EAST ASIAN CANADIANS, DISCRIMINATION, AND THE MENTAL HEALTH IMPACT OF COVID-19

Cary Wu is an Assistant Professor in the Department of Sociology at York University; Rima Wilkes is a Professor in the Department of Sociology at the University of British Columbia; **Yue Qian** is an Assistant Professor in the Department of Sociology at the University of British Columbia; and **Eric B. Kennedy** is an Assistant Professor in the School of Administrative Studies at York University.

INTRODUCTION

The COVID-19 pandemic has led to widespread mental health issues. Crowdsourcing data collected between April 24 and May 11, 2020 show that 24% of Canadians reported fair or poor mental health (Statistics Canada 2020).[1] In contrast, before the pandemic, only 8% of Canadians reported fair or poor mental health (Canadian Community Health Survey 2018; see also Statistics Canada 2020). Indeed, when asked how their mental health has changed since physical distancing began, over half (52%) of the respondents indicated that their mental health was either "somewhat worse" or "much worse" (Statistics Canada 2020).

Many of these mental health issues stem from a fear of getting sick, actual or feared job loss, loss of loved ones, and feelings of isolation. For Chinese and other East Asian Canadians, there is also the concomitant issue of stigmatization and racism. A Chinese Canadian National Council for Social Justice survey of 1,130 adults in Vancouver, Toronto, and Montreal found that 14 % of respondents were concerned that "all Chinese or Asian people carry the coronavirus" and that 20% did not think that "it's safe to sit next to an Asian or Chinese person on a bus who is not wearing a mask."[2] These numbers show that racist beliefs related to the coronavirus are held by more than a small minority.

Moreover, since the start of the outbreak, there has also been a spike in anti-Asian hate crimes in Canada. In Vancouver, 29 anti-Asian attacks have occurred since the COVID-19 pandemic hit B.C. compared to only 4 similar cases in the year before COVID-19.[3] Recently, several civil community organizations, including the Chinese Canadian National Council, the Chinese and Southeast Asian Legal Clinic, and the Civic Engagement Network Society of Canada, developed the Fight COVID Racism platform.

To date, the organizers have documented 138 incidents of COVID-related racist harassment, 110 of them in May alone.[4]

Racism is a central, stubborn societal force that adversely affects the health of racial and ethnic minority populations. In particular, a large body of research has shown that experiences and perceptions of discrimination can have deleterious mental health consequences (Noh et al. 1999; Gee et al. 2007; Beiser and Hou 2016; Ong et al. 2017). Focusing

1 We acknowledge that crowdsourced data are not directly comparable to population estimates from a sample survey. However, these general patterns are consistent with recent results from Statistics Canada's probabilistic web panel survey "Canadian Perspective Survey Series 1: Impacts of COVID-19". The survey series also found that the self-perceived mental health of Canadians has fallen during the COVID-19 pandemic.

2 https://thetyee.ca/Analysis/2020/05/07/Shadow-Pandemic-Anti-Asian-Racism/

3 https://vancouversun.com/news/COVID-19-vancouver-police-provide-update-on-rise-in-hate-crimes

4 www.thestar.com/news/gta/2020/05/28/fighting-the-essence-of-scapegoating-facing-racist-violence-during-COVID-19-chinese-canadians-launch-new-website.html

on Korean immigrants in Canada, Noh and colleagues (2007) showed that perceived forms of both overt and subtle racial discrimination were associated with depressive symptoms. Similarly, De Maio and Kemp (2010) find that visible minorities and immigrants in Canada who experienced discrimination or unfair treatment after settling in the country are most likely to experience a decline in their mental health.

Recently, we analyzed data from the University of Southern California's Center for Economic and Social Research "Understanding Coronavirus in America" survey.[5] We found that 18% of Asian Americans reported encountering some instances of acute discrimination during the COVID-19 pandemic, compared to only 7% of white Americans. Acute discrimination clearly explains much of COVID-19-related mental health gap between white and Asian Americans (Wu et al. 2020).

In regards to Canada, there is evidence that before the pandemic, whites had higher levels of depressive episodes than Asians (Tiwari and Wang 2008). Using data from the Canadian Community Health Survey, Veenstra and colleagues (2020) also find that compared to white Canadians, Asian-Canadians report better mental health. Asians, however, are a highly diverse visible minority group, with salient within-group differences in physical appearance, language, and culture. Because the outbreak started in China and COVID-19 was referred to as a "Chinese virus," we need to consider whether Chinese and Chinese-looking East Asian (i.e., Korean and Japanese) Canadians have experienced more racist attacks, violence, and discrimination during the crisis than other groups. We need to consider whether East Asian Canadians face a disproportionate mental health impact due to the COVID-19 pandemic and, if so, whether the increased levels of discrimination explain this difference in impact.

