In/visible Pandemic Disruptions to Immigrant Integration: Social Connections, Impacts, and Service Use During the COVID-19 Pandemic

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1   Introduction

The COVID-19 pandemic was both swift and impactful, a megacrisis with immediate and long-term consequences that fundamentally altered global social, economic, and health landscapes. Communities both hunkered down and mobilized through social service institutions and public agencies. This dual response was essential in managing the immediate crisis and in laying the groundwork for long-term recovery. The pandemic has spurred a rich and rapidly expanding body of scholarship that underscores not only the gravity of the crisis, but also its unequal impacts along lines of race, class, and gender, as well as other positionalities and situated identities.

During the COVID-19 pandemic, racialized immigrant communities were among the most vulnerable, encountering multifaceted challenges throughout (Guadagno, 2020). These immediate challenges have long-lasting implications for immigrants' social and economic integration. Despite efforts to mitigate these impacts, the pandemic's consequences have been severe. Recent scholarship and media accounts illustrate the complex, compounding, and intersecting elements relevant to racialized immigrants as they grapple with the pandemic.

Key to this scholarship is integration, as it differentiates immigrant experiences from those of other racialized vulnerable communities (Schuster et al. 2022). Immigration status intersects with race, gender, sexuality, and other social categories as a specific positionality or situated identity that defines and structures immigrants' experiences of integration and service needs relating to the health, economic, social, and environmental contexts and impacts of the pandemic (Gulati et al. 2016; Rebhun 2021).

The widely cited model of Ager and Strang's conceptual framework on domains of integration (2008) uses a multi-level structure to explain the various elements that constitute integration for refugees and immigrants (Schuster et al. 2022). This framework includes 10 dimensions, detailed below. Most studies of immigrants' experiences during the pandemic focus on the first four—employment, housing, education, and health—as they are visible, identifiable, and measurable elements at the individual level. Meanwhile, the latter three—social connections, rights, and citizenship—are less visible, less concrete, and more difficult to measure and assess,

and thus less examined in pandemic research. Social connections, and more specifically social links and social bridges (detailed further below), are thus a central element of immigrant integration, but understudied in the context of the pandemic. Social links refer to connections within homogeneous groups, while bridges and bonds represent connections between different social groups and within diverse networks, respectively. This paper aims to bring in the concepts of integration and the importance of social connections specifically, as a means of contributing to scholarship on the immigrant experience in the context of the pandemic. We expand on Agar and Stang's framework, and our findings, discussed later, highlight not only the visible but also the invisible aspects of the immigrant integration process. Via our findings, we argue that, in times of crisis such as the pandemic, integration encompasses not only more visible aspects, such as access to health, education, and housing services and participation in the labour market, but also relational aspects, such as social connections and community belonging. We modify the conceptual model of integration via the symbolism of an iceberg, underscoring that while visible structural elements such as employment and housing are crucial, the less visible but foundational social connections also play an essential role in successful integration. Emphasizing these often-overlooked elements highlight the necessity of fostering community belonging and support to achieve comprehensive integration.

Our study focuses on a major city in Canada, providing a localized lens through which to examine these issues. We conducted a survey and photovoice interviews with immigrant participants. This research was part of a collaborative, intersectoral, public-private, city-level effort formed in 2021 to address the service needs of racialized immigrant communities in Calgary, Alberta. This initiative involved immigrant-serving settlement agencies, civil society organizations, and public institutions, reflecting a holistic approach to addressing the complex needs of these communities. The discussions and closing sections provide specific insights and implications for practice. By drawing on a robust theoretical framework and empirical data, this paper aims to advance academic discourse on immigrant integration and contribute to more effective, inclusive responses to future crises.

Background

Conceptual framework: The domains of integration

The conceptual framework for refugee and immigrant integration by Ager and Strang (2008) illustrates 10 elements along four domains that are structured in a layered or multi-level analysis, depicted in Figure 1. The framework was developed specifically for refugee populations, but it has been applied for immigrant populations as well (Schuster et al., 2022).

