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Framing Later Life Vulnerability during the COVID-19 Pandemic: A Content Analysis of Newspaper Coverage in Canada and the United States

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Abstract

This study explores vulnerability narratives used in relation to older adults and others during the COVID-19 pandemic. A mixed-method content analysis was conducted of 391 articles published in two major newspapers in Canada and the USA during the first wave of the pandemic. The findings indicated that during the early months of the pandemic, limited attention was directed towards its impact on older adults or other 'vulnerable' subpopulations in both countries. Where evident, intrinsic (individual-level) risk factors were most consistently used to frame the vulnerability of older adults. In contrast, vulnerability was more likely to be framed as structural with regard to other subpopulations (e.g., ethno-racial minorities). These narratives also differed somewhat in Canadian and US newspapers. The framing of older adults as intrinsically vulnerable reflects ageist stereotypes and promotes downstream policy interventions. Greater attention is needed to the role of structural factors in influencing pandemic-related outcomes among older adults.

Résumé

Cette étude examine les discours à propos de la vulnérabilité des personnes âgées au cours de la pandémie de COVID-19. Une méthode mixte d'analyse de contenu a été appliquée à 391 articles publiés au cours de la première vague de la pandémie dans deux grands journaux du Canada et des États-Unis. Les résultats indiquent que pendant les premiers mois de la pandémie, une attention limitée a été accordée à ses effets sur les personnes âgées ou d'autres sous-groupes de population « vulnérables » dans les deux pays. Les facteurs de risque intrinsèques (à l'échelle individuelle), lorsqu'ils étaient évidents, étaient les plus régulièrement cités pour cerner la vulnérabilité des personnes âgées. Par contre, les journaux avaient davantage tendance à présenter la vulnérabilité comme un phénomène structurel lorsqu'il s'agissait d'autres sous-groupes de population (p. ex., les minorités ethno-raciales). Ces discours différaient quelque peu entre les journaux canadiens et américains. La présentation des personnes âgées comme étant intrinsèquement vulnérables véhicule des stéréotypes âgistes et favorise les interventions en aval. Une plus grande attention doit être accordée à l'incidence des facteurs structurels sur les répercussions de la pandémie pour les personnes âgées.

Introduction

News media play an important role in framing social and health issues in such a way that shapes public attitudes, knowledge and discourse as well as political and policy responses to them (Shah et al., 2001). Although media's linkage of age and vulnerability clearly predates the pandemic (Marier & Revelli, 2017; Rozanova et al., 2016), a view of older adults as a vulnerable subpopulation has also emerged as one of the main narratives drawn upon during the pandemic (Allen & Ayalon, 2021; Schnell et al., 2021).

This narrative has, in turn, been widely critiqued within gerontological literature as reflecting a form of ageism (Fraser et al., 2020; Jen et al., 2021; Marier & Revelli, 2017; Vervaecke & Meisner, 2021). However, older adults are not the only social group to be characterized as vulnerable during the pandemic. A review of the literature indicates that a vulnerability narrative has also been drawn upon to frame the situations of ethno-racial minorities, migrants, immigrants, and refugees; and those who are poor, unemployed, and/or homeless; among others (Clarke et al., 2021; Kim & Bostwick, 2020; Salerno et al., 2020). This suggests a need to look beyond the vulnerability narrative itself as a source of ageism and focus as well on how it has been applied with regard to older adults compared to other social groups. This may also be contextually

dependent, suggesting a need for comparative analyses with regard to both what groups are framed as vulnerable and why.

This study examines these issues. With a focus on the first wave of the pandemic, we address the following research questions. First, to what extent is 'vulnerability' a key narrative used in newspaper accounts with respect to the pandemic and, related to this, to what extent are older adults and other social groups framed as 'vulnerable' during the pandemic? Secondly, to the extent that older adults and other subpopulations are considered vulnerable, what is it about their situations that is said to make them vulnerable? Finally, does the framing of 'vulnerable' subpopulations, including what groups are identified as vulnerable and why, differ when comparing Canadian and American (US) newspaper coverage? We do so using a mixed-method content analysis of newspaper articles published during the first wave of the pandemic in two major newspapers – the *Globe and Mail* (G&M) in Canada and the *New York Times* (NYT) in the USA. The findings contribute to our knowledge on the framing of vulnerability in later life and the role of media in advancing vulnerability narratives among older adults as well as other subpopulations.

Background

Conceptualizing vulnerability among older adults and other social groups

As a concept, vulnerability lacks clear and consensual definition (Brown et al., 2017; Virokannas et al., 2020). However, it is widely linked to the concept of risk and often used to refer to the unequal distribution of exposure to risk and consequent susceptibility to harm (Kim & Bostwick, 2020). Distinctions between 'intrinsic' vulnerability (also referred to as 'individual' or 'inherent' vulnerability and which locates sources of vulnerability in the characteristics or attributes of an individual or group) and 'structural' vulnerability (also labelled as 'extrinsic' or 'situational' vulnerability and which locates vulnerability in the social structures, processes and institutions within which individuals or groups are situated) have also been noted (Brown et al., 2017; Kim & Bostwick, 2020; Virokannas et al., 2020).

When it comes to older adults, researchers have found that vulnerability often appears to be essentialized and linked to intrinsic characteristics such as age, physical frailty or mental disability (Brown et al., 2017). This also appears to be true during the pandemic. Allen and Ayalon (2021) report finding that in almost every article they reviewed on long-term care during the pandemic, residents were described as vulnerable based on such factors as age and the consequent likelihood of having pre-existing conditions. However, a comparative analysis of how both of these vulnerability narratives have been used to frame portrayals of the COVID-19 pandemic in relation to older adults and other social groups, currently lacking in the literature, is also important. For example, are older adults more likely to be framed as intrinsically vulnerable in relation to COVID-19, whereas other subpopulations are more likely to be framed as structurally vulnerable? Previous literature not specific to the pandemic suggests that essentialist views also tend to be adopted with regard to gender, racial, immigrant, and other social groups (Bolin & Kurtz, 2018; Prentice & Miller, 2006). However, whether this is the case during the COVID-19 pandemic is unclear. Yet, this will have implications for public attitudes and for policies aimed at alleviating their vulnerability. Indeed, framing older adults' vulnerability as intrinsic is more consistent with 'downstream' policy approaches that are more focused on individual-level interventions than 'upstream' approaches that address the social structural context of aging.

