Health Perspectives

Undergraduate Health Studies Journal
Volume XII | September 2020
University of Toronto

EDITORIAL STAFF

Health Perspectives
University College
15 King's College Circle
Toronto, ON M5S 3H7

healthstudies.journal@gmail.com
healthperspectivesjournal.wordpress.com

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Director's Foreword

Welcome to the "Covidian" edition of the Undergraduate Health Studies Journal. This publication, started, edited and continuously produced since 2009 by the tireless work of students in the Health Studies Program at University College, focuses this year on the consequences of the SARS-CoV-2 (Covid-19) global pandemic.

As described by the 12 young academics from the Health Studies Program, this pandemic has exposed deep, systemic inequalities within Canadian society that produce disproportionate, deleterious health outcomes amongst marginalised and vulnerable communities. Described by the authors, these distinct outcomes are not just evident in the statistics of morbidity and mortality but also in the unequal burdens in daily living that accrue to already marginalized groups. Importantly, as suggested in the explanatory note accompanying Eesha Chaudry's poem, "Doomsday," these articles offer unique conduits to see and engage, for the purpose of change, the systems that produce the global vulnerabilities revealed by the Covid-19 pandemic.

My deep appreciation goes to the Co-Editors-in-Chief, Sophia DiNicolo and Nammal Khan who tirelessly ensured that this issue of the UHSJ was produced despite the limitations imposed by the Covid-induced isolation. I commend the authors of this edition of the Journal for their scholarly contributions. I further want to thank Matilda Dipieri and Madeline Cuillerier (Senior Editors); Angelina Liu (Layout Editor); Ava Rodrigues and Brenna Schmitt (Junior Editors); as well as the Peer Review team, consisting of Michelle Mao, Thomas Hall, Sylvie Fernandes, Saiefa Rahman, Cindy Ferrerira Vieira, Samantha Parker, and Carolina Borja as they are responsible for the high quality production of this publication!

As this most remarkable academic year begins, I hope that you cope well and suggest that some considerable patience and solidarity will contribute to all of us getting through this unique, challenging and disorienting time.

Paul A. Hamel
Director, Health Studies Program, University College &
Professor, Faculty of Medicine

A Note from the Editors

We are thrilled to bring you the latest edition of the Undergraduate Health Studies Journal, *Health Perspectives: Volume XII*. Founded in 2009, *Health Perspectives* has provided opportunities for countless University of Toronto undergraduates to publish original work, and for Health Studies students to gain first-hand experience in editing and publishing as members of the Editorial Staff. The Health Studies program's commitment to understanding and analyzing health through a multidisciplinary lens is reflected in *Health Perspectives'* annual publications.

Health Perspectives: Volume XII, a special Summer Edition, showcases the work of 12 student authors. Each featured paper is presented from a unique vantage point and sheds light on the significant issues stemming from the coronavirus disease 2019 (COVID-19). Though the content of each article is different, the authors take a multifaceted approach to critically engage with and challenge the biomedical definition of health-namely the presence and absence of disease- and demonstrate how social, cultural, economic and political factors interact to shape health and well-being. To our authors and those who submitted their work for consideration: thank you for sharing your writing with us and contributing to a dialogue that fosters a holistic sense of health and well-being. Without you all, this volume would not have been possible.

While the Summer of 2020 has been undoubtedly different than most, health studies students came together to do what they do best, which is to critically engage with the world around them as it pertains to health and in this case, COVID-19. Despite the unique summer, COVID-19 has highlighted and further exacerbated the many pre-existing inequities within our health care and socio-political systems. It is our hope that these systemic and structural issues are not only addressed but are also acted upon at their root causes to prevent future injustices. We hope the journal serves to continue the discussion on many of these issues and that the conversation does not end at the end of these pages.

We are so grateful for the support of Dr. Paul Hamel, the Health Studies Director, and the Health Studies Students' Union, especially Iqra Arooj Mahmood and Melanie Seabrook, without

whom this publication would not have been possible. To our diligent and thorough editorial staff: thank you for dedicating your time and energy to making *Volume XII* our strongest publication to date!

And finally, to our readers: we hope that *Health Perspectives: Volume XII* presents you with another collection of fresh ideas and creative approaches to examining the issues stemming from COVID-19 and helps you shape your own understanding of health and well-being.

Yours in health,

SOPHIA DINICOLO
Co-Editor-in-Chief | Health Perspectives 2020

NAMMAL KHAN
Co-Editor-in-Chief | Health Perspectives 2020

Discourse Analysis on a Canadian News Article's Portrayal of Quarantine and the Coronavirus

MIHOJANA JHUMI

Introduction

In this discourse analysis, I will be evaluating a news article by Richard Warnica, who discusses the recent coronavirus disease 2019 (COVID-19) outbreak, and more specifically, the experiences of Canadian evacuees from China, who underwent quarantine in early February of 2020. The article, "For Canadians escaping coronavirus ground-zero in Wuhan, it's one quarantine to another," uses descriptive imagery, selective quotations, photographs, and a melancholic tone to depict the miserable circumstances forced upon the evacuees. Interestingly, at the time this article was written, 7 February, 2020, there were over 42,797 COVID-19 cases around the world, with over 1,013 deaths and thousands in quarantine for weeks among more severe infectious outbreaks than those in Canada (Worldometer, 2020). However, through the use of literary devices, Warnica (2020) attempts to shift the reader's focus away from the more concerning condition in China to convey a greater a sense of apprehension and empathy toward the 176 Canadians who were required to enter "medical-jails" after "escaping" from "ground-zero in Wuhan" (para. 13). By examining the choice of images, diction, quoted sources, and the author's personal insinuation based on his social context, I will attempt to not only reveal how Warnica portrays the evacuated Canadians as forlorn victims of the novel illness, but also discuss the impact that these methodologies have in shaping the readers' understanding of the severity of the situation.

Effect of Language and Stylistic Devices

Firstly, the way Warnica rhetorically presents the issue is significant in unveiling the author's own underlying assumptions and political ideologies about the people in focus. Unlike many other news reports providing concise, statistical data about the coronavirus, the extensive use of emotive language and the careful selection of words that frame the events of this article play a critical role in victimizing and igniting the interests of Canadian citizens. For example, Warnica begins by employing imagery with descriptions like "rained-out vacation," "stuck inside," "medical-jail," "bored," "brewing sibling civil war" and "praying for a sunny dawn" to instantly prompt the readers to visualize and identify with the sufferings of the people constrained in quarantine (Warnica, 2020, paras. 1-3 and 13). In contrast, when describing Wuhan, Warnica chooses figures of speeches like "a sprawling metropolis," "mass-quarantine zone," "locked-down epicentre of the novel virus," "mega-city-turned-ghost town," and "coronavirus ground-zero" to illustrate China as a death-zone from which these passengers "escaped" (Warnica,

2020, paras. 6-7 and 12). These fear-evoking adjectives, metonymy and metaphors create the perception that Wuhan is the origin of some rapid, intense and violent activity that is responsible for wreaking havoc on the safety and well-being of Canadians. This, in turn, implicitly reinforces feelings of hostility and dismay towards China in general. Accordingly, Warnica does not provide any actual statistics nor any form of sympathy for the more severe conditions in Wuhan. By repeatedly emphasizing the plights of the 176 passengers, while simultaneously overlooking or brushing aside the adversities of others, the author both consciously and unconsciously places a greater value on Canadian lives.

The portrayal of this news event is similar to ones analyzed by Lupton (1992) who discussed how several editorials published in the 1990s highly favoured and sympathized with the HIV-related death of a little, blonde, white child named Holly through the use of descriptions like "an enormous tragedy," "a calamitous loss," and "how the innocent can suffer," while concurrently disregarding or victim-blaming thousands of other HIV patients who were either gay or drug users for being "deliberately chosen" by the "sleazy" virus (Luptuon, 1992, p. 148). Similarly, rather than receiving an outpour of solidarity, thoughts, or prayers for the 3,000 plus deaths and more than 80,000 infected cases at that time, people in China have either been indirectly accused or ignored by numerous notable international media portals (Soh, 2020). Although Canadian news outlets are continuously providing updates on the hundreds of thousands affected by COVID-19, like many of the HIV/AIDS victims who are perceived as deserving of their suffering, Warnica (2020) similarly demonstrates an apparent difference in the magnitude of compassion and concern expressed toward the discomfort of the Canadian passengers compared to the fatalities of those in Wuhan.

The Unidirectional Gaze

Anthropological gaze refers to how anthropologists observe and evaluate their surroundings (Murney, 2020). In this article, Warnica engages in the stereotypical unidirectional gaze where, instead of exchanging dialogues or giving the passengers a voice to express what they truly feel, the author independently observes the situation, and gives a report to an intended audience that only serves his agenda. For instance, he begins the article by inviting the reader to envision themselves in the place of the Canadian evacuees, to "imagine" that "you" are trapped in a distant motel that "you" do not know the location of, the struggle that "you" would face remaining sane in a room full of your family members and how "you would pray and do anything to get out of that room" (Warnica, 2020, paras. 1-2 and 4). Warnica further asks his audience to multiply these experiences by 14 to get an idea of the long, tedious, and draining procedures that the escapees are going through. The writing almost gives off the impression that the author himself has personally endured these occurrences and would like the readers to feel the same; to understand what it would be like to be in the shoes of those deserving of our consolation. However, while Warnica provides some direct quotations from Patty Hajdu, the Minister of Health and Francois-Phillippe Champagne, the Minister of

Foreign Affairs to maintain a formal, objective and authoritative voice, he does not cite any verbal declarations or quotes from any of the actual evacuees about their journey. This implies that much of the emotive language used to describe their experiences are based on the author's hunch, insinuation, or observations.

This subsequently calls into question the issue of subjectivity in news reporting. Although it is the job of journalists/news reporters to publish factual and objective accounts of events, it is important to acknowledge that all forms of discourse, and therefore health beliefs, are influenced by the political agenda and ideologies of the society in which they are produced (Lupton, 1992). Moreover, newspapers are always filtered to include only the information that will attract and satisfy the interests of the audience who subscribe to them. During the time Warnica's article was published, the number of COVID-19 cases and the overall health crisis in Canada were relatively under control in comparison to many of the epicentres of the coronavirus (The Canadian Press, 2020). As a result, since the majority of the residents in Canada were not yet critically exposed to the virus, the article does not focus on the benefits of quarantine in impeding the spread of the disease. Consequently, as someone residing in Canada and working for a Canadian newspaper, Warnica uses the emic approach by describing the event from the insider's point of view, where he mainly highlights the issues that concern Canadians and the inconveniences experienced by them as opposed to focusing on or giving importance to the drastic disease upheavals impacting the rest of the world.

Additionally, it is also important to recognize that reporters will only publicize parts of conservations that they themselves consider worthy of attention based on their positionality or personal worldview (Caldas-Coulthard, 2002). As mentioned above, Warnica cites only two official sources for direct quotations. Out of the eight quotes provided, seven are from Hajdu. By repeatedly featuring her name, the author assigns more value and prominence to Hajdu's statements compared to others combatting the same problem. In other words, it is primarily the information which Patty Hajdu considered appropriate for the public that has been shared by Warnica. This traditional "he said/she said" model of news reporting often makes it difficult to differentiate between facts and opinions, or knowledge vs beliefs (Camargo & Grant, 2015). Though Hajdu is a highly informed and qualified personnel, there is a large degree of imbalance and underrepresentation of the other equally important credible sources whose titles are merely mentioned in the article but with no account of their names or statements, such as the Chinese health officials, Canadian military doctors, officials from the Red Cross and, most importantly, the evacuees themselves. Similar to anthropological research, the gaze of journalists/news reporters are sometimes blurred or inconsistent with the social reality as they are taught to frame stories according to their perspective, upbringing, language, and institutional training (Stoller, 1982). This is not to say that the descriptions Warnica uses are false, but rather to realize that even in the news, there is a significant degree of bias that is reflective of the author's personal context, propensity and viewpoint. Therefore, verbal conversations or observations translated in written form through the one-way gaze can never truly be neutral (Eriksen, 2017).

The Choice of Graphics

The third focus of this analysis will be on the photographs presented in the article. The very first photo is of a mother with her one-year-old toddler who seems to be fastened in a small, cramped space on the airplane. The photo of the cute, one-year-old baby is an effective tool to draw the reader's attention and to evoke empathy toward the people who are "stuck" in the tiresome "travel odyssey" (Warnica, 2020, paras. 7 and 12). It is also of no surprise that out of the 176 passengers on the plane, the news publisher has deliberately chosen a photo of an East-Asian woman considering how this ethnic group has been bearing the unwarranted burden of the social stereotypes, fears, and political biases associated with the spread of the novel illness (Sawchuk & Burke, 2008; Soh, 2020).

The following picture of the Canadian Forces soldier walking alone across the vast, empty, snow-covered Force Base in Trenton supports the author's argument about the isolation, cold and gloomy atmosphere that was awaiting the incoming travellers. These photographs further enhance the solemn and melancholic tone delineated throughout the article. Interestingly, the last three photos of the Yukon Lodge, the Red Cross teddy bears and the rooms where the evacuees will remain quarantined are almost contradictory to the descriptions like "medical jail" characterised by the author (Warnica, 2020, para. 13). As per Champagne, these passengers had the choice to voluntarily board the flight. They will not be cut off from the outside world and will be able to communicate with others via phone, internet, WiFi, etc. In addition, it is also mentioned that all the evacuees will be provided with bedrooms with complete bathrooms, a shower, onsite primary care, social services, daily health assessment, food, clothing, diapers, formula, games and in some cases, mental health support (Warnica, 2020).

There is no doubt that these individuals were indeed going through a very stressful time and were in absolute need of all these high-end services. However, the discourse through which the author conveys the emotions and struggles of the passengers reflects how the perception of the severity of infectious diseases and the quality of preventative measures significantly vary based on social, political and economic state of affairs. For example, in a recent article published by The Guardian, it is stated that authorities in Wuhan city were going "door to door to check people's body temperatures and rounding up suspected coronavirus patients for forcible quarantine in stadiums and exhibition centres that served as warehouses for the sick; [...] where deserters were to be nailed to the pillar of historical shame forever" (Graham-Harrison, 2020, para. 2). Likewise, in the 14th century when medications proved to be ineffective against the plague, repressive public health policies were established to prohibit minority groups, such as Jews and persons with leprosy, from entering Western cities since they were considered carriers and dangers to the healthy urban population (Tognotti, 2013). In 1836 Naples, there were also increased police power, widespread generation of fear, resentment and restriction of liberty to protect the population from cholera. When disease and disorders are not fully understood, the cultural, linguistic and religious differences of vulnerable minorities often render them as threats against the majority and thereby create opportunities for stigmatization

and scapegoating to protect the interests of communal power structures (Sawchuk & Burke, 2008). Discriminative practices like these are still very much present today but are expressed much more discreetly in news media. In India, where the government issued a national lockdown for 21 days, hundreds of travellers arriving in the country were placed in quarantine at a converted police training centre that had 7-8 stained beds per room, dirty floors, mouldy vegetable peelings in cupboards and unsanitary washrooms that about 80 people in each floor had to share for 2 weeks (Ghoshal & Pal, 2020).

Despite the quarantine treatments being objectively different between Canada, Wuhan and India, the subjective intake of the Canadian author, Warnica, implies that the austerity of the conditions and discomfort of those confined in Trenton are of the same magnitude. Clearly, in contrast to the past and compared to many developing nations, there has been major progress in quarantine procedures in first-world countries like Canada where the main dilemma happened to be "finding ways to occupy oneself and fighting boredom" in the highly accommodating, free-of-charge, 4-star motel (Warnica, 2020, para. 18). To end the article, the author contends that it is of the Trenton crew's best interest that they are being released after the long Family Day weekend; again, without citing any supporting quotes from the actual evacuees. Thus, possibly based on his own experiences, Warnica once more assumes that spending two weeks with family is something that all the passengers, as well as his readers, would detest and that "after 14 days, more time with the family may be the last thing any of them need" (Warnica, 2020, para. 19).

Conclusion

The purpose of this discourse analysis was to unveil the subtle ways that reporter Richard Warnica controls, persuades, and influences the opinions of readers about quarantine procedures and the Canadian travellers who were impacted by COVID-19 in early February of 2020. By employing rhetorical devices such as imagery and metonymy to characterize Wuhan as a death-zone, as well as using emotive language to illustrate the sufferings of the evacuees, the author attempts to implicitly elicit solidarity toward Canadian passengers while simultaneously inducing feelings of fear and hostility toward the coronavirus epicentre in China. To maintain an objective voice and to add credibility to his claims, Warnica exclusively quotes two official sources in his article: the Canadian Ministers of Foreign Affairs and Health. However, the absence of viewpoints or quotes from the actual passengers indicates that much of the author's reporting may be unidirectional or observational in nature. Lastly, the comparison of the selected photographs in this article to the quarantine procedures in Wuhan, India and other historical time periods demonstrates how the perception of the severity of pandemics and quality of preventative measures can vary according to prevailing social and economic tensions. In conclusion, the particular discourse techniques used to depict the plights of the 176 evacuees are reflective of the lens through which the author views the world, as well as his position relative to the broader political agendas that were established to represent health

issues, like COVID-19, in accordance with the interests and circumstances of the Canadian society at that point of time.

References

Caldas-Coulthard, C.R. (2002). On reporting reporting: The representation of speech in factual and factional narratives. In M. Coulthard (Ed.), Advances in written text analysis (pp. 295-308). Routledge.

Camargo, K., & Grant, R. (2015). Public health, science, and policy debate: Being right is not enough. American Journal of Public Health, 105(2), 232-5. doi: 10.2105/AJPH.2014.302241.

Eriksen, T. H. (2017). What is Anthropology? Pluto Press.

Graham-Harrison, E. (2020, February 8). Wuhan facing 'wartime conditions' as global coronavirus deaths reach 724. The Guardian. https://www.theguardian.com/world/2020/feb/07/wuhan-facing-wartime-conditions-as-china-tries-to-contain-coronavirus

Ghoshal, D., & Pal, A. (2020, March 18). Flooded toilets, dirty sheets: South Asia quarantine centers worry experts. Reuters. https://www.reuters.com/article/us-health-coronavirus-southasia-quaranti/flooded-toilets-dirty-sheets-south-asia-quarantine-centers-worry-experts-idUSKBN2152CP

Lupton, D. (1992). Discourse analysis: A new methodology for understanding the ideologies of health and illness. American Journal of Public Health, 16(2), 45-150. https://doi.org/10.1111/j.1753-6405.1992.tb00043.x

Murney, M. (2020). Lecture on Anthropology & the Anthropological gaze. Personal Collection of M. Murney, University of Toronto, Scarborough, Ontario.

