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COPSOQ Scores among Workers Working during the First & Second Pandemic Waves

John Oudyk, Peter Smith, Leonor Cedillo, Guy Potter
& the COVID-19 ad-hoc Survey Group

May 11, 2023



Abstract: COPSOQ Scores among Workers Working during the First & Second Pandemic Waves

During the first and second waves of the pandemic, a group of union Health & Safety Representatives and activists with the support of the Occupational Health Clinics for Ontario Workers (OHCOW) created a pandemic survey for healthcare workers (HCW) and a few weeks later also for non-HCWs. The survey included 8 COPSOQ scales. The respondents were collected from convenience samples (crowd-sourced by unions through their networks) across Canada but mostly from Ontario.

The survey during 1st wave of the pandemic (April – June 2020) almost 6000 HCWs and about 3800 non-HCWs responded. The follow-up survey during the second wave (November 2020 – March 2021) using the same methods we collected about 1000 HCW responses, 2200 non-HCWs and 4200 elementary school education workers (in a union specific survey).

Overall, except for colleague support, HCWs had worse scores than non-HCWs and scores deteriorated slightly from the first pandemic wave to the second (HCW burnout symptoms increased significantly). The elementary school education worker scores were similar to the HCW scores (online education worker scores were worse than for those working in-person).



Pandemic Survey:

- Continued in our role of supporting union H&S staff dealing with pandemics
- While reviewing reports coming out of China during the beginning of the pandemic, we noticed a number of reports of HCW stress
- Formed an ad hoc group of union H&S reps, interested academics and activists to formulate and distribute a HCW pandemic survey
- Designed survey to be filled in repeatedly as conditions change
- Launched April 6th ; then created a generic worker (everyone else but HCWs) survey which was launched at the end of April (revised by Dorothy Wigmore, Alec Farquhar & Laura Lozanski)
- Re-launched both surveys on Nov 15th; non-HCW questionnaire was revised to capture working at home situations; 2nd wave closed Mar 16th



Survey Purpose:

- To capture the experiences of workers during the pandemic in “real time”
- After the pandemic, experiences will likely be re-interpreted (“spun”) so try to collect a record captured in real time



Pandemic Survey content:

- COPSQQ (StressAssess) scales measuring **burnout** and **sleep symptoms** (2 questions each);
- GAD-7 and the PHQ-2 scales to measure **anxiety** and **depression** symptoms;
- custom made **exposure** scales (**PPE adequacy/availability**, similarly for **infection control practices (ICP)**, and training)
- COPSQQ scales for **quantitative demands, work pace, predictability, role conflict, supervisor support, colleague support** (created a similar question for **family support**)
- StressAssess questions about **psychological H&S climate**, and organizational **culture's tolerance of behaviours harmful to mental health**



Survey characteristics



- about 70 questions
- took about 15 minutes to fill out
- allowed respondent to create an id code so they can fill out the survey more than once (things are changing over time)
- in French & English (thanks to USW for translating and Marie-Claude Letellier (Laval) for checking)
- Surveys closed Apr 6, 2023 (we were still getting one or two surveys per month)