Vulnerability narratives across national contexts: Canada and the USA

Research on how media frames the vulnerability of subpopulations during the COVID-19 pandemic across Canada and the USA has generally been limited to a focus on a specific social group (e.g., older adults or a specific ethno-racial group) in either country (e.g., Jen et al., 2021; Knight et al., 2021). However, vulnerability narratives may be contextually dependent, both in terms of what groups are framed as vulnerable and why.

On the one hand, one might expect similar groups to be framed as vulnerable in both Canada and the USA. Age, ethno-racial, immigrant, socioeconomic and other social disparities in health and well-being have been well-documented in both countries (e.g., Quesnel-Vallée et al., 2016; Ramraj et al., 2016; Siddiqi, Ornelas, et al., 2013; Willson, 2009). With regard to the COVID-19 pandemic specifically, despite higher case positivity, hospitalization and mortality rates in the USA than Canada (Our World in Data, 2022), in both countries, the risks of severe illness, hospitalization and/or death attributable to COVID-19 are considerably higher among older than younger adults (CDC, 2022a; Government of Canada, 2022). Similarly, ethno-racial minorities, immigrants and refugees, and those with lower income levels are among those identified as being at greater risk and more susceptible to adverse COVID-19 outcomes in both Canada and the USA (e.g., Ahmad et al., 2020; CDC, 2022b; Clarke et al., 2021; Gupta & Aitken, 2022; Public Health Agency of Canada, 2021). Further, the broader economic and political contexts within which vulnerability narratives are situated and responses implemented also appear to be somewhat similar. Both are capitalist democracies characterized by liberal welfare state regimes (Myles, 1998). Thus, both tend to be heavily market-oriented, emphasizing its role in the distribution of resources and as a solution to welfare problems, together with limited government interference and individual over collective rights and responsibilities (Béland et al., 2021). As well, both have aggressively pursued neoliberal economic and social policies and reforms in recent decades that have seen responsibility for health and well-being increasingly placed on private (individual and family) rather than public resources (Siddiqi, Kawachi, et al., 2013).

These similarities suggest that, in both countries, greater emphasis will tend to be placed on individual and intrinsic rather than structural vulnerability. However, there are also reasons to expect differences in how the vulnerability of different groups tends to be framed in the two countries. Sociocultural values of individualism and self-reliance are noted to be more dominant in the USA, with governmental involvement often considered inimical to the ability to exercise such rights and freedoms. Thus, USA political discourse is said to be 'dominated by "market-based arguments" in which people are judged by their performance in the labor market' (Benson & Saguy, 2005, p. 236). In contrast, despite also valuing individualism and self-reliance, collectivism and interdependence have been noted to be comparatively more dominant in Canada (Clark, 1991), with governmental policies and programmes more likely to be considered essential for ensuring competitive ability within the marketplace and the consequent well-being of all citizens (Marier & Revelli, 2017; Siddiqi, Kawachi, et al., 2013). As a result, despite generally similar welfare regimes, the two countries often differ in how they finance and distribute public benefits and services, with universal benefits and services more prominent

in Canada (Béland et al., 2021; Myles, 1998; Siddiqi, Kawachi, et al., 2013).

These and other country-level differences will have implications for which groups are seen as vulnerable and how their vulnerability is framed. On the one hand, the fact that economic and other inequalities are reportedly greater in the US, with Canadian welfare policies also reported to be more effective in buffering the negative health effects of economic and other inequalities (Myles, 1998; Ramraj et al., 2016; Siddiqi, Kawachi, et al., 2013; Willson, 2009), means that the vulnerability experienced by marginalized social groups will tend to be greater in the US than in Canada. Yet, although both countries appear likely to draw on individual-level vulnerability narratives, one might also expect to see somewhat greater emphasis being placed on individual responsibility, particularly within the market, in the US than in Canada. In contrast, Canada's more collectivist social tendencies may result in greater emphasis being placed on the structural vulnerability and need for government protection of older adults and other subpopulations in Canadian than US newspapers. In the context of age-related vulnerability, this is supported by Marier and Revelli's (2017) comparison of US and Canadian newspapers (conservative and liberal) prior to the pandemic which revealed a greater focus on older adults as fragile and in need of stronger governmental protection (conceptualized as 'compassionate ageism') in Canadian (and liberal) newspapers. They note that this can be compared to the stronger focus on 'intergenerational ageism' (which depicts older adults in a negative light relative to younger adults in society, often presenting them as less productive and/or as 'greedy geezers' who benefit unfairly from public health and social programs) found in US (and conservative) newspapers which they assert is linked to 'the conservative movement in that it champions individual instead of governmental responsibilities' (p. 1636).

Research design and methods

Data and sampling

In order to examine media narratives regarding the pandemic, we conducted a mixed-method (quantitative, qualitative) content analysis of newspaper coverage on COVID-19. As an approach to analysing the content of textual data, content analysis can be conducted using both quantitative and qualitative methods (Bengtsson, 2016). It was considered appropriate insofar as our research objectives involved both: assessing the extent to which older adults and other social groups were being framed as 'vulnerable' during the pandemic (quantitative) and exploring what it was about their situations that was said to make them vulnerable (qualitative).