OUR DATA

Using a probabilistic, stratified random sampling method, we conducted a nationally representative survey studying the social impacts of COVID-19 across Canada (Kennedy et al., 2020). Using a sampling frame of mail routes across the country (balanced for provincial, urban/rural, and metropolitan area representativeness) we solicited participation through a drive-to-web method (web address and QR-code) to a survey hosted by Qualia Analytics. All told, 2,033 respondents participated in the survey, with an average duration of completion of 24 minutes and 53 seconds.

The survey asked questions ranging from demographic status to the impact of COVID-19 on workplaces, personal habits, risk perceptions, and knowledge sources. Where possible, questions were standardized with pre-existing measures, including from the General Social Survey, census, and previous pandemic measures (e.g., Eisenman 2007). The analysis conducted in this paper focuses on respondents that participated in March and April, during the relatively early phase of the crisis in Canada. Data was cleaned to remove duplicate or erroneous entries, and will be made available *open access* following subsequent rounds of data collection.

We measured mental health using the 10-item version of the Center for Epidemiologic Studies Depression Scale (CES-D-10; see also Andresen et al. 1994). The CES-D-10 contained questions that asked, during the past week, whether respondents felt fearful, whether everything they did was an effort, whether they felt lonely, or were bothered by things that usually don't perturb them, or were happy, or hopeful about the future, or unmotivated, or had been sleeping fitfully, or had trouble focusing, or felt depressed. All question included four response choices: 0 = rarely or none of the time; 1 = some or a little of the time; 2 = occasionally or a moderate amount of the time; and 3 = most or all of the time. We reverse-coded the two positive-direction items so that higher scores indicated a greater prevalence of mental health symptoms. The final mental health measure ranged from 0-30.

We measured acute discrimination by combining answers to five questions that ask, in the past month, whether the respondent was treated with less courtesy (0 = no, 1 = yes), received poorer service (0 = no, 1 = yes), was threatened or harassed (0 = no, 1 = yes), was the subject of other people's fear (0 = no, 1 = yes), and was subjected to negative reactions from strangers in public spaces (0 = no, 1 = yes). We combined these responses to create an index of perceived discrimination, which ranges from 0 to 5, with higher scores indicating more encounters of acute discrimination.

In total, we include 1,710 respondents in our analysis, of which 1,664 (97%) were white Canadians, and 46 (3%) were East Asian Canadians.[6]

FINDINGS

We compared the gap in mental health between East Asian Canadians (Chinese, Japanese, and Korean) and white Canadians. We also considered the mental health gap between

