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ABSTRACT

Background

The COVID-19 pandemic has highlighted several issues among health care workers in Canada's long-term care and seniors' (LTCS) homes, including labour shortages, staff retention difficulties, overcrowding, and precarious working conditions. There is currently a lack of information on the health, well-being and working conditions of health care workers in LTCS homes—many of them immigrants—and a limited understanding of the relationship between them. This paper examines differences between immigrant and non-immigrant workers' health outcomes and precarious working conditions during the pandemic.

Data and methods

The data were from the 2021 Survey on Health Care Workers' Experiences During the Pandemic, which collected information on LTCS home health care workers' (n=2,051) health, employment or work experiences, and working environment during the COVID-19 pandemic. Summary statistics and multivariable logistic regressions were conducted to examine the association between precarious work and workers' health (life stress, mental health and general health), stratified by immigrant status. Selected working characteristics were included in the regression models as covariates, namely occupation, number of locations worked, facility ownership status and number of years worked.

Results

Immigrant health care workers were more likely than non-immigrant health care workers to experience precarious work in LTCS homes. Precarious work—characterized by income loss, reduced hours of work, and unpaid leave—was associated with stress and poor general health among immigrant and non-immigrant workers in the sector. Employment precarity was also associated with poor mental health for immigrant workers, but there was no association for non-immigrant workers.

Interpretation

Employment precarity and the health and well-being of health care workers warrants further attention, in particular among immigrants employed in the LTCS residential care sector.

Keywords

precarious work, health, immigrants, long-term care and seniors' homes, Canada

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What is already known on this subject?

- In Canada, newly arrived immigrants are more likely to be exposed to precarious working conditions than established immigrants (20 years and over) and Canadian-born populations.
- However, few studies have simultaneously examined the multiple dimensions of precarious work and its relationship to health outcomes among immigrant workers.
- There have been no national surveys that incorporate items that measure employment precarity and stratify by immigrant status in the health sector in general, and specifically for the long-term care and seniors' homes (LTCS) sector.

What does this study add?

- This study demonstrates that for immigrant and non-immigrant workers in LTCS homes, precarious work was associated with reporting stress and poor general health.
- One in 10 immigrant nurses in LTCS homes are exposed to precarious working conditions, characterized by a combination of experiencing losses in income, a reduction in hours of paid work, or having to take unpaid leave. By contrast, only 3.7% of non-immigrant nurses are exposed to work precarity.
- Among immigrant health care workers, those exposed to precarious working conditions are more likely to report poor mental health, compared with those not exposed to employment precarity.

The COVID-19 pandemic has highlighted several issues in Canada's long-term care and seniors' (LTCS) homes, also known as the residential care sector, which provide accommodation and care services primarily for older adults.[1-2] During the first wave of the pandemic, residents of LTCS facilities across the country accounted for over 80% of all COVID-19 deaths.[3] Numerous outbreaks in LTCS homes resulted in widespread transmission of COVID-19 among residents and health care workers alike.[4–5] Most direct care services for residents in LTCS homes are provided by two groups comprised of many racialized, immigrant women: personal support workers (PSWs) (Note 1) who are directed by nurses and nurses themselves.[6-10] Over the next thirty years, PSW staffing levels in Canada must increase by more than 200,000 workers to maintain the existing level of care in LTCS homes.[11] However, even before the pandemic, the sector had seen declining nurse registration rates, high turnover among PSWs and severe staff shortages.[12–13] These trends were exacerbated by the pandemic,[1] with staff retention difficulties receiving significant media attention.[14] Limited organizational supports, low wages, and limited benefits, combined with high levels of understaffing and overcrowding of residents in LTCS homes, have left many workers exposed to precarious working conditions.[15-19] Precarious work refers to employment where individuals are exposed to high levels of insecurity and instability, characterized by low wages, reduced benefits, limited workplace rights and social protections, and jobs that are temporary, on call, casual, or on contract when full-time work is preferred.[20-21] Precarious work is often experienced by immigrant and unregulated workers, such as PSWs, in Canada's residential care sector.[6,22–23]

While employment precarity is recognized globally as an important social determinant of health, large-scale, national surveys that collect information on precarious work beyond the conceptually limited indicator of temporary employment are lacking.[21,24] As such, there is a paucity of research that demonstrates the impacts of precarious work on workers' health, especially in the long-term care (LTC) sector. Qualitative studies in Canada have explored the health impacts of precarious work,[25] in particular for immigrant women working in residential care facilities.[6,26] However, there is limited nationally representative quantitative research that examines precarious work's association with workers' health across Canada's residential care sector, especially during the COVID-19 pandemic. Therefore, the objectives of this study are to describe the prevalence of precarious work in Canada's LTCS homes and examine the relationship between precarious work and self-reported health outcomes of workers in the sector by immigrant status.

