



## Perspectives of International Nursing Students regarding Canadian Public Health Measures for COVID-19: An Interpretive Descriptive Study

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### Abstract

**Background:** The COVID-19 pandemic and public health measures affected the well-being of international graduate nursing students in diverse ways. The migration to remote teaching and learning due to campus closures, and international travel bans all contributed to sudden changes in daily routines, financial stressors, and intrapersonal connections. **Aim:** We aimed to explore international graduate nursing students' experiences with and response to the COVID-19 pandemic and public health measures at a Canadian university. **Method:** Interpretive Description (ID) was used to explore the experiences of eight international graduate nursing students in one nursing program in a Prairie province in Canada. Semi-structured individual in-depth interviews were conducted with participants via WebEx between the months of April and May 2021; the data were transcribed and analyzed using six phases of thematic analysis. **Findings:** The study yielded these themes: a) COVID-19's disruptions; and b) coping with COVID-19 disruptions. **Conclusion:** The COVID-19 pandemic affected study participants' well-being in various ways, particularly, the loss of connection with campus community may have been the most profound negative impact on international graduate nursing students. Despite the impact, they demonstrated resilience, continued their studies, and employed coping strategies to overcome challenges they faced.

**Keywords:** COVID-19 pandemic; international graduate nursing students; Interpretive Description

## Background

International students experience diverse challenges such as socioeconomic, mental, and emotional (Banjong et al., 2016). These challenges were amplified by the COVID-19 pandemic. When COVID-19 was declared a public health crisis in 2020, the Federal Government of Canada responded by putting protective measures in place to limit the spread of the virus. These measures included public education about the COVID-19 virus and ways of limiting its spread through a) social and physical distancing, b) hand washing, c) quarantine and self-isolation for those suspected or confirmed to be infected by the virus, d) mandatory self-isolation of international travellers; and e) closing international borders (Public Health Agency of Canada, 2021). The closure of international borders meant both incoming and outgoing travel was limited for international travellers including graduate nursing students (Firang, 2020).

In response to the declared provincial public health emergency, the university, where the first author studied, officially moved to remote learning on March 19, 2020, for the remainder of the 2020 winter term and subsequently, through the 2021 fall term. The university also suspended all non-essential campus activities and gatherings, including student get-togethers. The students were unable to access university resources such as office space, study rooms, and university libraries. Those who worked on, and off-campus lost their jobs and subsequently the needed financial support which triggered financial crises (Firang, 2020).

Moreover, stressors such as family financial challenges, academic delays, and fear of contracting the COVID-19 virus were associated with college students' anxiety levels (Cao et al., 2020). Misinformation surrounding the novel virus, uncertainties, and isolation were associated with increased anxiety and depression among many individuals (Rajkumar, 2020; Tull et al., 2020). It is worth knowing that the pandemic distress was more pronounced among Asian students who were subjected to racism and discrimination in Australia, Canada, the United Kingdom, and the United States of America. They were blamed for the pandemic since the virus was first reported in China (Andrew, 2020; Nguyen & Balakrishnan, 2020; Tessler et al., 2020). The experiences of discrimination and racism are important social determinants of health for this group of people, especially in such difficult circumstances of the pandemic crisis.

International students have a high risk to developing mental stress because of studying pressure in a new environment, settlement, acclimatization, and different demands in a new country (Banjong et al., 2016). The COVID-19 pandemic and public health measures made students more vulnerable to mental health problems partly due to loneliness and social isolation (Faring, 2020). These stressors if unmitigated would negatively impact their well-being and lead to the development of mental health disorders.

Despite the challenges that international students most often experience even before the COVID-19 pandemic, there are limited studies on the impacts of COVID-19 on international students in Canada, especially from the students' perspectives using a qualitative approach. The review of literature for this study did not find primary studies exploring this phenomenon given the novelty of the COVID-19 pandemic. Guided by the determinants of health (income and social status, social support networks, employment, and working conditions, social environment, and health services), the researchers sought to answer the following questions: a) What are the

experiences of international graduate nursing students at one university in the Prairie provinces during the COVID-19 pandemic and public health measures? b) How did international graduate nursing students manage the socio-economic crisis and mental stress related to the COVID-19 pandemic and the public health measures?