Figure 1. The integration framework developed by Agar and Strang
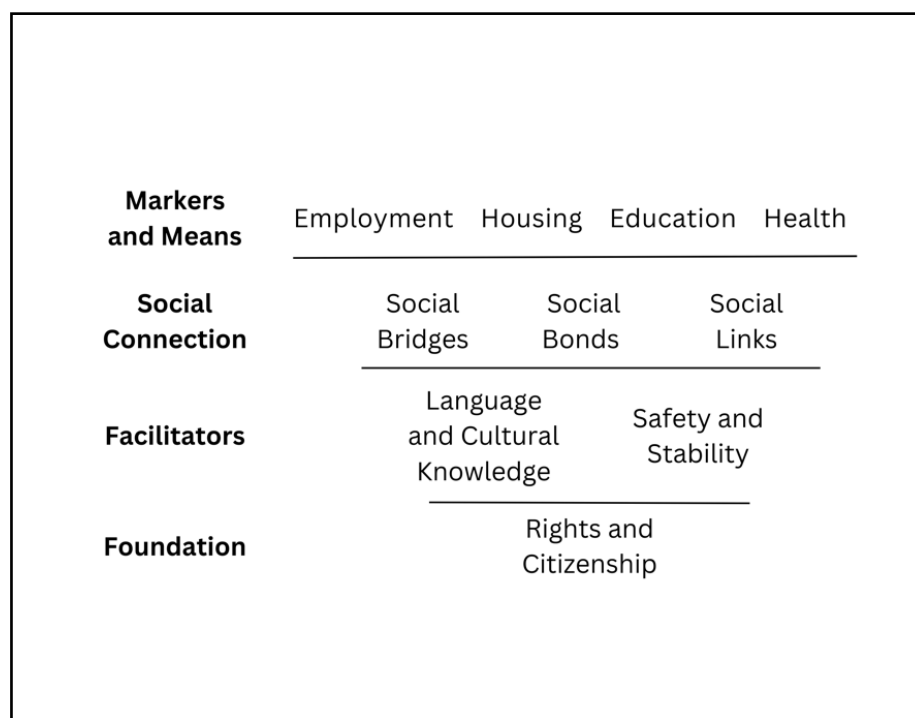
The first domain denotes markers and means, such as employment, housing, education, and health. Employment emphasizes economic independence in the host society. This also considers the series of social barriers preventing immigrants from securing jobs commensurate with their experience and skills, jobs which would foster their social mobility and decrease their vulnerability, poverty, and marginalization. Housing highlights the social and cultural impacts of living conditions that affect people's overall physical and emotional well-being. Education provides not merely skills for increasing employability, but also interconnection between individuals and the host community. As health also determines active engagement in local society, it is impacted by language barriers within mainstream healthcare provision.

The framework's second domain or layer—social connections—highlights the significance of social relationships, described as three distinct elements: social bridges, social bonds, and social links. *Social bridges* denote relationships between immigrants and communities, and immigrants' participation in the local society. *Social bonds* consist of social relationships with family and co-ethnic, co-national, co-religious, or other group patterns that enable people to share cultural practices and maintain familiar relationship forms. As social bonds, immediate and extended families, and others possessing similar cultural, ethnic, and/or religious backgrounds, provide comfort, information, and integration (Ager & Strang, 2008; Drolet & Moorthi, 2018). *Social links* represent interactions between immigrants and the structures of institutional and governmental services.

Recent literature underscores the critical roles of both social links and social bridges in shaping immigrant integration. Filomeno (2020), focusing on urban settings in the U.S., examines how local governance and citizen-led initiatives contribute to the integration of immigrants. The study highlights the dynamic nature of cities, where diverse environments create unique opportunities for integration, with both social links and social bridges playing vital roles. In Sha's (2022) study of Congolese migrants in Norway, the focus is on how these networks

facilitate integration: social links within the ethnic community were essential for securing immediate needs such as housing and employment, while social bridges were crucial for accessing education and legal resources critical to migrants' long-term integration into Norwegian society. These studies illustrate successful integration as a multifaceted process requiring both intra-group support and inter-group engagement, each contributing to different phases of immigrants' inclusion in the host society.

In non-crisis contexts, a rich body of literature has focused on social connections, commonly seeing them as overlapping, conflated with, or related to similar concepts, such as social capital, social support, and social networks (Hanley et al., 2018; Steinbach, 2007; Wachter et al., 2021). Indeed, the social aspect of the immigration experience has been found to be salient to other domains of life, including employment, housing (Hanley et al., 2018), health (Njororai & Lee, 2017), and education (Steinback, 2007), and for more marginalized and specific immigrant groups, including older adults (Gallardo-Peralta. 2017), women (Ho et al., 2012), and youth (Zhou & Bankston, 1994). There is much known about processes, barriers, and impacts related to immigrants' social connections, thus raising questions about how these may look different in situations or contexts of crisis, such as the COVID-19 pandemic. However, scholars have only begun to explore this specific line of inquiry.

The framework's third layer consists of facilitators enabling the processes of the previous two layers: language and cultural knowledge as well as safety and stability. English-language proficiency and cultural knowledge help immigrants navigate interactions and systems, including social welfare institutions, facilitating opportunities and services supporting integration. With regards to safety and stability, interviews with refugees revealed that refugees felt more integrated into communities if they perceived their environment as safe, which encompassed both physical safety and safety from verbal abuse or perceived hostility (Ager & Strang, 2008).

The last layer of this framework places rights and citizenship at the foundation of integration, as underlying principles upon which the other domains rest. Rights and citizenship are elusive and complex concepts, referring to both micro and macro contexts (Somers & Roberts, 2008). Rights and citizenship are individually experienced, in terms of making rights claims and enacting citizenship via participation in civic life (Somers & Roberts, 2008). Also, rights and citizenship must be understood as macro, externally derived concepts that are produced via the nation-state and its histories, policies, and discourses about who belongs and who doesn't and what belonging and membership mean (Somers & Roberts, 2008). As elusive concepts, rights and citizenship are often not examined directly, but through the other elements of integration. Thus, as our study posits below, social connections raise questions pertaining to rights and citizenship as foundational to immigrant integration.