The initial sampling process involved selecting newspaper articles, as our unit of analysis, that met the following inclusion criteria: (a) they were published in one of two national newspapers (i.e., *The Globe and Mail* in Canada and *The New York Times* in the US); (b) they were published between January 1, 2020 and April 1, 2020; (c) they were textual articles (rather than photographs, advertisements, etc.); and (d) they included a focus on the COVID-19 pandemic. *The Globe and Mail* (G&M) and *The New York Times* (NYT) are both national in scope and have high circulations, with the G&M variously said to reflect a slightly left of centre, slightly right of centre, or centrist bias in the Canadian context, whereas the NYT is typically considered somewhat left-leaning or liberal in terms of political position in the US context. The January 1st to April 30th time period corresponds with the period during which:

China first alerted the WHO to several cases of an unknown virus in Wuhan (December 31, 2019); the WHO declared COVID-19 as a public health event of international concern (January 30, 2020) and subsequently, as a pandemic (March 11, 2020). In both the Canadian and US contexts, it includes the country's first confirmed case of COVID-19 (January 21, 2020 in the US and January 25, 2020 in Canada). The period also includes the 'first wave' – a peak in the number of new cases and deaths (mid-March to mid-April), followed by a gradual decline in the number of new cases until early June, after which the rates increased once again in both countries (Our World in Data, 2022).

Articles were retrieved using the Newsstream database in Canada and Nexis Uni in the US. Only articles included in the print versions of the two papers were included: articles published online and on blogs were excluded. The keywords used to identify relevant articles included 'COVID-19' and/or 'coronavirus' (appearing anywhere in the article). Using these keywords, 14,261 articles (including 2,932 in the G&M and 11,329 in the NYT) were identified as potentially relevant. The number of articles varied monthly, with the fewest articles published in January (46 in the G&M + 240 in the NYT), followed by increases in February (196 in the G&M + 1,055 in the NYT), March (1,265 in the G&M + 4,080 in the NYT) and April (1,425 in the G&M + 5,954 in the NYT).

In-depth analysis of 14,261 articles was not feasible. Also, given significant differences in the number of articles published each month and across the two national newspapers as well as possible changes in the nature of the coverage evident over the course of the pandemic, to ensure that our study sample included articles reflecting media representation over the entire 4-month period in both newspapers, a decision was made to randomly select 50 articles from each paper for each month. This resulted in a target sample of 400 articles. While purposive and convenience sampling methods are more commonly used in qualitatively focused studies, random sampling has been considered consistent with a qualitative content analysis methodology (Mayring, 2014) and has been employed in previous qualitative media analysis studies (e.g., Marier & Revelli, 2017; Rozanova et al., 2006; Schnell et al., 2021). As well, a sample of 30 to 50 texts is generally recommended for qualitative content analysis (Rozanova et al., 2006).

Once identified for inclusion, the full text of each article was downloaded and independently reviewed (by MP, SB, and KSH) to assess its adherence to the remaining inclusion criteria. Initially, each article was screened for potential relevance. We included only content and text-based news articles, commentaries and editorials. In the review process, duplicate articles, briefing articles (NYT), reviews, letters to the editor, and obituaries were excluded. Articles that showed up in the sample but that were subsequently determined (by at least two of the researchers) to have a very limited focus on COVID-19 (i.e., a single reference to the pandemic appeared in the article but the article did not otherwise address the topic) were also excluded and, where possible, were replaced by the next randomly selected article. This procedure generated a study sample consisting of 391 articles, including 191 from the G&M (since there were less than 50 relevant articles in the January edition of the G&M) and 200 from the NYT.

Coding and analysis procedures

A coding instrument was developed to guide the process of abstracting information from each of the articles in our sample. Given our interest in determining both what was said and the

underlying meaning of the text, both manifest and latent coding and analysis procedures were pursued (Bengtsson, 2016). In the former, the researcher focuses on the actual content of the text while, in the latter, the researcher addresses its underlying meaning (Bengtsson, 2016). This, in turn, involved both deductively and inductively generated codes. Based on a review of previous studies, predefined coding categories included: the name of the newspaper; the date the article was published (month, day); the length of the article (total word count); the section of the paper in which the article appeared (i.e., news, financial/business/investor, travel, entertainment, sports, other).

Other codes emerged from the data through an inductive process (Hsieh & Shannon, 2005). These included the primary (1) and secondary (up to 6) thematic foci (categories) evident within the article with regard to COVID-19. To ensure rigour, these codes were initially generated based on a close reading of relevant articles by one of the investigators and were subsequently elaborated and refined over several iterations, in collaboration with other members of the research team (MP & SB for the US and MP & KSH for Canada). In this way, we avoided preconceived assumptions regarding whether specific thematic foci (e.g., the vulnerability of older adults or others) were evident in the data. Inconsistencies were resolved through discussion, contributing to the reliability of the data obtained. Through this process, 29 broad thematic categories were identified, with the results recorded on an Excel spreadsheet.

We began the analysis process by documenting the overall prevalence of the various categories identified through the inductive coding process. This included examining the prevalence of vulnerability narratives compared to other narratives within and across the two national newspapers. With a specific focus on articles coded as having the vulnerability of various subpopulations as a primary or secondary focus (n=61), qualitative content analysis procedures were then used to examine what it was about the situations of those identified as vulnerable that was said to have made them vulnerable (Bengtsson, 2016; Vaismoradi & Snelgrove, 2019). This involved inductive, thematic coding of article content. Once again, the procedures adopted for the coding of article content were collaborative and iterative (Vaismoradi & Snelgrove, 2019). The articles were read for content that identified the subpopulation(s) considered to be vulnerable as well as the purported source or nature of their vulnerability to the pandemic. The categories were not mutually exclusive, and more than one subpopulation could be identified as vulnerable in a given article. Ultimately, we identified ten subpopulations considered to be vulnerable in one or more articles. With these subpopulations identified, we also focused on how their vulnerability was understood or accounted for – its latent or underlying meaning – with direct excerpts from the articles (sources listed in Appendix A) used to exemplify, provide transparency, and validate our interpretation of emergent themes within and across the two newspapers (Vaismoradi & Snelgrove, 2019).

Results

To address our first research question, we began by examining the overall prevalence of vulnerability relative to other narratives within the two newspapers during the pandemic. Table 1 reports the thematic foci of the articles by frequency of occurrence and rank. Across the two newspapers, the most common thematic categories included the impact of the pandemic on the economy, business or industry; political and policy issues (state, provincial, national); and COVID-19 symptoms and public health measures. Whereas the first two categories were likely to be a primary focus of the articles, COVID-19 symptoms and public health measures was more likely to be a secondary thematic focus.

