Community Trust and Public Health Compliance: COVID-19 Experiences in Newfoundland and Labrador

Description

Thaneswary Rajanderan PhD^{1*}, Rodney Russell PhD², Chand S Mangat PhD³, Douglas Howse BSc⁴, Cheryl PZ Foo MD⁴, Atanu Sarkar PhD¹

ABSTRACT

Objectives: The COVID-19 pandemic profoundly affected global healthcare systems, necessitating effective infectious disease control measures. Understanding specific populations' knowledge, attitudes, and practices (KAP) relating to COVID-19 is crucial for implementing public health interventions. Since Newfoundland and Labrador (NL), Canada has a unique socio-geographic context and high healthcare expenditures per capita, a KAP study is needed to understand how COVID-19 impacted local communities and its influence on public health measures. Methods: In-depth interviews were conducted with 100 NL resident participants aged 18-76 years between August 2022 and January 2023 to investigate their experiences with COVID-19 through a phenomenological and KAP framework. Results: The study identified three main themes: COVID-19, knowledge built on locally trusted sources and experiences, social dynamics shaping attitudes towards COVID-19, and the need for public health tools to improve practices around COVID-19. Key findings include reliance on local news for information, mental health impacts, high compliance with health measures, and challenges in at-home care and recovery. Some challenges include the need for regular communication, accessible mental health support, and COVID-19 at-home care tools. Conclusion: The unique experiences and KAP of COVID-19 in NL highlight the importance of understanding regional differences to improve COVID-19 public health interventions. Targeted interventions that focus on transparent communication, at-home COVID-19 care tools, and accessible mental health support should be explored in the context of regional public health support for sustaining a healthy population and mitigating future outbreaks in similar contexts.

Authors credentials and affiliations:

- 1. Population Health and Applied Health Science, Faculty of Medicine, Memorial University of Newfoundland and Labrador.
- 2. Biomedical Sciences, Faculty of Medicine, Memorial University of Newfoundland and Labrador.
- 3. JC Wilt Infectious Diseases Research Centre, National Microbiology Laboratory, Winnipeg.
- 4. Department of Health and Community Services, Government of Newfoundland and Labrador.

Funding: This work was supported by the Seed, Bridge and Multidisciplinary Fund [grant number 20230226] and the Faculty of Medicine Dean's Fellowship from Memorial University of Newfoundland and Labrador, Canada, to support the graduate student.

Conflict of interest: The authors have no conflicts of interest to declare relevant to this article's

^{*} Corresponding Author (email trajanderan@mun.ca and phone 17099866068)

content.

Ethics approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the Health Research Ethics Board in Newfoundland and Labrador, Canada (# 2022.110) and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards."

Consent: Informed consent was obtained from all individual participants included in the study.

Data and material: The data underlying this article are available in the article.

Author contributions: All authors contributed to the study's conception and design. Thaneswary Rajanderan prepared the material, collected the data, and performed the analysis. Atanu Sarkar supervised Thaneswary Rajanderan in all the steps of the research project. Thaneswary Rajanderan wrote the first draft of the manuscript, and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Acknowledgment: The authors are grateful to Danni Kaitlyn Garrison for advice and support for the project. Participant recruitment was aided by local organizations such as Seniors NL, CAPE NL, Multicultural Women's Organization of NL, healthcare workers groups, and student groups at Memorial University of Newfoundland.

Status: Peer reviewed.

Submitted: 09 AUG 2024 | **Published**: 26 SEP 2024

Citation: Rajanderan, Thaneswary; and Rodney Russell, Chand S Mangat, Douglas Howse, Cheryl PZ Foo, Atanu Sarkar. (2024). Community Trust and Public Health Compliance: COVID-19 Experiences in Newfoundland and Labrador. *Canadian Health Policy*, SEP 2024. https://doi.org/10.54194/JZCV5288. canadianhealthpolicy.com.