COVID-19 and racialized immigrant communities

COVID-19 impacts on racialized immigrant communities range from cultural to economic barriers, often limiting their abilities to navigate the complexities of the pandemic. Recent scholarship and media reports reveal the complex, compounding, and intersecting factors affecting racialized immigrants as they navigated the pandemic, including access to healthcare, employment stability, housing security, and social support networks. Integration is particularly significant in this scholarship, distinguishing immigrant experiences from those of other vulnerable racialized communities (Schuster et al., 2022).

For instance, some racialized immigrants struggle with limited access to emergency COVID-19 communication channels due to language challenges (Méndez et al., 2020; Nezafat Maldonado et al., 2020; Xiang et al., 2021), while others experience barriers to financial aid (Nguyen & Salvesen, 2014). Furthermore, others encountered food assistance that was culturally inappropriate (Mamuji & Rozdilsky, 2019; Nguyen & Salvesen, 2014) and faced higher financial vulnerability due to a greater likelihood of job loss, predatory rental practices, and difficulty accessing private insurance or governmental supports (Méndez et al., 2020; Thomas et al., 2013).

Services and supports for immigrants suffer frequently from a lack of funding and a host of gaps. Narrow service mandates, lack of integration of policies and programs, and limited resources are typical issues plaguing support services targeted at newcomers and immigrants (Simich et al., 2005). While existing services aim to provide links to local society to facilitate integration, immigrants often experience more gaps than bridges in available services, which ultimately reinforce—rather than decrease—the separation of immigrant communities from mainstream society (Francis & Yan, 2016). The lack of social support also contributes to declines in immigrant mental health status over time (Stewart et al., 2010), and services have not kept pace with needs. In Canada, the federal government's recent move to disperse services to secondary centres often contradicts provincial and municipal directives to scale back services (Walton-Roberts, 2012). Living in smaller cities—which offer fewer services—can also exacerbate negative outcomes (Shier et al., 2016).

The COVID-19 pandemic has further exacerbated the situation of immigrants and migrants. Linguistic barriers to understanding public health measures, working in public-facing and service-oriented jobs, and living in multi-generational or multi-family homes increased immigrants' likelihood of exposure during the pandemic (Guadagno, 2020). The lack of entitlement to local healthcare and fear of stigma has impeded migrants' access to appropriate treatment, whereas anxiety caused by social isolation, loss of employment, and xenophobic acts have made life even more difficult for immigrants during the COVID-19 crisis (Guadagno, 2020).

Methods

Study context

As we mention above, this city-focused study is part of a public-private collaborative effort formed in 2021 in response to the pandemic. The collaborative's goal was to streamline, consolidate, and strengthen services for local communities of racialized immigrants disproportionately impacted by the pandemic. This study was conducted as part of the inter-agency collaborative's activities to obtain empirical data directly from service recipients to better understand clients' needs and improve service delivery. The intersectoral collaboration central to this study encompassed a synergistic partnership among immigrant-serving organizations and crisis response entities, critically addressing the complex challenges faced by immigrants amidst the COVID-19 pandemic. This collaboration incorporated efforts on institutional, individual, and societal levels, working in concert to deliver comprehensive support and services to immigrant communities. Leveraging the collective strengths and resources of these diverse organizations allowed them to acquire rich, multi-dimensional data on the pandemic's impacts, service utilization, and social connections among immigrants (Gautier et al., 2023). Concurrently, crisis response organizations contributed their expertise in

emergency management and service delivery during the pandemic (Ohrling et al., 2022). This intersectoral collaborative framework ensured the study's capacity to capture a wide range of immigrant experiences and disruptions, thereby illuminating the pandemic's influence on both the structural and relational dimensions of integration. Thus, integrating diverse sectoral perspectives both enriched the empirical data and underscored the essential role of coordinated, multi-agency efforts in bolstering immigrant communities during crises.

One district or quadrant, comprising several neighbourhoods, is home to one of the largest racialized immigrant populations in the city. For several weeks in late November 2020 during the second wave of the pandemic, the district was a pandemic hotspot with the highest number of COVID-19 cases in the province. Because the large immigrant population often lives in multi-generational homes and is employed in front-line, customer-facing jobs in transportation, food processing, food service, and manufacturing, immigrant residents were stigmatized for spreading the virus, causing fear and antagonism amongst community members (McGarvey, 2020).

The rising rate of COVID-19 cases in the city at this time prompted many non-profit organizations to act on behalf of their affected clients. Due to public discourse's particular focus on the neighbourhood during this period, a cluster of immigrant-serving organizations collaborated across other sectors to form a pandemic response. The city channelled provincial government emergency response funding to support the collaboration of various organizations focused on both settlement and social service assistance.

Data and analysis

Our research draws on a research paradigm integrating both qualitative and quantitative methodologies: the mixed-methods approach, which has gained substantial traction within the academic community as a powerful tool for conducting comprehensive and nuanced investigations. This approach allows researchers to harness the strengths of both qualitative and quantitative methods, enabling researchers to collect and analyse different types of data that facilitate a deeper understanding of research problems. By bridging the epistemological divides between positivism and interpretivism, the mixed-methods approach highlights how combining quantitative statistical analysis and qualitative narrative data can produce a more robust and holistic understanding of complex phenomena (Baškarada & Koronios, 2018). By employing numerical measurements and detailed narrative descriptions, researchers can explore the breadth and depth of research questions to identify patterns and insights that a single-method study might not uncover. The mixed-methods approach also offers flexibility in research design, allowing for sequential, concurrent, or transformative strategies, depending on the research objectives and the nature of the research question (Dawadi et al., 2021). Consequently, the mixed-methods paradigm provides a pragmatic and versatile research strategy that acknowledges and leverages the complementary strengths of qualitative and quantitative research to generate more comprehensive, reliable, and actionable insights into complex research questions.