Methods

Data sources

Statistics Canada's Survey on Health Care Workers' Experiences During the Pandemic (SHCWEP), part of the COVID-19 Federal Health Workforce Information Strategy, was designed to collect information on how the COVID-19 pandemic affected health care workers' personal health and well-being, employment or work experiences, and working environment.[27]

The survey collected information from health care workers working in a health care setting since the start of the COVID-19 pandemic (March 2020). Random sampling was conducted using the Census 2016 long-form questionnaire, where respondents were randomly selected if they identified as a health care worker at the time of the census (based on the National Occupation Classification 2016) or were registered in a health care education program (based on the Classification of Instructional Programs 2016) from 2015 to 2018, according to the Postsecondary Student Information System. Data collection was conducted from September 2 to November 12, 2021, with a response rate of 55%.[27] In total, 12,246 health care workers responded to the SHCWEP.

Respondents included individuals whose primary job location was in a LTCS home, a residential care facility that provides accommodation, meals and care supervision based on an individual's needs.[28] LTCS homes consist of two main components. First, LTC homes, also known as nursing homes, provide on-site delivery of 24-hour, 7-days-a-week supervised nursing care as well as personal care services, such as medication administration and assistance with daily living activities, including bathing and grooming.[29] Second, senior homes refer to retirement homes, assisted living facilities, and other care facilities for the elderly, which provide personal care services and supports for older adults in residential settings who are independent in most activities of daily living.[30]

Exposure and outcome variables

Following Lewchuk and colleagues,[31] an index of precarious employment was created using three variables: loss of income, reduced hours of work and unpaid leave (Note 2). Similar to the Poverty and Employment Precarity in Southern Ontario (PEPSO) Employment Precarity Index scoring, SHCWEP respondents who reported at least two of the three factors were considered as exposed to precarious working conditions.

Immigrant status was dichotomized as immigrant and non-immigrant based on self-reports. Immigrant respondents were those who reported being a landed immigrant or permanent resident, including those who obtained Canadian citizenship by naturalization. Non-immigrant respondents were those who reported having Canadian citizenship at birth, the vast majority of whom were born in Canada. Non-permanent residents, such as temporary foreign workers and international students, were excluded from this study, because they constituted only a small proportion of less than 1% of respondents to the survey.

Three outcome measures included: (1) perceived life stress, (2) self-reported mental health and (3) self-reported general health. Perceived life stress during the pandemic, measured on a five-point scale, was categorized as either "stressful" (includes "extremely," "quite a bit," or "a bit" stressful) or "not stressful" (includes "not very" or "not at all" stressful). Self-reported general health and mental health were each measured on five-point scales. Respondents providing either "poor" or "fair" responses were considered to be in poor general health or poor mental health. Those with missing outcome measures were excluded from the analysis; missing data for each outcome was less than 10%.

Covariates

Other employment conditions were included in the regression models as covariates, namely occupation, number of locations worked, facility ownership status, and number of years worked. Occupation was categorized as "nurse" or "PSW." Respondents from other health care professions (e.g., physicians or allied health professionals) who made up less than 5% of respondents employed in LTCS homes were excluded. Other work-related variables of interest were the number of years worked in the sector (0 to 4 years, 5 to 14 years, or 15 years and over), number of locations worked (one or two or more), and facility ownership status (private or public). The confounders that were controlled for in this analysis included socio-demographic characteristics, such as age (18 to 34 years, 35 to 54 years, or 55 years and older), gender (non-binary, men or women) and total household income (quintiles plus additional missing category). It is important to note that because of a small sample of individuals identifying as non-binary, the analysis of gender was limited to compare men and women.

Statistical analysis

The characteristics of health care workers employed in LTCS homes across Canada were examined descriptively. Independent t-tests and chi-squared tests were conducted to compare differences across groups within each variable. To assess the association between exposure to precarious work and self-reported health outcomes, multivariable logistic regression models were employed. Separate models were analyzed for each health outcome overall and by immigrant status. Multicollinearity was assessed for the three variables of the Precarious Work Index variable using the Variance Inflation Factor (VIF), whereby the VIF for all variables was less than 5. All analyses were conducted in SAS (version 9.4) and included sample weights and bootstrap weights for the variance estimation.

Results

Descriptive characteristics

The study sample (n=2,051) was composed of nurses and PSWs employed in LTCS homes, approximately one-third (35%) of whom were immigrants and most of whom were women (92% among non-immigrants and 88% among immigrants). About two-thirds of non-immigrants (60%) and immigrants (63%) worked as PSWs in the sector (Table 1).

On average, immigrant health care workers were slightly older (49 vs. 46 years old) and reported working for a slightly shorter period in the sector (10.6 vs. 12.5 years) compared with non-immigrant workers. Half (50%) of the immigrant workforce

reported working in privately owned facilities compared with 43% of non-immigrant workers. Approximately 15% of immigrant and non-immigrant workers reported working in two or more LTCS locations from March 2020 to the interview date. Over 50% of the non-immigrant workers surveyed were employed in LTCS homes located in either Ontario or Quebec (Table 1).

Prevalence of precarious work

On average, 6.5% of health care workers in LTCS homes reported employment precarity, although exposure to precarious working conditions was more prevalent among immigrants (9.3%) than non-immigrants (4.3%). Most notably, 1 in 10 immigrant nurses (10%) reported being exposed to precarious employment conditions since the onset of the COVID-19 pandemic (Chart 1).