Sawchuk, L.A., & Burke, S.D.A. (2008). The barefooted foreigner: A case study of the scapegoat in 19th Gibraltar. Current Anthropology, 49(3), 511-518. DOI: 10.1086/588254

Soh, S. (2020, February 7). Coronavirus is a tragedy, so where are the 'thoughts and prayers' for the people of china? Metro. https://metro.co.uk/2020/02/07/coronavirus-is-tragedy-where-thoughts-prayers-12197945/

Stoller, P. (1982). Relativity and the anthropologist's gaze. West Chester State College, 7(4). https://doi.org/10.1525/ahu.1982.7.4.2

The Canadian Press. (2020, February 28). Novel Coronavirus: Latest timelines of COVID-19 cases in Canada. CTV News. https://vancouverisland.ctvnews.ca/novel-coronavirus-latest-timeline-of-covid-19-cases-in-canada-1.4831993

Tognotti, E. (2013). Lessons from the history of quarantine, from Plague to Influenza A. Emerging Infectious Diseases, 19(2), 254–259. 10.3201/eid1902.120312

Warnica, R. (2020, February 7). For Canadians escaping coronavirus ground-zero in Wuhan, it's one quarantine to another. National Post. https://nationalpost.com/news/for-canadians-escaping-coronavirus-ground-zero-in-wuhan-its-one-quarantine-to-another

Worldometer. (2020, February 10). COVID-19: Coronavirus Outbreak. https://www.worldometers.info/coronavirus/

The Business of Long-Term Care in COVID-19

Kaitlyn Lem, Evan Gadil, and Justin Nathens

The COVID-19 pandemic has taken a historical toll on the lives of Canadians. Specifically, COVID-19 has disproportionately affected residents of long term care facilities in Ontario. It is therefore worth considering why these facilities are particularly susceptible, how their organization may have enabled the spread of disease, and what can be done to prevent this in the future. As of July 7th, 2020, there have been 106,167 reported cases of COVID-19 in Canada, resulting in 8,711 deaths across the country (Government of Canada, 2020). Upwards of 82% of these deaths have occurred in long-term care facilities (LTCFs), demonstrating the virus' disproportionate toll on the at-risk residents of these institutions (MacCharles, 2020; Walsh & Semeniuk, 2020). It is pertinent to consider why LTCFs have been particularly susceptible to the spread of COVID-19, and how aspects of the long-term care (LTC) system could be altered to prevent similar situations from occurring in the future. As such, the present paper will critically analyze features of the Ontarian LTC system that may have exacerbated the spread of COVID-19.

Enabling the Long-Term Care Market

Long-term care refers to a wide range of services that differ in financing, care provided, and care delivery. We will consider LTCFs, which are residential institutions for individuals that require significant, ongoing assistance as a result of physical and/or cognitive impairment. LTCFs provide numerous important services, including meal provisions, personal hygiene, and medical care. These services have been interrupted by the COVID-19 lockdown measures and have placed the staff and residents in precarious positions regarding employment and care delivery (CBC News, 2020). Social distancing measures have made it difficult to receive at-home care, and reductions in community care have limited access to these services. In 2019, the Ontario Health Coalition (OHC) identified access to care as a key systemic issue within LTCFs (Ontario Health Coalition, 2019). While overall access to LTCFs has decreased across the country, Ontario specifically ranks second to last in the number of available beds per capita (Ontario Health Coalition, 2019). This has resulted in waitlists between 18,000 to 33,000 over the past three decades (Ontario Health Coalition, 2019). Limited access to care and minimal beds available has resulted in a huge growth of privatized, for-profit LTCFs to meet the growing demand created by Canada's aging population - this may even be considered an 'LTC market' of sorts . However, for-profit facilities leave residents to finance the costs of their occupancy. The result is access to care for those who can afford it, rather than for all those who need it.

As mentioned, LTCFs can be either for-profit or not-for-profit. A distinction between the two is that for-profit facilities must generate a significant profit on top of meeting the same minimum level of care expected of not-for-profit facilities. As of 2020, 58% of Ontario LTCFs are run on a for-profit basis (Bell & Russell, 2020). This shift towards for-profit care was a result of the 1995-2002 Mike Harris government's "Common Sense Revolution." The Harris government aimed to expand the free market through a series of cuts and de-regulations (Daly, 2007). This was achieved in part by consolidating the Ministry of Health and the Ministry of Community and Social Services, putting the focus on primary care rather than addressing the upstream factors that necessitate primary care and community care (Daly, 2007). Directly affecting LTC was the implementation of a managed competition model in LTC. The managed competition model implemented competitive bidding for LTC contracts within the province (Daly, 2007). This model reduced the lengths of awarded contracts and created a contract bidding system which favoured large corporations (Daly, 2007). The change in contract length loosened the grip that not-for-profit organizations had on LTC and allowed for-profit corporations to underbid not-for-profit organizations by promising to provide the same level of care at a lower cost (Baranek, Deber, & Williams, 1999). The changes made by the Harris government persist to the present day wherein for-profit corporations dominate the LTC "market."

Acknowledging that for-profit model LTCFs must meet minimum care needs while generating a significant profit for the provider and investors, cost-cutting measures are required. In LTCFs this commonly means a reduction of operating costs and an altered organizational structure (Hsu et al., 2015). In LTCFs, the labour of nurses, personal support workers (PSWs), cooks, cleaners, administrative staff, etc. undoubtedly account for some of the largest expenditures. Thus, consistent with "best" economic practice, for-profit facilities tend to employ labour on a part-time basis, minimize skilled workers, and maximize volunteers (Ontario Health Coalition, 2019). This strategy is successful in reducing costs incurred by corporations, though this comes at a cost to employees . This practice impacts workers by reducing their salaries and decreasing or omitting non-mandatory employee benefits such as health insurance, pensions, and sick leave (Ontario Health Coalition, 2019). To compensate for the loss of income, workers are often forced to take on employment at multiple LTCFs or work in other industries to meet financial needs, highlighting an ongoing staffing issue in LTCFs (Ontario Health Coalition, 2019).

Employing a majority of part-time workers to cut costs directly affects the care delivered to residents. With high staff turnover throughout the day, it is harder for staff to provide consistent, high-quality care to residents (Hall, 2005). Inadequate care is furthered through incomplete resident profile reports, wherein the workers miss relevant information regarding the patients' health as a result of short shift work. Additionally, the workload of individual nurses and PSWs makes it difficult to provide adequate care, as LTCFs with less staff are still expected to provide the same quality of care as well-staffed LTCFs. The stress of a heavy workload in addition to the high levels of staff turnover, in turn, leads to worse health outcomes for patients (Hall, 2005).

Acknowledging the direct relationship between LTCF staff and the quality of care received by residents, the structure of employment in part determines the health outcomes of residents year-round. This is particularly relevant during the COVID-19 pandemic, as is the case when residents are exposed to annual viruses such as the flu. A 2015 study found that after admission, residents in for-profit facilities had a 20% higher mortality risk and 36% higher hospitalization risk than residents in not-for-profit facilities (Tanuseputro et al., 2015). Thus, data demonstrates a greater health risk for residents under the for-profit model for LTCFs.

COVID-19's Impact on Long-Term Care

In the context of the pandemic, the staffing crisis in LTC can be understood to have contributed to the deleterious spread of COVID-19 between LTCFs. With LTC workers often taking jobs at multiple locations, there is frequent movement between facilities, making workers ideal vectors for the virus (CBC News, 2020). Demonstrating this, in Ontario over one-third of LTCFs are experiencing fatal outbreaks (Ontario Health Coalition, 2020). The OHC has reported that for-profit LTCFs are experiencing higher rates of COVID-19 related deaths (9%) than not-for-profit facilities (5.25%) (Ontario Health Coalition, 2020). The Star reported that while the spread of COVID-19 is similar across all LTCFs, for-profit homes have twice as many deaths (Oved et al., 2020).

In an attempt to prevent transmission between LTCFs, the provincial government mandated that workers only be employed at a singular facility (Ontario Health Coalition, 2020). This mandate came into effect in mid-April, after 114 of the province's 626 LTCFs had reported infections amongst staff and residents (CBC News, 2020). To compensate for lost income, the provincial government promised to subsidize wages. However, this measure would do little to mitigate the widespread staffing crisis in the province's LTC sector, which may disproportionately affect for-profit facilities (DeClerq K., 2020). Demonstrating this, a 2019 report by the OHC documented that many workers in the LTC industry prefer employment in not-for-profit LTCFs as they are associated with higher pay, better benefits, and improved work conditions (Ontario Health Coalition, 2019). In the context of COVID-19, a smaller number of staff in for-profit facilities would thereby be tasked with caring for more patients than before the outbreak, meaning that staff had less time to spend with each resident. Staff who were infected were therefore positioned to become vectors, spreading COVID-19 from resident to resident as they struggled to maintain the facility.

Moving Forward

The present pandemic has exposed flaws within Ontario's organization of LTC. Specifically, placing LTC on the "market" results in cutting corners in the name of profit, diminishing quality of care for residents, and exposing them to greater risks (as seen in the COVID-19 pandemic). Perhaps the most obvious solution to these issues is a

systematic adoption of the not-for-profit model of LTC. Such LTCFs are associated with more care hours compared to their for-profit counterparts, a variable that has been positively correlated with improved quality of care (Hsu et al., 2015). Removing profit motives also removes the incentive to cut operational costs, which allows for greater staff remuneration, removing the need to work in multiple facilities, and associated risks of this practice.

At a provincial level, this solution is made difficult because of the current government's historical tendencies towards measures of austerity and hesitancy to fund public services (Russell, 2019). However, The COVID-19 pandemic has created a policy moment that may be conducive to lasting long-term care reform, as it has highlighted the vulnerability of populations residing in LTC. This, in turn, may make the public and provincial governments more amenable to policies that fund LTC improvements. While Doug Ford'sProgressive Conservative government has shown to be willing to defund services to reduce costs and administrative responsibilities, they have also demonstrated that they are open to repealing these changes in the face of public outcry (Russell, 2019; Monsebraaten, 2019). In the wake of the COVID-19 pandemic, a critical juncture such as this one may be just what the LTC system needs to deliver better, more consistent, and quality care for its staff and residents.

References

Baranek, P. M., Deber, R., & Williams, A. P. (1999). Policy trade-offs in "home care": The Ontario example. Canadian Public Administration, 42(1), 69-92.

Bell, S., & Russell, A. (2020, June 16). Coronavirus: Ontario's worst hit nursing homes and who owns them. Global News. https://globalnews.ca/news/7059683/coronavirus-ontarios-worst-hit-nursing-homes/

CBC News. (2020, April 14). Ontario to stop caregivers from working at multiple long-term care homes as COVID-19 spreads like 'wildfire'. CBC News. https://www.cbc.ca/news/canada/toronto/ontario-to-stop-caregivers-from-working-at-multiple-long-term-care-homes-as-covid-19-spreads-like-wildfire-1.5531920

Coletta, A. (2020, May 18). Canada's nursing home crisis: 81 percent of coronavirus deaths are in long-term care facilities. The Washington Post. https://www.washingtonpost.com/world/the_americas/coronavirus-canada-long-term-care-nursing-homes/2020/05/18/01494ad4-947f-11ea-87a3-22d324235636_story.html

Daly, T. (2007). Out of place: Mediating health and social care in Ontario's long-term care sector. Canadian Journal on Aging, 26(S1), 63-75.

DeClerq, K. (2020). Ontario admits to "staffing crisis" in long-term care homes before COVID-19 pandemic began. CTV News. https://toronto.ctvnews.ca/ontario-admits-to-staffing-crisis-in-long-term-care-homes-before-covid-19-pandemic-began-1.4958223

Hall, L. (2005). Quality Work Environments For Nurse and Patient Safety. Jones and Bartlett Publishers Inc.

Hsu, A.T., Berta, W., Coyte, P.C., & Laporte, A. (2015). Staffing in Ontario's long-term care homes: Differences by profit status and chain ownership. Canadian Journal on Aging, 35(2), 175-189

Government of Canada (2020, July 7). Coronavirus disease (COVID-19): Outbreak update.Canada.ca.https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html

Lem, K., Majeed, A., & Hamel, P. (2020) The true cost of efficiency in the long-term care system. University College Alumni Magazine, Special Edition: UC Perspectives on COVID-19 Toronto, ON.

MacCharles, T. (2020, May 7). 82% of Canada's COVID-19 deaths have been in long-term care, new data reveals. The Star. https://www.thestar.com/politics/federal/2020/05/07/82-of-canadas-covid-19-deaths-have-been-in-long-term-care.html

McGregor, M. J., Cohen, M., McGrail, K., Broemeling, A. M., Adler, R. N., Schulzer, M., Ronald, L., Cvitkovic, Y., Beck, M. (2005). Staffing levels in not-for-profit and for-profit long-term care facilities: Does type of ownership matter?. Cmaj, 172(5), 645-649.

Monsebraaten, L. (2019, October 3). Ford government cancels planned cuts to social assistance payments. The Star. https://www.thestar.com/politics/provincial/2019/10/03/ford-government-cancels-planned-cuts-to-social-assistance-payments.html

Ontario Health Coalition. (2019). Caring in crisis: Ontario's long-term care PSW shortage. Unifor. https://www.ontariohealthcoalition.ca/wp-content/uploads/final-PSW-report-for-tour.pdf

Ontario Health Coalition. (2020). Release and analysis: COVID-19 death rates in Ontario long-term care homes significantly higher and increasing in for-profit homes vs. non-profit and publicly-owned homes: New data analysis. https://www.ontariohealthcoalition.ca/index.php/death-rates-in-long-term-care-by-ownership-release/

Oved, M.C., Kennedy, B., Wallace, K., Tubb, E., & Bailey, A.. (2020, May 8). For-profit nursing homes have four times as many COVID-19 deaths as city-run homes, Star Analysis finds. The Star. https://www.toronto.com/news-story/9973702-for-profit-nursing-homes-have-four-times-as-many-covid-19-deaths-as-city-run-homes-star-analysis-finds/.

Russell, A. (2019, April 12). Ford government cutting $1B from social services over 3 years. Global News. https://globalnews.ca/news/5161588/ford-government-cutting-1-billion-social-services/

Tanuseputro, P., Chalifoux, M., Bennett, C., Gruneir, A., Bronskill, S.E., Walker, P., & Manuel, D. (2015). "Hospitalization and mortality rates in long-term care facilities: Does for-profit status matter?" Journal of the American Medical Directors Association, 16(10), 874-883. https://doi.org/10.1016/j.jamda.2015.06.004

Walsh, M., & Semeniuk, I. (2020, April 29). Long-term care connected to 79 per cent of COVID-19 deaths in Canada . The Globe and Mail. https://www.

theglobeandmail.com/politics/article-long-term-care-connected-to-79-per-cent-of-covid-19-deaths-in-canada/

Policing is Not the Answer: Critical Race Analysis of the City of Toronto's Response to COVID-19

Uswha Habib

Social distancing and physical distancing measures have turned from 'best practices' to law. The Ontario government passed an act under the Emergency Management and Civil Protection Act, which provides state actors broad new powers, in attempts to "flatten the curve" during the COVID- 19 pandemic (Legislative Assembly of Ontario, 2020). This act provides the Toronto Police Services with the right to detain, demand identification and issue fines for those not following physical distancing guidelines (Fox, 2020). This paper explores the social implications of such measures for racialized and marginalized people in Toronto, who are disproportionately impacted by contagious and infectious diseases, outside of COVID-19 (Williams & Sternthal, 2010). Through the work of Martin French and Gavin J.D. Smith (2013), I will situate how the Toronto Police Services is a de facto branch of the healthcare system. Moving to Foucault's theories of governmentality, bio-power and bio-politics vis-à-vis his descriptions of the panopticon. The panopticon is a prison designed by Jeremy Betham in the 18th Century to allow prison guards to keep watch on as many prisoners as possible by placing a circular guard tower in the center of a ring-shaped prison (Brown, 2009). I examine how social control becomes constructed as the best practice to monitor health, thus making health a neoliberal commodity. I will conclude with the Abolitionist works of Angela Davis and Ruha Benjamin to provide historical context for the issues that arise when presenting police officers as health caretakers.

Key Words: Bio-power, Bio- politics, Governmentality, Health Surveillance, New Jim Code, panopticon, Prison Industrial Complex, Racism, Segregation, Slavery

To help reduce the rapid spread of COVID-19, Canada followed protocol measures offered by other nation-states, such as China and Italy and closed its borders to foreigners (Tumilty, 2020). On 16 March, Ontario's Premier, Doug Ford, declared a state of emergency that led to the closure of recreation centres, schools and libraries, dine-in restaurants, entertainment venues, and places of worship, effectively banning people from gathering in public (Tumility, 2020). People are strongly encouraged to keep at least 1 metre of distance from each other unless living in the same household or if it is necessary, a practice called social distancing or otherwise known as physical distancing (WHO, 2020). To enforce these social distancing measures in Toronto, the police have been enlisted to hand out fines of up to 1000CAD to those in violation of these measures (Fox, 2020). On 17 March, the Ontario government passed orders under the Emergency Management and Civil Protection Act (EMPCA) (Watts, Newell, & Arella, 2020). This order grants the police, along with all provincial offences' officers, the right to question those believed

to be breaking emergency laws, demand identification, and hand out fines if identification is not produced or if physical distancing is not followed. On 28 March, gatherings of more than five people are also subject to fines (Legislative Assembly of Ontario, 2019). Through the EMCPA, I will be examining how anti-Black racism is guiding the City of Toronto's response to COVID-19. This order legitimizes a police force wherein fear is created as the guiding bio-political tool, and race is the technology to reinforce racialized police violence. Using Foucault's theories of governmentality and bio-power, synthesized with Ruha Benjamin's explanation of the New Jim Code, I will explore how the Toronto Police Services conducts health surveillance, which is increasingly harmful to marginalized and racialized communities in Toronto.

French and Smith (2013) describe health surveillance concerning policing and COVID-19 as monitoring policies and polities (p. 390). The (mis)-management of governmentalized health and disease protocol has social and material implications. To the general public (i.e. white and/or privileged), the use of Toronto Police Services is viewed as a beneficial tool for public health. They are being deployed to ensure that people are physically distancing and thus reducing the spread of COVID-19. Those who are not concerned about the use of the Toronto Police Services as a public health measure tend not to consider the social implications of such a service; they do not consider the power structures at play and ignore the several ways participants within a surveillance system may accept, deny or rebel against the system (French & Smith, 2013). Foucault's theorization of the panopticon can help in understanding the harm of such health surveillance (French & Smith, 2013). The panopticon allows us to examine health surveillance as a form of social control (French & Smith, 2013). Foucault explains how the panopticon can handle diseases using two different methods (French & Smith, 2013). One method aims to erase the disease from the public gaze and "gives rise to rituals of banishment" whereas the other method focuses on "disciplinary diagrams" and plans which use structural spacing to carefully surveil and inspect to maintain order (French & Smith, 2013, p. 387). This is apparent in the City of Toronto's response to COVID- 19. Torontonians are required to stay in their homes, which is akin to the "rituals of banishment" (French & Smith, p. 387). However, the municipal government does caution Torontonians that if anyone leaves their homes, they are being watched under "careful surveillance, and detailed inspection and order" (French & Smith, 2013, p. 387). This is symbolic of how the panopticon operates. The guards can see the prisoners from their circular guard towers. However, prisoners are unaware of when the guards are looking exactly at them. The prisoners then act in a way in which they could be being watched but never know (Brown, 2009).

What does this surveillance mean for marginalized communities that the Toronto Police does not have a vested interest in protecting, but rather criminalizing and harming, such as Black people? The presence of the Toronto Police Services and other provincial offences officers is a risk to the wellbeing of Black people. French and Smith (2013) theorize two modes of risk management: one mode acknowledges that the presence of the Toronto Police can discourage people from congregating, and thus, reduce the spread of COVID-19, which is characterized as the 'risk'-

COVID- 19 is a risk to the health of Torontonians. However, the other mode characterizes the very presence of the Toronto Police Services as the 'risk' to Black communities in Toronto. In this case, the risk is racial discrimination and anti-Black racism in addition to the violent and harmful implications of these anti-life systems.

