. Housing Issues/Overcrowding
2. Residential schools
3. Seclusion
4. Unemployment
5. Water/Infrastructure
6. Lack of access to support
7. Child welfare system
8. Cultural deterioration/genocide

TAPPING INTO MENTAL HEALTH

Appendix B

Figure 1: Articles That Mention Both Mental Health and Water Issues



Appendix C

Table 2: Articles that Mention Indigenous Mental Health Crises Cross Tabulated with Articles that Mention Indigenous Water Issues

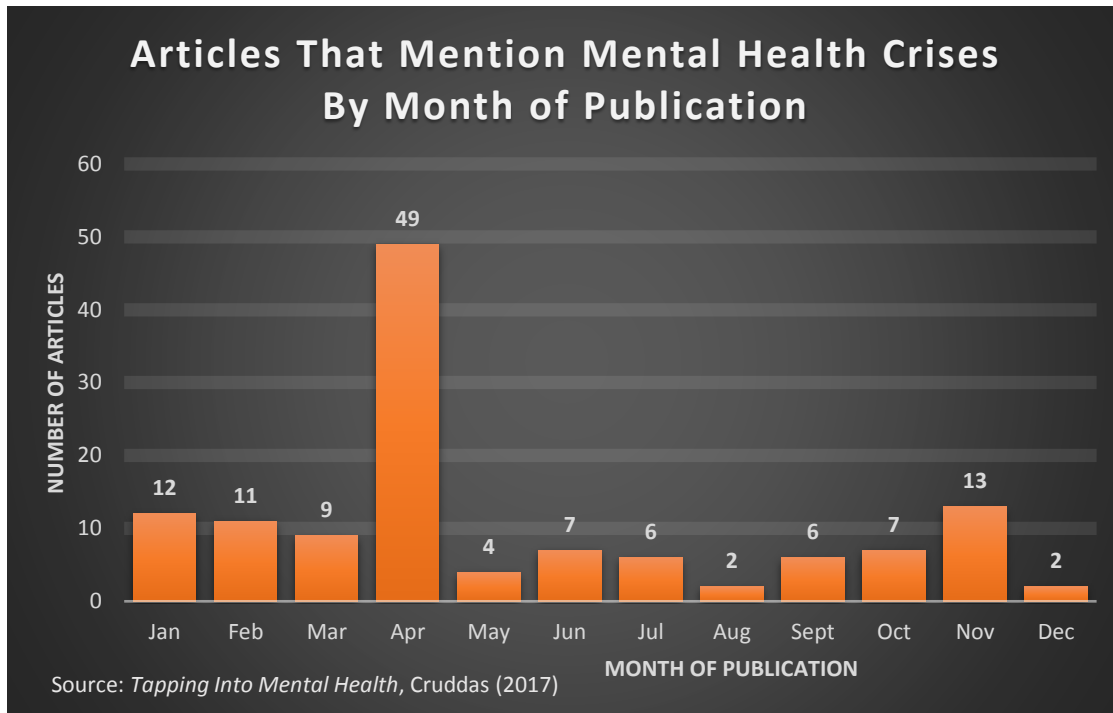
Key
<i>frequency</i>
<i>row percentage</i>

Indigenous Water Mention	Mention of Mental Health Crises		
	No	Yes	Total
No	54 34.39	103 65.61	157 100.00
Yes	64 71.91	25 28.09	89 100.00
Total	118 47.97	128 52.03	246 100.00

TAPPING INTO MENTAL HEALTH

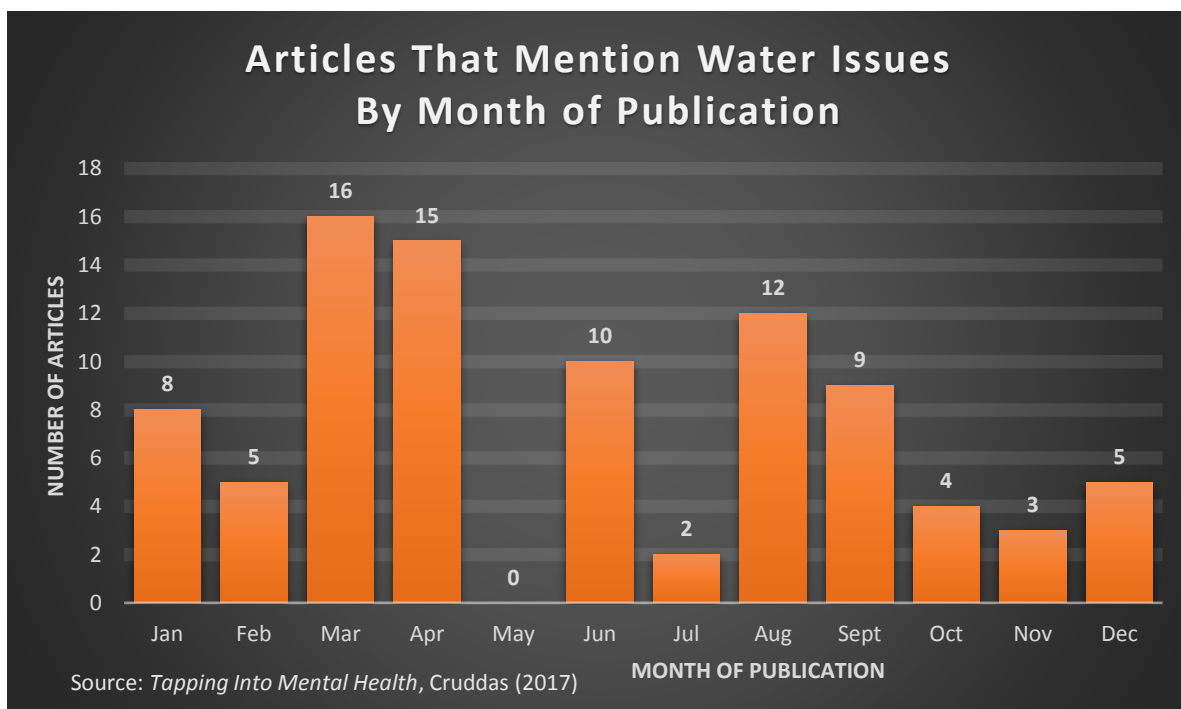
Appendix D

Figure 2: Articles That Mention Indigenous Mental Health Issues in Relation to Month of Publication