REFERENCES

ATLAS.ti Scientific Software Development GmbH. (2023). *ATLAS.ti Mac (version 23.2.1)* [Qualitative data analysis software]. ATLAS.ti. https://atlasti.com/

Benham, J. L., Atabati, O., Oxoby, R. J., Mourali, M., Shaffer, B., Sheikh, H., Boucher, J. C., Constantinescu, C., Parsons Leigh, J., Ivers, N. M., Ratzan, S. C., Fullerton, M. M., Tang, T., Manns, B. J., Marshall, D. A., Hu, J., & Lang, R. (2021). Covid-19 vaccine—related attitudes and beliefs in Canada: National cross-sectional survey and cluster analysis. *JMIR Public Health and Surveillance*, 7 (12). https://doi.org/10.2196/30424

Bevan, I., Stage Baxter, M., Stagg, H. R., & Street, A. (2021). Knowledge, attitudes, and behavior related to covid-19 testing: A rapid scoping review. *Diagnostics*, *11*(9), 1685. https://doi.org/10.3390/diagnostics11091685

Brankston, G., Merkley, E., Fisman, D. N., Tuite, A. R., Poljak, Z., Loewen, P. J., & Greer, A. L. (2021).

Socio-demographic disparities in knowledge, practices, and ability to comply with covid-19 public health measures in Canada. *Canadian Journal of Public Health*, *112*(3), 363–375. https://doi.org/10.17269/s41997-021-00501-y

Buttery, S., Philip, K. E., Williams, P., Fallas, A., West, B., Cumella, A., Cheung, C., Walker, S., Quint, J. K., Polkey, M. I., & Hopkinson, N. S. (2021). Patient symptoms and experience following COVID-19: Results from a UK-wide survey. *BMJ Open Respiratory Research*, 8(1). https://doi.org/10.1136/bmjresp-2021-001075

Charbonneau, P., Martel, L., & Chastko, K. (2022, February 9). *Population growth in Canada's rural areas, 2016 to 2021.* Government of Canada, Statistics Canada. https://www12.statcan.gc.ca/census-recensement/2021/as-sa/98-200-x/2021002/98-200-x2021002-eng.cfm

Christie, F. T., & Mason, L. (2011). Knowledge, attitude and practice regarding vitamin D deficiency among female students in Saudi Arabia: A qualitative exploration. *International Journal of Rheumatic Diseases*, *14*(3). https://doi.org/10.1111/j.1756-185x.2011.01624.x

CIHI. (2023). *Your Health System: Newfoundland and Labrador.* https://yourhealthsystem.cihi.ca/hsp/indepth?

The Conference Board of Canada. (2023, April 24). *Health*. The Conference Board of Canada. https://www.conferenceboard.ca/hcp/health-aspx/

Dainty, K. N., Seaton, M. B., O'Neill, B., & Mohindra, R. (2023). Going home positive: A qualitative study of the experiences of care for patients with covid-19 who are not hospitalized. *CMAJ Open*, 11 (6). https://doi.org/10.9778/cmajo.20220085

Devkota, H. R., Sijali, T. R., Bogati, R., Clarke, A., Adhikary, P., & Karkee, R. (2021). How does public knowledge, attitudes, and behaviors correlate in relation to COVID-19? A community-based cross-sectional study in Nepal. *Frontiers in Public Health*, *8*. https://doi.org/10.3389/fpubh.2020.589372

Government of Canada, S. C. (2022, April 27). *In the midst of high job vacancies and historically low unemployment, Canada faces record retirements from an aging labour force: Number of seniors aged 65 and older grows six times faster than children 0-14.* The Daily. https://www150.statcan.gc.ca/n1/daily-quotidien/220427/dg220427a-eng.htm

Government of Canada, Statistics Canada. (2024, January 31). Number and rates of new cases of primary cancer, by cancer type, age group and sex. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310011101

Government of Canada. (2022, June 22). COVID-19 signs, symptoms and severity of disease: A clinician guide. Canada.ca. https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/guidance-documents/signs-symptoms-severity.html

Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods*, *3*(1), 42–55. https://doi.org/10.1177/160940690400300104

Leigh, J. P., Brundin-Mather, R., Soo, A., FitzGerald, E., Mizen, S., Dodds, A., Ahmed, S., Burns, K. E., Plotnikoff, K. M., Rochwerg, B., Perry, J. J., Benham, J. L., Honarmand, K., Hu, J., Lang, R., Stelfox, H.