Table 1
Characteristics of health care workers in Canada's long-term care and seniors' homes, by immigrant status, 2021

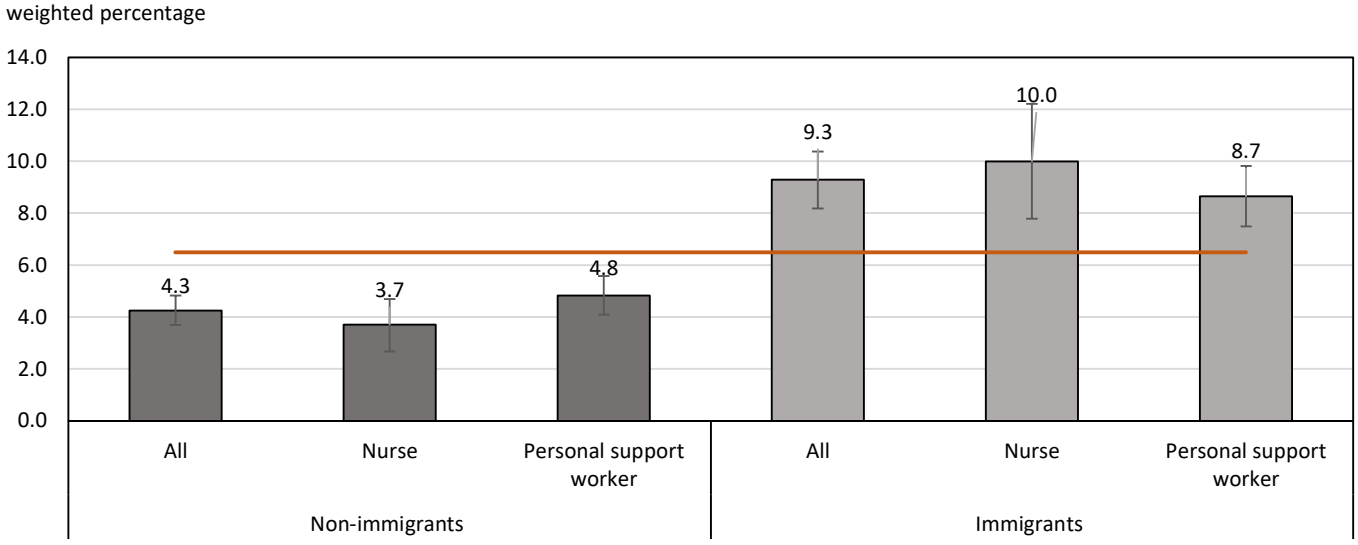
Characteristic	Overall[1] (n=2051)	Non-immigrant (n=1,328)	Immigrant (n=723)	p-value
	Weighted %			
Gender				
Women	90.6	92.7	88.2	<.0001
Men	9.4	7.3	11.8	<.0001
Occupation				
Nurses	38.8	40.0	37.3	0.0319
Personal support workers	61.2	59.9	62.7	0.0319
Age group (years)				
18 to 34	16.9	23.5	8.3	<.0001
35 to 54	51.3	43.5	61.5	<.0001
55 and older	31.8	33.0	30.2	<.0001
Age in years (mean)	47.3	46.0	49.1	<.0001
Number of years working (mean)	11.7	12.5	10.6	0.0001
Number of years working				
0 to 4 years	16.6	17.1	15.9	<.0001
5 to 14 years	44.4	37.2	53.7	<.0001
15 years or more	39.0	45.7	30.4	<.0001
Ownership of facility				
Public	36.3	39.4	32.3	<.0001
Private	45.9	42.8	50.1	<.0001
Do not know	17.8	17.9	17.7	<.0001
Number of locations worked				
Only one location	85.0	85.3	84.8	0.5312
Two or more locations	15.0	14.7	15.2	0.5312
Total household income				
Below $40,000	11.1	10.5	11.9	<.0001
$40,000 to $69,000	23.4	22.7	24.4	<.0001
$70,000 to $99,000	22.1	21.2	23.3	<.0001
$100,000 to $149,000	18.8	17.5	20.5	<.0001
$150,000 and over	10.8	12.1	9.2	<.0001
Not reported	13.8	16.1	10.9	<.0001
Province				
British Colombia	11.9	9.6	14.9	<.0001
Alberta	9.5	6.5	13.5	<.0001
Saskatchewan	3.4	3.8	2.8	<.0001
Manitoba	4.3	3.5	5.5	<.0001
Ontario	39.4	37.3	42.3	<.0001
Quebec	23.7	26.8	19.6	<.0001
Atlantic provinces - (N.B., N.L., N.S., P.E.I.)	7.7	12.6	1.4	<.0001

1. For the cohort overall, the statistical significance (p-value) of the difference between categories of each variable is < 0.0001.

Notes: N.B.= New Brunswick; N.L.= Newfoundland and Labrador; N.S.= Nova Scotia; P.E.I.= Prince Edward Island.

Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic, 2021.

Chart 1
Prevalence of reporting precarious work conditions among health care workers during the COVID-19 pandemic, by occupation and immigrant status, 2021



Note: LTCS = long term care and seniors**.** Red line denotes the average percentage of LTCS workers reporting employment precarity at the time of survey. On average, 6.5% of LTCS workers report precarious work.
Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic (SHCWEP, 2021).

Precarious work and health

Bivariate and multivariable logistic regressions were conducted to assess the relationship between work precarity and three health outcomes: stress, mental health, and general health. Bivariate models mostly revealed positive associations between precarious work and poor health outcomes for immigrants and non-immigrants (Table 2). Multivariable logistic regression models showed that precarious work was positively and significantly associated with reporting stress among health care workers employed in the LTCS residence sector. Specifically, health care workers exposed to precarious employment conditions had 3.47 (95% CI: 2.58 to 4.66) times higher odds of reporting stressful life experiences compared with those who were not exposed to precarious work. Following stratification by immigrant status, non-immigrants who reported experiencing precarious employment had 3.03 (95% CI: 2.03 to 4.53) times higher odds of reporting stress, compared with those who are not exposed to precarity. Immigrants working in precarious jobs had 3.82 (95% CI: 2.47 to 5.92) times higher odds of reporting perceived life stress compared with immigrants working in more standard and stable jobs after controlling for other factors (Table 3).

Among all health care workers in the sector, those exposed to precarious working conditions were 1.40 (95% CI: 1.09 to 1.80) times more likely to report poor mental health than those in stable work environments (Table 4). However, stratified analysis reveals immigrant health care workers exposed to precarious work conditions had 1.96 (95% CI: 1.42 to 2.72) times higher odds of reporting poor mental health compared with those who did not experience work precarity (Table 4). By contrast, among non-immigrants, there was no statistically significant association of reporting poor mental health and precarious work after controlling for other factors (Table 4).

Health care workers experiencing employment precarity had 1.67 (95% CI: 1.24 to 2.24) times higher odds of reporting poor general health, compared with those without work precarity. The effect size and level of significance were similar for immigrant and non-immigrant groups upon stratification (Table 5).

Immigration and health

When comparing immigrant and non-immigrant health care workers, multivariable models show that there are no differences between the two groups in reporting stress or poor general health (tables 3 and 5). However, immigrant workers have 49% decreased odds of reporting poor mental health compared with their non-immigrant counterparts (Table 4).

Occupation and health

After accounting for the impact of other factors (including job precarity), PSWs had 37% (95% CI: 0.54 to 0.74) decreased odds of reporting stress during the pandemic compared with

Table 2
Crude unadjusted odds ratios examining the association between work precarity and poor health outcomes, by immigrant status, 2021

	All			Non-Immigrants			Immigrants		
		95% confidence interval			95% confidence interval			95% confidence interval	
Health outcome	Odds ratios	from	to	Odds ratios	from	to	Odds ratios	from	to
Stress									
Stressful	4.01 *	3.07	5.23	2.78 *	1.96	3.95	5.39 *	3.59	8.10
Not stressful†	1.00	....	...	1.00	...	...	1.00	...	...
Mental health									
Poor/fair	1.26 *	1.02	1.55	1.00	0.75	1.33	1.99 *	1.48	2.68
Good/excellent†	1.00	...	...	1.00	...	...	1.00	...	...
General health									
Poor/fair	1.67 *	1.32	2.12	1.62 *	1.17	2.24	1.75 *	1.26	2.42
Good/excellent†	1.00	...	...	1.00	...	...	1.00	...	...

... not applicable

* significantly different from reference category ($p < 0.05$).

† reference category

Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic, 2021.

nurses in long-term and senior homes (Table 3). PSWs also had 15% (95% CI: 0.75 to 0.97) and 19% (95% CI: 0.69 to 0.95) decreased odds of reporting poor mental health or general health, respectively, compared with nurses (tables 4 and 5). The effect sizes of these associations were relatively consistent across immigrant and non-immigrant groups upon stratification, with immigrants having effect sizes that were mid-range and slightly larger than those of non-immigrant workers. All effect sizes were statistically significant at the 95% confidence level except for non-immigrants reporting poor self-reported mental health (tables 3 to 5).

Number of locations worked and health

Overall, among LTCS home workers, those working in two or more locations had increased odds of reporting stress compared with those working in one location (Table 3). Non-immigrants working in multiple locations had 1.77 (95% CI: 1.28 to 2.45) times higher odds of reporting stress. However, they were 38% (95% CI: 0.49 to 0.79) less likely to report poor general health and 28% (95% CI: 0.58 to 0.89) less likely to report poor mental health than those working in a single location (tables 3 to 5). By contrast, immigrants working in multiple locations had 62% (95% CI: 1.23 to 2.14) increased odds of poor mental health and 53% (95% CI: 1.15 to 2.04) increased odds of poor general health, compared with their counterparts working in a single location.