In phase one, we designed a quantitative pandemic recovery survey asking immigrants to identify which factors were most affected by the pandemic, which social services they received during the pandemic, and what factors generated worry in a post-pandemic world. We disseminated this survey through four different vaccine pop-up clinics throughout the city,

collecting a total of 243 surveys. For descriptive analysis of survey data, we used cross-tabulation analysis for the different demographic variables and the responses to the surveys.

In phase two, we conducted interviews with participants recruited from a settlement agency, one of many agencies in the local area serving both refugees and immigrants. Phase two was conducted separately from phase one, and the interviewees were thus different from survey respondents. In total, we interviewed eight participants, one of whom declined to participate in three group discussions (two conducted in English, and one in Spanish). Of the seven group discussion participants, six were immigrants who had lived in Canada for less than five years; six were women. Participants came from varying age groups: four young adults [ages 18–34] and four middle-aged adults [ages 35–54], whose first languages varied widely. To further elicit discussion, we asked participants to share a photo or series of photos, write two or three sentences about their images, and share their experiences with us in a focus group conducted via Zoom (Goopy & Kassan, 2019). Prior to taking part in the research, all interviewees provided informed consent and permissions for publication. To analyse participants photos, write-ups, and focus groups, one coder/co-author conducted thematic analysis of the data and discussed codes and findings with the rest of the research team. We drew sensitizing terms for the coding drawing on concepts from the Agar and Strang conceptual framework discussed above. Three other analysts/co-authors then discussed the preliminary themes to collaboratively derive the final themes.

Limitations and Positionality

One of this study's significant limitations was its qualitative component's small sample size: only eight interviewees participated, seven of whom engaged in group discussions. The limited number of participants constrained the sample's representativeness, potentially limiting our ability to generalize the findings to the broader immigrant population. As a small sample size may not adequately capture a group's diversity and range of experiences, it could lead to an incomplete understanding of the multifaceted challenges immigrants faced during the pandemic. Future studies should aim to include a larger and more diverse sample to enhance the robustness and generalizability of the results.

Second, while using Zoom to collect data provided advantages, it also introduced further limitations. Since the pandemic restricted physical contact, Zoom provided a convenient and accessible platform for conducting interviews. However, it inherently excluded individuals lacking access to necessary technology or with limited digital literacy. This exclusion can bias the sample, as data may predominantly reflect the experiences of the more technologically adept who have the resources to participate in online discussions. Consequently, the findings may not fully represent the experiences of the immigrant community's more marginalized individuals, who may face additional barriers to digital access. Moreover, using Zoom can affect the quality of the data collected. Virtual interactions may lack the richness of in-person communications, potentially limiting the depth of insights gained from participants. It is less easy to discern non-verbal cues, which play a crucial role in qualitative data collection, thus also affecting the interpretative depth of the data.

Third, our coding and analytical process presented some limitations. Due to limited resources in terms of funding and personnel, and the time-intensive research components, we had only one coder to conduct the primary coding of qualitative data, forcing us to forego inter-rater

reliability and more rigorous steps. As we discussed above, we addressed this limitation by having the coder engage in deep conversations with the rest of the team.

Finally, the researchers' positionality also plays a critical role in shaping the research process, from collecting data to its analysis and interpretation. As researchers, we acknowledge the social identities, backgrounds, and potential biases that could influence our engagement with the participants and the framing of the study. Our positions as academics, potentially with different levels of privilege and access compared to the participants, may affect how we interpret their experiences and the dynamics of power within the research relationship. It is essential to remain reflexive about these influences, recognizing that our perspectives and interpretations are shaped by our own cultural, social, and professional contexts. By maintaining a reflexive stance, we aim to ensure that we are authentically representing participants' voices and grounding the analysis in their lived experiences. Future research should continue to critically engage with the positionality of researchers, fostering transparency and reflexivity to enhance the study's validity and ethical rigour.

Results

Survey data

Table 1 analyses a cross-tabulation of quantitative survey data to provide the descriptive results, detailing impacts of the pandemic upon immigrants and their use of services during the pandemic, along with demographic variables of age, gender, immigration status, and primary language.