To understand the harm done to Black Torontonians by the Toronto Police Services, I will explore the relationship between the two with the work of Desmond Cole, a Black Canadian journalist, activist, author, and broadcaster who lives in Toronto. Cole's work "The Skin I'm in: I've been interrogated by police more than 50 times-all because I'm black" (2015) highlights how the state creates a relationship of mistrust and commits harm against Black men in Ontario. Cole has been targeted by the Toronto Police several times a day due to his perceived threat as a Black man. Cole (2015) highlights that in a study done by the Toronto Star in 2013, "25 percent of people carded were black," and Black people are "17 times more likely than a white person to be carded" (para. 12). The Toronto Police target and card Black Torontonians at a higher rate than they stop and card white people. In the context of COVID-19, the order passed under the EMCPA gives way for the number of Black people carded to increase, thus creating more interactions between Black community members and Toronto Police Services. This increases tensions between Black people, the police, and the general public. To avoid the harm and violence done to them, Black Torontonians will often avoid certain parts of their neighbourhoods if they become weary of police presence (Cole, 2015). This is one example of how specific health surveillance is conducted by the police, a modern form of the panopticon. As a result of this surveillance, Black people are hyper-aware of their movements and actions and try to reduce the appearance of being a threat. These are known as "rituals of banishment" (French & Smith, 2013, p. 387). Members of racialized and Black communities in Toronto have expressed that "cops disrespect them, stop them without cause and promote a climate of constant surveillance in their neighbourhoods" (Cole, 2015, para. 14)—this is indicative of a harmful relationship between the Toronto Police Services and racialized groups in Toronto.

From this discussion, the concept of trust arises. Ruha Benjamin (2014) in "Race for Cures: Rethinking the Racial Logics of 'Trust' in Biomedicine" describes that the narrative of (dis)trust between Black people and the Western health care system situates Whiteness as the norm and does not "consider the effects of the "unseen privileges and normative presumptions" (p. 759). The concept of normative presumption is defined as the assumptions which society operates under. This lack of trust between health care systems and Black people parallels the lack of trust between Black people and the police. With the new order in the EMCPA, the police are a de facto extension of the health care system. This means that they are being treated as a part of the healthcare system by performing healthcare services. Alongside the rise of COVID-19 in Canada, police duties and jurisdictions are being entangled with public health. The normative presumption, in this case, is the Toronto Police Services act which is an agreement that encourages police officers to partake in health surveillance. However, that is not their role in society. The presumption is that the police will act in the interest of public health, and thus, this

surveillance will be beneficial to all members of society. Benjamin's (2014) work also highlights the argument made by a participant that "all technology has power relations embedded in [it], [is] developed to benefit specific populations and [is] made available to specific populations [...]" (p. 759). The power relations embedded in the police and Black people are imbalanced, offering more power to the police to socially control Black people and the movement of their bodies. This is an intentional power imbalance and should be treated as a social failure. Instead, the historical and social contexts under which Black people and police mistrust were created are simplified as Black people rejecting their health as well as the health of the public. This myth legitimizes the harmful ideology that Black people are against the community, and thus, they become represented as the dangerous 'other.'

This public campaign and the enactment of the order in the EMCPA is fear-based. This order aims to reduce the spread of contagious viruses and diseases by promoting 'healthy' actions (Gagnon et. al., 2010, p. 251). These healthy actions related to COVID-19 are characterized by the closure of public spaces and the encouragement of physical distancing. This can be theorized through Foucault's conceptualization of governmentality. Foucault explains governmentality as "a complex system" of power structures which encapsulate the power of the state, the power of disciplinary power and self-government. (Gagnon et al., 2010, p. 250). All three of these factors create governmentality. This is how one is expected to govern themselves according to material society. The actors relating to this definition are as such: "sovereignty" as the power of the Ontario government to allow such an act to pass under the EMCPA, "disciplinary power" as the legitimized power offered to the police to demand identification and hand out fines, and finally, the 'doing of' physical distancing by the public is the "government of self" (Gagnon et al., 2010, p. 250). The EMCPA aims to promote self-governance by instilling fear. This fear, which is dependent on the individual's social status and subsequently race, is either the fine of 1000CAD or the health surveillance tool itself: the over-presence of police.

The language which is being used to describe the physical and the social impact of COVID-19 is programmed to instil fear. For example, health care professionals and other essential workers are being referred to as on the 'front lines' of the "battle/fight/combat against COVID-19" akin to the language used for wars (Government of Ontario, 2020; Sher, 2020). The use of war-like language illustrates how the police serve as a militaristic unit that is determined to effectively reduce the spread of COVID-19. As Gagnon et al. (2010) explain, "producing these fears based public health campaigns the state is also vested in creating 'a space of fear'" (p. 253) this space of fear breeds the complicity in racialized people welcoming police to their communities and neighbourhoods in Toronto .

Governmentality is utilized to understand that the overarching aim of fear-based campaigns such as the EMCPA, regarding COVID-19, is to secure bio-power. Bio-power makes governmentality possible. Bio-power is defined as the "power over life," and Foucault (1988) expands on this in History of Sexuality as the plethora of ways in which bodies and populations are controlled in order to achieve subjugation (p. 140). Thus, the EMCPA is a "part of the bio-political axis of bio-power" (Gagnon

et al., 2010, p. 251). The 'doing' of the bio-power is referred to as bio-political action. In the COVID-19 context of Toronto, the bio-political action legitimizes the expansion of police powers and jurisdiction under the EMCPA.

Bio-power is how the expansion of police power will instil fear in Black and racialized communities in Toronto given the social and historical relationship between the police and these communities. The targets of the Toronto Police Services are Black and racialized communities. These communities are also on the 'front lines' through low-wage work conducting sanitization and working in grocery stores, which remained open (Timothy, 2020, para. 20). Accordingly, these are the people who will be on the streets of Toronto as they travel to their place of employment and also conduct other essential errands. This makes them more susceptible to being outside in the public gaze and a target of racial profiling.

Earlier in this paper, I explored the notion of trust between the health care system and Black people. To provide historical context to this lack of trust, I will be using Williams and Sternthal's paper "Understanding Racial-ethnic Disparities in Health: Sociological Contributions." It explains how anti-Black racism is embedded in the design of Western healthcare and how this creates a lack of trust between the Western health care systems and Black people. Williams & Sternthal (2010) have noted that Black people face discrimiation within health care services which is a source a stress and then negatively impacts their health (page S20) thus they are less likely to access health care services in fear of discrimination, consequently facing higher rates of disease and premature deaths. The failure of the Western health care system to build trust with Black people is a direct consequence of slavery and segregation. Stemming from segregation is the weak and poor residential conditions (Williams & Sternthal, 2010, p. s20). It is in these specific neighbourhoods and communities where there are higher rates of poverty, social disorder and general isolation from the rest of the population with the aims of hiding the social ills (Williams & Sternthal, 2010, p. S20). These poor living conditions are just one of the many factors that make Black communities susceptible to poor health conditions, as segregation "creates pathogenic conditions in residential environments'' (Williams & Sternthal, 2010, p. S20). This allows for diseases to run rampant in racialized communities out of the public eye. This speaks further to Foucault's concept of the panopticon it aims to produce "rituals of banishment" by erasing Black people and their specific emergent health issues away from the public gaze and thus, neoliberalizing health. This is done as health becomes the onus of the individual without considering how one's health is impacted by external social determinants and institutions.

To create an equitable and meaningful response to this virus,the City of Toronto needs to consider the already poor health of Black Torontonians and the impact this virus will have on them. Rather than promoting better health practices amongst Torontonians, the rise in policing will hurt the health of Black Torontonians. The creation of race-based statistics reaffirms the social construct of race as biological; however, it is also important to assess the overall health of Black people as well as their relationship to the health system to create equitable and meaningful

responses and practices (Williams & Sternthal, 2010). Canada does not collect race-based health statistics, so the percentage of Black people who are impacted by COVID-19 remains unknown (Denise, 2020). This makes it difficult for the development of policy that adequately responds to the health concerns of Black Torontonians and other racialized communities in the city. From this, it is possible to reflect on both the benefits and harms of race-based health statistics. Production of such statistics will rectify the harmful notion that race is a biological difference rather than a social one. Race is a social construct, however, it has material consequences. However, the publicization of these statistics offer the benefit to tailor health promotion in equitable and meaningful ways. This discussion leads us to ask why Toronto Police Services specifically targets Black and other marginalized and racialized people. Since the overall health of the Black community is in a precarious position, ideally, the police should act as a tool of health promotion. This will be explored through Angela Davis's theory of the Prison Industrial Complex, then expanded on this through Ruha Benjamin's work Race After Technology: Abolitionist Tools for The New Jim Code.

The intended purpose of the police state was to control Black people's movements, bodies and labour in the post-slavery era (Gilmore, 2000). The over-policing of Black communities and neighbourhoods is a direct consequence of slavery. The intended aim of the emancipation of slavery and the post-slavery era in the United States called for the end of exploited labour and bodies of Black people. However, the impact of emancipation on the American economy was detrimental. To mitigate this impact of the end of slavery on the American economy, the police were enlisted and were granted the authority to arrest Black people to imprison them and use their bodies for labour through prisons. The police were encouraged to arrest as many Black people as they could which gave rise to the criminalization of Black people to justify the arrests. This phenomenon crossed into Canada from America. Black Canadians are a fast growing population and are over represented in federal prisons (Mcintyre, 2006). Canadian inmates are also used for their labour (Ling, 2019) This labour is presented in the form of punishment. This is all done in the name of the states goal to boost its economy and capital gain (Gilmore, 2000). Gilmore explains that "through the prison system the vestiges of the slavery have persisted" (Gilmore, 2000, p. 196). The capital gains of slavery exist through prisons and policing. This process is encapsulated by the concept of the Prison Industrial Complex (Davis, 2015).

Earlier, I explored how the relationship between the Toronto Police and Black communities is harmful and has negative impacts on the overall health of Black people. This is not a failure of the system; the system is doing what it was designed to do. The 'coding' of this health surveillance is informed by the history of slavery and cheap prison labour for the capital profit of the state. The algorithm input into the police is to control Black bodies to make death-able futures for Black peoples. This is what Ruha Benjamin (2019) theorizes as "New Jim Code" (p. 3). The "New Jim Code" problematizes the use of technology and surveillance for harm done to Black people as an extension of slavery-era laws.

By becoming agents that perform health [care] surveillance, Toronto Police Services can now easily and continually target Black peoples. Ruha

Benjamin (2019) explains how "racism is [not] an output of technologies gone wrong, but also how it is an input, part of the social context of design processes" (p. 21). This 'input' of racism is characterized by the 'coding' of police and currently, health surveillance. Since the police were used to exploit and control Black bodies and labour, the ways in which they capture and exploit the labour will be racist as well. The "New Jim Code" laws operate in more sinister ways than the apparent racist and intended racial divide of the Jim Crow laws. These codes are not as transparent as a law that racially divided Black peoples from white people, but rather hidden under the guise of public health and health promotion. In the context of Toronto Police Services, the "do-gooding ethos'' of protecting public health in the city serves as "a moral cover for harmful decisions" (p. 40). The employees of the Toronto Police Services may not politically support slavery however, the impact of the Toronto Police Services, as a state actor, is a form of slavery and control. The vested interest of the State is to socially control Black bodies and neighbourhoods to earn profit in the forms of fines (Benjamin, 2019).

Criminalization has become the reaction to societal problems—even health. Davis (2015) explains that mass incarceration and over-policing is not the answer to every social and health problem that arises. The City's response to the COVID-19 pandemic is social control, when really the focus should be social welfare. In promotion of social control, the City of Toronto has hired 200 by-law officers, in addition to 160 police officers, for a COVID-19 enforcement blitz (Fox, 2020). The money which was funnelled into making this a reality devoured social wealth which could have been used to create subsidized housing for the homeless and expand health care systems and services for marginalized groups, such as migrant workers who currently have received no support from the government (Davis, 1998). However, the state does not have a vested interest in making this possible as their concern is the capital profit, which they will collect through fines and treating Black and racialized people as criminals (Gilmore, 2000). The erasure of Black people into prisons echoes Foucault's conceptualization of the panopticon, wherein people are erased along with their 'problems' when they are imprisoned.

Toronto and the surrounding areas' community activists have composed a letter STAND UP FOR OUR COMMUNITIES! STOP EXPANDING POLICE POWERS! addressed to the City of Toronto, demanding that the police and by-law officers be pulled from Black and racialized communities. In this letter, they argue that the police presence harms the overall health of Black communities in Toronto. Dr. Nanky Rai who is a family physician working closely with people experiencing homelessness in Toronto offers their expert opinion on how COVID policing will impact those who are hidden from the public gaze:

The clients I work with are already disproportionately impacted by policing and are already starting to experience heightened racial profiling by police under COVID19.... Increasing police and punitive enforcement will not protect public health but it will threaten the health and safety of people, especially Indigenous, Black and other racialized people, those with precarious immigration status, sex workers, drug users and those experiencing homelessness...(STAND UP FOR OUR COMMUNITIES! STOP EXPANDING POLICE POWERS, 2020, para. 11).

The City of Toronto's authoritarian response is curated as a result of slower response measures given by the Ontario government to flatten the curve of COVID-19 and announce the state of emergency. They are expanding their own powers in fear of the incrementing virus spreads and (over)policing is what they know best. These extreme measures would not be possible if all members of society had equitable access to jobs and healthcare. The City of Toronto should focus on providing support for those living in the margins and who are unable to physically distance themselves. This includes the racialized, the marginalized and the poor (STAND UP FOR OUR COMMUNITIES! STOP EXPANDING POLICE POWERS, 2020, para. 10). The response from the City of Toronto is making it clear "who the government does and doesn't consider as part of the "public" in public health" (STAND UP FOR OUR COMMUNITIES! STOP EXPANDING POLICE POWERS, 2020, para. 10). This virus is highly contagious, and the response should aim to protect all members of society so that more are not negatively impacted.

References

Advice for the public on COVID-19. (2020). Retrieved August 24, 2020, from https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public

Balkissoon, D. (2020, June 09). Canada's dire need for better race-based data. Retrieved August 25, 2020, from https://www.macleans.ca/opinion/canadas-dire-need-better-race-based-data/

Benjamin, R. (2014). Race for cures: Rethinking the racial logics of 'trust' in biomedicine. Sociology Compass, 8(6), 755-769. doi:10.1111/soc4.12167

Benjamin, R. (2019). Race after technology: Abolitionist tools for the new Jim code. Polity Press.

Government of Ontario.(2020, April 10). COVID-19: Support for workers. https://www.ontario.ca/page/covid-19-support-workers

Cole, D.(2015, April 21). The skin I'm in: I've been interrogated by police more than 50 times-all because I'm black. Toronto Life. https://torontolife.com/city/life/skin-im-ive-interrogated-police-50-times-im-black/

Davis, A. (1998, September 10). Masked racism: Reflections on the Prison Industrial Complex. ColorLines. https://www.colorlines.com/articles/masked-racism-reflections-prison-industrial-complex

Fremon, D. K. (2000). The Jim Crow laws and racism in American history. Enslow Publishers.

French, M., & Smith, G. (2013). 'Health' surveillance: New modes of monitoring bodies, populations, and polities. Critical Public Health, 23(4), 383–392. doi: 10.1080/09581596.2013.838210

Foucault, M. (1988). The history of sexuality.

Fox, C. (2020, April 12). Toronto mayor says complaints about physical distancing violations dropped 'dramatically'. Retrieved August 25, 2020, from https://toronto.ctvnews.ca/toronto-mayor-says-complaints-about-physical-distancing-violations-dropped-dramatically-1.4892800

Gilmore, K. (2000). Slavery and prison — Understanding the connections. Social Justice, 27(3), 195-205. www.jstor.org/stable/29767242

Gagnon, M., Jacob, J.D., & Holmes, D. (2010). Governing through (in)security: A critical analysis of a fear-based public health campaign. Critical Public Health, 20(2), 245-256. DOI: 10.1080/09581590903314092

Internalized Authority and the Prison of the Mind: Bentham and Foucault's Panopticon. (2009). Retrieved August 25, 2020, from https://www.brown.edu/Departments/Joukowsky_Institute/courses/13things/7121.html

Sher, J. (2020, April 2). Don't let truth fall victim to the war against COVID-19. The Star. https://www.thestar.com/opinion/contributors/2020/04/02/dont-let-truth-fall-victim-to-the-war-against-covid-19.html

STAND UP FOR OUR COMMUNITIES! STOP EXPANDING POLICE POWERS! (n.d.). Retrieved from https://docs.google.com/forms/d/e/1FAIpQLSfsvfFCfqwAyGj4H7HNRIrtaHxe2klEJ9vV4DlgXD9s92vJoQ/viewform?fbclid=IwAR06EKEz-0gJqnN-9HfN2rqyShg9lMU4XLp_ORtpdAYZvpnTxMQxYsgicAc

Ling, J. (2019, September 16). All work and low pay. Retrieved August 27, 2020, from https://www.nationalmagazine.ca/en-ca/articles/law/in-depth/2019/all-work-and-low-pay

Legislative Assembly of Ontario. (2019, July 1). Emergency Management and Civil Protection Act. CanLII. https://www.canlii.org/en/on/laws/stat/rso-1990-c-e9/latest/rso-1990-c-e9.html#document

Mcintyre, C. (2016, April 21). Canada has a Black Incarceration Problem that Human Rights Advocates say isn't Being Addressed. Retrieved August 27, 2020, from https://torontoist.com/2016/04/african-canadian-prison-population/

Quon, A. (2020, July 15). Canadian officials urged to collect race-based health data during COVID-19. Retrieved August 24, 2020, from https://globalnews.ca/news/7180914/canada-race-based-data-covid-19

Timothy, R. K. (2020, April 8). Coronavirus is not the 'great equalizer' – race matters: U of T expert. Retrieved August 25, 2020, from https://www.utoronto.ca/news/coronavirus-not-great-equalizer-race-matters-u-t-expert

Tumilty, R. (2020, March 17). Canada to close borders to most non-citizens, stop ill travellers from boarding inbound flights, PM announces. National Post. https://nationalpost.com/news/canada/trudeau-travel-restrictions-ban-coronavirus-covid19-canada

Watts, M., Newell, S., & Arella, A. (2020, March 17). The Ontario state of emergency – COVID-19. Retrieved August 25, 2020, from https://www.osler.com/en/resources/critical-situations/2020/the-ontario-state-of-emergency-covid-19

Williams, D., & Sternthal, M. (2010). Understanding racial-ethnic disparities in health: Sociological contributions. Journal of Health and Social Behavior, 51, S15-S27. DOI: 10.1177/0022146510383838

Doomsday

Eesha Chaudhry

My ears ring with a pitch so high and shrill,
Echoing through the world that sits still
This is a fight against time, a fight against fate,
A fight so deadly one strike is all it will take

My sisters have battle scars, my brothers are wounded,
From a battle so grave, my life it has intruded
A fight for survival is my request, my plea,
But even death itself isn't the worst I see

I fear an end far worse than a stab or a gunshot,
One that will nestle its way into my weak spot
An end that will strip me of speech, take away my breath,
A painful suffering with no other route than death

"Act like a nomad, move on," is what they say,
The only way I can see another day
"You must keep going and leave the others behind,"
But the gut-wrenching guilt eats away at my mind

The bombs took the mother, the disease took her child,
The fight for survival has turned us all vile
My sense of community, my values, my morals,
All of them long gone and replaced with quarrels

My right to live is worth a bounty on my head,
The value of my existence when I am dead
Is my life that meaningless? Can't I be saved?
I often wonder if I'll even have a grave

I don't fear the inability to breathe, or a knife in my neck,
Instead, I fear the incoming doom that our world is wrecked
Humanity has failed us, this world is a fraud,
So who do I believe - the peacekeepers or God?