Facility ownership status and health

Among all health care workers in the sector, there was no association between facility ownership and stress or reporting poor mental health (tables 3 and 4). However, overall, workers employed in privately owned facilities reported 51% (95% CI: 1.28 to 1.79) increased odds of reporting poor general health status compared with those working in public facilities (Table 5). Upon stratification, immigrant workers in private homes reported 30% (95% CI: 0.57 to 0.87) decreased odds of having poor mental health than their counterparts working in public homes (Table 4). However, non-immigrant health care workers in private homes reported 30% (95% CI: 1.11 to 1.52) increased odds of having poor mental health and immigrant health care workers in private facilities reported 45% (95% CI: 1.20 to 1.75) increased odds of stress, compared with those working in public LTCS homes (tables 3 and 4). Furthermore, non-immigrants and immigrants working in privately owned facilities reported 41% (95% CI: 1.15 to 1.74) and 61% (95% CI: 1.24 to 2.10) increased odds of experiencing poor general health, respectively, compared with those working in publicly owned facilities (tables 4 and 5).

Number of years worked and health

In general, health care workers having worked five years and over had more than double the odds of reporting stress compared with those having worked from zero to four years in the sector, regardless of immigrant status (Table 3). Moreover, immigrant health care workers having worked from 5 to 14 years in the LTCS residence sector also have increased odds of reporting poor mental health than their counterparts having worked less than 4 years in the sector (Table 4). Finally, immigrants working five years or more had at least 2.8 times increased odds of reporting poor or fair general health, compared with immigrants who joined this health care workforce within the past four years of participating in the survey (Table 5).

Discussion

This quantitative study is the first to examine the relationship between precarious employment and health by immigrant status

Table 3

Adjusted odds ratios for experiencing stress in life among health care workers in Canada's long-term care and seniors' homes, by immigrant status, 2021

	All			Non-Immigrants			Immigrants		
	Adjusted odds ratios	95% confidence interval		Adjusted odds ratios	95% confidence interval		Adjusted odds ratios	95% confidence interval	
Characteristics		from	to		from	to		from	to
Precarious work									
Yes	3.47 *	2.58	4.66	3.03 *	2.03	4.53	3.82 *	2.47	5.92
No†	1.00	…	…	1.00	…	…	1.00	…	…
Age (years)									
18 to 34†	1.00	…	…	1.00	…	…	1.00	…	…
35 to 54	0.65 *	0.51	0.83	0.59 *	0.43	0.81	1.20	0.90	1.60
55 and older	0.32 *	0.25	0.41	0.20 *	0.15	0.27	0.88	0.64	1.22
Gender									
Men†	1.00	…	…	1.00	…	…	1.00	…	…
Women	0.82 *	0.67	0.99	0.86	0.65	1.13	0.81	0.63	1.05
Occupation									
Nurse†	1.00	…	…	1.00	…	…	1.00	…	…
Personal support worker	0.63 *	0.54	0.74	0.81 *	0.66	0.99	0.39 *	0.32	0.49
Number of years worked									
0 to 4 years†	1.00	…	…	1.00	…	…	1.00	…	…
5 to 14 years	2.16 *	1.77	2.62	2.51 *	1.83	3.45	2.29 *	1.81	2.89
15 years or more	2.69 *	2.17	3.33	2.79 *	2.00	3.91	2.95 *	2.28	3.83
Number of locations worked									
One†	1.00	…	…	1.00	…	…	1.00	…	…
Two or more	1.25 *	1.04	1.51	1.77 *	1.28	2.45	1.09	0.87	1.37
Facility ownership status									
Public†	1.00	…	…	1.00	…	…	1.00	…	…
Private	1.05	0.92	1.20	0.86	0.71	1.04	1.45 *	1.20	1.75
Do not know	0.65 *	0.55	0.78	0.89	0.69	1.15	0.58 *	0.44	0.76
Total household income									
Below $40,000†	1.00	…	…	1.00	…	…	1.00	…	…
$40,000 to $69,000	0.99	0.79	1.24	1.12	0.82	1.51	0.81	0.59	1.12
$70,000 to $99,000	0.95	0.75	1.21	1.34	0.95	1.87	0.51 *	0.38	0.70
$100,000 to $149,000	0.68 *	0.54	0.86	2.47 *	1.77	3.45	0.21 *	0.15	0.28
$150,000 and over	0.62 *	0.45	0.85	0.89	0.58	1.38	0.39 *	0.27	0.57
Not reported	0.95	0.74	1.24	1.08	0.78	1.49	1.08	0.70	1.66
Immigrant status									
Non-immigrant†	1.00	…	…	…	…	…	…	…	…
Immigrant	1.04	0.92	1.18	…	…	…	…	…	…

… not applicable

* significantly different from reference category ($p < 0.05$).

† reference category

Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic, 2021.

among health care workers in the residential care sector across Canada. Few to no studies have previously compared health outcomes among the immigrant and non-immigrant workforce, despite the high levels of precarity reported among immigrants. The present study also includes a national representative sample of LTCS home workers, with details about precarious work and other employment characteristics.