In the G&M, 40.3% of the articles had the impact of the pandemic on the economy, business or industry as either a primary or secondary focus. In addition to provincial and/or national political and policy issues (e.g., governmental preparedness, health policies, employment and economic policies, travel advisories, and communication strategies – 31.9%) and COVID-19 symptoms and public health measures (e.g., washing hands, social distancing, quarantine, lockdowns – 31.4%), other relatively common themes included international public health reporting (e.g., prevalence or mortality rates in different countries – 22.5%) and the impact of the pandemic on population mental health and well-being (18.3%). Comparisons of the COVID-19 pandemic with other pandemics and/or epidemics (16.7%), international political and policy issues (e.g., influence of political leaders – 16.2%), as well as the impact of the pandemic on international travel, social and community events, and on 'vulnerable' subpopulations within society (e.g., older adults, ethno-racial and immigrant populations, indigenous communities, the poor, homeless individuals) were less frequent. Notably, only 32 (16.7%) of the Canadian news articles included a focus (primary or secondary) on vulnerable subpopulations, with an even smaller proportion (n=11; 5.8%) having this as their primary focus.

Turning to the NYT, the results are comparable, albeit not identical. Here, the most common thematic focus was not the impact of the pandemic on the economy, business or industry (38.5% overall). Instead, it ranked second behind a focus on symptoms and public health measures (42.5%) as a primary or secondary focus and after a focus on state or national political and policy issues as a primary focus of the articles studied (16.5% vs 13.0%). Once again, as in the G&M, only a minority of the articles (n=29, 14.5%) had a focus (primary or secondary) on the pandemic's impact on 'vulnerable' subpopulations, either generally or with regard to a specific social group. Only seven (3.5%) had this as their primary focus.

Table 2 reports the prevalence with which various subpopulations were framed as vulnerable across and within each newspaper. Those most frequently identified as vulnerable were ethno-racial minorities; immigrants and refugees; those who were economically disadvantaged; and older adults. Other groups (including children and youth, gender groups, those with disabilities, students, and essential workers) were less well-represented. The G&M included over twice as many articles focusing on ethno-racial minorities and older adults as vulnerable compared to the NYT: over one-third of all the articles in the G&M focused on ethno-racial minorities and older adults as vulnerable compared to less than twenty percent of those in the NYT. In contrast, the NYT included somewhat more articles focusing on those who were economically disadvantaged (n=12, 41.4%) than did the G&M (n=8, 25.0%). Both papers were similar with regard to the number of articles identifying immigrants and refugees as vulnerable during the pandemic, with over twenty percent of the articles in both papers including this focus.

To address our second research question, we conducted in-depth qualitative content analyses of all articles that included a focus on older adults as vulnerable and compared them to other subpopulations that were most frequently identified as vulnerable (i.e., ethno-racial minorities; immigrants and refugees; and those who were economically disadvantaged). With regard to older adults, the most frequently-cited theme in both newspapers involved older adults' susceptibility to the risks of contracting

Table 1. Major thematic foci

Category	All Articles (n=391)						G&M (n=191)						NYT (n=200)					
	Overall			Primary			Overall			Primary			Overall			Primary		
	Rank	n	%	Rank	n	%	Rank	n	%	Rank	n	%	Rank	n	%	Rank	n	%
Impact of pandemic on economy, business, industry	1	154	39.4	1.5	65	16.6	1	77	40.3	1	39	20.4	2	77	38.5	2	26	13.0
Symptoms and public health measures	2	145	37.1	5	23	5.9	3	60	31.4	5.5	11	5.8	1	85	42.5	6.5	12	6.0
State/provincial/national political and policy issues	3	119	30.4	1.5	65	16.6	2	61	31.9	2	32	16.7	3	58	29.0	1	33	16.5
International public health reporting (e.g., prevalence)	4	90	23.0	6	21	5.4	4	43	22.5	8	6	3.1	5	47	23.5	4	15	7.5
International political/policy issues	5	83	21.2	3	40	10.2	8	31	16.2	4	17	8.9	4	52	26.0	3	23	11.5
Impact of pandemic on population mental health	6	79	20.2	12	10	2.6	5	35	18.3	9	5	2.6	7	44	22.0	13.5	5	2.5
Comparison of COVID–19 to other pandemics/epidemics	7	77	19.7	–	0	0.0	6.5	32	16.7	–	0	0.0	6	45	22.5	–	0	0.0
Impact of pandemic on international travel	8	73	18.7	9	14	3.6	9.5	30	15.7	7	8	4.2	8	43	21.5	11.5	6	3.0
Impact of pandemic on population social life	9	63	16.1	4	37	9.5	9.5	30	15.7	3	25	13.1	9	33	16.5	6.5	12	6.0
Impact of pandemic on vulnerable subpopulations	10	61	15.6	8	18	4.6	6.5	32	16.7	5.5	11	5.8	10.5	29	14.5	9.5	7	3.5
Impact of pandemic on workers	11.5	54	13.8	14	8	2.0	11	28	14.7	12.3	3	1.6	12.5	26	13.0	13.5	5	2.5
Causes of COVID–19 pandemic	11.5	54	13.8	13	9	2.3	12	25	13.1	12.3	3	1.6	10.5	29	14.5	11.5	6	3.0
Impact of pandemic on hospital services	13	44	11.2	15	7	1.8	14	18	9.4	15	2	1.0	12.5	26	13.0	13.5	5	2.5
State/provincial/national public health reporting	14.5	37	9.5	10	13	3.3	13	19	9.9	12.3	3	1.6	17	18	9.0	8	10	5.0
Diagnostic and testing equipment, procedures, research	14.5	37	9.5	11	11	2.8	15	16	8.4	11	4	2.1	15	21	10.5	9.5	7	3.5

Note: Table does not include categories ranked 16–29: (16) Solutions/recommendations; (17) Access to personal protective equipment; (18) Impact on national travel; (19) Impact on population-level economic well-being; (20) Impact on public services; (21) Impact of pandemic on private services; (22) Access to ventilators and other treatment technologies; (23) Impact of pandemic on the environment; (24) Vaccine and vaccine development; (25) Impact of pandemic on non-medical essential services; (26) Impact of pandemic on long-term care facilities; (27) Impact on hospital patients; (28) Impact on community-based care clients; and (29) Other. Overall Rank = ranking when all primary and secondary thematic categories are included. Primary Rank = ranking when only primary thematic categories are included.