Most people see two kinds of wrath: the disease or the war,

I disbelieve either, but the option not known by more
It isn't the breath escaping my lungs, or being blown to bits,
It's that humanity has failed us, it's the end, this is it
The physical and emotional burden is far too much to bear,
Knowing my life is too insignificant for anyone to care
With all hope lost I refuse to believe, but I won't cry, I won't yell,
For I've come to realize there is no such heaven, there's only hell.

Explanatory Paragraph

Through the literary use of poetry, this piece adopts a lens of the eyes of a civilian to explore the implications of the COVID-19 pandemic in an area in the midst of war. A respiratory pandemic such as COVID-19 is already so lethal, but imagine it in a place where innocent civilians are brutally murdered each day, where healthcare workers and resources are already so limited and individuals have more than one cause of death to fear. This poem tells a story through its rhyming couplets about the dangers these people live through every day, and while for many readers this is simply a piece of fiction, for many this is their reality. They are caught in the crossfire of two kinds of wars, and once the pandemic is controlled and a vaccine is discovered, while the rest of the world will start to regain order, these people will continue to live every day in fear. If COVID-19 does not kill them, then it might be a bomb or an IED. The essence of this piece is to encourage readers to open their eyes and see the issues rampant all across the globe. For many, healthcare is seen as an issue that is strictly biomedical, but that ignorance is a privilege. Healthcare, just like virtually everything else, is political. Like the wars, genocides, and disagreements across the planet, everything is political and this pandemic is no less.

Privileges Within a Pandemic

Nasma Ashraf

Introduction

As social media was flooded with fear, panic, and worry in mid-March due to the rapidly spreading COVID-19 pandemic, one statement I repeatedly heard was "This virus does not discriminate"—meaning that nobody is protected from this virus because there is no vaccine or cure for it.

I questioned this statement as I saw my own family friends who lived in public housing test positive for COVID-19, while other families I knew took off to remote cottages in fear of the fast-spreading virus in the city. I also reflected on how long-term care homes made up for more than 80% of the COVID-19 cases found in Canada, and 82% of COVID-19 related deaths in Canada (MacCharles, 2020), and how in the United States, COVID-19 related deaths were more prevalent amongst black individuals and people of colour (National Center for Immunization and Respiratory Diseases, 2020).

It soon became clear to me that while the physical virus itself might not discriminate; this does not mean that every individual is equally likely to be affected by it. The way individuals seek refuge from the virus is where privilege and social determinants come into the picture. Socioeconomic status impacts who contracts the virus, as well as how well individuals cope with the new circumstances presented by COVID-19 (Reeves & Rothwell, 2020). A broader aim of this written piece is to illustrate how one's health outcomes and the effects of the pandemic's circumstances are shaped by many uncontrollable factors such as social determinants which stray beyond one's individual choices.

Class Privilege Within Living Conditions

Class plays a large role in the spread of COVID-19 since an individuals' living situation can influence the amount of exposure they have to the virus. For example, those who live in public housing, such as community housing or shelters, have fewer opportunities to physically distance (keep two meters apart) from other individuals . Reports from Toronto's shelters have stated that they are dealing with local outbreaks of COVID-19 due to the lack of physical distancing (Draaisma, 2020). In a large home or shelter where there are various individuals with different priorities and schedules, it is difficult to keep track of which individuals are socially distancing appropriately and which are not, which can potentially put tenants' health at risk. This is because some individuals will likely be more exposed to the virus than others and can spread this exposure to other residents living in the same space (Reeves & Rothwell, 2020). In contrast, those who have the wealth and privilege to be able to live in large, spacious houses with adequate space for recreation, education and relaxation have it easier

than individuals who live in smaller spaces such as condos or apartments. For example, some health experts have recommended that people go for walks while keeping their distance to maintain their mental health during a time of social isolation which can take a toll on the minds of individuals (Bowden, 2020). Although individuals who live in apartments can still go for walks, space constraints might make it harder for them to social distance compared to those who live in more affluent neighbourhoods with more space available to them (Reeves & Rothwell, 2020). Additionally, smaller living spaces usually do not provide individuals with sufficient space to quarantine comfortably (Kitchener, 2020). Smaller spaces are usually less comfortable to quarantine in because one can easily feel both mentally and physically trapped in a smaller space. It is also harder to separate work from break times, and a small living space can get overcrowded if various family members are quarantining together, making it easier to get cabin fever (Kitchener, 2020). Therefore, it is important to think about social determinants such as socioeconomic status before making complaints and assumptions about whether an individual is doing their part to slow the spread of COVID-19. What defines who is a "good citizen" can involve criteria that is discriminatory to individuals who have fewer resources to quarantine healthily (both mentally and physically).

Class also plays a role in the transmission of COVID-19 from an occupational perspective. Those who are wealthy can easily take paid time off of work to protect themselves, while others who live paycheck-to-paycheck may feel obliged to work in health-hazardous conditions, which can increase their likelihood of contracting COVID-19 (Lu, 2020). For example, individuals who need to work in grocery stores and restaurants, or who are in charge of the sanitization of public spaces are more likely to come into contact with the virus. On a similar note, many people such as construction workers, grocery store workers, or manufacturing and food service workers are unable to work from home (Lu, 2020). These occupations are still necessary during the pandemic, which puts these workers at a higher risk of coming into contact with COVID-19 as they are unable to stay at home and quarantine .

Even before COVID-19 became a pandemic, there were statistically significant health differences between wealthy and working-class individuals across Canada (McGrail et al., 2009). This is because individuals of a lower socioeconomic status tend to exhibit chronic stress which affects them both physically and mentally (Bryant et al., 2019). This stress has been proven to increase an individuals' likelihood of developing obesity and cardiovascular disease (Bryant et al., 2019). In addition, many lower-income individuals live in areas where green space and exercise areas are limited, which can prevent them from participating in optimal physical exercise (Lombardo, 2018). Lower-class individuals also have fewer resources to buy higher quality food and might be more susceptible to inhaling the low-quality air present in dense areas such as public transit stops. Similarly, since our bodies are flexible and thus transform based on social and environmental factors, these changes can alter the DNA, become heritable and transmit across generations (Bryant et al., 2019). Therefore, lower socioeconomic status individuals have proven to be more likely to have poorer functioning organs. Consequently, given the likelihood of overall worse health for low-SES individuals, COVID-19

is detrimental for these individuals because they might already have health deficits or be more susceptible to health complications (Bryant et al., 2019). This automatically places lower- and working-class individuals in a more compromised position as their health is typically worse than members of the upper class, and at the same time due to social factors, they have more chances of being exposed to the coronavirus.

In terms of how one's socioeconomic status affects the way individuals deal with the pandemic, those of a lower socioeconomic status might face more difficulty continuing their studies or working from home as some students might not have the necessary technology such as laptops, computers, iPads, etc (Li & Lalani, 2020). This can act as a barrier that can potentially restrict an individual from learning in an optimal environment (Li & Lalani 2020). Thus, the shift from in-person learning and working to online is not as smooth for everyone, as one's socioeconomic status plays a large part in how quickly and easily individuals can adapt to the new circumstances. Besides, with online education, students who have parents with undergraduate degrees, master's degrees, and PhDs are likely to face less confusion than students whose parents do not have an advanced level of education. With teachers and staff not physically present to help students, these children may need help from their parents to understand complex homework or to help explain their assignments correctly. This task is easier when parents have a higher level of education, to assist their children with more technical schoolwork (Torpey, 2018). This point relates to the relationship between class and coping with COVID-19 because there is a statistically significant positive relationship between one's level of education and the income one earns (Torpey, 2018). Thus, those who are wealthier typically have a higher education level which can be of benefit because they can easily assist their children with online learning. This is yet another class difference that has affected the way individuals perceive and deal with the COVID-19 pandemic, as lower-class citizens face more struggle from an online educational aspect.

Class Privilege with Online Resources

Another point illustrating class privilege in dealing with the COVID-19 pandemic is access to online resources. Due to the shutting down of many physical storefronts, events, restaurants, and amusement parks, many companies and institutions have moved their services online. Examples of this include online ordering and pickup, online university and high school classes, online recipes from restaurants to try at home, online museum tours and online psychotherapy (Delitala, 2020). However, looking at this shift from a critical lens, how can individuals who cannot afford Wi-Fi access these resources? Many of these online resources are set up to provide entertainment to help pass time during quarantine to prevent people's mental health from deteriorating. However, if one does not have Wi-Fi, perhaps due to the inability to afford it, then it is significantly harder for them to access these resources that seem so readily available to the public (Reeves & Rothwell, 2020). These individuals have to find alternative means to preserve their mental health during this period of isolation, in which options could be quite narrow. During a time

where society is heavily relying on online tools and technology to stay connected and continue work/school, this can create obstacles for those who do not have the means to use these methods of technology (Reeves & Rothwell, 2020). Many times, public spaces such as libraries or community centers would provide free access to individuals. However, due to the closing of non-essential services to prevent the spread of covid-19, these services are no longer available which disfavours individuals with a lower socioeconomic status.

Class Privilege in Hoarding

A different angle that illustrates how socioeconomic status affects the way individuals deal with the pandemic would be the hoarding that took place at the beginning of the pandemic (Reeves & Rothwell, 2020). During the month of March, COVID-19 cases began to grow, and fear, anxiety and restlessness all increased (Wray, 2020). Millions of individuals flooded into stores and began to empty shelves in fear of being in lockdown for an unknown amount of time (Wray 2020). Where class ties into the phenomenon of hoarding is that there is privilege in being able to wipe massive numbers of items off of shelves (Reeves & Rothwell, 2020). Individuals with lower incomes cannot afford to buy groceries and necessities in bulk, and can thus experience difficulty in acquiring groceries for their families given the shortages. The stress of hoarding that low-income families experienced can be detrimental to their health, as stress activates the fight or flight response which, if activated for a long time, can slowly deteriorate one's immune system (Bryant et al., 2019). On the same note of food insecurity during the pandemic, many restaurants and stores have switched to only accepting cards, due to cash being unsanitary which can contribute to the spread of COVID-19 (Mayor et al 2020). However, poor individuals sometimes do not carry cards and only carry cash perhaps due to having a poor credit score or not having much savings to need a card (Caron 2020). Thus, this new "card-only" principle can be discriminatory and exclude lower-income individuals who do not have cards from accessing food and necessities which can end up compromising their health during the pandemic (Caron, 2020).

Conclusion

In conclusion, I have explored different angles in which one's socioeconomic status plays a vital role in who ends up coming into contact with COVID-19, and how individuals from different socioeconomic classes interact with COVID-19. I argue that though the virus itself might not discriminate, the way individuals seek refuge from it and cope with COVID-19 is shaped by privilege. It is noteworthy to mention that there are many more factors besides class such as race, age, gender and sex that can play a vital role in which individuals come into contact with COVID-19 and how they interact with the pandemic. There are broad, structural forces which can affect whether or not an individual will come into contact with the virus and how individuals deal with the new conditions of the pandemic (Reeves & Rothwell, 2020). Once we have a thorough

understanding of the broader determinants which can put some classes at a higher risk of contracting COVID-19 and can affect the way individuals cope with the pandemic, we can then plan for a safer, healthier and more equitable environment for groups across Canada.

References

Armstrong, R. (2020, June 23). Coronavirus and personal debt: The Americans living on a 'knife edge'. Financial Times. https://www.ft.com/content/a2f10c62-85a5-4f85-bbf2-9ceaa089a92e

Boisvert, N. (2020, May 22). Public transit will be critical to Toronto's COVID-19 recovery, but will it be safe for riders? CBC News. https://www.cbc.ca/news/canada/toronto/toronto-transit-recovery-covid19-1.5578487

Bowden, O. (2020, March 20). Can I go for a walk outside during the coronavirus outbreak? Retrieved August 19, 2020, from https://globalnews.ca/news/6703989/walk-outside-coronavirus/

Brown, A. (2020, March 10). HST211- Health Policy in Canada Lecture. PowerPoint slides. Lecture presented in University of Toronto, Toronto.

Bryant, T., Raphael, D., & Rioux, M. H. (2019). Staying alive: Critical perspectives on health, illness, and health care. Canadian Scholars.

Caron, C. (2020, January 20). SOC313- Social Control Lecture. PowerPoint slides. Lecture presented at SOC313 in University of Toronto, Toronto.

CBC News (2020, July 08). Alberta physicians express alarm over proposed health-care bill. CBC News. https://www.cbc.ca/news/canada/calgary/bill-30-reaction-health-care-physicians-alberta-government-1.5641665

Delitala, A. (2020, April 05). Canadian health care services shift online amid COVID-19 pandemic. Global News. https://globalnews.ca/news/6781772/canadian-healthcare-services-online-covid-19/

Draaisma, M. (2020, June 1). COVID-19 pandemic could lead to 'unprecedented levels of homelessness,' foundation warns. CBC News. https://www.cbc.ca/news/canada/toronto/toronto-foundation-covid-19-brief-housing-homelessness-evictions-1.5592404

Immunization and Respiratory Diseases (NCIRD) Home. (2020, July 06). Retrieved August 19, 2020, from https://www.cdc.gov/ncird/index.html

Kitchener, C. (2020, March 27). How to optimize your home for self-quarantine. The Lilly. https://www.thelily.com/how-to-optimize-your-home-for-self-quarantine/

Li, C., & Lalani, F. (2020, April 29). The COVID-19 pandemic has changed education forever. This is how. World Economic Forum. https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

Lisa, M., Culbert, A., & Malik, S. (2020, June 13). Can stores refuse my money? Your COVID-19 cash questions answered | CBC News. Retrieved August 19, 2020, from https://www.cbc.ca/news/health/cash-coronavirus-questions-answered-1.5609691

Lombardo, A. (October 21, 2019). HST209: Intro to Social Determinants of Health. PowerPoint slides. Lecture.

Lu, M. (2020, April 15). The front line: Visualizing the occupations with the highest COVID-19 risk. Visual Capitalist. https://www.visualcapitalist.com/the-front-line-visualizing-the-occupations-with-the-highest-covid-19-risk/

MacCharles, T. (2020, May 07). 82% of Canada's COVID-19 deaths have been in long-term care, new data reveals. Retrieved August 19, 2020, from https://www.thestar.com/politics/federal/2020/05/07/82-of-canadas-covid-19-deaths-have-been-in-long-term-care.html

McGrail, K., Van Doorslaer, E., Ross, N., & Sanmartin, C. (2009). Income-related health inequalities in Canada and the United States: A decomposition analysis. American Journal of Public Health, 99(10), 1856-1863. doi: 10.2105/AJPH.2007.129361

Narea, N., & North, A. (2020, May 8). "I feel incredibly exhausted all the time": 6 families juggling childcare during the pandemic. Vox. https://www.vox.com/2020/5/8/21238976/coronavirus-child-care-school-closures-pandemic-covid

O'Brien, S., & Overholt, M. (2020, April 17). How the Canadian Emergency Response Benefit is failing low-income precarious workers, and how it can be fixed. Canadian Law of Work Forum.. http://lawofwork.ca/how-the-canada-emergency-response-benefit-is-failing-low-income-precarious-workers-and-how-it-can-be-fixed/

Reeves, R., & Rothwell, J. (2020, March 27). Class and COVID: How the less affluent face double risks. Brookings. https://www.brookings.edu/blog/up-front/2020/03/27/class-and-covid-how-the-less-affluent-face-double-risks/

Torpey, E. (2018, April). Measuring the value of education. U.S Bureau of Labor Statistics. https://www.bls.gov/careeroutlook/2018/data-on-display/education-pays.htm

Wray, M. (2020, March 13). People hoard essentials as coronavirus fears rise, but panic buying isn't necessary: Experts. Global News. https://globalnews.ca/news/6671996/coronavirus-hoarding/

Infodemic: The Proliferation and Side Effects of Misinformation on Human Health During Pandemics

Shankeri Vijayakumar

Introduction

Currently, the world is experiencing not one, but two pandemics: the coronavirus disease (COVID-19) pandemic, and an infodemic. Modern technology enables vital information such as infection rates and public health guidelines to reach mass audiences; however, the dilution of the information ecosystem by discredited or unverifiable information poses a threat to human health (Depoux et al., 2020). This paper will investigate the impact of misinformation on human health during the current COVID-19 pandemic. The paper will first review the spread of misinformation during pandemics throughout history, including the Black Death and the Zika virus pandemic. Next, the paper will discuss the current nature and proliferation of misinformation during the COVID-19 pandemic. Finally, there will be an exploration of the implications of COVID-19 misinformation for the effectiveness of public health guidelines and preventative measures.

A History of Infodemics

It may appear that the volatile and polarizing nature of the information ecosystem during COVID-19 is different from previous pandemics. However, the only difference is that misinformation has been made more visible by the growing power and reach of social media platforms (Starbird, 2020). The term "infodemic" (para.2), a blend of "information" and "epidemic", was coined by Rothkopf (2003) during the SARS epidemic. This conceptualizes how facts, mixed with unsubstantiated information, are amplified and disseminated by information technologies . The problem with this is that infodemics spread misinformation, making it harder for people to identify real information, which interferes with the effective dissemination of official public health communications (Rothkopf, 2003). This leads to devastating consequences such as prejudicial or xenophobic behaviour; misguided preventative actions by citizens; and low levels of trust towards government and public health officials (Depoux et al., 2020). These impacts of misinformation have been present in pandemics throughout history, from the Black Death to the Zika virus (Poos, 2020;Sharma et al., 2017).

The Black Death

An early example of an infodemic was during the Black Death pandemic in the 14th century . This pandemic originated from the

bacteria Yersinia pestis, which was transmitted from rodents to humans through fleas; however, before the official cause was identified, regions all around the world experiencing this pandemic were placing the fault on ethnic groups (Poos, 2020). In Europe, some people placed the blame on Jewish communities, which led to a massacre of Jewish people (Cohn, 2007). This belief that the pandemic was a plot orchestrated by this group stemmed from the lack of knowledge of the official cause of the pandemic and the belief that Jewish communities were dying slower than others (Poos, 2020). Despite the lack of modern information technologies during this time, misinformation stil spread. The misinformation that led to this violent behaviour is similar to what is happening during the current COVID-19 pandemic (Mamun & Griffiths, 2020). Tools like social media have simply made the reach and visibility of misinformation and its consequences more evident.

The Zika Virus

The 2016 Zika virus pandemic is an example of how social media tools can provide a platform to make information more visible and accessible; the same goes for misinformation. Sharm et al. (2017) analyzed the effectiveness of Facebook as an information source for the Zika virus to determine the accuracy and credibility of relevant information found on the platform. They found that posts containing misinformation or disinformation were more popular than posts containing accurate information about the virus (Sharma et al., 2017). This discrepancy in popularity has severe implications for human health, as it could lead to an increased spread of the virus as a result of more confusion and uncertainty amongst people (Sharma et al., 2017). This was seen in Brazil when pseudoscientific information led to the implementation of a ban on pesticides, which was counterintuitive to combating the spread of the Zika virus (Sharma et al., 2017). Misinformation inhibits the efficacy of measures designed to curb a pandemic and leads to the bolstering of a narrative built on rumours and discredited facts.