T., & Fiest, K. (2022). Public perceptions during the first wave of the COVID-19 pandemic in Canada: A demographic analysis of self-reported beliefs, behaviors, and information acquisition. *BMC Public Health*, 22(1). https://doi.org/10.1186/s12889-022-13058-3

Linka, K., Rahman, P., Goriely, A., & Kuhl, E. (2020). Is it safe to lift covid-19 travel bans? the newfoundland story. *Computational Mechanics*, *66*(5), 1081–1092. https://doi.org/10.1007/s00466-020-01899-x

Lytvyak, E., Straube, S., Modi, R., & Lee, K. K. (2022). Trends in obesity across Canada from 2005 to 2018: A consecutive cross-sectional population-based study. *CMAJ Open*, *10*(2). https://doi.org/10.9778/cmajo.20210205

Mayo Clinic. (2024, April 30). *Covid-19: Who's at higher risk of serious symptoms?* https://www.mayoclinic.org/diseases-conditions/coronavirus/in-depth/coronavirus-who-is-at-risk/art-20483301

Muleme, J., Kankya, C., Ssempebwa, J. C., Mazeri, S., & Muwonge, A. (2017). A framework for integrating qualitative and quantitative data in knowledge, attitude, and practice studies: A case study of pesticide usage in Eastern Uganda. *Frontiers in Public Health*, *5*. https://doi.org/10.3389/fpubh.2017.00318

Otter.ai, Inc. (2023). Otter voice meeting notes [Computer software]. https://otter.ai/

Papagiannis, D., Malli, F., Raptis, D. G., Papathanasiou, I. V., Fradelos, E. C., Daniil, Z., Rachiotis, G., & Gourgoulianis, K. I. (2020). Assessment of knowledge, attitudes, and practices towards new coronavirus (SARS-COV-2) of health care professionals in Greece before the outbreak period. *International Journal of Environmental Research and Public Health*, *17*(14), 4925. https://doi.org/10.3390/ijerph17144925

Parsons Leigh, J., Fiest, K., Brundin-Mather, R., Plotnikoff, K., Soo, A., Sypes, E. E., Whalen-Browne, L., Ahmed, S. B., Burns, K. E., Fox-Robichaud, A., Kupsch, S., Longmore, S., Murthy, S., Niven, D. J., Rochwerg, B., & Stelfox, H. T. (2020). A national cross-sectional survey of public perceptions of the COVID-19 pandemic: Self-reported beliefs, knowledge, and behaviors. *PLOS ONE*, *15*(10). https://doi.org/10.1371/journal.pone.0241259

Public Health Agency of Canada. (2024, June 11). *Covid-19 epidemiology update: Current situation*. Canada.ca. https://health-infobase.canada.ca/covid-19/current-situation.html?stat=rate&measure=deaths_total&map=pt#a2

Quigley, A. L., Stone, H., Nguyen, P. Y., Chughtai, A. A., & MacIntyre, C. R. (2021). Estimating the burden of covid-19 on the Australian Healthcare Workers and Health System during the first six months of the pandemic. *International Journal of Nursing Studies*, *114*, 103811. https://doi.org/10.1016/j.ijnurstu.2020.103811

Renjith, V., Yesodharan, R., Noronha, J., Ladd, E., & George, A. (2021). Qualitative methods in health care research. *International Journal of Preventive Medicine*, *12*(1), 20. https://doi.org/10.4103/ijpvm.ijpvm_321_19

Rothe, C., Schunk, M., Sothmann, P., Bretzel, G., Froeschl, G., Wallrauch, C., Zimmer, T., Thiel, V., Janke, C., Guggemos, W., Seilmaier, M., Drosten, C., Vollmar, P., Zwirglmaier, K., Zange, S., Wölfel, R., & Hoelscher, M. (2020). Transmission of 2019-ncov infection from an asymptomatic contact in Germany. *New England Journal of Medicine*, *382*(10), 970–971. https://doi.org/10.1056/nejmc2001468

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2017). Saturation in qualitative research: Exploring its conceptualization and Operationalization. *Quality & Discourse (April 2018)*, 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

World Health Organization. (2024). WHO Coronavirus (COVID-19) dashboard > Deaths [Dashboard]. https://data.who.int/dashboards/covid19/deaths

Zhu, H., Wei, L., & Niu, P. (2020). The novel coronavirus outbreak in Wuhan, China. *Global Health Research and Policy*, *5*(1). https://doi.org/10.1186/s41256-020-00135-6