Study samples –First Wave

Healthcare Workers

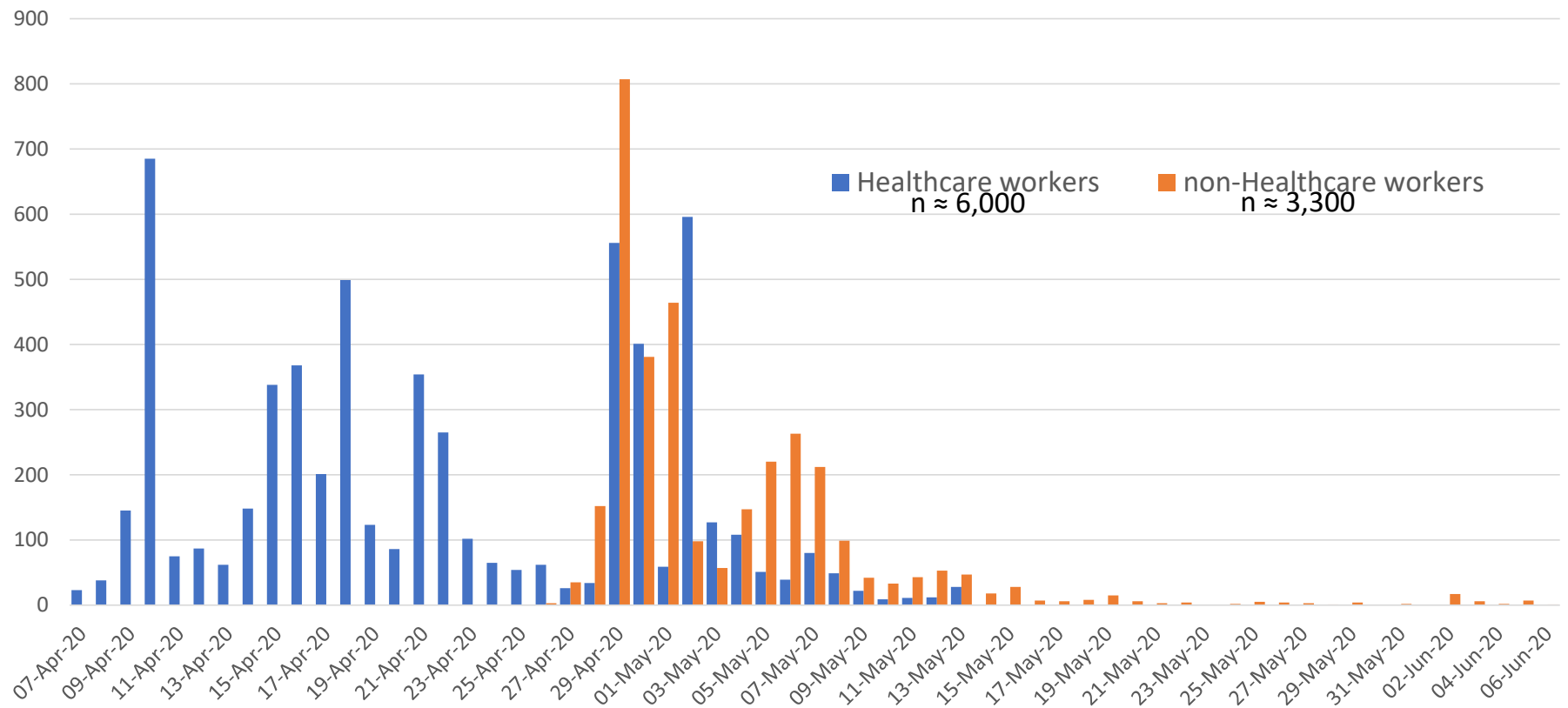
- Responses between April 7th and May 13th, 2020
- 7,298 respondents started the survey, of which 5,988 were used

Non-Healthcare Workers

- Responses between April 26th and June 6th
- 5,180 respondents started the survey, of which 3,779 were employed on March 2nd, 2020.
- Education (32%), Government (18%), Healthcare and social services (18%), Retail and food service (7%); Manufacturing (5%)



Number of responses over time



1st Wave HCW Results

<https://journals.sagepub.com/doi/full/10.1177/0706743720961729>



Original Research

The Association between the Perceived Adequacy of Workplace Infection Control Procedures and Personal Protective Equipment with Mental Health Symptoms: A Cross-sectional Survey of Canadian Health-care Workers during the COVID-19 Pandemic

L'association entre le caractère adéquat perçu des procédures de contrôle des infections au travail et de l'équipement de protection personnel pour les symptômes de santé mentale. Un sondage transversal des travailleurs de la santé canadiens durant la pandémie COVID-19

Peter M. Smith, PhD^{1,2,3} , John Oudyk, MSc⁴, Guy Potter, PhD⁵, and Cameron Mustard, ScD^{1,2}

Abstract

Objectives: To examine the relationship between perceived adequacy of personal protective equipment (PPE) and workplace-based infection control procedures (ICP) and mental health symptoms among a sample of health-care workers in

The Canadian Journal of Psychiatry /
La Revue Canadienne de Psychiatrie
1-8

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1st Wave non-HCW Results

Annals of Work Exposures and Health, 2020, 1–11

doi: 10.1093/annweh/wxaa119

Original Article



OXFORD

Original Article <https://academic.oup.com/annweh/advance-article/doi/10.1093/annweh/wxaa119/6032759>

Labour Market Attachment, Workplace Infection Control Procedures and Mental Health: A Cross-Sectional Survey of Canadian Non-healthcare Workers during the COVID-19 Pandemic

Peter M. Smith^{1,2,3*}, John Oudyk^{4,5}, Guy Potter⁶, Cameron Mustard^{1,2} on Behalf of Members of the Ad Hoc Pandemic Survey Group