How Misinformation Spreads

Online platforms

Since the emergence of COVID-19, the information ecosystem has been muddled with various theories on the origin of the disease, its severity, and how to cure it (Depoux, et al., 2020; Mosleh, 2020). Many of these theories are proliferating on online platforms, with each experiencing very high engagements on social media despite experts debunking the unsubstantiated claims (Papakyriakopoulos, 2020). Kouzy et al. (2020) found that misinformation and unverifiable information regarding COVID-19 on platforms like Twitter is being propagated at alarmingly high rates. It is worth noting that some Twitter account characteristics were found to be associated with a higher chance of spreading misinformation; for example, being unverified Kouzy et al. (2020). However, identifying accounts with characteristics like this does not immediately mean that

users are engaging with misinformation. Kouzy et al. (2020) explains that users are equally likely to engage with misinformation as if it were the truth. Social media has provided a platform for disinformation and conspiracy theories to disseminate more easily and efficiently (Depoux et al., 2020). With the lack of screening and stringent measures in place to combat the spread of misinformation, social media platforms enable the proliferation of unsubstantiated claims surrounding COVID-19 (Kouzy, 2020). While platforms like Twitter are easily accessible and visible, they are not the only channels capable of spreading misinformation.

Personal Networks

Due to the uncertainty surrounding pandemics, people tend to come together to engage in"collective sensemaking" (Miller, 2020, para. 5). People come together to assuage their anxieties and grasp on to any available information; this, unfortunately, involves engaging with rumours and speculative information (Miller, 2020). As people discover new information, they are quick to share it with those closest to them, even if the information is unverified. People are also more likely to believe misinformation when it is sent by friends or family (Miller, 2020). This can make personal networks and group chats toxic echo chambers of misinformation. This is extremely problematic because people are more likely to find the information they have been sent trustworthy if they perceive themselves as similar to the person who shared the information (Shah, 2020). Historically, misinformation has been a byproduct of the responses people have to crises; however, crises become even more exacerbated by the influx of misleading information circulating amongst people (Miller, 2020).

COVID-19 Misinformation

Unproven Alternative Treatments

The pervasiveness of conspiracy theories, disinformation, and unverifiable information during the COVID-19 pandemic has made it very challenging for people to distinguish reliable information from less reliable sources (Van Bavel et al., 2020). Conspiracy theories claiming that conventional medical treatments should not be trusted and alternative remedies should be used to prevent the virus have led to the promotion and consumption of harmful substances that have never been proven to prevent or cure COVID-19 (Van Bavel et al., 2020). In March, the Food and Drug Administration had to issue warnings for companies and individuals to cease the promotion of colloidal silver, an unproven COVID-19 treatment, as these promotions had prompted the purchasing of these potentially harmful products (Mosleh, 2020). There have also been theories that have been discredited promoting bleach and illicit drugs as cures (Mosleh, 2020). These theories interfere with public health efforts to mitigate COVID-19 risk factors, as some people are turning to less effective or even dangerous remedies (Van Bavel et al., 2020). In general, conspiracy theories encouraging alternative treatments without an

evidence-based approach are extremely harmful, because they have been linked to several serious public health issues such as vaccine hesitancy (Van Bavel et al., 2020).

The Severity of the Outbreak

Another area of misinformation surrounding the COVID-19 pandemic are the various claims that the pandemic is not a public health crisis, but rather an elaborate hoax (Van Bavel, 2020). Theories that doubt the severity of the disease discourage and look down upon preventative measures like social distancing and hand-washing (Van Bavel et al., 2020). In the early stages of the pandemic, these measures had the greatest potential to mitigate the spread of the disease (Van Bavel, 2020). When world leaders and citizens employed behaviours and rhetoric that feed into the belief that the disease was not serious, it spread information that resulted in a significant amount of time being wasted on debating the severity of the disease, rather than employing preventative measures right away to slow the spread (Uscinski, 2020). The consequences of not acting promptly have led to a pandemic with devastating infection and death rates worldwide (Uscinski, 2020). It is difficult to control what type of misinformation and unsubstantiated theories are being put out into the world, but some measures can be taken on individual and institutional levels to combat the consequences of an infodemic.

How to Combat the Spread of Misinformation

Science Communication by Individuals and Community Leaders

To combat the spread of misinformation, actions can start at the individual level. Research has shown that countering misinformation with corrective information does work (Walter & Murphy, 2017). When misinformation is debunked properly; by engaging in a genuine interaction with relevant facts and sharing easy to understand content, it can make a difference in the spread of misinformation (Caulfield, 2020). Throughout the pandemic, more and more research has emerged reinforcing the notion that correcting misinformation is effective; which has led to many articles detailing how-to guides on how best to frame a message to counter misinformation effectively in online groups and within personal networks (Caulfield, 2020; Neeley 2020).

When trusted voices are enlisted to spread public health messaging, it can lead to effective behavioural changes during epidemics (Van Bavel, 2020). Finding credible sources to share public health information for different audiences can be effective in influencing behaviour that does not inhibit public health responses (Van Bavel, 2020). For some audiences, these credible sources may be public health officials and scientists, social media influencers, or faith-based leaders (Leskin, 2020; Van Bavel, 2020). In March, the US Surgeon General Jerome Adams called on social media influencers to engage with their audiences by sharing COVID-19 information to reinforce the need to treat the pandemic seriously (Leskin, 2020). As discussed earlier, individuals are more likely to believe

information when it comes from sources that they trust or closely identify with (Miller, 2020).

Interventions from Online Platforms and Government

Platforms like Facebook, Twitter, Google, and Youtube have taken measures to regulate content by taking down posts containing unverifiable or misleading information, attaching warnings, and adding banners that contain links to official sources (Bellemare & Ho, 2020). Since these platforms have a large user base, to whom a single piece of misinformation can easily spread, there need to be more measures that go beyond alerting people to the threat of misinformation (Miller, 2020). Online platforms need to be deliberate in their effort to amplify and promote information from experts and credible sources. There also needs to be proper features for users to report any misinformation they encounter online (Bellemare & Ho, 2020). Currently, Twitter has no option to allow users to report a tweet as disinformation (Bellemare & Ho, 2020). Adding alerts, linking verifiable information, and promoting reliable content are effective measures, but only when they are employed consistently throughout the entire platform (Bellemare & Ho, 2020).

Beyond social media platforms, entities like Health Canada need to continue their regulatory action against companies and online blogs promoting unproven treatments for COVID-19 (Snowdon, 2020). Although much of the misinformation surrounding COVID-19 is disseminated through social media, there need to be measures taken against websites advertising and selling unproven and potentially harmful treatments and products (Caulfield, 2020). Throughout the pandemic, Health Canada has issued warnings to multiple companies to take down these false claims and harmful posts (Snowdon, 2020). Even if these claims are located on smaller websites or online blogs, it could be shared to social media; it would be left to reach many users, endanger their safety, and hinder any meaningful action to combat the spread of the harmful information.

Conclusion

Social media should not hinder pandemic responses, it should be able to function as a tool to reliably disseminate public health information. To strengthen this, there need to be larger efforts enacted by big-tech companies and governments to combat the spread of misinformation. There is no doubt that there is a responsibility at the individual level to take steps to combat the spread of misinformation; however, the COVID-19 pandemic has highlighted how the evolving climate of social media can produce devastating effects when unsubstantiated and discredited information is left to proliferate online (Kouzy, 2020). The World Health Organization has stated that "health communication is seen to have relevance for virtually every aspect of health and well-being, including disease prevention, health promotion and quality of life" (Rimal & Lapinski, 2009, para. 1). Understanding how misinformation proliferates and the impacts it can have on human health should be built

upon by research and action to implement optimal methods to combat the spread of misinformation to improve health outcomes.

References

Bellemare, A. & Ho, J. (2020, April 20). Social media firms catching more misinformation, but critics say 'they could be doing more'. CBC. https://www.cbc.ca/news/technology/social-media-platforms-pandemic-moderation-1.5536594

Caulfield, T. (2020, June 19). The COVID-19 'infodemic'-Debunking works, if it's done right. The Star. https://www.thestar.com/opinion/contributors/2020/06/19/the-covid-19-infodemic-debunking-works-if-its-done-right.html

Cohn Jr., S.K. (2007). The Black Death and the burning of Jews. Past & Present, 196 (1), 3-36. https://doi.org/10.1093/pastj/gtm005

Depoux, A., Martin, S., Karafillakis, E., Preet, R., Wilder-Smith, A., & Larson, H. (2020). The pandemic of social media panic travels faster than the COVID-19 outbreak. Journal of Travel Medicine, 27(3). https://doi.org/10.1093/jtm/taaa031

Kouzy, R., Abi Jaoude, J., Kraitem, A., E Alam, M.B., Karam, B., Adie, A., Zarka, J., Traboulsi, C., Akl, E.W., Baddour, K. (2020) Coronavirus goes viral: Quantifying the COVID-19 misinformation epidemic on Twitter. Cureus, 12(3), e7255. https://dx.doi.org/10.7759%2Fcureus.7255

Leskin, P. (2020, Mar 19). The US's top doctor is calling on Kylie Jenner and other influencers to help young people understand the seriousness of the coronavirus pandemic. Business Insider.

Mamun, M. A., & Griffiths, M. D. (2020). First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies. Asian Journal of Psychiatry, 51, 102073. doi: 10.1016/j.ajp.2020.102073

Miller, G. (2020, March 24). Researchers are tracking another pandemic, too—Of coronavirus misinformation. Science. https://www.businessinsider.com/coronavirus-surgeon-general-calls-on-kylie-jenne r-influencers-millenials-teens-2020-3https://www.sciencemag.org/news/2020/03/re searchers-are-tracking-another-epidemic-too-misinformation

Mosleh, O. (2020, April 6). 'This is misinformation on steroids': The Canadian who took on Gwyneth Paltrow is debunking coronavirus myths. The Star. https://www.thestar.com/news/canada/2020/04/06/the-canadian-who-took-on-gwyneth-paltrow-is-debunking-coronavirus-cures.html

Neeley, L. (2020, March 31). How to Talk ABout the Coronavirus. The Atlantic. https://www.theatlantic.com/ideas/archive/2020/03/how-talk-about-coronavirus/609 118/

Papakyriakopoulos, O., Medina Serrano, J.C., & Hegelich, S. (2020, August 18). The spread of COVID-19 conspiracy theories on social media and the effect of content moderation. The Harvard Kennedy School Misinformation Review, 1. https://doi.org/10.37016/mr-2020-033

Poos, L.R. (2020, March 16). Lessons from past pandemics: Disinformation, scapegoating, and social distancing. Brookings.

https://www.brookings.edu/blog/techtank/2020/03/16/lessons-from-past-pandemics-disinformation-scapegoating-and-social-distancing/

Rimal, R.N., & Lapinski, M.K. (2009). Why health communication is important in public health. Bulletin of the World Health Organization, 87, 247-247. doi:10.2471/BLT.08.056713

Rothkopf, D.J. (2003, May 11). When the buzz bites back. The Washington Post. https://www.washingtonpost.com/archive/opinions/2003/05/11/when-the-buzz-bites-back/bc8cd84f-cab6-4648-bf58-0277261af6cd/

Shah, K. (2020, June 16). When your family spreads misinformation. The Atlantic.https://www.theatlantic.com/family/archive/2020/06/when-family-members-spread-coronavirus-misinformation/613129/

Sharma, M., Yadav, K., Yadav, N., & Ferdinand, K. C. (2017). Zika virus pandemic—Analysis of Facebook as a social media health information platform. American Journal of Infection Control, 45(3), 301-302. https://doi.org/10.1016/j.ajic.2016.08.022

Snowdon, W. (2020, April 3). Cow urine, bleach, oregano oil: Medical COVID-19 quackery has big ramifications for public health. CBC. https://www.cbc.ca/news/canada/edmonton/false-advertising-covid-19-fake-medic al-advice-1.5520301

Starbird, K. (2020, March 9). How a Crisis Researcher Makes Sense of Covid-19 Misinformation.Medium.https://onezero.medium.com/reflecting-on-the-covid-19-infodemic-as-a-crisis-informatics-researcher-ce0656fa4d0a

Uscinski, J. E. & Enders, A.M. (2020, April 30). The Coronavirus Conspiracy Boom. The Atlantic.https://www.theatlantic.com/health/archive/2020/04/what-can-coronavirus-tell-us-a bout-conspiracy-theories/610894/

Van Bavel, J.J., Baicker, K., Boggio, P.S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M.J., Crum, A.J., Douglas, K.M.,Druckman, J.N., Dur, J., Dube, O., Ellemers, N., Finkel, E.J., Fowler, J.H., Gelfand, M., Han, S., Haslam, S.A., Jetten, J., ... Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. Nature Human Behaviour, 4, 460-471. https://doi.org/10.1038/s41562-020-0884-z

Walter, N. & Murphy S.T. How to unring the bell: A meta-analytic approach to correction of misinformation. Communication Monographs, 85(3), 423-441. https://doi.org/10.1080/03637751.2018.1467564

Unseen Consequences: The Effects of Pandemics on Women's Sexual, Reproductive and Mental Health

Katherine L Jung, Anika Sofia Bihis, and Sara Shariati
Affiliations: Research Committee at POWERS U of T

Introduction

Sex and gender have long been recognized as important determinants of health. Besides biological differences, gender roles and societal expectations also play a role in how individuals access healthcare and seek medical attention. Systematic barriers in healthcare access and insufficient gender-based support have left women vulnerable to dire physical and mental health-related outcomes, particularly during pandemics and epidemics (Lokot & Avakyan, 2020; O'Sullivan & Phillips, 2019).

Some refer to the current COVID-19 pandemic as "the great equalizer" because anyone can contract it, but this notion could not be further from the truth (Lokot & Avakyan, 2020). Pandemics exacerbate pre-existing gender inequalities by introducing many risk factors, which often have compounding effects on one another. Since COVID-related literature on gender inequalities is limited at the present, we used studies from previous infectious disease outbreaks to predict and demonstrate the differential impact of the current pandemic on individuals.

The 2014-2016 Ebola virus disease (EVD) epidemic in West Africa, with 28,600 infections and 11,325 deaths (CDC, 2019a), along with the H1N1 2009 flu pandemic with 60.8 million infections and 12,469 deaths in the United States (CDC, 2019b), highlight the extent to which reallocation of resources from sexual and reproductive health services to pandemic responses can affect women, especially menstruators and pregnant women. The 2003 SARS outbreak with 8,098 infections and 774 deaths also indicate the unbalanced chronic mental health effects of pandemics on women (CDC, 2017). Furthermore, it is important to consider the over-representation of women in health care, as they represent almost 70% of the health workforce globally (Yamakoshi, 2020). The greater proportion of women in this field can increase their likelihood of infection and put females at a higher risk for the long-term psychological impacts of pandemics.

Thus, we will use an intersectional lens to discuss the complex interactions between socioeconomic factors and women's physical, as well as mental health during pandemics.

Sex and Gender

Klein et al. (2010) define sex as an individual's biological and psychological characteristics whereas gender encompasses roles,

behaviours and other environmental influences. These factors played a prominent role during the 2009 H1N1 influenza outbreak. Reviewing sex-aggregated data, Klein et al. (2010) found a statistically significant correlation between sex and rate of infection; young females contracted infectious diseases more frequently than age-matched young men. Referencing household transmission studies, females were at significantly higher risk of secondary attack rates as well (Klein et al., 2010). Additionally, there was a consistent trend in sex-related morbidity rates. A greater number of females were hospitalized with critical illness relative to males of comparable age in over 60% of the datasets evaluated, including Canada (Klein et al., 2010).

Sex and gender may also influence certain risk factors and co-morbidities which can predispose individuals to a greater likelihood of exposure during pandemics. Looking at the H1N1 influenza pandemic, Klein et al. (2010) suggested a female bias in occupational risk. With women representing over 50% of the healthcare workforce at the time of the study, as well as their greater involvement in education and caregiving, they could be more likely to encounter frequent contact with the infection relative to the general public (Klein et al., 2010). Female bias is also correlated with chronic diseases, putting women at a higher risk of developing severe asthma, chronic obstructive pulmonary disease (COPD), cardiovascular disease (CVD), and metabolic disorders - all of which can contribute to pandemic disease severity (Klein et al., 2010). Sex may also affect treatment efficacy. Women were more likely to report severe local and systemic reactions to H1N1 seasonal vaccines and their adjuvants (Klein et al., 2010). In the case of antivirals, a meta-analysis found that women infected with H1N1 returned to baseline wellness slower compared to men (Klein et al., 2010). One of the postulated underlying biological mechanisms was the differential effects of androgens on the immune system (Klein et al., 2010).

Sexual and Reproductive Health (SRH)

SRH covers domains such as maternal and newborn health; fertility and family planning; abortion; STI treatments and prevention; and other gynaecological services. Unfortunately, the delivery and quality of these critical health services are often overlooked in emergency pandemic responses (Lokot & Avakyan, 2020). This can lead to adverse clinical outcomes with disproportionate impacts on women, which in turn, aggravate gender-based and other health disparities. To illustrate these effects on both the individual and structural level, we will examine some risk factors and barriers associated with pandemics.

Pregnancy

Pregnancy is often studied in literature as a significant risk factor. In fact, patterns of compromised maternal physical health can be seen throughout recent respiratory virus pandemics. For example, pregnant women infected with SARS-CoV were more likely to experience adverse

clinical outcomes than non-pregnant women (Monteleone et al., 2020). Mortality rates for pregnant women reached 25% while morbidity rates showed that 50% of pregnant women required intensive care (Monteleone et al., 2020). Similarly, H1N1 influenza data sets posit that women had a fourfold higher rate of being hospitalized due to pregnancy complications compared to the general population (Monteleone et al., 2020). When taking comorbidities into account, pregnant women were seven to ten times more likely to experience severe disease symptoms compared to age-matched non-pregnant women (Klein et al., 2010). With COVID-19, nine studies recently published found that pregnant women with COVID-19 and pregnant women with confirmed SARS-CoV-2 infections shared similar clinical characteristics (Monteleone et al., 2020).

With a different class of viruses, such as the Ebola virus (EVD), pregnant women continue to face a heightened risk of spontaneous abortion, pregnancy-related haemorrhage, stillbirth, death and neonatal mortality (Davies & Bennett, 2016). EVD's high health care worker mortality has also compounded these detrimental pregnancy outcomes; Davies & Bennett's (2016) report estimated that an additional 4,022 women died in childbirth every year from 2014-2016 in Guinea, Liberia and Sierra Leone. Pregnant women in these heavily-affected regions faced amplified fears, and travel and movement restrictions (Davies & Bennett, 2016). By creating additional delays in access to pre- and post-natal care, this outbreak led to more frequent unassisted and unsafe deliveries in the impacted regions (Davies & Bennett, 2016). Pandemics can also continue to impact pregnant women's physical health in the long-term. In an EVD case study in Liberia, the virus RNA persisted in the uterus and products of conception among survivors who were pregnant at the time of infection (Godwin et al., 2019).

SRH Services and Contraceptive Commodities

Pandemics that hit resource-poor settings place a heavy burden on an already strained health care system. EVD, which was prominent in such areas, attests to the sustained impacts of pandemics on SRH. Six months after EVD in Guinea, antenatal care and facility deliveries had not recovered to baseline levels (Tang et al., 2020). In Liberia and Sierra Leone, past studies have reflected sharp declines in contraceptive usage and family planning visits as a result of the EVD outbreak (Riley et al., 2020). Furthermore, an estimated 3,600 maternal and neonatal deaths in Sierra Leone were thought to be correlated with diverting resources away from maternal and newborn care (Lokot & Avakyan, 2020). EVD has also shaped the context of safe and consensual sex, as preliminary studies suggested the persistence of Ebola in the semen of male survivors for several months after infection (Davies & Bennett, 2016). Additionally, contraception was not systematically offered to EVD survivors and health care providers at Ebola Treatment Centres (Chattu & Yaya, 2020).