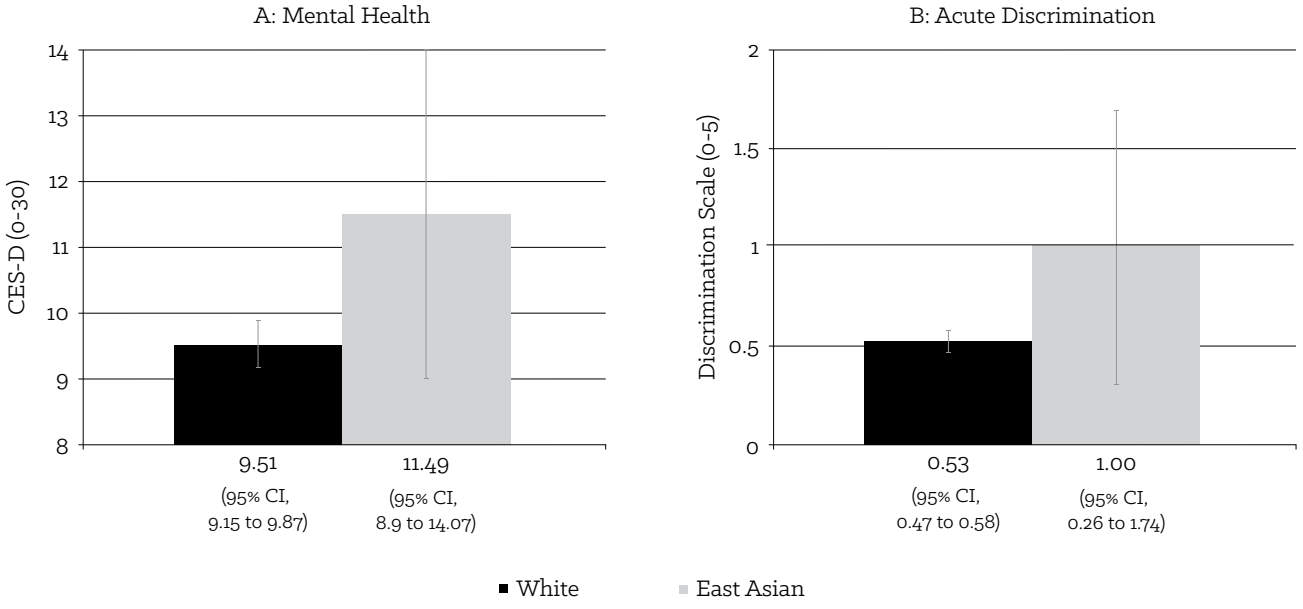
5 https://COVID19pulse.usc.edu

6 Most researchers suggest n > 30 as a recommended sample size for statistical testing (Salkind 2004) and therefore the sample size for East Asians is sufficient.

white Canadians and other visible minority groups such as South and Southeast Asian Canadians, Black Canadians, Aboriginal peoples, and other groups. However, only the East Asian-white mental health gap is significant after taking into account gender, education, and household income. The following discussion focuses on the East Asian-white mental gap only:

Figure 1 shows that East Asian Canadians had poorer mental health than white Canadians. On the CES-D-10 (range = 0-30), white Canadians reported an overall mean score of 9.51 [95% CI, 9.15 to 9.87], compared the East Asian Canadian mean score of 11.49 [95% CI, 8.9 to 14.07]. Figure 1 also shows that East Asian Canadians experienced more instances of discrimination. On the 0-5 perceived discrimination index, white Canadians reported a mean score of 0.53 [95% CI, 0.47 to 0.58], whereas East Asians reported about 1.00 [95% CI, 0.26 to 1.74].

FIGURE 1: COMPARING MENTAL HEALTH SYMPTOMS AND ACUTE DISCRIMINATION BETWEEN WHITE CANADIANS AND EAST ASIAN CANADIANS



Source: Authors' data analysis

Next, we considered whether acute discrimination helps to explain the mental health gap between East Asian and white Canadians. To do so, we estimated two OLS models: one that controls for demographics and the other that adds discrimination. The results of the two models are presented in Figure 2.

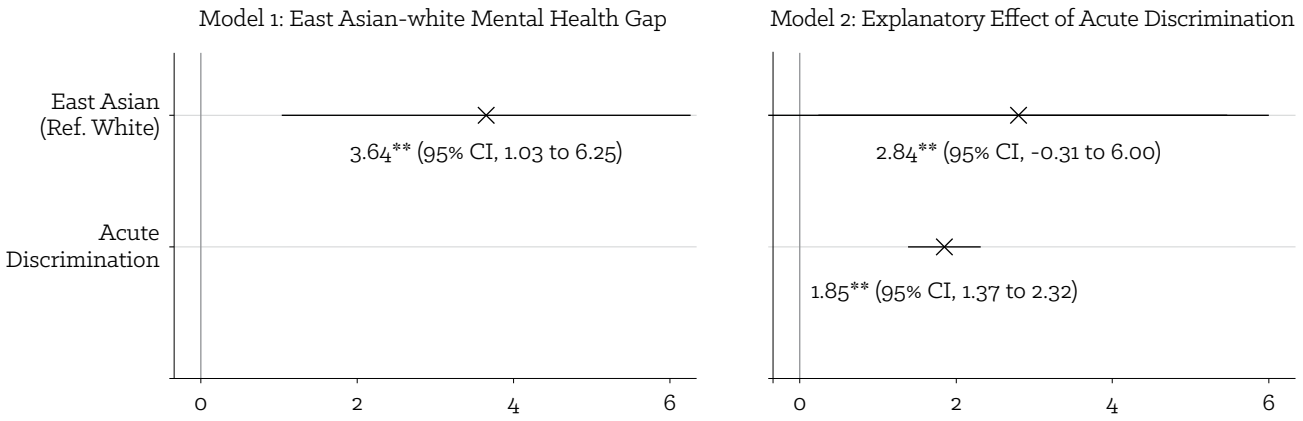
Specifically, Model (1) shows that, after controlling for demographics, East Asian Canadians' CES-D-10 score is 3.64 points higher than that of white Canadians, indicating that East Asian Canadians had significantly poorer mental health than their white Canadian counterparts during the COVID-19 pandemic ($p < 0.01$).

Model (2) shows two main findings: first, that acute discrimination has a significant and positive impact on mental health symptoms: every one-unit increase in acute discrimination is associated with a 1.85 [95% CI, 1.37 to 2.32] unit increase in mental health symptoms. Second, the mental health gap between East Asian and white Canadians is 2.84 [95% CI, -0.31 to 6.00]. The decrease in the mental health gap from 3.64 in Model (1) to 2.84 in Model (2) suggests that including the variable of acute discrimination can help explain over 20% (= (3.64-2.84)/3.64) of the East Asian-white mental health gap. Notably, after we control for acute discrimination, the East Asian-white mental health gap is no longer significant ($p > 0.05$).