Appendix E

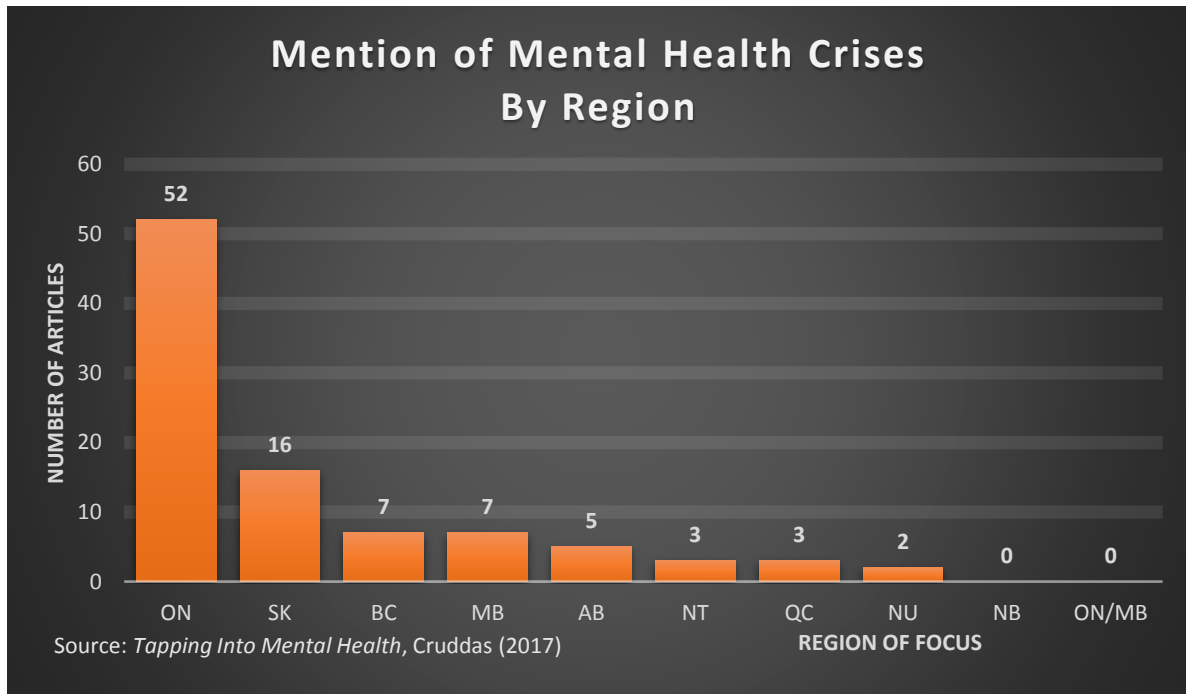
Figure 3: Articles That Mention Indigenous Water Issues in Relation to Month of Publication