Table 1: Descriptive data on impacts and service use during the COVID-19 pandemic

	Age			Immigration status			Gender		First language			
	18-34	35-54	55+	-5yrs	1-gen	2-gen	Female	Male	English	Punjabi	Urdu	Other
Impacts												
No impacts (n = 65)	31%	34%	32%	22%	46%	14%	28%	72%	19%	55%	9%	11%
Economic (n =108)	36%	50%	14%	19%	54%	14%	38%	62%	15%	27%	19%	39%
Mental health (n =73)	45%	47%	6%	14%	43%	21%	40%	60%	29%	17%	27%	26%
Physical health (n=38)	45%	45%	8%	13%	45%	24%	29%	71%	29%	28%	16%	26%

Other (n=18)	17%	72%	11%	22%	50%	17%	67%	33%	0%	33%	11%	56%

Service Use											
Services not sought out (n=96)	31%	41%	26%	19%	49%	10%	35%	65%	17%	44%	17%	23%
Services sought out (n=138)	44%	47%	8%	21%	46%	20%	35%	65%	20%	26%	20%	34%

Pandemic impacts on immigrants

With regards to age, our survey data yielded some surprising and interesting descriptive results, raising questions for further research. The most common impact among young adult respondents during the pandemic was on their mental health (45.2%), with physical health impacts a close second (44.7%). Meanwhile, middle-aged adult respondents reported other impacts as the most common (72.2%), and economic impacts second (50%). By contrast, older adults most commonly reported no impacts (32.3%) during the pandemic. The latter result is particularly surprising, raising questions for further research to tease out explanatory factors. With regards to immigration status, economic impacts were most common for both newcomer immigrants (18.5%) and first-generation immigrants (53.7%), while physical health impacts were most common among second-generation immigrant respondents (23.7%). Descriptive data illustrates gender differences, with women most commonly reporting mental health impacts, while men most commonly reported no impacts. This also warrants further research analysing gender's role in pandemic impacts. Finally, with regards to first language, survey results show mental health (28.8%) and physical health impacts (28.9%) as the two most common impacts for immigrants whose first language was English. By contrast, immigrants whose first languages were Punjabi and Urdu most commonly reported no impacts (55.4%) and mental health impacts (27.4%), respectively.

Immigrants' service use during the pandemic

With regards to how age related to service use during the pandemic, descriptive results based on our survey show a substantial proportion of young adults (43.5%) and middle-aged adults (46.4%) sought out services, compared to those who did not. But among older adults, the opposite was true: the majority (26%) did not seek services, compared with those who did. This latter point is particularly surprising, given that older adults were more vulnerable to COVID-19 infection, hospitalization, and morbidity. Older adults *who are immigrants* in particular may experience lack of access to services. With regards to immigrant status, more newcomer immigrants (21%) and second-generation immigrants (20.3%) sought out services compared to those who did not. However, the reverse was true for first-generation immigrants, the majority of whom (49%) never sought out services. With regards to gender, the difference between women who sought services and those who did not was very small (less than 1%); similar results were found for men (less than 1.4% difference). Finally, with regards to first language, it was

more common to seek out services during the pandemic among immigrants who spoke English (20.3%) and Urdu (19.6%), compared to those who did not seek services. By contrast, more Punjabi-speaking immigrant respondents (43.8%) did not seek services, compared with those who did.

Interview data

This section provides a discussion of results from interviews, heuristically applying Ager and Strang's integration framework (2008). Essentially, these findings illustrate how the *means and markers* domain of integration—employment, education, and health—relate deeply to the *social connection* domain of social bridges, bonds, and links. To structure how we discuss our findings, we discuss each means and markers element both with social connections, and with more specific attention to social links (defined as immigrants' links with social institutions and systems). Woven throughout this discussion of findings are English language proficiency and cultural knowledge as facilitators of integration, while we explore safety and stability as facilitators of integration in the closing section. Housing did not feature as a salient element in our findings, while mental health as aspect of health was more prominent compared with other dimensions of health.

Employment as related to social connections

Several respondents stressed how important it was to perfect their English so that they could find employment to support immediate and extended family members during the pandemic. The impacts of virtual teaching on the quality of language learning added to financial concerns and the prospect of acquiring employment. This is consistent with findings on the direct link between English proficiency and access to job opportunities (Boyd, 1990; Derwing & Waugh, 2012; DeSilva, 1997; Picot & Sweetman 2012). Indeed, securing employment requires intermediate to advanced levels of linguistic proficiency, which in turn enables immigrants to become more constructive and active members of society (Ager & Strang 2008).

Health as related to social connections

Interview data suggests that multiple stressors and quarantine protocols leading to social isolation/distancing during the pandemic linked to a decline in mental health and wellbeing. Yet, the data also illustrate immigrants' resilience in the context of social isolation. Indeed, social connections were deeply linked to health and wellbeing for many participants. In most studies of immigrant integration, health/mental health are usually examined in isolation and as indicators of the level or quality of integration. That is, the healthier an immigrant is, the more integrated they are: health goes hand in hand with integration. Based on our next findings, we argue that health—and in our case mental health specifically—is more complexly entangled and interwoven in the integration process by way of social connections. That is, in the context of immigrant integration, health/mental health must be understood as co-constituting social connections, as well as other integration means and markers such as employment, housing, and education.

Mental health and challenges

Some participants described feeling isolated and especially disconnected from the broader Canadian society due to the pandemic. One participant experienced depression from the loneliness of living alone for the first time during the pandemic, while another described how

excess free time led to overthinking and anxiety. Both described that their outlook improved substantially after they started online settlement classes.