CONCLUSION

Ultimately, the results from this study show that while the current COVID-19 pandemic has had deleterious mental health impacts on all Canadians, some groups have been more impacted than others. While there are clearly many vulnerable populations, such as children and adolescents,

FIGURE 2. MENTAL HEALTH GAP BETWEEN EAST ASIAN AND WHITE CANADIANS DURING THE COVID-19 PANDEMIC AND THE EFFECT OF ACUTE DISCIRMINATION



Source: Authors' data analysis

those in remote or rural areas and those belonging to lower socio-economic strata (Rajkumar 2020), here we focused on visible minorities in Canada. Specifically, because the outbreak started in China, Chinese and Chinese looking East Asian Canadians seem to have been more prone to racist attacks, violence, and discrimination during the crisis than other groups. We indeed find that during the COVID-19 pandemic, higher incidences of acute discrimination encountered by East Asian Canadians explain their higher levels of mental health symptoms as compared to white Canadians. Not only are they facing the impacts of COVID-19 itself, but also of rising anti-Asian attacks in their everyday life. As a result, there is a need to include mental health interventions and support designed specifically to address the needs of East Asian Canadians in response to the COVID-19 pandemic.

REFERENCES

Andresen, E. M., Malmgren, J. A., Carter, W. B., & Patrick, D. L. (1994). "Screening for depression in well older adults: Evaluation of a short form of the CES-D". *American Journal of Preventive Medicine*, 10(2), 77-84.

Asmundson, G. J., & Taylor, S. (2020). "How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know". *Journal of Anxiety Disorders*, 71, 102211-102211.

Beiser, M., & Hou, F. (2016). "Mental health effects of premigration trauma and postmigration discrimination on refugee youth in Canada'. *The Journal of Nervous and Mental Disease*, 204(6), 464-470.

Eisenman, David P. 2007. 2007 Public Health Response to Emergent Health Treats Survey (PHRETS). David Geffen School of Medicine at UCLA. https://cphd.ph.ucla.edu/sites/default/files/downloads/PHRETS%202007%20Final%20Report_1.pdf.

Salkind N.J. Salk (2004). "Statistics for people who (think they) hate statistics". (2nd ed.). Thousand Oaks: Sage.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). "The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide". *Social Science & Medicine*, 64(10), 1984-1996.

Kennedy, E. B., Vikse, J., Chaufan, C., O'Doherty, K., Wu, C., Qian, Y., & Fafard, P. (2020). Canadian COVID-19 Social Impacts Survey. Rapid Summary of Results #1: Risk Perceptions, Trust, Impacts, and Responses (York University Disaster and Emergency Management Technical Report #004). http://dx.doi.org/10.6084/m9.figshare.12121905.

Rajkumar, R. P. (2020). "COVID-19 and mental health: A review of the existing literature". *Asian Journal of Psychiatry*, 102066.

Thomson, M. S., Chaze, F., George, U., & Guruge, S. (2015). "Improving immigrant populations' access to mental health services in Canada: A review of barriers and recommendations". *Journal of Immigrant and Minority health*, 17(6), 1895-1905.

De Maio, F. G., & Kemp, E. (2010). "The deterioration of health status among immigrants to Canada". *Global Public Health*, 5(5), 462-478.

Noh, S., Beiser, M., Kaspar, V., Hou, F., & Rummens, J. (1999). "Perceived racial discrimination, depression, and coping: A study of Southeast Asian refugees in Canada". *Journal of Health and Social Behavior*, 193-207.

Noh, S., Kaspar, V., & Wickrama, K. A. S. (2007). "Overt and subtle racial discrimination and mental health: Preliminary findings for Korean immigrants". *American Journal of Public Health*, 97(7), 1269-1274.

Ong, A. D., Cerrada, C., Lee, R. A., & Williams, D. R. (2017). "Stigma consciousness, racial microaggressions, and sleep disturbance among Asian Americans". *Asian American Journal of Psychology*, 8(1), 72.

Pfefferbaum, B., & North, C. S. (2020). "Mental health and the COVID-19 pandemic". *New England Journal of Medicin*e.

Tiwari, S. K., & Wang, J. (2008). "Ethnic differences in mental health service use among White, Chinese, South Asian and South East Asian populations living in Canada". *Social Psychiatry and Psychiatric Epidemiology*, 43(11), 866.

Wu, C., Qian, Y., and Wilkes, R. (2020). "Acute discrimination and the Asian-white mental health gap during COVID-19". Working paper (draft available from the author).