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Second wave populations

Both surveys were crowd-sourced through union communications and networks

Healthcare Workers

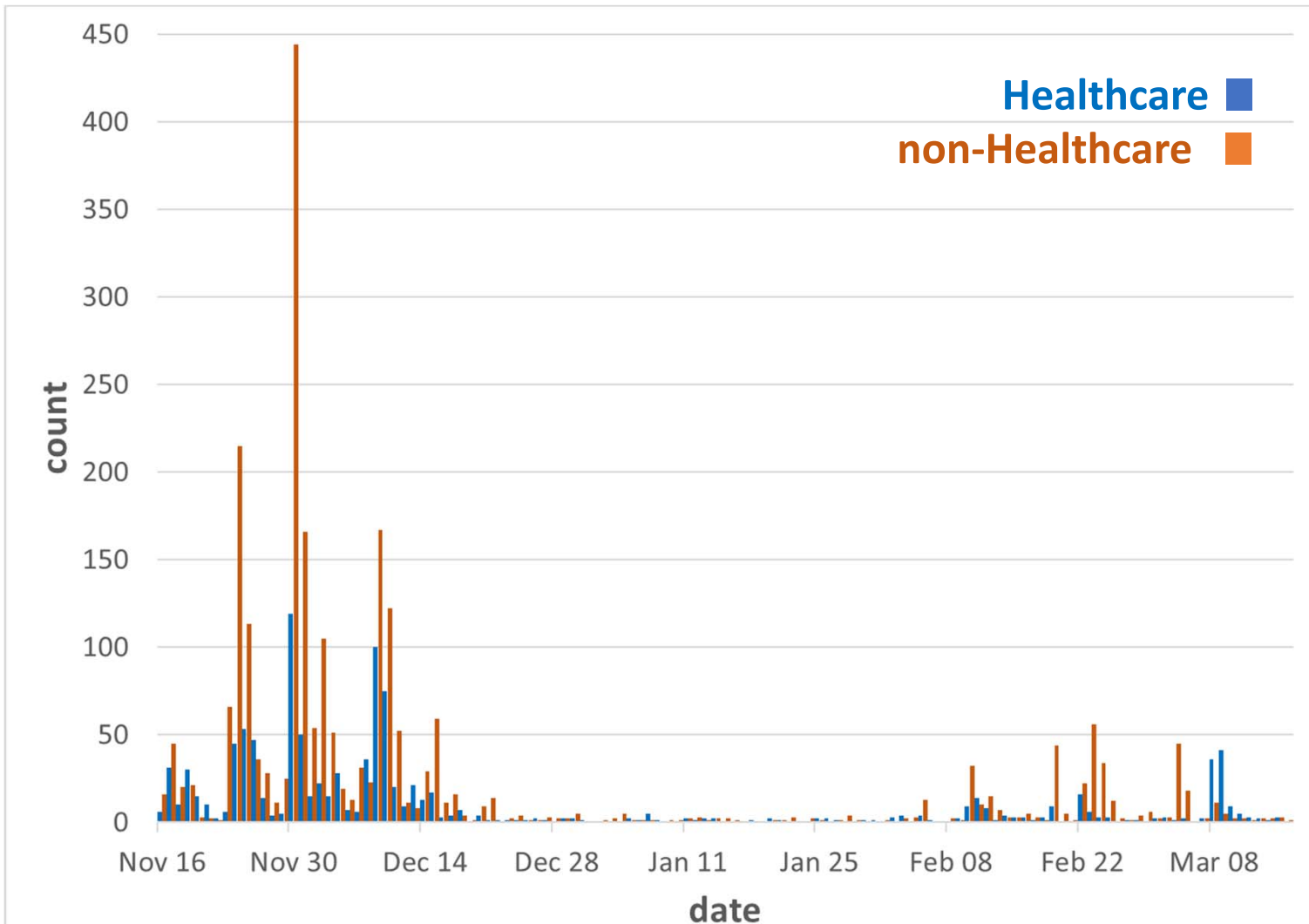
- Used the same survey as during the first wave except for a few minor changes
- 1015 respondents started the survey, 717 respondents answered the demographic questions at the end of the survey
- 19 of the respondents answered the French version of the survey

Non-Healthcare Workers

- This survey was significantly changed from the first survey with extra questions about working remotely (59 answered the previous version of the survey during the 2nd wave)
- 45 of the respondents answered the French version of the survey
- 2505 respondents began the survey, 2206 reached the mandatory question about working remotely or at the worksite, and 1833 replied to the demographic questions at the end of the survey