This study demonstrates that immigrant workers were more likely to be exposed to precarious work compared with non-immigrant workers employed in Canada's LTCS homes during the COVID-19 pandemic. Furthermore, the association of precarious work with poor health outcomes were more pronounced, either by effect size or statistical significance, among the immigrant workforce in this sector. Exposure to precarious working conditions characterized by loss of income, reduced hours of paid work, or unpaid leave was associated with higher odds of stress and poor general health status for all workers in the sector. When examining mental health, in general immigrants were less likely to report poor mental health

Table 4

Adjusted odds ratios for self-reported poor mental health among health care workers in Canada's long-term care and seniors' homes, by immigrant status, 2021

	All			Non-Immigrants			Immigrants		
		95% confidence interval			95% confidence interval			95% confidence interval	
Characteristics	Adjusted odds ratios	from	to	Adjusted odds ratios	from	to	Adjusted odds ratios	from	to
Precarious work									
Yes	1.40 *	1.09	1.80	0.97	0.70	1.33	1.96 *	1.42	2.72
No†	1.00	…	…	1.00	…	…	1.00	…	…
Age (years)									
18 to 34†	1.00	…	…	1.00	…	…	1.00	…	…
35 to 54	0.52 *	0.43	0.62	0.61 *	0.49	0.75	0.44 *	0.32	0.60
55 and older	0.51 *	0.41	0.62	0.45 *	0.35	0.56	0.64 *	0.42	0.95
Gender									
Men†	1.00	…	…	1.00	…	…	1.00	…	…
Women	1.02	0.85	1.23	0.97	0.74	1.27	1.12	0.84	1.49
Occupation									
Nurse†	1.00	…	…	1.00	…	…	1.00	…	…
Personal support worker	0.85 *	0.75	0.97	1.01	0.86	1.19	0.60 *	0.48	0.75
Number of years worked									
0 to 4 years†	1.00	…	…	1.00	…	…	1.00	…	…
5 to 14 years	1.31 *	1.09	1.57	1.19	0.94	1.52	1.75 *	1.31	2.35
15 years or more	1.13	0.92	1.40	1.04	0.79	1.36	1.35	0.92	1.98
Number of locations worked									
One†	1.00	…	…	1.00	…	…	1.00	…	…
Two or more	1.06	0.89	1.27	0.72 *	0.58	0.89	1.62 *	1.23	2.14
Facility ownership status									
Public†	1.00	…	…	1.00	…	…	1.00	…	…
Private	1.01	0.89	1.15	1.30 *	1.11	1.52	0.70 *	0.57	0.87
Do not know	0.96	0.81	1.13	1.69 *	1.39	2.07	0.27 *	0.20	0.36
Total household income									
Below $40,000†	1.00	…	…	1.00	…	…	1.00	…	…
$40,000 to $69,000	1.00	0.81	1.22	0.68 *	0.53	0.87	1.86 *	1.30	2.67
$70,000 to $99,000	1.07	0.86	1.33	1.04	0.81	1.35	1.20	0.82	1.75
$100,000 to $149,000	1.02	0.82	1.28	0.99	0.75	1.29	1.13	0.78	1.66
$150,000 and over	0.99	0.77	1.29	0.85	0.62	1.17	1.30	0.82	2.07
Not reported	0.86	0.67	1.10	0.56 *	0.41	0.77	2.21 *	1.48	3.29
Immigrant status									
Non-immigrant†	1.00	…	…	…	…	…	…	…	…
Immigrant	0.51 *	0.45	0.58	…	…	…	…	…	…

… not applicable

* significantly different from reference category ($p < 0.05$).

† reference category

Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic, 2021.

than their non-immigrant counterparts. However, within the immigrant workforce, those exposed to work precarity had higher odds of reporting poor mental health compared with those that did not experience precarious work. By contrast, the relationship between job precarity and reporting a poor mental health status was not statistically significant among non-immigrant workers. Only one study in Canada conducted by Pinto and colleagues[23] examined precarious working conditions and health outcomes during the pandemic, using the comprehensive Employment Precarity Index developed by PEPSO[31] among a sample of PSWs in one municipality of Ontario using a respondent-driven survey. The authors found a very high prevalence of precarious work among participants—over 90% of whom were Black immigrant women—and reported an association between precarious work and depression for these health care workers that align with our findings. Studies in Spain have reported similar findings among immigrant workers in the agricultural and construction sectors,

Table 5

Adjusted odds ratios for poor self-reported general health among health care workers in Canada's long-term care and seniors' homes, by immigrant status, 2021