Table 2. Vulnerable subpopulation prevalence

Vulnerable Subpopulation	All Articles (n=61)			G&M (n=32)			NYT (n=29)		
	Rank	n	%	Rank	n	%	Rank	n	%
Economically vulnerable persons	1	20	32.8	3	8	25.0	1	12	41.4
Ethno–racial minorities	2	17	27.9	1	12	37.5	5.3	5	17.2
Older adults	3	16	26.2	2	11	34.4	5.3	5	17.2
Immigrants and refugees	4	14	22.9	4	7	21.9	3	7	24.1
Persons with pre–existing conditions and disabilities	6	12	19.7	5	6	18.7	4	6	20.7
Students	7	8	13.1	9.5	3	9.4	5.3	5	17.2
Children and youth	8	7	11.5	7.5	4	12.5	8.5	3	10.3
Gender groups	9.5	6	9.8	7.5	4	12.5	10	2	6.9
Essential and frontline workers	9.5	6	9.8	9.5	3	9.4	8.5	3	10.3
Other	5	13	21.3	6	5	15.6	2	8	27.6

Note: 'Other' includes LGBTQI, prisoners, flood victims, residents of developing countries, and rural residents.

and of dying from COVID-19 due to their age, frailty, and/or likelihood of having other serious health problems:

> "*We have known for some time that older folks and those with pre-existing medical conditions – such as heart disease, diabetes and obesity – face an elevated risk of suffering a severe and potentially fatal reaction if they become infected with the novel coronavirus that causes COVID-19*" (Taylor, 2020, p. A.12).

> "*Roughly 7,000 poll workers have said they won't show up for fear of being infected with the coronavirus. Who could blame them? Many are older and at increased risk from an infection*" (Thayer, 2020, p. A.22).

Several articles in both newspapers also included a focus on long-term care (LTC). Again, the heightened risk of contracting and dying from COVID-19 among LTC residents was a focus, with older age framed as an intrinsic source of vulnerability. A secondary focus concerned the management of outbreaks in these facilities, but even here, the reason for older residents' vulnerability appeared to be intrinsic:

> "*For weeks, Bonnie Henry, B.C.'s Provincial Health Officer, has defended an approach that focused resources on the highest risks and most vulnerable areas, such as specific outbreaks, those who are critically ill or need hospitalization, health care workers and people in long-term care*" (Hunter, 2020, p. A.6).

> "*The nursing facility in Kirkland, run by Life Care Centers of America, is full of elderly residents who can be especially vulnerable to respiratory illnesses. Records show that the center has a recent history of illness outbreaks and of difficulty following infection control precautions*" (Baker et al., 2020 p. A.1).

Finally, both newspapers also reported on how older adults were being prioritized and targeted by travel restrictions due to their intrinsic vulnerability to COVID-19:

> "*The Canadian embassy has been issuing a single code for being prioritized for the flights, such as the elderly and those with medical conditions*" (Kirkup, 2020b, p. A.4).

> "*As the virus continues to spread, the Centers for Disease Control and Prevention on Saturday issued Level 2 alerts for Japan and South Korea,*

advising older adults and those with chronic conditions to consider postponing nonessential travel*" (Scott, 2020, p. A.1).

While older adults' vulnerability was most often linked to their risks of contracting and/or dying from COVID-19 due to intrinsic biological factors, this was less evident in articles focusing on ethno-racial minority group vulnerability. Instead, the most prevalent theme evident in both newspapers involved the implications of racism and racial discrimination – often said to be focused on those considered to be Chinese or East Asian – and linked to messaging around the origins of the pandemic (e.g., by then President Trump in the US) as well as by the travel and other restrictions imposed to deal with it:

> "*Third, broadly indiscriminate travel restrictions violate human rights because they unfairly discriminate against those who appear East Asian. These restrictions look more like racism and xenophobia than anything else*" (Hoffman & Habibi, 2020, p. A.13).

> "*Many Chinese living or traveling in the West have reported a quick spike in abuse and avoidance in public places and transport*" (Erlanger, 2020, p. A.10).

A second theme that emerged with regard to ethno-racial minorities involved their lack of access to the resources necessary to mitigate the impact of the pandemic. These included lack of access to both personal (intrinsic) and social (structural) resources. In the G&M, the focus was exclusively on Indigenous peoples and included their enhanced vulnerability framed as both intrinsic (e.g., reflecting pre-existing health conditions and advanced age) and structural (e.g., due to overcrowding, lack of access to health care resources, and poverty). With regard to intrinsic vulnerability, for example:

> "*Scholars have shown that Indigenous peoples are disproportionately affected by communicable diseases and have unique determinants of health that lead to rapid disease transmission. Our populations suffer high rates of pre-existing health conditions such as diabetes, high blood pressure, respiratory illnesses and cardiovascular disease. Precisely because these types of diseases have hard-hitting, and long-standing, implications in our communities, we continue to feel their effects well after they have been addressed for non-Indigenous people in Canada*" (Starblanket & Hunt, 2020, p. O.8).

"COVID-19 is more serious for older (Indigenous) people with these and other underlying health issues, magnifying the dangers it presents to our elders and people generally" (Burrows, 2020, p. A.13).

However, unlike older adults, attention to the vulnerability of Indigenous minorities also included recognition of the link between intrinsic and structural sources of vulnerability:

"Last week, Chief Public Health Officer Theresa Tam acknowledged that First Nations, Inuit and Métis communities face a higher risk of "severe outcomes" with the coronavirus given health inequities, higher rates of underlying medical conditions and challenges faced in remote and fly- in communities" (Kirkup, 2020a, p. A.5).