Meanwhile, for respondents with no family and/or friends in the city, COVID-19 hampered their capacity to expand their social circles and develop bonds to alleviate loneliness during lockdown, isolation, and/or quarantine. This was particularly acute for the participants who arrived shortly before or during the pandemic as they had not yet had opportunities to establish social bonds in their new city. One participant described their struggle to balance family responsibility with their fear of close contact with people: "I can't go out alone or take a bus. I panic, I get scared, I start crying. I start thinking: '[What] if I die? What if something happens to me? And I get COVID?' My family depends on me because I am a single mother."

Mental health and resilience and social connections

At the same time, findings also illustrate how the sources of immigrants' resilience in the face of crisis were social connections, which were forged by way of activities, hobbies, and pastimes during isolation—an emergent theme in the qualitative data. Although pandemic pastimes such as gardening and cooking may seem trivial and inconsequential, participants shared how these activities served not only as personal coping strategies for the stresses of the lockdown, but also for developing social connections with others, including family members and neighbours, as we elaborate below. In a detailed case example, one participant in particular described struggling with depression together with her 16-year-old daughter. She discussed how she attempted to support her daughter by hiding her own feelings and waiting until nighttime to cry; she worried about her father in another country, who contracted COVID-19 and still faces long-term health effects from it. Sharing the hobby of collecting and caring for houseplants helped improve mental health for both mothers and daughter.

> My daughter said to me: "Mom, let's do something." And I said to her: "Something like what?" And that's how we started buying and planting flowers and plants. This way I was able to relax and so would she. We wouldn't even be done planting and my daughter would already be off sending pictures to her friends saying: "Look! Look what I'm doing now, I'm doing much better." This is how we attempted to pull ourselves out of the depression.

Indeed, interview results point to a strong focus on creative hobbies or other unpaid activities, revealing a more intimate, personal experience of the pandemic that also yielded a social dimension. Research has shown that engaging in creative and meaningful occupations (Riley et al., 2013) such as gardening, knitting, sewing, or cooking has a direct, positive impact on health and wellbeing (see also Hocking, 2009). For immigrants, these activities further provide connection to cultural traditions and contribute to maintaining identities through the transitions associated with immigration (Boerma et al., 2010). Five of the seven participants used their photo to highlight a new skill or home-based hobby/occupation, while others discussed similar activities in the focus group, including gardening and growing food, indoor plants, and flowers; cooking; making items to sell; and hanging laundry outside to dry (instead of using the dryer). One participant said she used cooking and baking to meet neighbours and practice speaking English with them. Additionally, several participants described turning to religious beliefs and using private spiritual practice (e.g., reading the Bible) to cope with anxiety and grief relating to the pandemic. Another participant explained how gardening works to connect them socially with the broader community, sharing a photo illustrating an indoor flower garden. During

pandemic isolation mandates, many turned to indoor gardening as hobby and pastime; for the participant, gardening meant being part of this community despite the spatial distance.

(Language) education as related to social connections

For immigrants, English language classes held at settlement agencies and other institutions are a primary educational aspect of integration, especially for those who have newly arrived. As the pandemic necessitated social distancing, in-person classrooms at settlement agencies were replaced by virtual classrooms. Interviewees diverged in their assessments of online learning, as we detail next.

For some participants, the virtual format was difficult to adjust to, due to the absence of sensory experience and non-verbal cues. Indeed, studies have illustrated how in-person language classes present a learning space and sense of community, which online learning environments do not provide as readily (Ong et al., 2020). For immigrants, whose learning relies more on broader classroom context, the online format can be more challenging.

Further, multiple participants had difficulty with technical aspects of online learning and were looking forward to returning to in-person learning. One respondent shared: "I didn't understand, I couldn't even turn on the computer. I would lose Wi-Fi, and it all felt like a joke, but my daughter would always help me turn on the computer." This participant shared a photo of their classroom, sharing insights about the challenges to virtual language learning during the pandemic. Lack of access to or familiarity with digital tools can be considered a form of cultural knowledge, an element of the facilitator domain in the integration model.

While virtual learning was a challenge for some participants, for others online classes proved a lifeline, offering community, connection, and an important means of wellbeing. Our qualitative data highlight that the pandemic presented space for strengthening familial and community relationships during a time of crisis. Interviewees described social practices that helped them to tackle challenges in adverse circumstances.

One individual was tactical in building social bridges on a small scale: she cooked food for her neighbour in exchange for help with her English, while also establishing friendships. Another respondent described how attending language classes motivated her to be more engaged through the virtual learning community, as she is a newly arrived immigrant. One participant described how classes lifted her out of a depression caused by living alone, being away from her family for the first time, and having no social connections in the local area. Another, who arrived a few months before lockdown, described how the online settlement classes became her only connection to Canadian society. She states: "This year it is very terrible for me because I'm new [to] Canada. And I don't know nothing about Canada [. . .] And after this, I was able to do the [program]. And this program, [it] helped me to connect with life a little."

As this participant expressed, online settlement classes were especially important to immigrants who had arrived shortly before lockdown, who otherwise had few to no contacts in Canadian society and extremely limited social networks.