TAPPING INTO MENTAL HEALTH

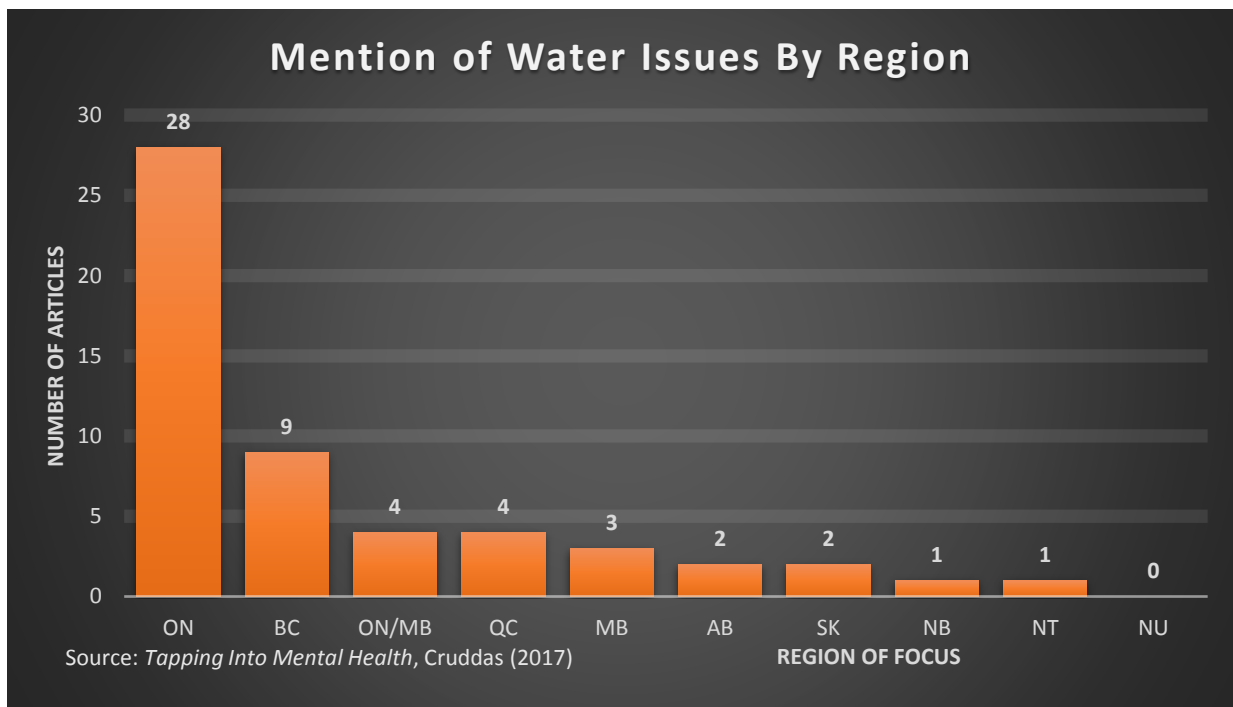
Appendix F

Figure 4: Articles That Mention Indigenous Mental Health Crises by Region of Focus



Appendix G

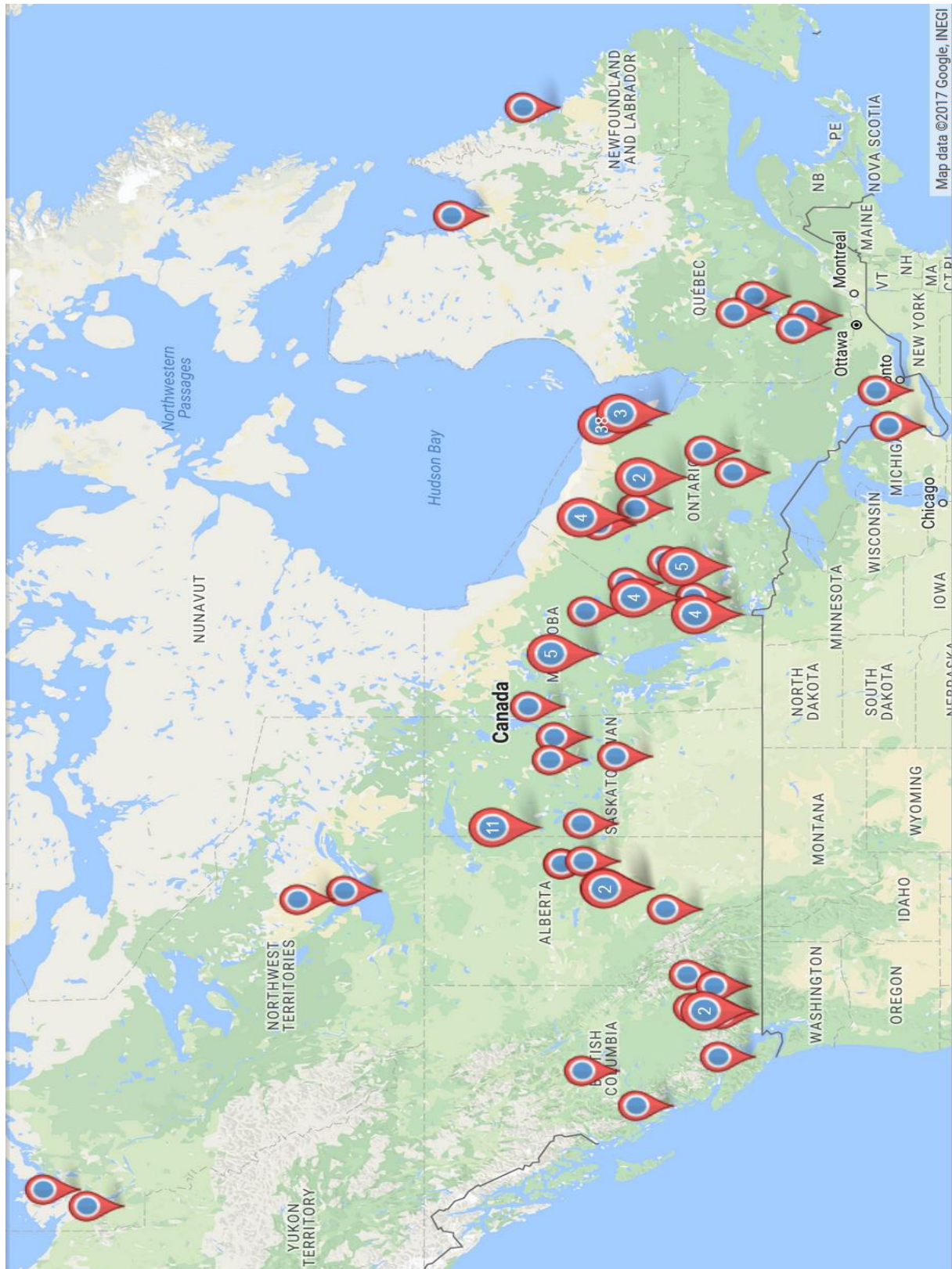
Figure 5: Articles That Mention Indigenous Water Issues by Region of Focus