The ongoing COVID-19 pandemic is another example in which SRH services are overlooked even in more developed countries (Riley et al., 2020). In the Hunan Province of China, there are rising demands for safe abortion services and information provision from hospitals

(Tang et al., 2020). This could be attributed to the public's fears of the unknown effects of infection during pregnancy, or lack of contraceptives. These commodity shortages are a direct result of lockdown measures, which have closed drug manufacturing plants as reported in China and India (Riley et al., 2020). As a result, the supply chain manufacturing of contraceptive pharmaceutical components is disrupted, and there are significant delays in transportation (Riley et al., 2020). Other medications such as antiretrovirals for HIV/AIDS and antibiotics for STIs may also be lacking (Riley et al., 2020).

In this regard, quantifiable research is currently limited (Riley et al., 2020). However, Riley et al. (2020) have crafted two hypothetical scenarios on how COVID-19 could impact SRH in low and middle-income countries (LMIC) based on national surveys. One estimates a 10% decrease in using short- and long-acting reversible contraceptives. LMICs, in particular, could fail to provide modern contraceptives to an additional 49 million women, resulting in an added 15 million unintentional pregnancies in a year (Riley et al., 2020). The other scenario predicts that 10% of women would opt for unsafe abortion methods on top of the 3.3 million unsafe abortions occurring regularly in LMICs alone per year (Riley et al., 2020). This is predicted to contribute to 1,000 additional maternal deaths (Riley et al., 2020).

Menstrual Outcomes

Pandemics exacerbate pre-existing menstrual inequalities, expose flaws in health systems, and disproportionately affect menstruators. With COVID-19, social distancing rules, loss of livelihoods, and public fear, among other factors, cause increased levels of stress, anxiety, and malnutrition around the globe - all of which negatively impact reproductive health (Yamakoshi, 2020).

Frontline workers who menstruate are at a unique disadvantage during pandemics. UNICEF identifies various challenges for these healthcare workers, including lack of awareness and prioritization of the Menstrual Hygiene and Health (MHH) needs of these workers; lack of menstrual products in healthcare settings; prevention of regular menstrual product changes due to Personal Protective Equipment use; and menstrual pain (Yamakoshi, 2020).

Menstruators are also indirectly affected by COVID's disruptions of safe water supplies and sanitation services (Yamakoshi, 2020). Increased prices and hoarding can further limit women's access to menstrual hygiene products. In particular, redirecting resources and funding to COVID care decreases access to contraceptives, which many menstruators use to regulate their cycles (Yamakoshi, 2020). The negative effects of the COVID-19 pandemic on menstruation were quantified in an observational study done by Yuksel & Ozgor (2020), which found that 27.6% of Turkish women had menstrual disorders during the COVID pandemic compared to 12.1% before the pandemic.

Pandemics' effects on menstrual health can also be long-term as evidenced by EVD (Godwin et al., 2019). A study by Godwin et al. (2019) investigated the presence of menstrual abnormalities among female

Liberian EVD survivors. Out of the 105 women who reported regular menstruation before contracting EVD, 29.0% later reported menstrual irregularities such as amenorrhea, oligomenorrhea, menorrhagia and dysmenorrhea, for unknown reasons (Godwin et al., 2019). In fact, EVD infections (29%) were associated with higher rates of irregular menstruation than low-income settings (5-17%) and rural Gambia (16%) (Godwin et al., 2019).

Intimate Partner Violence (IPV)

Domestic violence has increased dramatically since the start of the COVID pandemic (Roesch et al., 2020; UN Women, 2020). Gender-based violence is known to worsen sexual and reproductive health outcomes, including chronic health conditions, disability, HIV transmission, pregnancy complications and death (Lokot & Avakyan, 2020).

For instance, the police department of the Jinali county in the Hubei province of China received three times the number of domestic violence reports in February 2020 compared to February 2019, and in the UK the number of deaths resulting from domestic abuse more than doubled between March 23 and April 12 relative to the average rate in the previous 10 years (Roesch et al., 2020). UN Women (2020) reports that the number of calls to helplines increased in 80% of the 49 countries assessed, and in 50% of countries the number of reports to police has also increased. Decreases in domestic violence reports in other countries are likely due to mobility restrictions, decreased access to phones and/or internet, and stay-at-home orders (UN Women, 2020).

Increased time spent at home with abusers, household stress from loss or disruption of livelihood, reduced availability of services, disruption of daily routines, and limited social support are all risk factors associated with IPV (UN Women, 2020; Roesch et al., 2020). For example, alcohol consumption is likely to increase during lockdown because of stress, and is more likely to occur in the presence of victims due to social distancing orders (Campbell, 2020). Stay-at-home guidelines also enable abusers to further control victims' lives through measures such as restricting their internet and phone access to ensure victims cannot report to the police or access outside psychosocial support, reproductive and sexual health information, and helplines (Campbell, 2020). Access to these services is further limited by the reallocation of resources to the immediate COVID-19 response (Campbell, 2020). In Bolivia, the police and military have redirected their work to support health care and only 20% of police are still available for responding to violence-related cases (UN Women, 2020). Furthermore, many services are either unable to adapt to an online format or organizations do not have the technological capacity to do so, thus rendering these services nonexistent or severely limited during physical distancing (UN Women, 2020). In Palestine and Lebanon, people in need of housing are required to self-isolate or provide medical proof of COVID status before being admitted into shelters (UN Women, 2020). This prevents homeless and economically-disadvantaged people, including victims of violence, from accessing these services (UN Women, 2020). UN Women (2020) also emphasizes the reduced availability of

legal and protective services during this pandemic. Around the world, civil hearings, court orders issuance, and legal aid centres are suspended, delayed, and closed (UN Women, 2020).

Mental Health

Impacts of public health emergencies extend beyond physical health. For instance, the 2003 SARS outbreak in Toronto led to a 30% increase in suicide among seniors, a 50% chronic anxiety rate among recovered patients, and a 29% emotional distress rate among healthcare workers (Yip et al., 2010; Tsang et al., 2004; Nickell et al., 2004). Unfortunately, mental health issues have historically had a disproportionate impact on women as we will discuss by looking at two mental health disorders associated with pandemics (Boyraz & Legros, 2020; Lai et al., 2020; O'Sullivan & Phillips, 2019; Hong et al., 2009).

Post-Traumatic Stress Disorder (PTSD)

PTSD is a mental illness caused by exposure to serious trauma, characterized by flashbacks, nightmares, and/or severe anxiety (National Institute of Mental Health, 2019). Surviving a life-threatening physical illness is a traumatic experience, especially during a pandemic, which can explain why PTSD was the most common long-term psychiatric condition among SARS survivors (Mak et al., 2010). Over a quarter of SARS survivors met the clinical criteria for PTSD 30 months post-SARS (Mak et al., 2010). Reynolds et al. (2008) also demonstrated that quarantined healthcare workers experienced more severe PTSD symptoms compared to the general population who had been quarantined following the SARS outbreak in Ontario. These studies indicate that pandemics increase the risk of chronic PTSD, especially for recovered patients and healthcare workers.

Interestingly, pandemic-related PTSD can differentially impact individuals depending on their gender. Sex-disaggregated data collected by Hong et al. (2009) revealed that 53.3% of women developed PTSD at some point after being hospitalized for SARS while the same figure among men was only 26.1%. This is consistent with broader trauma literature, which reports rates of PTSD among women to be two to three times higher compared to men (Olff, 2017). Recent studies have also suggested the same trend for PTSD and COVID-19 (Lai et al., 2020; Liu et al., 2020; Sun et al., 2020).

Higher prevalence of pre-existing mental illnesses among women, greater chances of high-impact trauma, and over-representation of females in the healthcare sector could partially explain this gender disparity in pandemic-related PTSD. A multinational study showed that psychological comorbidities are correlated with experiencing more severe emotional distress and COVID-19-specific PTSD symptoms among healthcare workers (Chew et al., 2020). Mental illnesses such as depression, anxiety, and PTSD are more common among women, which contributes to gender disparities observed in rates of COVID-19-specific PTSD (Eaton

et al., 2012; Olff, 2017). The spike in rates of sexual assault and IPV also disproportionately affect women and can contribute to females' higher rates of pandemic-related PTSD (Roesch et al., 2020; UN Women, 2020). Lastly, women, who comprise the majority of the healthcare workforce in Canada and several other countries, would expectedly suffer from the long-term psychological impacts of providing care during this pandemic. Women are especially overrepresented in low-paying essential jobs in the healthcare industry, with more direct contact with COVID-19 patients and vulnerable populations (Gradin, 2019). Thus, women are more likely to psychologically suffer from the trauma associated with providing healthcare services during these uncertain times.

Depression

According to the World Health Organization (WHO) (2020), depression is the most common mental illness and the leading cause of disability worldwide. Untreated clinical depression is a serious issue which can lead to social isolation, drug or alcohol addiction, work-related problems, or even suicide (WHO, 2020).

Cross-sectional studies show that symptoms of depression and hopelessness related to COVID-19 are more common among women (Lai et al., 2020). These findings are consistent with existing literature on depression. In 2012, the prevalence of depression among men and women in Canada was 3.6% and 5.8%, respectively, representing a 1.6-fold greater incidence among women (Pearson et al., 2013). Similar to PTSD, a greater prevalence of comorbidities among women might be a contributing factor to females' higher rates of COVID-related depression (Chew et al., 2020).

Some suggest that differences in triggers can be the reason for gender variations in depression. A study conducted on dizygotic opposite-sex twins demonstrated that internalizing factors, such as failure in interpersonal relationships, play a more prominent role in depression for women, while externalizing factors, such as failure to achieve expected career goals, are more important in the etiological pathway to depression in men (Kendler & Gardner, 2014). In the context of the current pandemic, loss of loved ones and other emotional factors might be more likely to act as triggers for depression in women. Being away from family and direct contact with COVID-19 patients are also internalizing factors for healthcare workers. Such factors, along with the gender imbalances in the healthcare industry, lead more readily to depression in women (Kendler & Gardner, 2014).

While important, gender differences in depression cannot be completely explained by trigger variations. Many studies point to biological differences between sexes as a significant contributor to gender variations in depression. For instance, estrogen has been shown to play a role in the development of depression in women (Cheslack-Postava et al., 2014). The fact that subtypes of depression specific to women such as postpartum depression and premenopausal depression exist also suggests biological causes for gender differences in depression (Albert, 2015). As demonstrated before with the case of estrogen, one such biological difference could be hormonal signalling (Cheslack-Postava et al., 2014).

The correlation between hormonal fluctuations in women and depression is well-documented. A cross-sectional study by Cheslack-Postava et al. (2014) revealed that the use of oral contraceptives, which moderate cycling of estrogen levels, lowers levels of depression among women. As previously discussed, access to contraceptives and other medications might be impacted by the pandemic which could, in turn, contribute to higher rates of depression among women (Riley et al., 2020; Cheslack-Postava et al., 2014).

Lastly, it is important to consider special circumstances such as pregnancy on women's mental health during pandemics. According to a multicentre study conducted in China by Wu et al. (2020), pregnant women assessed after the announcement of the COVID-19 outbreak experienced higher rates of depression and thoughts of self-harm compared to pregnant women assessed pre-announcement. Prevalence of depressive symptoms among pregnant women was also associated with the number of newly-confirmed COVID-19 cases, suspected infections, and death toll per day (Wu et al., 2020).

Discussion

Through a literature review, we investigated how pandemics and epidemics disproportionately impact women's SRH and mental health. Our purpose was to shed light on the worsened gender inequalities present during pandemics and the necessity of a gender-directed response. We found that pandemics often limit and neglect SRH services, contributing to negative outcomes in pregnancy, menstruation, and IPV (Lokot & Avakyan, 2020). Furthermore, pandemics have a more profound psychological impact on women compared to men (Boyraz & Legros, 2020; Lai et al., 2020; O'Sullivan & Phillips, 2019). Thus, it is important to develop sex- and gender-directed responses to crises informed by research that implements a critical gender lens; and to collect sex- and gender-disaggregated data during pandemics.

Systematic research into long-term reproductive outcomes for women and infants and on pathogenesis during pregnancy could be beneficial. Recent COVID-19 research has not yet suggested an increased risk of severe symptoms among pregnant women relative to the general population. Additionally, public health strategies tend to focus more on 'immediate' problems such as childbirth over reproduction. This was seen in our literature review as there was more research on pandemics directly related to pregnancy outcomes compared to contraception and SRH services. Likely, preexisting social norms about sex, chastity, and marriage around the world contribute to womens' limited information on SRH care and family planning. In the context of a pandemic, this results in increased risk of unintended pregnancies, STIs and HIV transmission, higher maternal and newborn mortality rates and more unsafe abortions (Lokot & Avakyan, 2020).

To mitigate consequences, emergency responses should acknowledge the importance of maintaining sexual and reproductive services to ensure the rights of women and gender minorities are upheld. Furthermore, barriers preventing women from accessing these services

and contraceptives should be addressed by authorities both in and outside of pandemics. There needs to be more qualitative and quantitative research on access to and sustainability of SRH services in the long-term.

To combat detrimental menstrual outcomes, UNICEF reports that the COVID response must include the provision of menstrual hygiene supplies and sanitation services, particularly in healthcare settings, refugee camps and other similar settings (Yamakoshi, 2020). However, the UNICEF brief on menstrual health and hygiene had almost no mention of trans men, non-binary and other menstruators who do not identify as women, even in the "Gender Sensitive and Inclusive Response" subsection (Yamakoshi, 2020). This is problematic because being a gender minority adds to the inability to access necessary services and products.

UN Women (2020) already outlines some measures that have been undertaken in response to the increased risk of domestic violence, such as the use of mobile apps for filing complaints in Morocco and the utilization of hotels as shelters for victims. To counteract the increased levels of domestic violence during pandemics, Campbell (2020) suggests collaborations between IPV-focused, victim-serving organizations and frontline workers such as healthcare workers, postal workers, garbage collectors, food delivery staff, and home repair employees to train them to detect household violence. However, data and information about domestic and intimate partner violence and service availability during the COVID-19 pandemic are scarce, potentially creating a barrier to including preventative measures in the COVID-19 response (Roesch et al., 2020).

Additionally, we investigated the disproportionate effect of pandemics on women in terms of mental health outcomes. Historical examples from SARS suggest a disproportionate impact of pandemic-related psychological problems on women (Hong et al., 2009; O'Sullivan & Phillips, 2019). Societal factors, such as women's over-representation in healthcare professions, are especially important for understanding this biased impact on the female population. Similar information on COVID-19 is not yet available, but it is reasonable to assume that the current pandemic will have severe chronic mental health effects due to its larger scale and longer duration compared to the SARS outbreak.

Addressing these gender disparities requires more extensive studies on gender's influence on mental health outcomes of this pandemic, and gender-specific interventions and treatments. Currently, sex-disaggregated data on mental health impacts of past pandemics are almost non-existent. However, we found that gender is a determinant for mental health outcomes during pandemics (Klein et al., 2010), and thus must be included in pandemic responses.

To summarize, in order to ensure an inclusive response to pandemics while minimizing consequences for women, trans men and gender non-conforming people, an intersectional lens must be used when assessing the effects of crises. According to Lokot & Avakyan (2020), one of the main problems in current research is its lack of holistic analysis on women's health. A recent systematic review of SRH interventions during pandemics found that people with disabilities and members of the LGBTQ community were not represented in any of the studies investigated (Roesch et al., 2020). By analyzing how intersecting oppressions such as gender,

race, class, and nationality interplay with quality of life, appropriate and targeted measures can be developed for each population. For the COVID-19 pandemic and beyond, authorities should engage people living at the intersections of multiple oppressions who are most impacted by emergencies to develop actionable plans to change for the better.

References

Albert, P. (2015). Why is depression more prevalent in women? Journal of Psychiatry & Neuroscience, 40(4), 219-221. doi:10.1503/jpn.150205

Alden, L. E., Regambal, M. J., & Laposa, J. M. (2008). The effects of direct versus witnessed threat on emergency department healthcare workers: Implications for PTSD Criterion A. Journal of Anxiety Disorders, 22(8), 1337-1346. doi:10.1016/j.janxdis.2008.01.013

Campbell, A. M. (2020). An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. Forensic Science International: Reports, 2. doi: https://doi.org/10.1016/j.fsir.2020.100089

Centers for Disease Control and Prevention (CDC). (2019b, June 11). 2009 H1N1 Pandemic (H1N1pdm09 virus). https://www.cdc.gov/flu/pandemic-resources/2009-h1n1-pandemic.html

Centers for Disease Control and Prevention (CDC). (2019a, March 08). 2014-2016 Ebola Outbreak in West Africa. https://www.cdc.gov/vhf/ebola/history/2014-2016-outbreak/index.html

Centers for Disease Control and Prevention (CDC). (2017, December 06). 2003 SARS Outbreak. https://www.cdc.gov/sars/about/fs-sars.html

Chattu, V. K., & Yaya, S. (2020). Emerging infectious diseases and outbreaks: Implications for women's reproductive health and rights in resource-poor settings. Reproductive Health, 17(1). doi:10.1186/s12978-020-0899-y

Cheslack-Postava, K., Keyes, K. M., Lowe, S. R., & Koenen, K. C. (2014). Oral contraceptive use and psychiatric disorders in a nationally representative sample of women. Archives of Women's Mental Health, 18(1), 103-111. doi:10.1007/s00737-014-0453-4

Chew, N. W., Lee, G. K., Tan, B. Y., Jing, M., Goh, Y., Ngiam, N. J., Yeo, L., Ahmad, A., Khan, F. A., Shanmugam, G. N., Sharma, A. K., Komalkumar, R. N., Meenakshi, P. V., Shah, K., Patel, B., Chan, B. P., Sunny, S., Chandra, B., Ong, J., … Sharma, V. K. (2020). A multinational, multicentre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak. Brain, Behavior, and Immunity, 8, 559-565. doi:10.1016/j.bbi.2020.04.049

Davies, S. E., & Bennett, B. (2016). A gendered human rights analysis of Ebola and Zika: Locating gender in global health emergencies. International Affairs, 92(5), 1041-1060. doi:10.1111/1468-2346.12704

Eaton, N.R., Keyes, K.M., Krueger, R.F., Balsis, S., Skodol, A. E., Markon, K. E., Grant, B. F., Hasin, D.S. (2012). An invariant dimensional liability model of gender differences in mental disorder prevalence: evidence from a national sample. Journal of Abnormal Psychology, 121(1), 282-288. doi:10.1037/a0024780

Godwin, C. L., Wohl, D. A., Fischer 2nd, W. A., Singh, K., Hawks, D. A., Devore, E. E., & Brown, J. (2019). Reproductive health sequelae among women who survived Ebola virus disease in Liberia. International Journal of Gynecology & Obstetrics, 146(2), 212-217. doi:10.1002/ijgo.12858

Güler, B. & Dominique, N. L. (2020) Coronavirus disease (COVID-19) and traumatic stress: probable risk factors and correlates of posttraumatic stress disorder, Journal of Loss and Trauma, 25:6-7, 503-522. doi:10.1080/15325024.2020.1763556

Gradín, C. (2019). Segregation of women into low-paying occupations in the United States. Applied Economics, 52(17), 1905-1920. doi:10.1080/00036846.2019.1682113

Hong, X., Currier, G. W., Zhao, X., Jiang, Y., Zhou, W., & Wei, J. (2009). Posttraumatic stress disorder in convalescent severe acute respiratory syndrome patients: A 4-year follow-up study. General Hospital Psychiatry, 31(6), 546–554. doi:10.1016/j.genhosppsych.2009.06.008

Kendler, K. S., & Gardner, C. O. (2014). Sex differences in the pathways to major depression: A study of opposite-sex twin pairs. American Journal of Psychiatry, 171(4), 426-435. doi:10.1176/appi.ajp.2013.13101375