	All			Non-Immigrants			Immigrants		
	Adjusted odds ratios	95% confidence interval		Adjusted odds ratios	95% confidence interval		Adjusted odds ratios	95% confidence interval	
Characteristics		from	to		from	to		from	to
Precarious work									
Yes	1.67 *	1.24	2.24	1.66 *	1.12	2.48	1.69 *	1.14	2.50
No†	1.00	…	…	1.00	…	…	1.00	…	…
Age (years)									
18 to 34†	1.00	…	…	1.00	…	…	1.00	…	…
35 to 54	1.22	0.93	1.61	1.40 *	1.00	1.97	1.77 *	1.15	2.74
55 and older	0.97	0.73	1.29	1.23	0.89	1.69	1.11	0.65	1.90
Gender									
Men†	1.00	…	…	1.00	…	…	1.00	…	…
Women	1.50 *	1.15	1.95	1.34	0.91	1.99	1.74 *	1.21	2.49
Occupation									
Nurse†	1.00	…	…	1.00	…	…	1.00	…	…
Personal support worker	0.81 *	0.69	0.95	0.80 *	0.65	0.98	0.77 *	0.60	0.99
Number of years worked									
0 to 4 years†	1.00	…	…	1.00	…	…	1.00	…	…
5 to 14 years	1.75 *	1.34	2.28	1.44 *	1.01	2.05	2.83 *	1.93	4.16
15 years or more	1.81 *	1.35	2.43	1.00	0.69	1.46	5.12 *	3.24	8.10
Number of locations worked									
One†	1.00	…	…	1.00	…	…	1.00	…	…
Two or more	0.97	0.81	1.18	0.62 *	0.49	0.79	1.53 *	1.15	2.04
Facility ownership status									
Public†	1.00	…	…	1.00	…	…	1.00	…	…
Private	1.51 *	1.28	1.79	1.41 *	1.15	1.74	1.61 *	1.24	2.10
Do not know	1.42 *	1.17	1.72	1.21	0.94	1.56	1.78 *	1.31	2.42
Total household income									
Below $40,000†	1.00	…	…	1.00	…	…	1.00	…	…
$40,000 to $69,000	0.96	0.77	1.20	0.39 *	0.30	0.51	3.75 *	2.46	5.71
$70,000 to $99,000	0.75 *	0.59	0.96	0.56 *	0.42	0.75	1.48	0.95	2.32
$100,000 to $149,000	0.41 *	0.32	0.53	0.21 *	0.15	0.29	1.13	0.69	1.86
$150,000 and over	1.18	0.85	1.63	0.73	0.48	1.10	2.38 *	1.43	3.96
Not reported	0.47 *	0.36	0.60	0.27 *	0.20	0.37	1.23	0.76	2.01
Immigrant status									
Non-immigrant†	1.00	…	…	…	…	…	…	…	…
Immigrant	0.89	0.76	1.03	…	…	…	…	…	…

… not applicable

* significantly different from reference category ($p < 0.05$).

† reference category

Source: Statistics Canada, Survey on Health Care Workers' Experiences During the Pandemic, 2021.

where individual dimensions of precarious work were independently associated with poor mental health.[32–35] However, while Pinto et al.[23] found no association between precarious work and poor self-reported general health status among PSWs at the local level, our findings suggest that employment precarity is positively associated with poor general health status for immigrant workers employed in the residential care sector, at the national level. The effect of precarious work on health may be exacerbated for immigrants as they are less likely than non-immigrants to access health care services because of language barriers, discrimination or difficulty navigating the health system.[36–37]

Immigrant workers may be more susceptible to poor health when exposed to precarious work due to migration-related structural factors and systemic policy changes for LTCS homes

in Canada. According to Goldring and Joly, immigrants newly arrived in the country are more likely to work in precarious conditions.[38] Precarious work is a phenomenon that places immigrant workers at risk of poor working conditions, because immigrant workers are less likely to complain about strenuous or challenging working conditions, especially if they are newly resettled.[22,39] New immigrants admitted through a family-class or refugee stream often face economic challenges and are more likely than economic immigrants to work in temporary jobs to survive and provide for their families.[40] Economic disparities for these immigrant groups were especially exacerbated by the pandemic, resulting in wage losses and reductions in median entry income.[41] Immigrants may disproportionately be exposed to precarious employment, because they are less likely than their non-immigrant counterparts to have social supports and professional networks that can help them find employment commensurate with their foreign credentials or education.[42]

At the systemic level, the residential care sector experienced a series of organizational policy changes following the onset of the COVID-19 pandemic. Several provinces implemented the "one home policy" to restrict mobility of the residential care workforce to one facility to curb rates of COVID-19 infection by preventing transmission from workers holding multiple jobs across different facilities. As a result of this policy change, evidence suggests that PSWs experienced reduced hours of paid work resulting in lower wages. Findings also show loss of income or employment for those working in Ontario and Alberta, where short-term supplements were not enough to offset the opportunity costs.[6,43–44] Unregulated health care workers, in particular, depended on working multiple part-time shifts in different homes to earn a living wage, a circumstance that also predated the pandemic. As a result, the economic exclusion of these workers from permanent full-time employment remains a challenge in the years ahead.[6] Despite the growing need to recruit, train and retain more direct care staff, individuals are leaving the LTCS sector because of precarious working conditions that have been exacerbated by the pandemic.[18,45] For example, over 20% of health care workers in LTCS homes intended to leave or change jobs in the next three years, compared with only 13% of workers from the outpatient or ambulatory care sector.[46]