Attention was also paid to structural vulnerabilities among Indigenous people regarding overcrowding, their lack of access to health care services and equipment (e.g., testing kits, PPE), and experiences of poverty, including lack of income and access to clean water:

"Indigenous communities are overcrowded. Two or three generations may live in one house. In some cases, two or three families might share one residence. This creates a problem if you are told to self-isolate for 14 days owing to a cough and fever" (Burrows, 2020, p. A.13).

"Many communities do not have hospitals, he added, saying existing health-care centres are already understaffed. There are additional challenges to accessing the medical supplies needed to deal with the pandemic in First Nations communities, Mr. Bellegarde added, saying this includes testing kits and masks" (Kirkup, 2020a, p. A.5).

"Many of the preventive actions being suggested by medical officials are extremely challenging to apply on reserves and in rural contexts, as well as in low-income urban housing. Frequent hand washing presumes one has access to clean water" (Starblanket & Hunt, 2020, p. O.8).

In recognition of these issues, some of the articles also referenced Indigenous peoples' need to be involved in COVID-19 governance, including pandemic response planning:

"First Nations must be involved in emergency planning by all governments, Mr. Bellegarde said, adding he has been in contact with the federal government and Indigenous Services Minister Marc Miller to stress this direct involvement" (Kirkup, 2020a, p. A.5).

In contrast with the G&M, in the NYT, the focus of articles addressing ethno-racial group vulnerability was exclusively on Black, Latino, and Chinese Americans. Whereas Black and Latino vulnerability to economic insecurity during the pandemic was discussed, Chinese-Americans' vulnerability to COVID-19 was attributed to their increased travel between the United States and China as well as their experiences with mask shortages:

"Tim Murtaugh, a spokesman for the president's 2020 campaign, said in a statement that "at a time when our economy has been artificially interrupted by the virus, introducing more competition for jobs would worsen unemployment and depress wages, especially in black and Latino communities" (Baker et al., 2020, p. A.1).

"That has changed dramatically in recent days, after the Centers for Disease Control and Prevention expanded its testing criteria last week to include people with severe and unexplained respiratory illness, and not just people who were very ill and had been to China or in contact with another known patient" (Erlanger, 2020, p. A.10).

"For people in the United States with close ties to China, the Wuhan outbreak has brought unexpected worry, disappointment and scrutiny …

Some are gearing up for the outbreak to get worse. Hardware stores and pharmacies around the United States are selling out of masks that could help prevent the spread of the disease" (Baker & Singer, 2020, p. O.8).

When the vulnerability of immigrants and refugees was discussed, the main themes in both newspapers were similar and included: their increased risk and susceptibility to COVID-19, their exposure to xenophobia, and the impact of immigration policies. Both newspapers focused on immigrants' and refugees' increased risks of contracting COVID-19 and susceptibility to its effects due to structural vulnerabilities. In the G&M, this included a focus on the adverse implications of their over-representation in employment sectors (e.g., LTC facilities, slaughterhouses) that increased their exposure to COVID-19, whereas, in the NYT, the focus was on educating people in these communities about the virus:

"As COVID-19 sweeps through care homes, personal support workers continue to do vital and now often dangerous work … Their representatives say many of them don't have the protective equipment they need to stay safe. PSWs - many of them immigrants, most of them women - help residents wash and dress for the day" (Gee, 2020, p. A.6).

"Cargill shut down its plant just north of High River, Alta., earlier this week after an outbreak of COVID-19 and the death of one employee. The decision put 2,000 employees out of work.

Marichu Antonio from Action Dignity said 70 percent of the workers at Cargill are Filipino. There are also people of Mexican, Chinese and Vietnamese descent working at the plant… Mr. Cala said workers are worried about their health and feeling pressure to head back to work, even if they are still showing symptoms. He said having a steady income is a priority for them" (McIntosh, 2020, p. A.6).

"Mr. Wagner said he is particularly concerned about educating patients who are homeless or refugees about the virus; Family Health Centers has a site dedicated to each of these populations" (Johnson & Goodnough, 2020, p. A.17).

Both newspapers also focused on the increase in prejudice and discrimination directed towards immigrant and refugee communities and particularly, Chinese immigrants, in conjunction with the COVID-19 pandemic:

"On Monday, the York board released a note to parents to address another virus: anti-Chinese xenophobia" (Bascaramurty, 2020, p. A.1). *"Others called the president's announcement misguided and accused Mr. Trump of being motivated by an ugly, anti-immigrant sentiment"* (Shear et al., 2020, p. A.1).

Both also drew attention to COVID-19 border and other immigration policies, noting that migrants were being targeted for screening, testing, isolation, and other restrictive immigration measures:

"Workers, students and approved permanent residents who haven't landed should not travel yet," the Immigration website states, although there are plans to admit some temporary foreign workers. Ottawa is also turning away those who had been making irregular border crossings in order to seek asylum" (Ibbitson, 2020, p. A.9).

"The president's new executive order, which he could sign as early as Wednesday, will further close off the United States to tens of thousands of people seeking to live and work in the country, a move intended in part to stoke populist anger among his core supporters as he heads toward Election Day in November" (Shear et al., 2020, p. A.1).

Finally, both newspapers focused on the theme of increased risk and susceptibility to COVID-19 among those experiencing economic deprivation. Consistent with a social determinants of health perspective, one article noted that income is the number one determinant of health and discussed the role of income inequality in influencing the likelihood of acquiring the illness and being able to access the resources (e.g., adequate nutrition) and health care necessary to combat it. Another alluded to the increased risk of adverse COVID-19 experiences by contingent workers and others outside the upper middle class:

> *"This is not to suggest that economics don't matter. Of course they do. The number one determinant of health is income. It's hard to be healthy if you're poor. That's why stimulus packages are important"* (Picard, 2020, p. A.4).
> *"This is by no means exclusive to tech. Turns out, a pandemic offers a great way to examine American class inequities. There's something especially clarifying as it pertains to the gig economy. Silicon Valley has long faced criticism for building products for itself, which is to say, products aimed at solving problems of upper middle class men who spend far too much time working and crave micro efficiencies and greater convenience. Much has been reported on how that convenience has created a precarious under-economy of contract workers, dangerous working conditions and same-day delivery environmental concerns"* (Warzel, 2020, p. A.24).