Social links, connections to social services, and public institutions

To reiterate, social links denote relationships or interactions with systems and institutions, including social services, whereas social bonds denote family and co-ethnic relationships, and

social bridges denote relationships with the broader community. Social links emerge as particularly salient for immigrants in the pandemic context. In addition to interview data, survey data reveal immigrants' use of services during the pandemic, while interview data illustrate that those services were crucial sources of support, particularly virtual English-language classes and reliable health information from various institutions.

Nearly all interviewees described financial and employment difficulties during the pandemic, and most also reported benefitting from some form of government financial support. Some participants shared that their social worker facilitated their use of varied supports in the local area, while others were able to access government assistance with rent or utilities. Participants expressed gratitude and appreciation for these supports.

Some participants reported that the teachers of their online settlement classes were also their main sources of information about COVID-19 and Canada. Some participants also described turning to legitimate sources for public health information (i.e., health officials, government sources, reputable news or media sources, online settlement class teachers) and expressed high levels of trust in these sources, particularly their settlement class teachers and the government. One participant described how one month into the pandemic his fears were lifted by hearing clear public health advice from the government. When asked about their ability to navigate the healthcare system in Canada, most participants seemed confident, and almost all had a family doctor. The language barrier was considered a problem, however, and one participant reported needing her husband's help to communicate with the family doctor.

While safety and stability, as facilitators of integration, did not figure centrally in the data, they are nevertheless crucial to understanding immigrant experiences during the pandemic. Safety and stability also link to mental health and wellbeing. COVID-19 has given rise to discriminatory, racist, and xenophobic sentiments (Addo, 2020; Devakumar et al., 2020; United Nations, 2020; White, 2020), compounding challenges for immigrants. Additionally, the presence of COVID-19 and the risk of contagion have created a source of fear and anxiety for immigrants and citizens alike. As the pandemic demonstrates, the virus's ability to destabilize immigrant safety and security exacerbates the many challenges they experienced before and during the crisis.

**Connecting findings from the quantitative survey data and qualitative data**

Our quantitative findings may connect to qualitative findings. Our survey findings, detailed above, illustrate the main impacts of the pandemic on immigrant communities: mental health, physical health, and economic situations relating to employment. Further, in terms of who used services during the pandemic, survey findings point to less service use among older immigrants (compared with young and middle-aged immigrants) and first-generation immigrants (compared with newcomers and second-generation immigrants). Health/mental health were also salient amongst interviewees, and qualitative data allowed deeper introspection showing how health/mental health were distally linked to social connections, something the survey data could not show. That older immigrants and second-generation immigrants used fewer services during the pandemic raises questions about social connections. While these were not teased out fully in our interviews and focus groups, this is an area that warrants future research.

Discussion

In essence, our findings illustrate how the pandemic disrupted markers and means of immigrant integration—education, employment, and health—significantly for participants. Further, we argue that underlying the disruption in the means and markers of integration is a parallel disruption to social connections. In other words, we argue that it is insufficient to pay attention only to means and markers of integration, without considering immigrants' social connections. That is, COVID-19 has impacted employment, (language) education, and health outcomes (both means and markers in the first domain of integration) insofar as social connections (of the second domain) are also impacted. Moreover, social links—connections to public institutions and services—are especially crucial for immigrants in the pandemic context.

This argument can be represented by the "integration iceberg" shown below in Figure 2. Here, education, housing, employment, and health are visible immigrant outcomes that can be measured and assessed as means and markers of integration, while social connections are invisible beneath the surface yet crucial to buoying the means and markers above. The pandemic context amplified how strong social connection underpins the markers and means of integration. Immigrants' social bonds and social bridges can be helpful in both managing the pandemic disruptions to the job market and accessing the healthcare system (i.e., public health information, vaccination, testing, health insurance). Social distancing measures and fear of social interaction, meanwhile, restrict access to those social bonds and social bridges. Social links, as access to social services and institutional support, are also vitally important for immigrants, which survey data illustrated explicitly in terms of participants' high levels of service use during the pandemic. As the integration iceberg visualizes, our research demonstrates the interrelations between the different domains and highlights the significance of familial relationships, community support, and institutional trust that fostered immigrant resilience in adapting to the changing environment of the pandemic.