Number of responses over time



COPSOQ psychosocial scales:



	Healthcare		non-HCWs		EKOS 2019
	n/a	<u>1st wave</u>		<u>1st wave</u>	
quantitative demands	n/a		50	48	45
work pace	71	70	58	57	61
predictability	43	45	49	52	54
role conflicts	51	51	47	46	48
supervisor support	60	61	63	64	67
colleague support	76	79	74	75	70
family support*	72	73	69	70	*
burnout symptoms	73*	66	60	56	50
sleep symptoms	66*	60	54	52	47

* "meaningful" difference



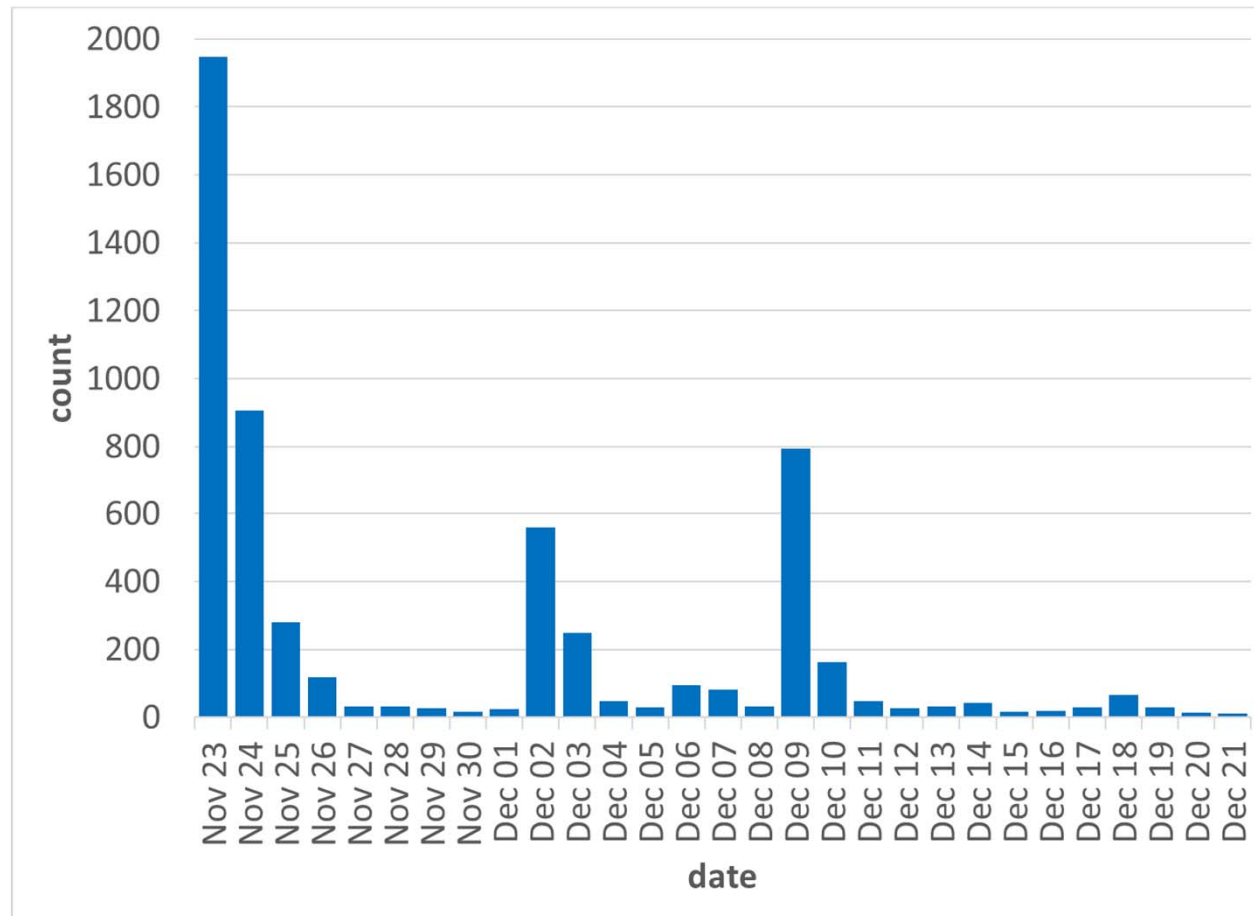
Educator Pandemic Study sample

Sent to all (?) ETFO members (*how many of 83,000?*)