TAPPING INTO MENTAL HEALTH

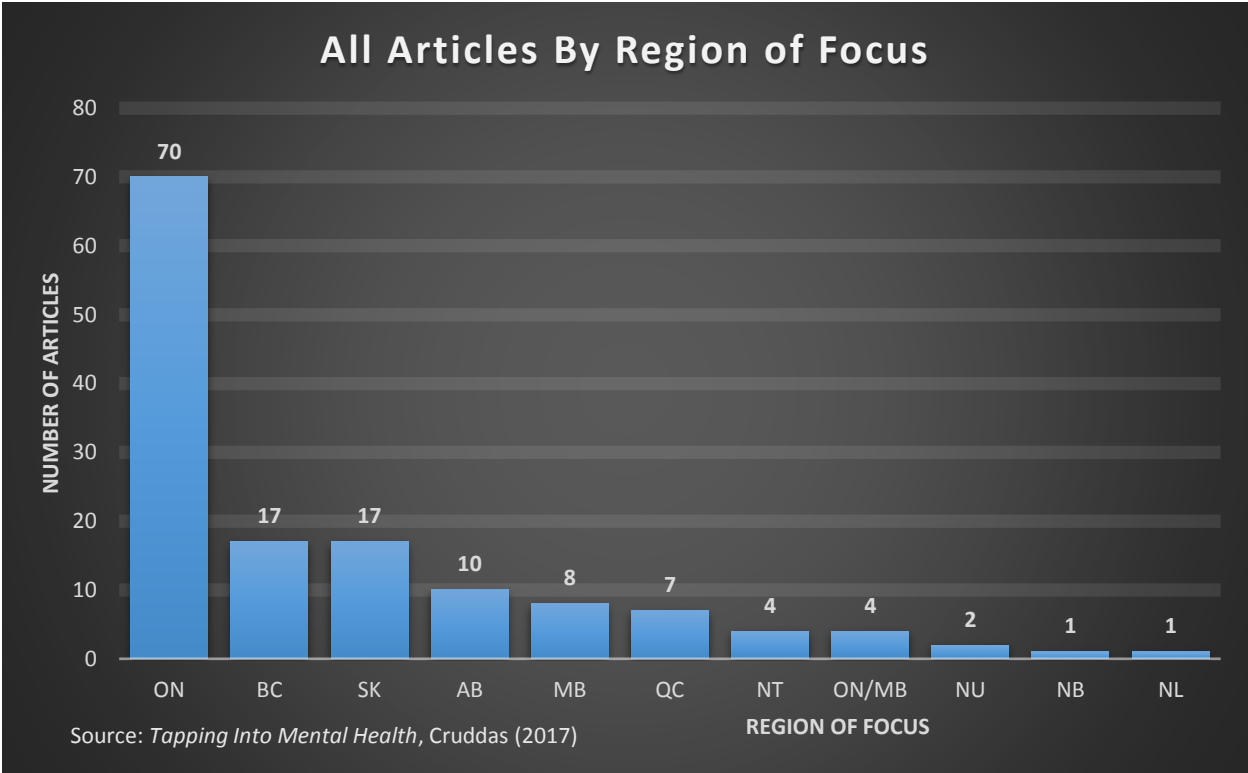
Appendix H

Map 1: Total Sum of Articles by Their Reserve/Settlement/Village of Focus



Appendix I

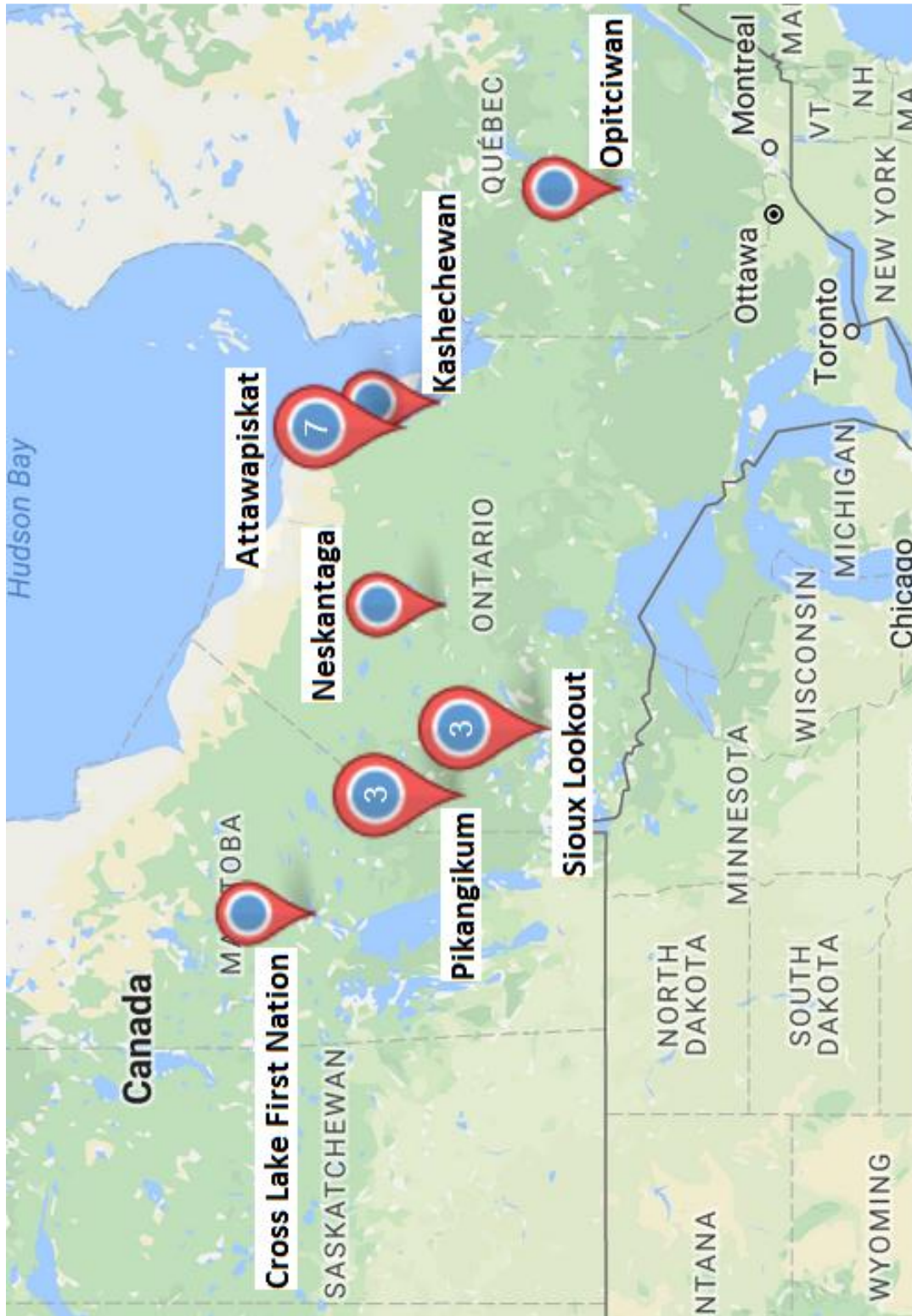
Figure 6: Sum of Articles in the Corpus By Region of Focus