Klein, S. L., Passaretti, C., Anker, M., Olukoya, P., & Pekosz, A. (2010). The impact of sex, gender and pregnancy on 2009 H1N1 disease. Biology of Sex Differences, 1(1), 5. doi:10.1186/2042-6410-1-5

Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., Wu, J., Du, H.D., Chen, T., Li, R., Tan, H., Kang, L., Yao, L., Huang, M., Wang, H., Wang, G., Liu, Z., Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to Coronavirus disease 2019. JAMA Network Open, 3(3). doi:10.1001/jamanetworkopen.2020.3976

Laposa, J., & Alden, L. (2003). Posttraumatic stress disorder in the emergency room: Exploration of a cognitive model. Behaviour Research and Therapy, 41(1), 49-65. doi:10.1016/s0005-7967(01)00123-1

Liu, N., Zhang, F., Wei, C., Jia, Y., Shang, Z., Sun, L., Wu, L., Sun, Z., Zhou, Y., Wang, Y., & Liu, W. (2020). Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. Psychiatry Research, 287, 112921. doi:10.1016/j.psychres.2020.112921

Lokot, M., & Avakyan, Y. (2020). Intersectionality as a lens to the COVID-19 pandemic: Implications for sexual and reproductive health in development and humanitarian contexts. Sexual and Reproductive Health Matters, 28(1), 1764748. doi:10.1080/26410397.2020.1764748

Mak, I. W., Chu, C. M., Pan, P. C., Yiu, M. G., Ho, S. C., & Chan, V. L. (2010). Risk factors for chronic post-traumatic stress disorder (PTSD) in SARS survivors. General Hospital Psychiatry, 32(6), 590-598. doi:10.1016/j.genhosppsych.2010.07.007

Monteleone, P. A., Nakano, M., Lazar, V., Gomes, A. P., Martin, H. D., & Bonetti, T. C. (2020). A review of initial data on pregnancy during the COVID-19 outbreak: Implications for assisted reproductive treatments. JBRA Assisted Reproduction, 24(2), 219-225. doi:10.5935/1518-0557.20200030

National Institute of Mental Health. (2019). Post-Traumatic Stress Disorder. Retrieved 2020, from NIMH website: https://www.nimh.nih.gov/health/topics/post-traumatic-stress-disorder-ptsd/index.shtml

Nickell, L. A., Crighton E. J., Tracy C. S., et al. (2004). Psychosocial effects of SARS on hospital staff: Survey of a large tertiary care institution. Canadian Medical Association Journal, 170(5), 793-798. https://dx.doi.org/10.1503%2Fcmaj.1031077

Olff, M. (2017). Sex and gender differences in post-traumatic stress disorder: An update. European Journal of Psychotraumatology, 8(S4), 1351204. doi:10.1080/20008198.2017.1351204

O'Sullivan, T. L., & Phillips, K. P. (2019). From SARS to pandemic influenza: the framing of high-risk populations. Natural hazards (Dordrecht, Netherlands), 98(1), 103–117. doi:10.1007/s11069-019-03584-6

Pearson, C., Janz, T., & Ali, J. (2013, September). Mental and substance use disorders in Canada. Statistics Canada. www.statcan.gc.ca/pub/82-624-x/2013001/article/11855-eng.htm

Reynolds D. L., Garay J. R., Deamond S. L., Moran M. K., Gold W., Styra R. (2008). Understanding, compliance and psychological impact of the SARS quarantine experience. Epidemiology & Infection, 136(7), 997-1007. doi:10.1017/S0950268807009156

Riley, T., Sully, E., Ahmed, Z., & Biddlecom, A. (2020). Estimates of the potential impact of the COVID-19 pandemic on sexual and reproductive health in low- and middle-income countries. International Perspectives on Sexual and Reproductive Health, 46, 73-76. doi:10.1363/46e9020

Roesch, E., Amin, A., Gupta, J., & García-Moreno, C. (2020). Violence against women during covid-19 pandemic restrictions. BMJ, 369, M1712. doi:10.1136/bmj.m1712

Sun, L., Sun, Z., Wu, L., Zhu, Z., Zhang, F., Shang, Z., Jia, Y., Gu, J., Zhou, Y., Wang, Y., Liu, N., & Liu, W. (2020). Prevalence and risk factors of acute posttraumatic stress symptoms during the COVID-19 outbreak in Wuhan, China. MedRxiv. doi:10.1101/ 2020.03.06.20032425

Tang, K., Gaoshan, J., Ahonsi, B., Ali, M., Bonet, M., Broutet, N., Kara, E., Kim, C., Thorson, A., Thwin, S. S. (2020). Sexual and reproductive health (SRH): A key issue in the emergency response to the coronavirus disease (COVID- 19) outbreak. Reproductive Health, 17(1). doi:10.1186/s12978-020-0900-9

Tsang, H.W., Scudds, R.J., & Chan, E.Y.. (2004). Psychosocial impact of SARS. Emerging Infectious Disease, 10, 1326-1327. https://dx.doi.org/10.3201%2Feid1007.040090

UN Women. (2020). Impact of COVID-19 on violence against women and girls and service provision:UN Women rapid assessment and findings. (Rep.). (2020). Retrieved 2020, from https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/impact-of-covid-19-on-violence-against-women-and-girls-and-service-provision-en.pdf?la=en&vs=0

World Health Organization. Depression (Fact sheet). (2020, January 30). Depression. Retrieved 2020, from WHO website: https://www.who.int/news-room/fact-sheets/detail/depression

Wu, Y., PhD, Zhang, C., MSc, Liu, H., MSc, Duan, C., MSc, Li, C., PhD, Fan, J., PhD, Li, H., MSc, Wang, Y., MSc, Li, X., BA, Li, J., BA, Zhang, T., MD, You, Y., BA, Li, H., PhD, Yang, S., BA, Tao, X., BA . . . Huang, H., MD. (2020). Perinatal depressive and anxiety symptoms of pregnant women along with COVID-19 outbreak in China. American Journal of Obstetrics and Gynecology, 223(2), 240.E1-240.E9. doi: 10.1016/j.ajog.2020.05.009

Yamakoshi, B. (2020, April). Mitigating the impacts of COVID-19 on menstrual health and hygiene UNICEF.https://www.unicef.org/sites/default/files/2020-05/UNICEF-Brief-Mitigating-the-impacts-of-COVID-19-on-menstrual-health-and-hygiene.pdf

Yip, P.S., Cheung, Y.T., Chau, P.H., & Law, Y.W. (2010). The impact of epidemic outbreak: The case of severe acute respiratory syndrome (SARS) and suicide among older adults in Hong Kong. Crisis, 31, 86–92.

Yuksel, B., & Ozgor, F. (2020). Effect of the COVID-19 pandemic on female sexual behavior. International Journal of Gynecology & Obstetrics, 150(1), 98-102. doi:10.1002/ijgo.13193

Personal Support Workers and COVID-19: The Disproportionate Impact of the Current Pandemic on this Group of Healthcare Workers

Sara Shariati and Lucie Perillat

Introduction

There are over 90,000 personal support workers (PSWs) in Ontario providing assistance with activities of daily living to individuals, often seniors, in hospitals, long-term care (LTC) facilities, community living, and at home (Kelly & Bourgeault, 2015). PSWs are currently an unregulated group of healthcare providers, falling just below registered practical nurses in the healthcare hierarchy (Zagrodney & Saks, 2017). However, there are some PSW associations, such as the Ontario Personal Support Worker Association (OPSWA), the Personal Support Network of Ontario (PSNO), and the Personal Support Worker HQ (PSWHQ), which advocate for PSW rights (Kelly & Bourgeault, 2015). Despite their important role in the healthcare industry, PSWs are often treated more poorly compared to other healthcare professionals and are not compensated as much. For instance, the average annual income of full-time PSWs is about half of a registered nurse's average annual earnings (On, 2017). Lack of a formal regulatory body for PSWs could be a factor contributing to underappreciation of these workers in the healthcare industry over the years.

LTC homes (LTCHs), followed by community living, are by far the most popular work setting for PSWs, attracting 57% and 36% of this group of healthcare workers respectively (On, 2018b). Only 7% of PSWs work in hospitals (On, 2018b). Furthermore, a survey conducted in 2009 by the Canadian Research Network for Care in the Community found that 73.1% of PSWs were aged over 40, 97% were women, and 43.4% identified as visible minorities (Lum et al., 2010).

With the aging population of Canada, the demand for LTC beds is expected to almost double by 2035 (Gibbard, 2017). Currently, there is a waitlist of 30,000 people for LTC beds in Ontario (Ontario Health Coalition & Unifor, 2020). Despite the rising demand for LTC beds which puts added pressure on LTC-based PSWs, Canada has done little to support PSWs. The disasters observed today in LTCHs during the COVID-19 outbreak, reflected, for example, by the 2403 LTCH staff infected with COVID-19 (Government of Ontario, 2020), have brought the difficult working conditions of, and lack of support for PSWs to the media's attention. Here, we highlight some of the challenges which have contributed to the disproportionate effect of this outbreak on PSWs, and explain why more support is necessary to avoid seeing similar disasters in LTCHs in the future.

Pre-existing Challenges

Economic Challenges and Low Income

The income of PSWs varies greatly by workplace setting, with hospital-based PSWs having significantly higher salaries than others (On, 2018b). Overall, personal support work is known to be among the lowest-paying jobs in the healthcare industry, with most Canadian job opportunities for PSWs paying only slightly above the local minimum wage (On, 2018b).

The Ontario Ministry of Long-term Care increased the minimum wage of PSWs from $14.00 to $16.50 per hour from 2014 to 2016, and mandated a $1.00 per hour wage increase in 2016 for those providing publicly-funded home- and community-based personal support services (On, 2018b). These pay raises were put in place as a part of the government's "PSW Workforce Stabilization Strategy" (On, 2018b); however, they left many PSWs working in the private sector vulnerable . In 2018, community- and home-based PSWs still made an average of $15.00 per hour, and the overall median wage of PSWs in Ontario was $16.00 per hour (On, 2018b).

In census data, PSWs are often either grouped with several other healthcare professionals in the "Other" category, or grouped with social workers in the "Social Support Providers" category (Statistics Canada, 2019). These groupings limit reliable reporting of PSWs' income. However, Ontario College Application Services (2020) reports the average starting salary of PSWs to be approximately $28,000 per year. For the most part, PSWs' salaries increase with their experience level; full-time PSWs with 10-20 years of experience make an average of $33,000 annually, which is still about half of a registered nurse's average annual income of $50,000-$65,000 per year (On, 2017).

Given PSWs' low wage rates, it is not surprising that about 20% of LTC-based PSWs hold second jobs in the northeastern United States (Van Houtven et al., 2020). Additionally, about 61% of PSWs hold unpaid double- or triple-caregiving roles which means that they act as the primary caregiver for at least one senior or child at home or in their communities (Van Houtven et al., 2020). Such a high prevalence of double- and triple-caregiving roles among PSWs is expected since most PSWs in North American and many European countries are middle-aged women (Lilly, 2008).

PSWs working in hospitals are paid more than PSWs of a similar experience level working in community or long-term care facilities (Lilly, 2008). Lilly (2008) found that the wage of hospital-based PSWs was $4.56 per hour higher than that of community-based PSWs in Ontario. Two possible explanations exist for this wage gap. First, a higher proportion of community- and home-based PSWs belong to racialized groups in Ontario compared to hospital-based workers (Lilly, 2008). The same trend is observed in British Columbia where the majority of home support workers are minority immigrant women (Cohen et al., 2006). Thus, the lower pay for community- and home-based workers might be a reflection of pervasive racial discrimination in Canada. Another plausible explanation for this wage gap is the conceptualization of workplaces. While hospitals

are often viewed as medical and healthcare settings, home is usually thought of as a social setting (Lilly, 2008). Thus, the care provided by PSWs in home-based settings is seen primarily as social support, not healthcare, even if it is the same as care provided in hospital-based settings. This means that the same service provided by PSWs at clients' homes is often valued less by clients and their families compared to the care provided in hospitals. Consistent with this idea is the observation that the average wage of PSWs working in LTC facilities falls in between home-based and hospital-based workers (Lilly, 2008). LTC facilities are often considered the intersection between social and medical settings; this is clearly reflected in the LTC workers' income (Lilly 2008). As previously mentioned, hospital-based workers are only a small portion of the total PSW population in Canada (On, 2018b). Moreover, the current trend of early discharge of patients from hospitals is expected to further decrease the demand for hospital-based PSWs (Gibbard, 2017). Hence, this social vs. medical conceptualization of PSWs' workplace settings could be very harmful in the long-run, given the rapidly increasing demand for community- and LTC-based PSWs (Gibbard, 2017).

Violence and Harassment in the Workplace

A study published in 2004 by Gerberich et al. found that nurses and PSWs face alarming rates of both physical and non-physical forms of violence and assault at their workplace. This study demonstrated that verbal abuse, threats, and sexual harassment were the most common forms of non-physical assault among healthcare workers. Additionally, looking at both nurses and PSWs allowed the authors of this paper to compare the rates of work-related assault among these two groups. Ultimately, while the rates of non-physical assault were found to be similar among nurses and PSWs, this study reported a significantly higher rate of physical assault among PSWs than among nurses (16.4% per year vs 12.0% per year) (Gerberich et al., 2004). Among both groups, however, clients were reported most frequently as the source of both physical and non-physical assault.

Surprisingly, a focus group study by Fitzwater and Gates (2000) found that many PSWs experience a greater number of violent incidents in hospital or nursing home settings compared to home-based settings. Furthermore, this study reports that racial biases and prejudices are commonly a form of tension between PSWs and their clients. For example, some home-based PSWs have been previously switched by their agencies to match patients' racial preferences (Fitzwater & Gates, 2000). Statistics Canada data suggests that Canadian-born seniors are more likely to move to nursing homes compared to immigrants (Garner et al., 2018). Knowing that minority women form the majority of the PSW workforce, it is not surprising that racial bias and discrimination are so common in this profession (Lilly, 2008). Rightfully, many PSWs recognize racial bias as a form of emotional violence (Fitzwater & Gates, 2000).

These findings all demonstrate the worrisome prevalence of workplace violence among healthcare workers, especially among PSWs. As demonstrated in several studies, healthcare workers often consider

assault and violence "part of [their] job" (Schulte et al., 1998, p. 442; Fitzwater & Gates, 2000, p.599). This culture of acceptance surrounding assault and violence among healthcare providers has led to underreporting of both physical and non-physical assaults (Fitzwater & Gates, 2000). While managers believe most cases of assault among their employees are reported, few PSWs feel comfortable reporting their experiences of assault (Fitzwater & Gates, 2000). Work-related assault can lead to poor job performance, muscle tension, sleep loss, chronic pain, nightmares, and flashbacks among PSWs (Gerberich et al., 2004). Research on this topic is in its infancy, but most published studies suggest more support is needed from employers to encourage PSWs to report their experiences with workplace assault and abuse (Fitzwater & Gates, 2000).

Ultimate Challenge: the PSW Crisis

Currently, almost all LTC facilities in Ontario are critically understaffed, with most nursing homes in Ontario short of at least 5-10 PSWs each day (Ontario Health Coalition & Unifor, 2020). One LTC facility near London, Ontario was fully staffed for only 8 days in 2018 (Ontario Health Coalition & Unifor, 2020). This chronic shortage of PSW staff is referred to as the "PSW crisis" (Ontario Health Coalition & Unifor, 2020). The staff shortages are generally worse in Northern Ontario and rural areas; however, the increasing acuteness of this crisis has led to critical staff shortages in Southern Ontario LTCHs as well in recent years (Ontario Health Coalition & Unifor, 2020).

Low wages, unpredictable hours, and the challenging nature of their work are all contributing factors to the shortage of PSWs in Ontario (Ontario Health Coalition & Unifor, 2020). Serving the increasingly complex LTC resident population is stressful and physically demanding (Ontario Health Coalition & Unifor, 2020). Providing support in activities of daily living for residents with dementia, which account for 66% of the total LTC resident population, is very difficult (Garner et al., 2018). Overall, the workload of PSWs is considerably heavier than the workload of many similar-paying jobs. The low wages have led to a strikingly high turnover rate among the PSWs (Ontario Health Coalition & Unifor, 2020). In the US, it is estimated that the turnover rate for LTC workers can be anywhere from 40% to 400% per year depending on the size and location of the LTCH (Gates et al., 2004). A study published in 2015 by Wodchis et al. found the average turnover rate in Ontario to be 6.5% for full-time and 16% for part-time PSWs; however, turnover rates as high as 21% were observed. Benefits and conditions of work, size of LTC facilities, and average age of staff all influence the level of turnover in a particular LTCH. For example, part-time workers, who represented 51% of Ontario LTC workers in 2015, often have lower wages and fewer employment benefits, which contributes to the higher turnover rate among this group of LTC workers (Wodchis et al., 2015). Younger employees are also more likely to leave their job and join another workforce, such as school board staff (Ontario Health Coalition & Unifor, 2020). This has led to an aging PSW workforce in Ontario LTCHs which is not being replaced by new recruits (Ontario Health Coalition & Unifor, 2020).

Staff shortages at LTCHs have made it even harder for the current employees to do their jobs. Working double shifts (16 hours a day) is common among LTC workers (Ontario Health Coalition & Unifor, 2020). In a survey conducted by CBC, some PSWs reported being responsible for as many as 40 residents in one shift when other PSWs had called in sick (On, 2018a). A study conducted by D'Hondt et al. (2012) found that while most PSWs were aware of the proper techniques for bathing residents suffering from dementia, few followed the protocols fully due to lack of time. Dementia patients often show signs of resistance and agitation during baths; PSWs usually do not have the time to calm them down and continue bathing them (D'Hondt et al., 2012). Furthermore, the heavy workload of PSWs often leads to skipping some responsibilities and providing minimal care for each resident (Ontario Health Coalition & Unifor, 2020). Examples of skipped responsibilities include, but are not limited to, missed baths, reduced toileting, and no shaving during baths (Ontario Health Coalition & Unifor, 2020). This means that the PSW crisis has not only led to low levels of job satisfaction among PSWs, but it has also impacted the quality of care provided to residents in LTC facilities.

Pandemic-Specific Challenges

Shortages of Staff and Absenteeism

While the term "PSW crisis" has only been coined recently, shortage of PSWs is a long-standing issue in the healthcare system, originating from the challenges outlined above (Ontario Health Coalition & Unifor, 2020). In addition to pre-existing shortages of PSWs, high levels of absenteeism related to the COVID-19 pandemic have exacerbated the crisis. First, as the 2003 SARS outbreak in Toronto had shown, illness-related absenteeism is often a pressing issue during health emergencies (Loeb et al., 2004, Ofner-Agostini et al., 2006). Direct contact with patients and working in closed spaces for long hours lead to PSWs' higher risk of virus contraction, reflected in the 2,403 reported COVID-19 infections among Ontario LTCH staff by July 12, 2020 (Government of Ontario, 2020). However, non-illness-related absenteeism also proves to be an issue. A survey study conducted by Gershon et al. (2010) found that 80% of essential workers would be able, 65% would be willing, and only 49% would be both able and willing to continue working during a health emergency. While there might be some discrepancies between hypothetical self-reported data and real-life situations, the numbers reported in this study were corroborated, to some extent, by the data collected on the 2009 H1N1 outbreak (Santos et al., 2010). Despite the lack of data on COVID-19, it seems reasonable to anticipate similar - or even higher - levels of absenteeism. The following job posting issued by the OPSWA on March 27 demonstrates the acuteness of this issue: "Urgent need for staffing at an elderly care facility/nursing home with a COVID-19 outbreak" (Champion, 2020, paragraph 12). Miranda Ferrier, the president of OPSWA, has warned that the PSW retention problem has become so severe during the COVID-19 pandemic that there might not be "anything of the profession left by the time the crisis is over" (Smith Cross, 2020, paragraph 24).