Whereas some articles emphasized the increased risk faced by those engaged in particular types of employment, others drew attention to the negative impact of the pandemic on people's employment opportunities, employment rights and economic security.

> *"Employees who become unable to work are not entitled to salary or lost wages during their absence. However, there are options to recover some lost compensation, such as paid vacation time, federal employment insurance sick leave pay, workplace safety insurance claims and short-term disability benefits"* (Lublin, 2020, p. B.10).

> *"More than 22 million Americans have lost their jobs in the economic devastation caused by the virus and efforts to contain it"* (Shear et al., 2020, p. 1).

Finally, both newspapers also focused on the theme of government financial or other forms of assistance (e.g., funding community gardens), emphasizing their importance and either lauding the government for providing support to low-income workers, renters and other economically vulnerable individuals or lamenting the lack of adequate financial aid or sick leave available to workers and other economically vulnerable individuals (e.g., those who are homeless) affected by the pandemic:

> *"But every bit of taxpayer money - and Ottawa has committed $82-billion to date - should be spent helping workers who need income to eat and pay their rent, on treating the sick, on ensuring our health and social welfare system can provide all the help necessary"* (Picard, 2020, p. A.4).

> *"The $2 trillion CARES Act, signed by President Trump on March 27, should in theory help laid-off tenants keep up with the rent through a combination of expanded unemployment insurance and one-time stimulus payments"* (Dougherty, 2020, p. B.1).

The NYT articles, in particular, also focused attention on the inadequacies faced by those experiencing economic deprivation in their access to health care (e.g., lack of health and emergency services in poorer neighbourhoods, to homeless individuals).

> *"But the coronavirus pandemic is testing both Cedars-Sinai Medical Center and Martin Luther King Jr. Community Hospital in ways never seen before. At one level, there is a growing fear that the crisis could lay bare longstanding inequities in the nation's health care system that could ultimately make the virus more deadly in Los Angeles's poorest communities"* (Becker & Arango, 2020, p. A.7).

Although it appeared to be a more prominent theme in the NYT, some attention was also paid to lack of access to health care by the poor in the Canadian context:

> *"Areas of dense human populations where relatively poor people lack adequate health care and nutrition are more likely to see these types of viruses emerge"* (Koch, 2020, p. O.9).

Discussion

Media coverage of public health issues such as the COVID-19 pandemic plays an important role in disseminating scientific information and in shaping the public's understanding of such issues. It participates in determining what information is relevant to the public and thereby influences how the public perceives and responds to a specific health issue – including whether it is perceived as a risk, the seriousness and salience of that risk, and how it can be mitigated (Shah et al., 2001). Furthermore, the relationship between health communication and health policy is considered a reciprocal one. Public health decision makers often rely on the media when alerting the public about disease-related threats and desired health-protection strategies. In turn, media has a powerful influence on policy making, highlighting issues considered to be newsworthy, how they are framed, and shaping public opinion that, in turn, exerts pressure on policy makers to respond (Marier & Revelli, 2017; Shah et al., 2001).

Given the importance of media coverage together with literature on vulnerability narratives about various subpopulations during COVID-19, this study set out to examine how older age and other sources of vulnerability were framed by newspaper media in Canada and the US during the early months of the COVID-19 pandemic. We began by asking to what extent 'vulnerability' served as a key narrative in newspaper articles during the first wave of the pandemic and the extent to which older adults and other social groups were framed as 'vulnerable'. Here, our findings revealed that the impact of the pandemic on so-called vulnerable subpopulations was not a major thematic focus of newspaper articles written during this period, with only a minority having this as a primary or secondary focus. Although slightly more of the Canadian than US news articles focused on this issue, both newspapers revealed greater concern with the impact of the pandemic on the country's economy, business and industrial sectors; related political and policy issues (e.g., health care, economic, travel); COVID-19 symptoms and recommended public health measures; and international public health reporting. Overall, these findings suggest that rather than being cast as vulnerable during the early months of the pandemic, older adults as well as other marginalized social groups were more likely to find themselves comparatively invisible in media accounts, with greater attention being directed towards economic and political concerns or educating the public on how to avoid exposure or recognize COVID-19 following exposure.

Secondly, we were also interested in asking: to the extent that older adults and other subpopulations were considered vulnerable, how was their vulnerability framed? Here, we found that a focus on

individual intrinsic rather than social structural risk factors was most consistently evident within articles focusing on older adults. Indeed, there was comparatively little focus on structural sources of vulnerability in articles pertaining to older adults. Even articles addressing the impact of LTC facilities on the risk and susceptibility of older adults during the pandemic generally focused on their vulnerability in terms of advanced age or pre-existing health conditions.

While some attention was also directed to the greater risk and susceptibility of Indigenous people (in Canada) to COVID-19 and its negative outcomes due to their greater likelihood of having pre-existing conditions and/or advanced age (intrinsic vulnerability), the role of structural determinants (e.g., exposure to previous traumas, overcrowding, poorly ventilated homes) was also referenced. Overall, articles focusing on ethno-racial minorities, immigrants and refugees, and those experiencing economic deprivation were more likely to attribute their vulnerability to structural factors. For example, although racism and racial discrimination emerged as the most prevalent theme in articles focusing on ethno-racial minorities as vulnerable, and xenophobia was the most frequently cited theme with regard to immigrants and refugees, there was no coverage of issues pertaining to ageism and/or age discrimination in the articles we reviewed. In addition, although concerns about the lack and/or loss of resources among ethno-racial minorities, immigrants and the poor were discussed, when it came to older adults, this concern was limited to LTC settings and transportation needs, thereby neglecting other issues pertaining to community-dwelling older adults (such as increased social isolation and decreased access to health care services and employment). Further, there was no coverage of the importance of older adults' perspectives to decision making and planning around COVID-19 as was evident in articles discussing ethno-racial minorities. Lastly, although unemployment and financial government assistance were predominant themes when the focus was on working age adults, specific issues pertaining to low-income older adults were not covered.