TAPPING INTO MENTAL HEALTH

Appendix J

Map 2: Articles That Mention Both Water and Mental Health Crises by Their Reserve/Settlement/Village of Focus



TAPPING INTO MENTAL HEALTH

Appendix K

Table 3: List of Newspaper Articles Analyzed

ARTICLE CODED NAME (Paper, Mental Health (MH) or Water (W) Issues Mention, Author, Date)
GM_MH_GALLOWAY_0112
GM_MH_GIOVANNETTI_0122
GM_MH_TAIT_0123
GM_MH_WHITE_0124
GM_MH_NO_AUTHOR_0124
GM_MH_TAIT_0124
GM_MH_GALLOWAY_0125
GM_MH_GIOVANNETTI_BAUM_0125
GM_MH_PICARD_0126
GM_MH_THOMAS_0127
GM_MH_HAMPSON_0130
GM_MH_GALLOWAY_0202
GM_MH_GIGNAC_0205
GM_MH_PICARD_0214
GM_MH_PICARD_0215
GM_MH_BAUM_GRANT_0215
GM_MH_GALLOWAY_BAUM_0216
GM_MH_CLARK_0216
GM_MH_CLARK_0217
GM_MH_WHITE_0217
GM_MH_ROBERTSON_0218
GM_MH_STONE_0219
GM_MH_WILSON_0224
GM_MH_HANNAY_0224
GM_MH_PUXLEY_0311
GM_MH_MASON_0318
GM_MH_HUNTER_0326
GM_MH_BAUM_0407
GM_MH_GIGNAC_0408
GM_MH_HOWLETT_GIOVANNETTI _VANDERKLIPPE_PERREAUX_0409
GM_MH_DECOSTE_0409
GM_MH_NO_AUTHOR_0411
GM_MH_BAUM_GALLOWAY_0412
GM_MH_KARACHIWALLA_0413
GM_MH_MATÉ_0413
GM_MH_NOLAN_0413

TAPPING INTO MENTAL HEALTH

GM_MH_STUECK_0413
GM_MH_GIGNAC_0413
GM_MH_OBED_0414
GM_MH_NO_AUTHOR_0414
GM_MH_WHEELER_0414
GM_MH_LEWIS_0414
GM_MH_RAE_0415
GM_MH_BAUM_0415
GM_MH_WHEELER_0416
GM_MH_UBELACKER_0418
GM_MH_CURRY_0418
GM_MH_NO_AUTHOR_0419
GM_MH_GIGNAC_ANDREW-GEE_0419
GM_MH_GIGNAC_ANDREW-GEE_0420
GM_MH_MASON_0422
GM_MH_STEAD_0422
GM_MH_GALLOWAY_0422
GM_MH_BREZNITZ_0423
GM_MH_LAMEMAN_0423
GM_MH_BAUM_0424
GM_MH_PERKEL_0425
GM_MH_STUECK_0425
GM_MH_KIRKUP_0427
GM_MH_PASTERNAK_0428
GM_MH_GALLOWAY_0428
GM_MH_GRANT_0519
GM_MH_PICARD_0524
GM_MH_TABER_0525
GM_MH_HUNTER_0601
GM_MH_FRIESEN_0604
GM_MH_FRIESEN_WHITE_0609
GM_MH_TABER_0612
GM_MH_GALLOWAY_0613
GM_MH_NO_AUTHOR_0614
GM_MH_HANNAY_0616
GM_MH_HANNAY_0620
GM_MH_STEAD_0624
GM_MH_BRYDEN_0704
GM_MH_BARTON_0723
GM_MH_BAUM_0727
GM_MH_WHITE_0826

TAPPING INTO MENTAL HEALTH

GM_MH_EBNER_0826
GM_MH_WEEKS_0906
GM_MH_HUNTER_0908
GM_MH_JOKINEN_0916
GM_MH_VANSTONE_0917
GM_MH_GALLOWAY_0920
GM_MH_REYNOLDS_0924
GM_MH_GALLOWAY_BAUM_EVERETT- GREEN_0927
GM_MH_BAUM_0929
GM_MH_KIELBURGER_1013
GM_MH_JONES_1018
GM_MH_BAILEY_1021
GM_MH_GRANT_1021
GM_MH_HUME_1022
GM_MH_MCARTHUR_1023
GM_MH_MCARTHUR_1024
GM_MH_STORIE_1029
GM_MH_FINE_1030
GM_MH_BEST_1031
GM_MH_KIRKUP_1102
GM_MH_KORENBLUM_1103
GM_MH_BALKISSOON_1104
GM_MH_STEAD_1104
GM_MH_GALLOWAY_1106
GM_MH_TAIT_1112
GM_MH_NO_AUTHOR_1114
GM_MH_BAILEY_1115
GM_MH_STONE_MCCARTHY_1118
GM_MH_COLE_1121
GM_MH_HICKS_1128
GM_MH_DHILLON_1130
GM_MH_BLANCHFIELD_BRONSKILL_1217
GM_MH_EVERETT-GREEN_1228
GM_W_SIMPSON_0108
GM_W_MANN_0115
GM_W_CHURCH_0118
GM_W_BALKISSOON_0122
GM_W_BALKISSOON_0122_2
GM_W_MASON_0126
GM_W_CURRY_0130