As this study demonstrates the association between precarious work and health, investments in improving job quality could encourage the retention of trained LTCS home workers and motivate the recruitment into the workforce.[47] The elimination of income variability through the provision of stable wages, more hours of paid work, and paid leave may be resolved in part through the establishment of more full-time positions that confer wage stability and more security through access to benefits and social protections. According to Stutely et al., over one-third of PSWs in the residential care sector are working involuntarily in part-time positions where full-time employment is preferred. This is the highest rate of involuntary part-time work observed, compared with other health care sectors.[48]

Limitations and future directions

There are several limitations in this study. First, there may be non-response bias due to the moderate survey response rate, as those who did not respond to the survey may be systematically different in some way from respondents. Second, there may be selection bias among those included as part of the immigrant workforce, as immigrants who arrived after 2018 may have been excluded from the sampling frame. Third, levels of precarious work among immigrants and non-immigrants alike may be underestimated because of the inclusion of only 3 in 10 identified components used in PEPSO's Employment Precarity Index. While 10% of immigrant nurses reported exposure to work precarity compared with 3.7% of non-immigrant nurses, the true prevalence may be higher for both groups. Fourth, it is important to note that the Employment Precarity Index does not capture employee preferences, which are a crucial component of understanding work precarity by offering a distinction between those who choose a reduction in paid hours of work and those who experience these working conditions involuntarily. Moreover, there may be underestimated levels of multiple job holding in the sector, as previous legislation introduced in some provinces at the onset of the COVID-19 pandemic restricted the mobility of workers to one home.[49] Furthermore, the use of survey data and self-reported measures of health may result in recall bias and limitations to infer causal relationships. There may also be limitations in the generalizability of the results, given that the survey was conducted during pandemic circumstances. As such, these findings are applicable to workers in similarly structured residential care sectors within the COVID-19 context and may be generalized to other similar circumstances such as infectious outbreak situations within the sector.

Finally, there are differences in job characteristics experienced by workers employed in LTC homes compared with senior homes that warrant further investigations. For example, this study found mixed results on the association between private or public facility ownership status and workers' stress and mental health outcomes. This result may be attributable to the combined examination of workers in seniors' homes and LTC homes. LTC homes are owned by a mix of public and private entities and cater to residents who require high levels of nursing care. By contrast, senior homes are owned almost exclusively by private organizations across Canada and house residents that require fewer supports and lower levels of care provision. Given these differences, future surveys and analyses distinguishing between workers employed in different residential care settings are warranted to provide further insights regarding the organization of long-term and senior care services in Canada. While there were mixed findings for stress and mental health outcomes across workers employed in public and private homes, this study found that regardless of immigrant status, health care workers employed in private LTCS homes were more likely to report poor general health compared with those working in publicly owned facilities. While some research has demonstrated private LTC facilities had higher hospitalization

rates among residents and lower staffing levels,[50–54] future research could elucidate how working conditions differ across LTC homes with different ownership status and their relation to workers' health outcomes.

Another avenue for future research includes examining job strain-related employment experiences of workers by their occupation. This study demonstrated that, regardless of immigrant status, nurses working in LTCS homes were more likely to report stress, poor mental health, and poor general health than PSWs working in this sector. Given that precarious work was included in the regression model, nurses may be experiencing other stressors related to their work, including the staffing structure, organization and distribution of labour in the sector, and COVID-19 pandemic that may result in poorer health outcomes, which requires an in-depth inquiry in the future.

Finally, more research on work precarity is warranted. Research that examines the relationship between precarious work and other job characteristics of health care workers and their workplaces may shed light on the attributes of and circumstances experienced by LTCS home workers exposed to precarious working conditions. Future work to examine precarious work in a post-pandemic context may provide appropriate comparative findings and further insight into any changes regarding the extent and experiences of work precarity in the LTCS home sector.

Conclusion

Exposure to precarious working conditions in LTCS homes was associated with increased levels of stress and poor general health among immigrants and non-immigrants. Work precarity, characterized by loss of income, reduced hours of paid work and unpaid leave was more prevalent among immigrants than non-immigrants in the sector. Precarious work was associated with having poor mental health outcomes among immigrant health care workers but not among non-immigrant workers. The equitable provision of stable and secure employment pathways could be critical to improve the health and well-being of health care workers in the sector, in particular those from more marginalized immigrant groups. Considering the impact of the COVID-19 pandemic on the quality of care received by residents, changes in facility policies and procedures, and the economic disparities experienced by workers, offering more positions with stable wages, stable hours, and benefits (such as paid leave) could promote the health and safety of this essential health care workforce. Future research is needed to assess how improved employment conditions and reduced work precarity affect resident care.

Notes

1. PSWs are also referred to as health care aides, nurse aides, continuing care assistants, home support workers and care assistants, among others, in Canada. For the purposes of this study, the term PSW will be used when referring to these health care workers.
2. As part of the PEPSO research project, an Employment Precarity Index was developed, composed of 10 components, for a precise indicator of insecure employment that can be distinguished from secure employment. Three out of 10 index components were used in this work. More information about the components can be found in the report by the PEPSO research group.[28]

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