Figure 2. The integration iceberg illustrates how pandemic impacts or disruptions in social connections manifested impacts in markers of and means for integration, while facilitators and foundations of integration were also fundamental to the integration process in the context of the COVID-19 pandemic.
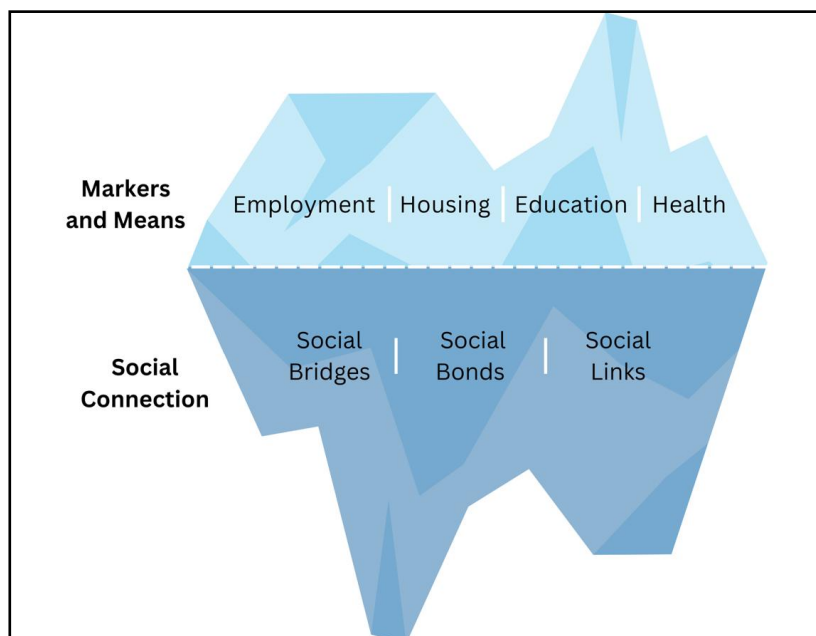
Integration does not happen spontaneously and solely among individual immigrants and their communities; rather, it is a collaborative process that requires both government actions and community cooperation (Tolley et al., 2011). As integration is contextualized as both an individual and a group phenomenon (Berry, 2001), involving changes in attitudes and behaviours (Phinney et al., 2001), it should seek to engage local residents, communities, and institutions for a longer-term process of welcoming and embracing immigrants into Canadian society (Guo & Guo, 2016). In turn, these findings raise questions pertaining to rights and citizenship as the foundational elements of integration (Agar & Strang, 2008).

Findings highlighted immigrants' individual-level efforts towards resilience, including developing lockdown activities promoting mental wellbeing; reaching out to neighbours, friends, and family for connection, advice, financial, and employment assistance; and other support. However, findings also point up the limitations of these individual strategies in the face of pandemic challenges. Immigrant-serving providers have an opportunity to build on these client-initiated areas of resilience to rebuild migrants' social connections, support their physical and mental health, and restore financial and economic integration. These findings offer a reflexive space to scrutinize social practices and how they can foster knowing and connecting, both internally and externally.

Importantly, language emerged as a dynamic component, fusing with various elements of integration, as our findings detail above. That is, immigrants' first language and English-language ability was relevant to their ability to retain or get new or different jobs, as demanded by the pandemic. Also, language was relevant for social connections, and how immigrants can strengthen social bonds but also forge new social bridges given that pandemic social distancing could limit access to their ethnic communities, thus necessitating new connections with neighbours and communities. Meanwhile, housing did not emerge as a salient aspect of integration. Also, interviewees' experiences of health impacts seemed to centre on mental health, compared with other health issues. Our methods and scope of study may have brought about these non-findings, thus raising questions for further research.

Implications

As the integration iceberg model illustrates, the impacts of the COVID-19 pandemic on immigrants encompass both visible and unseen domains of integration. In a post-pandemic future, we must include both aspects in plans to address the issues facing racialized immigrant communities in Canada. It is important to distinguish between restoring social bonds—the connections between families, co-ethnic, or co-faith groups—and building social bridges, which connect people of different backgrounds and foster a sense of shared purpose or citizenship between them. Though both are necessary in post-pandemic times, they can only be achieved through different service approaches. Indeed, service providers must focus attention on (re)building immigrants' social bridges. Social bridges are critical to forming a two-way integration process, in which the host society adapts to immigrants' presence, and both host and newcomer work together to create an open, welcoming society.

The social links connecting individuals to their society and government represent a particularly salient element of integration for immigrant-serving institutions. Social services need to amplify the development and delivery of the various domains interrupted by the pandemic to ensure that safety and stability is restored, education in language and cultural knowledge is re-established, and social connections rebuilt. Targeted planning for the post-pandemic period—

and indeed the transition to this stage—will be necessary to mitigate the compounding and intersecting consequences to racialized immigrant communities. Immigrant-serving social service institutions, both public and private, play a vital role. Their role is especially crucial in communicating; providing bridges between government agencies, health-service providers and local immigrant communities; and continued advocacy in the post-pandemic time for strengthening health access and resources. Canadian social service agencies—specifically immigrant-serving community organizations, such as settlement agencies—will need to develop programming and plans that address these areas of concern, and restore aspects of integration interrupted by the pandemic to avoid the risk of negative settlement outcomes in the longer term.

As federal policy, Canada's Immigration and Refugee Protection Act establishes authority for creating and funding the federally run Settlement Program, which supports various services broadly aimed at helping immigrants integrate into Canadian society. The bulk of funding goes to language training, employment assistance, and community orientation (settlement, including financial literacy), but programming for social connections is not as prioritized. Our findings point towards the need for a stronger focus on social connection-building within the Settlement Program—such as organizing social events, peer support groups, and engagement activities—to help immigrants establish local connections and build social support networks, which are vital for successful integration. Also, our findings suggest for the Settlement Program to be linked/coordinated with other initiatives (local/municipal, provincial) that aim for basic supports (i.e., health, education, employment). Some of these initiatives are Local Immigration Partnerships, Immigrant and Refugees Children and Youth Programs, Volunteering and Civic Engagement Programs, Family Support Services, Public Libraries and Community Centres, Social Enterprise Initiatives, and Integration and Anti-Racism Strategies.

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