TAPPING INTO MENTAL HEALTH

GM_W_HUME_0223
GM_W_FLANAGAN_0225
GM_W_LETKEMANN_0229
GM_W_HICKMAN_0301
GM_W_DAWSON_MARCH_0312
GM_W_FIFE_CURRY_0321
GM_W_FIFE_0322
GM_W_FIFE_CURRY_0322
GM_W_NELSON_0322
GM_W_GALLOWAY_0323
GM_W_STUECK_0324
GM_W_BISSETT_0329
GM_W_GIGNAC_0331
GM_W_GIGNAC_0404
GM_W_HODGSON_0406
GM_W_BUSZA_0408
GM_W_HANNAY_0429
GM_W_HANNAY_0503
GM_W_NO_AUTHOR_0519
GM_W_NO_AUTHOR_0519_2
GM_W_MACGREGOR_0523
GM_W_HUNTER_0605
GM_W_MCCLEARN_0607
GM_W_ADAMS_0608
GM_W_HUME_0613
GM_W_CECCO_0628
GM_W_CECCO_0629
GM_W_MACGREGOR_0801
GM_W_MCCARTHY_0803
GM_W_SULLIVAN_0812
GM_W_MACGREGOR_0813
GM_W_MACGREGOR_0815
GM_W_BAIRD_0822
GM_W_TAIT_0827
GM_W_MCCLEARN_0829
GM_W_MCCLEARN_0829
GM_W_MAROWITS_0829
GM_W_NO_AUTHOR_0829
GM_W_MCCARTHY_0829
GM_W_KLASING_0830
GM_W_ZILIO_MCCLEARN_0830

TAPPING INTO MENTAL HEALTH

GM_W_VERJEE_0831
GM_W_MACGREGOR_0905
GM_W_IBBITSON_0905
GM_W_BENNETT_0909
GM_W_LEWIS_0909
GM_W_HUNTER_0911
GM_W_CRYDERMAN_0921
GM_W_GRANT_0927
GM_W_MCCLEARN_1017
GM_W_MCCARTHY_1031
GM_W_STONE_MCCARTHY_1118
GM_W_GALLOWAY_1206
GM_W_BALKISSOON_1230
NP_MH_WARICK_0126
NP_MH_PUXLEY_0311
NP_MH_NO_AUTHOR_0315
NP_MH_KIRKUP_0329
NP_MH_THOMPSON_0411
NP_MH_WARD_0413
NP_MH_PAYNE_0413
NP_MH_BLATCHFORD_0414
NP_MH_NO_AUTHOR_0416
NP_MH_KAY_0416
NP_MH_HUTCHINSON_0416
NP_MH_ROBSON_0418
NP_MH_BRYDEN_0420
NP_MH_PERKEL_0422
NP_MH_QUAN_0425
NP_MH_LIBIN_0427
NP_MH_DIMMOCK_0514
NP_MH_MITCHELL_0521
NP_MH_SMITH_0630
NP_MH_BLATCHFORD_0708
NP_MH_DIMMOCK_0713
NP_MH_MACLEOD_0715
NP_MH_ALEXANDER_0722
NP_MH_GERSON_0818
NP_MH_SELLEY_0916
NP_MH_AKIN_0926
NP_MH_HAMILTON_1013
NP_MH_NO_AUTHOR_1020

TAPPING INTO MENTAL HEALTH

NP_MH_NO_AUTHOR_1029
NP_MH_NO_AUTHOR_1101
NP_MH_MODJESKI_1102
NP_MH_NO_AUTHOR_1108
NP_MH_NO_AUTHOR_1108_2
NP_MH_AKIN_1117
NP_MH_NO_AUTHOR_1208
NP_MH_NO_AUTHOR_1217
NP_W_FEKETE_0123
NP_W_OLIVER_0127
NP_W_IVISON_0223
NP_W_KIRKUP_0322
NP_W_FENWICK_0323
NP_W_HASSELBACK_0323
NP_W_IVISON_0414
NP_W_DE_BONO_0415
NP_W_FINGRUT_0425
NP_W_NO_AUTHOR_0430
NP_W_NO_AUTHOR_0528
NP_W_WILLIAMSON_0609
NP_W_NO_AUTHOR_0622
NP_W_BLATCHFORD_0629
NP_W_CSANADY_1007
NP_W_IVISON_1015
NP_W_BLACKWELL_1017
NP_W_REUTERS_1118
NP_W_LIBIN_1201
NP_W_NO_AUTHOR_1201
NP_W_LAMBERT_1213
NP_W_SELLEY_1214
NP_W_NO_AUTHOR_1226
GM_MHW_STUECK_TAIT_BAUM_0130
GM_MHW_GIGNAC_0224
GM_MHW_BAUM_0311
GM_MHW_GIGNAC_GALLOWAY_0330
GM_MHW_BAUM_CURRY_0411
GM_MHW_GILLIS_0420
GM_MHW_GRANT_0714
GM_MHW_NO_AUTHOR_0725
GM_MHW_PICARD_1101
NP_MHW_SELLEY_0322