- Responses between November 23rd and 9 am, December 17th, 2020
- 5,360 respondents started the survey, of which 4,487 completed 90% of the survey



Number of responses over time (n=5,774)



COPSOQ Psychosocial Factor Scales (range of scale: 0 to 100):

	online(n=452)	in-person(n=3818)	EKOS 2019
quantitative demands	71	67	45
work pace	80*	74	61
predictability	31*	48	54
role conflicts	64*	53	48
supervisor support	53*	68	67
colleague support	63*	81	70
family support*	70	73	*
burnout symptoms	83*	78	50
sleep symptoms	69	65	47

scale

worse

a bit worse

same (ave.)

a bit better

better

* "meaningful" difference

* not a COPSOQ question, therefore no reference data



2nd Wave Educators Results



<https://academic.oup.com/occmed/article/72/7/439/6601386>

Occupational Medicine, 2022, 72, 439–445

<https://doi.org/10.1093/occmed/kqac050>
Advance Access publication on 3 June 2022

ORIGINAL PAPERS

The psychosocial work environment among educators during the COVID-19 pandemic

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Background The education sector has been heavily impacted by COVID-19. While the impact on school-aged children has received much attention, less attention has focused on the experiences of educators.

Aims To compare various dimensions of the psychosocial work environment and health outcomes between educators engaged in online learning to those engaged in in-person learning in the Canadian province of Ontario.

Methods Responses from 5438 educators engaged in either online or in-person learning were collected between 23 November and 21 December 2020; three months after the start of the 2020/21 academic year in September 2020. Psychosocial outcomes included quantitative demands, work pace, predictability, role conflicts, and social support from supervisors and co-workers; assessed using an abbreviated version of the Copenhagen Psychosocial Questionnaire. Secondary outcomes included burnout and sleep troubles. Ordinary Least-Squares regression models examined adjusted mean differences in the levels of outcomes for respondents in in-person versus online learning, after adjustment for a variety of covariates.

Results Compared to respondents engaged in in-person learning, respondents engaged in online learning reported less predictability, higher role conflicts and less support from supervisors and co-workers. Statistically significant differences in work pace, burnout and sleep troubles were also observed across learning modes, although these differences did not exceed previously suggested thresholds for minimum important differences.

Conclusions Important differences in the psychosocial work environment were observed between respondents engaged in in-person learning versus online learning. Addressing these differences is required, given the potential continued importance of online learning within the context of the COVID-19 pandemic and beyond.



Perceived Adequacy of Infection Control Practices and Symptoms of Anxiety Among In-Person Elementary School Educators in Ontario

Peter M. Smith, PhD, John Oudyk, MSc, Leonor Cedillo, ScD, Kimiko Inouye, MA, Guy Potter, PhD, and Cameron Mustard, ScD

Objective: The aim of this study was to examine the association between the perceived adequacy of infection control practices (ICPs) and symptoms of anxiety among educators in Ontario, Canada. **Methods:** Data from 4947 educators were collected in December 2020. Modified Poisson models assessed the association between adequacy of ICPs and moderate or severe anxiety symptoms, adjusting for a range of covariates. **Results:** Approximately 60% of respondents reported moderate or severe anxiety symptoms. Two-thirds (66.5%) of the sample had less than half of their ICP needs met. Respondents with less than half their ICP needs met were more than three times more likely to have moderate or severe anxiety, compared with respondents with their ICP needs met. **Conclusion:** Findings highlight the importance of adequate administrative and engineering controls in schools, not only to minimize risk of infection, but also for educator's mental health.

Keywords: anxiety, Canada, infection control, Ontario, teaching, workplace

year in September, with additional safety measures put in place. These included the mandatory wearing of masks for students in grades 4 through 12, with encouragement to wear masks for students in kindergarten to grade 3; enhanced self-screening protocols for parents and students; and enhanced cleaning practices within the school. In addition, medical masks and face shields were to be provided to all teachers, with masks to be worn by all on-site education workers unless they had medical exemptions.¹

There is a rapidly growing evidence base on the potential advantages and disadvantages of school closures as they relate to the mental and physical health of students, their families, and the broader community.^{2,3} Whereas much of the debate around school closures (and reopenings) has centered on the lower risk of contracting COVID-19 and lower risk of adverse COVID-19 outcomes among school-aged children,²⁻⁶ less research has focused on the experiences of educators who remain engaged in in-person learning. Yet, these





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Peter Smith



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Thank you for allowing us to
share our findings with you!

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