Overall, findings of this nature support prior evidence and critiques indicating that the framing of older adults as vulnerable reflects ageist stereotypes (Fraser et al., 2020; Jen et al., 2021; Marier & Revelli, 2017; Vervaecke & Meisner, 2021). However, they also suggest that this has more to do with an emphasis on 'intrinsic' or 'individual-level' rather than 'structural' sources of vulnerability than with the focus on vulnerability per se.

Finally, we also assessed whether the framing of 'vulnerable' subpopulations – what groups were identified as vulnerable and why – differed when comparing Canadian and American newspaper coverage. Here, we found that ethno-racial minorities, immigrants and refugees, the poor and older adults were identified as vulnerable in both newspapers. However, both had a similar number of articles focusing on immigrant and refugee vulnerability, the G&M had about twice as many articles focusing on older adult and ethno-racial group vulnerability, whereas the NYT had more articles addressing economic deprivation. This suggests a more singular emphasis on the role of the market in relation to vulnerability in the USA, with Canada having a somewhat greater emphasis on the need for government protection of vulnerable subpopulations more generally (Myles, 1998). There were also differences in which ethno-racial minorities were considered vulnerable, with the G&M focusing primarily on Indigenous and Chinese Canadians and the NYT focusing for the most part on Black, Hispanic, and Chinese Americans. This is somewhat consistent with differences in the ethno-racial composition and major racial inequalities evident within each country's

population (Ramraj et al., 2016) as well as the invisibility of Black Canadians (Knight et al., 2021) and Indigenous Americans (Leavitt et al., 2015) in media accounts revealed in previous studies.

Our review of the literature also led us to expect a greater focus on individual vulnerability narratives in the US newspaper and greater emphasis on the structural vulnerability of marginalized groups and need for government protection in Canadian than US news articles. However, when addressing ethno-racial, immigrant/refugee and economic vulnerability, the emphasis in both newspapers was largely on structural rather than individual determinants. Finally, despite greater attention to older adults' vulnerability in the Canadian news articles, neither paper adopted a structural narrative when framing their vulnerability.

Several limitations should be considered when reviewing our findings. First, the data were collected from only two newspapers (one from each country). Although both are major national newspapers, they do not reflect the range of political and other factors (e.g., regional) that may influence how vulnerability is framed in the context of the COVID-19 pandemic. For example, neither newspaper is generally considered very conservative in orientation. Consequently, to the extent that newspapers with a more conservative political orientation are less likely to focus on the vulnerability of marginalized social groups or to attribute it to structural factors, our findings may well have over-emphasized the level of attention being paid to the impact of the pandemic on vulnerable social groups and to structural sources of this vulnerability. A study that draws on a larger, more diverse sample of newspapers would have been useful in addressing this issue as well as differences across the two countries.

Second, the probability sampling method we used in this study rather than the purposive sampling methods that have dominated previous qualitative content analysis media studies allowed for an analysis of both the prevalence with which various subpopulations were considered as vulnerable together with how their COVID-19 vulnerability was framed during the first wave of the pandemic in the two newspapers studied. It also allowed us to use an in-depth inductive approach to classification (one based on a thorough reading of each article rather than on the use of a specific keyword – e.g., vulnerable) that was not considered feasible given the total number of articles we identified that included a focus on the pandemic. Arguably, our inductive approach generated a more accurate estimate of the proportion of articles that included a focus on vulnerability. However, although this approach led to one of the main findings of this study (i.e., that the impact of the pandemic on older adults or other vulnerable subpopulations was not a major thematic focus of newspaper articles during this period), one trade-off of this approach is that it may have resulted in a less focused analysis of these subpopulations and themes and particularly, of vulnerability narratives within articles focused on older adults during the pandemic.

Third, our analyses were limited to the early months of the pandemic. However, evidence suggests that the coverage and framing of pandemics are likely to vary over time (Wirz et al., 2022). Yet, an analysis of media's framing of vulnerability during the early phase of the COVID-19 pandemic is important since this is the period when the perceived risks were being identified and purported solutions developed. Thus, it is a period in which newspaper coverage may be particularly consequential.

By focusing on how later life vulnerability was being framed in the context of COVID-19 both across countries and

subpopulations, our analyses provide information that can be used to inform policy decisions about when and whether to pursue medical, public health, and/or population health policies and solutions to public health problems such as COVID-19. Despite national context differences, there was little difference in the framing of age-related vulnerability across the two countries, with such differences more evident with regard to other subpopulations. Thus, by relying on media framings of intrinsic rather than structural vulnerability as a source of adverse pandemic outcomes in later life, policy makers in both countries may well adopt policies and programs that treat such outcomes as inevitable. As noted by Brown (2011), for example, 'presumed inherent vulnerability can function as an excuse for failing to tackle structural vulnerabilities' (pp. 318–319). Yet, the Canadian government has long endorsed a population health framework that acknowledges the central importance of social structural and political factors as determinants of health. Thus, our findings point to a need to address issues such as: ageism and age discrimination; poverty and economic deprivation; social isolation and other issues pertaining to community-dwelling older adults; and older adults' lack of input into decision making around pandemic response planning.

Finally, this study also provides information useful to newspaper and other media regarding when, how, and what information should be conveyed. Overall, given their importance in establishing the context and communicating the agenda that is taken up by policy makers and others, this study suggests that media in both countries need to be critical of narratives that essentialize the vulnerability of older adults, viewing it as an inevitable outcome of intrinsic characteristics such as age, physical or cognitive frailty. Instead, greater attention to the role of structural factors in impacting the poorer pandemic-related outcomes evident among older adults – a framing that was more evident among other subpopulations viewed as vulnerable – is needed.

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Appendix A: Newspaper Articles Cited

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