TAPPING INTO MENTAL HEALTH

NP_MHW_O'CONNOR_0331
NP_MHW_NO_AUTHOR_0412
NP_MHW_PAYNE_0416
NP_MHW_QUAN_0416
NP_MHW_HAMILTON_0418
NP_MHW_HAMILTON_0806

BIBLIOGRAPHY

- Abedin, M., Umma, Habiba, & Shaw, Rajib. (2013). *Water insecurity: A social dilemma* (First ed., Community, environment and disaster risk management; v. 13. Bingley, United Kingdom: Emerald Group Publishing Limited.
- Albrecht, G., Sartore, G., Connor, L., Higginbotham, N., Freeman, S., Kelly, B., . . . Pollard, G. (2007). Solastalgia: The distress caused by environmental change. *Australasian Psychiatry, 2007, Vol.15(S1), P.S95-S98, 15(S1), S95-S98.*
- Anderson, M. C. & Robertson, C. L. (2011). *Seeing Red: A History of Natives in Canadian Newspapers* (DesLibris. Books collection). Winnipeg, MB: University of Manitoba Press.
- Blaze Baum, K. (2016, March 11). Manitoba community seeks answers as youth suicides soar; As father mourns and chiefs plead for help, provincial and federal politicians agree to formulate plans to address tragic epidemic. *The Globe and Mail.*
- Bombay, A., Matheson, K., & Anisman, H. (2009). Intergenerational Trauma: Convergence of Multiple Processes among First Nations peoples in Canada. *Journal of Aboriginal Health, 5(3), 6-47.*
- Bryman, A., Bell, E., & Teevan, J. J. (2012). *Social Research Methods: 3rd Canadian Edition.* Oxford England: Oxford University Press.
- Bullard, R. (2002). Confronting Environmental Racism in the Twenty-First Century. *Global Dialogue, 4(1), 34-48.*
- Cajete, G. (1994). *Look to the Mountain: An Ecology of Indigenous Education. First Edition.* Durango, CO: Kivaki Press.
- Canadian Press and Globe. (2016, July 8). Attawapiskat: Four things to help understand the suicide crisis. Retrieved from <http://www.theglobeandmail.com/news/national/attawapiskat-four-things-to-help-understand-the-suicidecrisis/article29583059/>
- CBC News (2013, July 17). Eastern Canada swelters as heat wave raises health concerns. Retrieved from <http://www.cbc.ca/news/canada/eastern-canada-swelters-as-heat-wave-raises-health-concerns-1.1335230>
- CBC News (2015, June 24). Yukon First Nations help youth grieve with 'healing camp'. *CBC News.* Retrieved from <http://www.cbc.ca/news/canada/north/yukon-first-nations-help-youth-grieve-with-healing-camp-1.3126575>
- Chowdhury, S., Krause, A., & Zimmermann, K. (2015). Arsenic Contamination of Drinking Water and Mental Health. *IDEAS Working Paper Series from RePEc, IDEAS Working Paper Series from RePEc, 2015.*

TAPPING INTO MENTAL HEALTH

- Cunsolo Willox, A., Landman, K., & Houle, K. (2012). *Lament for the Land: On the Impacts of Climate Change on Mental and Emotional Health and Well-Being in Rigolet, Nunatsiavut, Canada*.
- Curry, B. & Fife, R. (2016, March 22). Trudeau's first budget aims to spur growth with \$29-billion deficit; Liberals break campaign pledge to balance books by the end of the first mandate. *The Globe and Mail*.
- Fujino, Y., Guo, X., Liu, J., You, L., Miyatake, M., & Yoshimura, T. (2004). Mental health burden amongst inhabitants of an arsenic-affected area in Inner Mongolia, China. *Social Science & Medicine*, 59(9), 1969-1973.
- Gamble, R. (2006). *Environmental Racism Discourse and Indigenous Peoples*. Ottawa, ON: Department of Legal Studies, Carleton University.
- Gignac, J. (2016, March 31). Ontario First Nations chief calls for inquest after fatal house fire; As the aboriginal community of Pikangikum continues to reel from the loss of nine people in a house fire this week, Isadore Day says: 'We can't let these people die in vain.' *The Globe and Mail*.
- Gilby, S. (1996). *Variations on a theme: Environmental racism and the adverse effects of natural resources extraction on the aboriginal peoples of Canada*. Halifax, NS: Dalhousie University, Faculty of Law.
- Goldsmith, S., & Institute of Medicine. (2002). *Reducing suicide a national imperative*. Washington, D.C.: National Academies Press.
- Hallett, D., Chandler, M. J., & Lalonde, C. E. (2007). Aboriginal Language Knowledge and Youth Suicide. *Cognitive Development*, 22(3), 392-399.
- Humphries, B. (2015). *Risk and Responsibility: Insider and Outsider Media Representations of the 2014 Ebola Outbreak* (Honours thesis). Dalhousie University, Halifax, NS. Retrieved from <http://hdl.handle.net/10222/56861>
- Jones, R. (1986). *Emile Durkheim: An introduction to four major works* (Masters of social theory. v. 2). Beverly Hills: Sage Publications.
- Kay, J. (2016, April 16). No reason to stay; It will be sad and disruptive, but moving is the only hope for communities like Attawapiskat. *The National Post*.
- Kirmayer, L., Dandeneau, S., Marshall, E., Phillips, M., & Williamson, K. (2011). Rethinking Resilience from Indigenous Perspectives. *The Canadian Journal of Psychiatry*, 56(2), 84-91.
- Kirmayer, L., & The Aboriginal Healing Foundation (2007). *Suicide among aboriginal people in Canada* (Aboriginal Healing Foundation research series). Ottawa, Ont.: Aboriginal Healing Foundation.