## Methods

### Design and Sample

The Interpretive Description (ID) method (Thorne, 2016) was used to explore international graduate nursing students' experiences with, and response to the COVID-19 pandemic and the impact of associated public health measures at a university in the Prairie provinces of Canada. An ID study applies techniques from qualitative research methodologies such as the coding procedure from the grounded theory approach to learn more about complex social, psychological, and health-related issues (Thorne, 2016). The ID approach has a philosophical alignment with the interpretive naturalistic orientation. Interpretive description uses the experiences of the individual to begin the inquiry, as an individual's experiences are contextual and subjective (Thorne, 2016). Qualitative researchers using the ID approach believe that no prior theory could encompass the multiple realities that are likely to be encountered. International graduate nursing students' experiences with the COVID-19 pandemic and how they responded to the crisis were subjective; hence the ID design was appropriate given that participants' subjective experiences were explored (Thorne et al., 2004). The social determinants of health model (SDH) guided the study. The SDH are the non-medical factors that have the potential of influencing health outcomes. These are conditions in which people are born, grow, work, age, live and are affected by all the forces that shape conditions of daily life (Krumeich & Meershoek, 2014). These social determinants of health or conditions include; income and social protection, job security and unemployment, food insecurity, housing and basic amenities, social inclusion, and access to health services. These conditions affect a wide range of health, functionality, and individuals' quality of life outcomes, as well life risks (Krumeich & Meershoek, 2014).

International students who most often face a lot of challenges ranging from the stress of studying, new culture, environment, and new weather are most likely to be affected by some of these many factors. The situation became complicated for international students with the COVID-19 pandemic and its measures giving that, their employment, physical environment, socio-economic status, social support system and even access to health care were impacted. Considered a minority group in the context of international students, the social determinants of health that international students contended with are income and social protection, access to affordable health care, job security, social inclusion, and a lot of other factors. The COVID-19 pandemic worsened international students' conditions. Addressing these social determinants of health was important for improving health and well-being especially in such a difficult moment of the pandemic. However, it became apparent from this study that international students' destiny was left in their own hands as they struggled with insufficient income, social isolation, and some suffering from symptoms of mental health problems. International graduate nursing students from a university in the Prairies province were purposively selected to inquire about the

impact of the COVID-19 pandemic and how they managed their well-being. Recommendations from the study could provide some form of guidance for future public health crises.

## **Data Collection**

The recruitment of the participants was purposive. Purposive sampling involves the selection of a specific group of individuals/participants because they have characteristics needed in the sample (Etikan, 2016). Given that the researchers sought to explore the experiences of only international graduate nursing students at one university in one of the Prairie provinces, purposive sampling was the right fit for this study. This sample size was considered due to the difficulties in conducting research at the time when the COVID-19 virus was at its peak. In-person interviews were discouraged due to the social and physical distancing protocols instituted. The first author was familiar with the study participants which made it convenient to organize the WebEx interviews. The study was approved by the ethics review board of the university from which participants were recruited, with approval number REB 2514 before the commencement of data collection. An invitation letter including a description of the study and the contact information of the first researcher was sent to the program coordinator of the participants who then emailed all international graduate nursing students in the master's and PhD programs to inform them about the study. All study participants gave informed written consent before the commencement of the individual interviews. The semi-structured interviews were conducted between the months of April and May of 2021 via WebEx. Each individual interview lasted 60-90 minutes. The first author conducted the WebEx interviews with the help of an interview protocol developed together with the research committee. This interview protocol served to guide the researcher through the individual interview processes. Demographic questions were structured whereas participants' experience of the COVID-19 pandemic were unstructured. The main topics covered during the individual interviews included; participants' experiences of the COVID-19 pandemic being away from their families, the impact of the pandemic on their studies, the socio-economic impact of the COVID-19 pandemic, participants' main concerns and fears regarding the pandemic, the mental health impact of the pandemic, coping strategies to maintain their well-being, the mental and financial support systems of participants, services made available by the university to international students during the pandemic, changes to their eating/sleeping patterns, and recommendations from participants for future public health crises. These semi-structured questionnaires gave participants the opportunity to fully express their experiences of the pandemic.

## **Confidentiality and Anonymity**

Participants' confidentiality and anonymity were ensured by using assigned pseudonyms, and data that were collected from this study has been stored in a password secured cabinet of the university computer. This study followed the university guidelines in terms of safeguard in the use of WebEx during the individual interviews.

## Data Analysis

The first author transcribed the recorded interviews verbatim and analyzed them thematically using Braun and Clarke's (2012) six phases to analyzing qualitative data: familiarizing oneself with the data, generating codes, constructing themes, reviewing potential themes, defining and naming themes, and producing the report. The first author read the transcripts line by line while making notes directly on them to familiarize himself with the data, develop a sense of the whole, search for patterns, and to generate initial codes. This process was followed by categorizing the codes and how they fit into the coding frame. These transcripts were then read by the supervisors (second and third co-authors). Initial codes created were reviewed and revised as themes emerged from the data.