Several legitimate reasons can explain such high rates of non-illness related absenteeism, which can be categorized into personal and organizational factors (Gershon et al., 2010). At the personal level, fear of infection is likely an important contributor to PSWs' unwillingness to continue working. This factor is particularly important for PSWs who have pre-existing chronic conditions which make them more susceptible to infections. Everyone has, understandably, a different risk-taking threshold, and it is highly probable that, given the amount of fear and uncertainty associated with the COVID-19 pandemic, individual perceptions of risk are heightened. Another issue that PSWs often experience, is what the literature coined as 'dilemmas of loyalty': PSWs feel morally responsible for helping and protecting their patients as well as fragile members of their family, and these two duties might sometimes be in conflict, especially during pandemics (Gershon et al., 2010). PSWs' personal and work-related duties and experiences make them worried about infecting both their family members and patients (Sokic, 2020). The situation is further complicated when close family members of PSWs have compromised immune systems. This dilemma sometimes forces PSWs to make very hard and complicated decisions, such as living isolated from their families for extended periods instead of coming home and risking transmission to their loved ones (Fichtel & Kaufman, 2020).

At the organizational level, considerations about workplace safety are particularly important in explaining PSWs' increased rates of absenteeism. First, it is not always clear that employers, as well as the federal and provincial governments, are concerned about ensuring, and capable of providing, a safe workspace for these essential workers. For instance, the issue of insufficient personal protective equipment (PPEs such as surgical masks, N-95 respirators, medical gowns, goggles) at the beginning of the pandemic lasted much longer for PSWs compared to other healthcare professionals (Gershon et al., 2010). According to anecdotal evidence, some PSWs had access to only one mask every two to three days until early June (Shariati, 2020). PSW organizations and LTC facilities, which belong to the private healthcare sector, do not have the same bargaining capacity as large hospitals or medical clinics to secure PPEs for their staff earlier in the outbreak (Guerrero et al., 2020).

In summary, the shortage of PSWs is an issue that is particularly salient at the beginning of an outbreak when effective pharmaceutical and non-pharmaceutical interventions are absent and fear of the pandemic is heightened. However, this is also the time when the number of patients is very high. Due to staff shortages, PSWs who continue to work during public health emergencies often have increased workloads and are required to work in precarious conditions (D'Hondt et al., 2012). Such conditions lead to even more tension between PSWs' roles and responsibilities: these workers have to ensure the well-being of a high number of patients without access to adequate protection for themselves and their relatives.

Long-Term Care Homes: a High-Risk Workplace

Generally, LTC facilities are a high-risk setting for the spread of SARS-CoV-2. By their very nature, LTCHs are spaces where residents are

often in very close contact with one another, spending most of their time on social group activities (Gardner et al., 2020). Such conditions facilitate the spread of the novel coronavirus (Centers for Disease Control, 2020). It is unlikely to detect local outbreaks early in LTCHs due to limited testing capacities and lack of PCR reagents, but even if an outbreak is detected, PSWs are not adequately trained to care for the infected (Gardner et al., 2020), which increases levels of stress and anxiety among these workers.

What makes the situation particularly difficult for PSWs is that, despite their challenging work conditions, they must continually ensure their residents' well-being. Most residents in LTCHs are seniors with complex medical histories (Gardner et al., 2020). Such residents are not always able to comprehend or enact public health recommendations to ensure their own and others' safety (Gardner et al., 2020). In addition to these practical considerations, the ethical issue of isolating seniors in their rooms, with no possibility to be visited by their families, for such an extended period remains a significant concern (Wang et al. 2020). As such, PSWs need to take additional precautions to ensure their patients' safety and sanity, which requires sacrifices on their parts, such as self-isolating from family members, as mentioned earlier.

Furthermore, all PSWs now have to quit their second or third employment which, thereby reduces their already low income. On April 17, the Ontario government issued new emergency orders, according to which LTC staff cannot work in more than one retirement home and might be reassigned to areas where they are most needed (Office of the Premier, 2020a).

Given the nature of the PSW profession and their work setting, it is evident that safety of LTCH residents is first ensured by safety of PSWs and LTCH staff. The high rates of death and infection among LTCH residents and staff in Ontario are indicative of the disproportionate effect of the COVID-19 pandemic on this sector. Statistics up to July 12 show that death (1730) and infection (5540) among LTCH residents account for 64% and 15.6% of all deaths and infections in Ontario, respectively (Government of Ontario, 2020). Ontario LTCH staff who tested positive for SARS-CoV-2 (2403) represent 6.5% of all cases.

Lack of Governmental Guidelines and Measures

PSWs have always been underappreciated; this has contributed to a lack of clear guidelines and policies to ensure PSWs' safety during the COVID-19 pandemic. The earliest guidelines for PSWs and LTCH staff in Ontario can be traced back to April 15, over a month after initial lockdown measures were implemented (Ministry of Health, 2020a). Moreover, guidelines for LTCHs remained relatively unclear and arguably impossible to follow at that stage, such as ensuring that all staff and residents were wearing surgical masks at all times and changing them whenever needed (Ministry of Health, 2020b) or recommending a "very low threshold for COVID-19 testing [in LTCHs]" (Ministry of Health, 2020c, p.5). At the time, ensuring sufficient PPEs or swabs for testing was not possible given the lack of resources.

Evidence has also shown that training contributes to improving preparedness and quality of care during a health emergency (Guerrero et al., 2020). While countries, such as France, required that all PSWs follow the same training protocols on responsible practices and use of PPEs in the context of the COVID-19 pandemic (ARS Corse, 2020), such an initiative was not undertaken by the Canadian government. PSW training programs in Ontario usually last for only 6-8 months, including the practicum placement, and outbreak management is rarely, if ever, discussed in the PSW training curriculum (Zagrodney & Saks, 2017; Kelly & Bourgeault, 2015). It can, therefore, be argued that the lack of adequate training provided to PSWs at the beginning of the COVID-19 pandemic might have contributed to their growing feeling of insecurity in the workplace.

In March, PSWs were designated essential workers (NRF, 2020), which usually comes with benefits and compensations (Norton Rose Fulbright, 2020). On April 25, the government of Ontario, with pressure from the federal government, issued a special 'temporary pandemic pay' order to increase eligible frontline workers' wages by $4/hour, and provide an additional $250 monthly for those who worked over 100 hours/month. According to the notice, this pandemic pay was to be effective starting April 24, 2020 (Office of the Premier, 2020b). However, as of July 2020, the 350,000 eligible frontline workers were still waiting to receive the financial benefits to which they are entitled (Jeffords, 2020). Moreover, while efforts were made to increase PSWs' preparedness for health emergencies, the guidelines developed during the inter-epidemic period have not been adequately communicated to concerned workers (Gershon et al., 2010).

Discussion

It is essential to recognize that challenges inherent to the PSW profession and those specific to the current COVID-19 situation work synergistically to explain the disproportionate impact of the pandemic on PSWs. First, the pre-existing national shortage of PSWs, also known as the "PSW crisis" (Ontario Health Coalition & Unifor, 2020), has been compounded by absenteeism related to the COVID-19 pandemic (Smith Cross, 2020). Before the outbreak, the profession was already on the verge of breaking down (Smith Cross, 2020, paragraph 24). With the progression of the pandemic, increasing acuteness of PSW shortages results in a much heavier workload for the workers who are both able and willing to continue working. This dynamic culminates in burnt-out staff, which leads to even more severe PSW shortages province-wide, and deteriorated care for residents (D'Hondt et al., 2012). These compounding factors eventually lead to a decreased ability to contain outbreaks in LTCHs.

Second, pre-existing economic challenges inherent to this profession are compounded by the COVID-19 situation and the risk of transmission. The Canadian government's decision to prevent PSWs from working in multiple LTCHs, while justified given the risks of transmission, has resulted in greater economic difficulties for PSWs, who suddenly lost an essential source of income (Government of Ontario, Pandemic Pay, 2020).

Finally, the differences in workplace conceptualization between medical and social settings have been further highlighted during the COVID-19 pandemic, causing increased challenges for PSWs. The disparities between how PSWs and hospital-based healthcare workers are valued has been salient when looking at media coverage of the issue. This issue has also been highlighted by a lack of adequate guidelines, recommendations, and training provided by federal and provincial governments for PSWs. The long-lasting lack of appreciation for PSWs' valuable work could arguably be the underlying cause of delays in providing PPEs to PSWs. Personal support work is a non-unionized profession in Canada, which means that PSWs have very little leverage or power in the healthcare system. This problem, while not new, has increased in severity during the current pandemic, limiting PSWs' access to increased pay and protective equipment.

Conclusion

Personal support is often considered a precarious job in healthcare (Zagrodney & Saks, 2017). Vosko (2005) defines precarious employment as "forms of work involving limited social benefits and statutory entitlements, job insecurity, low wages, and high risks of ill-health" (p. 3). According to the challenges outlined above, one can clearly see that the characteristics of precarious employment (limited benefits, low income, high risks of injury and assault) all apply to personal support work. These characteristics of PSW jobs leave PSWs especially vulnerable during public health emergencies, such as pandemics, causing outbreaks in LTCHs which take the lives of both PSWs and LTC residents. Public health crises also bring about other challenges for PSWs, such as PPE shortages, which exacerbate the situation for these workers. Together, these challenges have led to many disasters, such as COVID-related deaths among LTC residents accounting for 64% of total deaths due to COVID-19 in Canada as of July 12 (Government of Ontario, 2020). During the past few weeks, Prime Minister Justin Trudeau has expressed his concerns over the tragedies observed in LTCHs, claiming that "[the] current system of supporting seniors across [Canada] has not worked" (Tunney, 2020, para. 7). While the federal government has suggested various solutions for fixing this system from "bringing in national standards" and "looking at the Canada Health Act" to "[providing provinces with] extra funding" (Tunney, 2020, para. 10), one thing is clear: solving this issue is not possible without providing more job security for PSWs. This pandemic might have been a wake-up call; without resolving the precarious working conditions of PSWs, LTCH residents' quality of life would suffer, just like it has during this pandemic.

References

ARS Corse. (2020, April 29). Covid-19 : Supports de formation. https://www.corse.ars.sante.fr/covid-19-support-de-formation

Centers for Disease Control. (2020, June 16). How COVID-19 spreads. https://www.cdc.gov/coronavirus/2019-ncov/prepare/transmission.html

Champion, K. (2020, April 2). Personal support worker speaks out from the frontline of COVID-19 crisis. New Market Today. https://www.newmarkettoday.ca/coronavirus-covid-19-local-news/personal-support-worker-speaks-out-from-the-frontline-of-covid-19-crisis-2220657

Cohen, M., McLaren, A., Sharman, Z., Murray, S., Hughes, M., & Ostry, A. (2006). From support to isolation: The high cost of BC's declining home support services. Canadian Centre for Policy Alternatives. https://www.policyalternatives.ca/publications/reports/support-isolation

D'Hondt, A., Kaasalainen, S., Prentice, D., & Schindel Martin, L. (2012). Bathing residents with dementia in long-term care: Critical incidents described by personal support workers. International Journal of Older People Nursing, 7(4), 253-263. https://doi.org/10.1111/j.1748-3743.2011.00283.x

Fichtel, C., & Kaufman, S. (2020, April 01). Fearing COVID-19 spread to families, health care workers self-isolate at home. NBC News. https://www.nbcnews.com/health/health-news/fearing-covid-19-spread-families-health-care-workers-self-isolate-n1171726

Fitzwater, E., & Gates, D. (2000). Violence and home care: A focus group study. Home Healthcare Now, 18(9), 596-605. https://doi.org/10.1097/00004045-200010000-00012

Gardner, W., States, D., & Bagley, N. (2020). The coronavirus and the risks to the elderly in long-term care. Journal of Aging & Social Policy, 32(4-5), 310-315. https://doi.org/10.1080/08959420.2020.1750543

Garner, R., Tanuseputro, P., Manuel, D. G., & Sanmartin, C. (2018). Transitions to long-term and residential care among older Canadians. Health Rep, 29(5), 13-23. https://www150.statcan.gc.ca/n1/pub/82-003-x/2018005/article/54966-eng.htm

Gerberich, S., Church, P., Hansen, H., Nachreiner, N., Geisser, M., Ryan, A., Mongin, S., Watt, G. (2004). An epidemiological study of the magnitude and consequences of work related violence: the Minnesota Nurses' Study. Occupational and Environmental Medicine, 61(6), 495-503. https://doi.org/10.1136%2Foem.2003.007294

Gershon, R., Magda, L., Qureshi, K., Riley, H., Scanlon, E., Carney, M. T., Richards, R., Sherman, M. (2010). Factors associated with the ability and willingness of essential workers to report to duty during a pandemic. Journal of Occupational and Environmental Medicine, 52(10), 995-1003. https://doi.org/10.1097/JOM.0b013e3181f43872

Gibbard, R. (2017). Sizing up the challenge: Meeting the demand for long-term care in Canada. The Conference Board of Canada. https://www.conferenceboard.ca/e-library/abstract.aspx?did=9228&AspxAutoDetectCookieSupport=1

Government of Ontario. (2020, January 25). How Ontario is responding to COVID-19. Retrieved July 14, 2020, from https://www.ontario.ca/page/how-ontario-is-responding-covid-19

Guerrero, L. R., Avgar, A. C., Phillips, E., & Sterling, M. R. (2020). They are essential workers now, and should continue to be: Social workers and home health care workers during COVID-19 and beyond. Journal of Gerontological Social Work, 1-3. https://doi.org/10.1080/01634372.2020.1779162

Van Houtven, C. H., DePasquale, N., & Coe, N. B. (2020). Essential long-term care workers commonly hold second jobs and double or triple duty caregiving roles. Journal of the American Geriatrics Society. https://doi.org/10.1111/jgs.16509

Jeffords, S. (2020, June 15). About 375,000 Ontario front-line workers still waiting for pandemic pay premium. CP 24. https://www.cp24.com/news/about-375-000-ontario-front-line-workers-still-waiting-for-pandemic-pay-premium-1.4985203

Kelly, C., & Bourgeault, I. L. (2015). The personal support worker program standard in Ontario: An alternative to self-regulation?. Healthcare Policy, 11(2), 20. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4729280/

Lilly, M. B. (2008). Medical versus social work-places: Constructing and compensating the personal support worker across health care settings in Ontario, Canada. Gender, Place and Culture, 15(3), 285-299. https://doi.org/10.1080/09663690801996288

Loeb, M., McGeer, A., Henry, B., Ofner, M., Rose, D., Hlywka, T., Levie, J. McQueen, J., Smith, S., Moss, L., Smith, A., Green, K., Walter, S. (2004). SARS among critical care nurses, Toronto. Emerging Infectious Diseases, 10(2), 251. https://doi.org/10.3201/eid1002.030838

Lum, J., Sladek, J. Ying, A. (2010). Ontario Personal Support Workers in Home and Community Care: CRNCC/PSNO Survey Results. Canadian Research Network for Care in the Community. https://silo.tips/download/ontario-personal-support-workers-in-home-and-community-care-crncc-psno-survey-re

Ministry of Health and Long-Term Care. (2020a, August 7). COVID-19: Guidance for the Health Sector. Government of Ontario. .http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/2019_guidance.aspx

Ministry of Health. (2020b, April 15). Guidance for mask use in long-term care homes and retirement homes. Government of Ontario. http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_guidance_ltc_retirement_homes.pdf

Ministry of Health. (2020c, April 15). COVID-19 guidance: Long-term care homes. Government of Ontario. http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_long_term_care_guidance.pdf

Norton Rose Fulbright. (2020, March 23). Legal update: Essential services and essential workers in Canada. https://www.nortonrosefulbright.com/-/media/files/nrf/nrfweb/knowledge-pdfs/essential-services-and-essential-workers-in-canada.pdf

Office of the Premier. (2020a, April 17) Ontario takes further action to protect vulnerable people from COVID-19. Government of Ontario. https://www.news.ontario.ca/opo/en/2020/04/ontario-takes-further-action-to-protect-vulnerable-people-from-covid-19.html

Office of the Premier. (2020b, April 25). Pandemic pay provides support for frontline workers fighting COVID-19. Government of Ontario. https://news.ontario.ca/opo/en/2020/04/pandemic-pay-provides-support-for-frontline-workers-fighting-covid-19.html

Ofner-Agostini, M., Gravel, D., McDonald, C., Lem, M., Sarwal, S., McGeer, A., Green, K., Vearncombe, M., Roth, M. Paton, S., Loeb, M., Simor, A. (2006). Cluster of cases of severe acute respiratory syndrome among Toronto healthcare workers after implementation of infection control precautions: A case series. Infection Control and Hospital Epidemiology, 27(5), 473-478. https://doi.org/10.1086/504363

On, A. (2017, January 14). All you need to know about PSW salary increase. Personal Support Worker HQ. https://personalsupportworkerhq.com/salary-increase/

On, A. (2018a, August 22). Five PSW problems faced by PSWs in Ontario. Personal Support Worker HQ. Retrieved July 14, 2020, from https://personalsupportworkerhq.com/psw-problems/

On, A. (2018b, June 19). Your complete guide to understanding PSW salary in Ontario. Personal Support Worker HQ. https://personalsupportworkerhq.com/psw-salary/

Ontario College Application Services. (2020). What to expect from a career as a PSW, Aide or Attendant. https://www.ontariocolleges.ca/en/programs/health-food-and-medical/personal-support-worker-psw

Ontario Health Coalition & Unifor. (2020, January). Caring in Crisis: Ontario's long-term care PSW shortage. https://www.ontariohealthcoalition.ca/wp-content/uploads/final-PSW-report-for-tour.pdf

Personal Support Network of Ontario. (2012). Supporting a vibrant PSW workforce submission: PSNO Budget 2012 submission. http://www.psno.ca/uploads/1/0/1/9/10197937/psno_budget_submission_2012_supporting_a_vibrant_psw_workforce_final.pdf

Santos, C. D., Bristow, R. B., & Vorenkamp, J. V. (2010). Which health care workers were most affected during the spring 2009 H1N1 pandemic?. Disaster Medicine and Public Health Preparedness, 4(1), 47-54. https://doi.org/10.1017/S193578930000241X

Schulte, J. M., Nolt, B. J., Williams, R. L., Spinks, C. L., & Hellsten, J. J. (1998). Violence and threats of violence experienced by public health field-workers. Journal of the American Medical Association, 280(5), 439-442. https://doi.org/10.1001/jama.280.5.439

Sethna, C. (2013). Understanding personal support workers and their role in Ontario. [Unpublished master's thesis]. University of Ontario Institute of Technology. https://ir.library.dc-uoit.ca/bitstream/10155/353/1/Sethna_Cyra.pdf

Shariati, A. PSWs' experiences during the COVID-19 pandemic [Personal interview]. (2020, July 10).

Smith Cross, J. (2020, March 31). COVID-19 long-term care crisis worsened by chronic staffing shortages, lack of masks: Associations. Briefing. https://www.qpbriefing.com/2020/03/31/covid-19-long-term-care-crisis-worsened-by-chronic-staffing-shortages-lack-of-masks-associations/

Sokic, N. (2020, April 24). PSWs worried about health, work permits. Healthing. https://www.healthing.ca/diseases-and-conditions/coronavirus/personal-support-workers-struggling-amid-covid-19-crisis

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