TAPPING INTO MENTAL HEALTH

- Klinenberg, E. (2002). *Heat wave: A social autopsy of disaster in Chicago*. Chicago: University of Chicago Press.
- Larkin, B. (2013). The Politics and Poetics of Infrastructure. *Annual Review of Anthropology*, 42, 327-343.
- Levasseur, J., Marcoux, J., & CBC News. (2015). Bad water: 'Third World' conditions on First Nations in Canada. Retrieved from <http://www.cbc.ca/news/canada/manitoba/bad-water-third-world-conditions-on-first-nations-in-canada-1.3269500>
- MacDonald, P. (2016, October 3). Potlotek First Nation to get new water system to fix dirty, discoloured water. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/nova-scotia/potlotek-dirty-water-new-system-1.3789242>
- Manzo, K., Tiesman, H., Stewart, J., Hobbs, G., & Knox, S. (2015). A Comparison of Risk Factors Associated with Suicide Ideation/Attempts in American Indian and White Youth in Montana. *Archives of Suicide Research*, 19(1), 89-102.
- Markewich, C. & CBC News. (2016, October 20). Sask. First Nations facing 'state of crisis' after 4 youth suicides. Retrieved from <http://www.cbc.ca/news/canada/saskatoon/call-to-improve-indigenous-health-care-1.3813212>
- McCue, D. & CBC News (2015, October 14). B.C. Nazko First Nation asks: why can't we drink our water? Retrieved from <http://www.cbc.ca/news/canada/british-columbia/bc-first-nation-drinking-water-1.3271766>
- McLellan, L. H. (2015). *Contemporary Settler Colonialism: Media framing of Indigenous collective action in Elsipogtog, Mi'kma'ki* (Honours thesis). Dalhousie University, Halifax, NS. Retrieved from <http://hdl.handle.net/10222/56853>
- McQuaid, R., Bombay, A., McInnis, O., Matheson, K., Anisman, H., & Lee, R. M. (2015). Childhood Adversity, Perceived Discrimination, and Coping Strategies in Relation to Depressive Symptoms Among First Nations Adults in Canada: The Moderating Role of Unsupportive Social Interactions From Ingroup and Outgroup Members. *Cultural Diversity and Ethnic Minority Psychology*, 21(3), 326-336.
- Minister of Industry. (2013). *Aboriginal Peoples in Canada: First Nations People, Métis and Inuit. National Household Survey, 2011*. Report prepared by Statistics Canada. Retrieved from <http://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-011-x/99-011-x2011001-eng.pdf>
- Norins, J., Weiner, R., Farsakh, L., & Keating, M. (2011). *The Implications of Water Insecurity for Fragile and failing States: The Case of Pakistan*, ProQuest Dissertations and Theses.
- Parikh, P., Fu, K., Parikh, H., McRobie, A., & George, G. (2015). Infrastructure Provision, Gender, and Poverty in Indian Slums. *World Development*, 66, 468-486.

TAPPING INTO MENTAL HEALTH

- Payne, E. & the Ottawa Citizen. (2016, April 16). How a week of horror unfolded; Postmedia's Elizabeth Payne reports from Attawapiskat on a rash of suicide attempts – and a surprising pride amidst the pain photographs by Julie Oliver. *The National Post*.
- Porter, J. (2016, April 16). Neskantaga First Nation in 3rd year of state of emergency over suicides. *CBC News*. Retrieved from <http://www.cbc.ca/news/canada/thunder-bay/carolyn-bennett-neskantaga-attawapiskat-1.3539039>
- Pulido, L. (2016). Flint, Environmental Racism, and Racial Capitalism. *Capitalism, Nature, Socialism*, 27(3), 1-16.
- Rihmer, Z., Hal, M., Kapitány, B., Gonda, X., Vargha, M., & Döme, P. (2015). Preliminary investigation of the possible association between arsenic levels in drinking water and suicide mortality. *Journal of Affective Disorders*, 182, 23-25.
- Robson, J. (2016, April 18). Social workers aren't the answer. *The National Post*.
- Silversides, A. (2007). The North "like Darfur." *Canadian Medical Association Journal*, 177(9), 1013-4.
- Stevenson, Greene, Maes, Ambelu, Tesfaye, Rheingans, & Hadley. (2012). Water insecurity in 3 dimensions: An anthropological perspective on water and women's psychosocial distress in Ethiopia. *Social Science & Medicine*, 75(2), 392-400.
- Stueck, W., Tait, C., & Blaze Baum, K. (2016, January 30). A familiar pain, a constant hope. *The Globe and Mail*.
- Tomasi, L. (2000). "Emile Durkheim's Contribution to the Sociological Explanation of Suicide." In Pickering, W., Walford, Geoffrey (eds.), *Durkheim's Suicide a century of research and debate* (Routledge studies in social and political thought; 28). London; New York: Routledge.
- Webster, P. (2016). Canada's Indigenous suicide crisis. *The Lancet*, 387(10037), 2494.
- Westra, L. (1999). Environmental Racism and the First Nations of Canada: Terrorism at Oka. *Journal of Social Philosophy*, 30(1), 103-124.
- White, P. (2016, January 24). La Loche: A beautiful town with a rough reputation. *The Globe and Mail*.
- Wilson, K. (2003). Therapeutic landscapes and First Nations peoples: An exploration of culture, health and place. *Health and Place*, 9(2), 83-93.
- Wutich, A. & Ragsdale, K. (2008). Water insecurity and emotional distress: Coping with supply, access, and seasonal variability of water in a Bolivian squatter settlement. *Social Science & Medicine*, 67(12), 2116-2125.