The ID design allows the use of other approaches to data analysis. The product of ID is a clear conceptual description that taps thematic patterns and has commonalities with thematic analysis believed to characterize the object of inquiry (Thorne et al., 2004). This also accounts for the unique individual experiences of study participants (Sandelowski & Barroso, 2003; Thorne et al., 2004). The research questions aimed to explore the unique experiences of the participants. The thematic approach to data analysis was chosen to unearth the unique experiences of participants and not to produce a new truth, as with other qualitative methods. As a recommended approach for ID researchers, data analysis followed the thematic analysis procedure with six phases (Braun & Clarke, 2012) to account for the unique experiences of international nursing student participants. The thematic analysis approach is flexible and a fit for ID studies and provides systematic and accessible procedures for generating codes and the emergence of themes.

Emerged themes were reviewed, defined, and named as a) COVID-19's disruption; and b) coping with COVID-19 disruptions.

## Findings

The COVID-19 pandemic and the public health measures instituted by federal and provincial governments impacted participants' physical, emotional, social, and spiritual well-being. This section highlights findings from the experiences of participants and how they responded to the COVID-19 pandemic. A total of eight international graduate students out of a possible eleven in the nursing program at one university participated in this study. A summary of the social demographic characteristics of the participants is presented in Table 1.

**Table 1: Demographic Data of Participants**

Demographic Attributes	Number	Percentage
<b>Age</b>		
21-30	4	50
31-40	2	25

41-50	2	25
<b>Gender</b>		
Male	2	25
Female	6	75
<b>Marital Status</b>		
Married	4	50
Single	4	50
<b>Have Children</b>		
Yes	3	37.5
No	5	62.5
<b>Continent of Origin</b>		
Africa	6	75
Asia	1	12.5
South America	1	12.5
<b>Religion</b>		
Christian	5	62.5
Islam	1	12.5
Sikh	1	12.5
N/A	1	12.5
<b>Program of Study</b>		
Masters	5	62.5
Doctoral	3	37.5
<b>Length of Time in the Program</b>		
1-2 years	7	87.5
3-4	1	12.5

Half of the participants were married and had children back in their home countries. Marital status was identified as a key factor in how the pandemic affected participants as married participants were more apprehensive about their families, especially their children, as noted by this participant: *“My main concern is wanting to go home, but I can't go home because I'm not*



*sure whether I can come back. My husband and children are all alone back home where I used to support and so my fear is if they do contract it who cares for them? It has affected me a lot” (HFG01).* Participants did not feel or verbalize that their religion, program of study, and years in program influenced their experience of the COVID-19 pandemic. The COVID-19 pandemic public health measures affected participants differently. Personal circumstances and vulnerabilities were some determining factors on how the pandemic affected participants exposure to the COVID-19 virus, support system, coping strategies, and financial situations. The ability to access health services and pay for them were other contributing factors to participants’ experiences of the pandemic as one participant had this to say; *“if I’m sick of COVID-19 now what happens to me and how do I even access health care? I think about this a lot, and it bothers me” (GFC06).*

Furthermore, many international students prefer studying in Canada over other countries for many reasons known to them. The descriptive data indicate that the countries of origin of participants were a typical cross-section of most international Canadian students' continent of origin such as Africa, Asia, and South America. Brazil and India were considered global epicenters of the COVID-19 pandemic especially during the second wave of the pandemic. Participants from those countries were more apprehensive about their families abroad. Some lost relatives through the pandemic and could not be with their families to bid farewell to their departed relatives. This had a psychological impact on the affected participants.

The following themes provide a deeper account of the impact of the pandemic on participants, and how they coped with the challenges during the pandemic.

### **COVID-19’s Disruptions**

The COVID-19 pandemic had profound negative consequences on the well-being of participants. The pandemic affected participants’ physical and mental health, social wellbeing, finances, and religious/spirituality. These impact of the COVID-19 pandemic on participants is further elaborated in the sections below.

#### ***Physical and Mental Health***

The COVID-19 pandemic and its measures took a physical and psychological toll on some participants. During the early months of the pandemic, the provincial lockdown discouraged people from leaving their residences for non-essential errands. A significant number of participants found themselves unengaged which resulted in trying new dishes or recipes leading to overeating. With limited avenues to exercise, overeating an unhealthy practice brought about an increase in weight which may lead to obesity for some participants. One participant had this to say regarding this unhealthy eating patterns: *“My appetite increased, and so did my weight; if I stayed home, there was nothing much to do. If I want to have a break, the only thing I think of is ‘let’s have something to eat’, you want to prepare something new and experience different kinds of food trying from different cultural backgrounds because I have time, I can make those dishes. I am eating a lot and have gained weight” (SME03).*

For others, the stress and apprehension associated with the public health measures caused them to lose their appetite, resulting in weight loss. A participant reportedly lost appetite as she could not vary her diet due to inadequate finances. Furthermore, the limits imposed by COVID-19 public health measures such as the lockdowns, made some participants less engaged and less physically active as they found themselves sleeping more than usual. Although oversleeping for some participants helped them to mitigate the pandemic stress, it negatively affected their academic work. One participant stated: *“Usually, I use to go to bed early and wake up early, but now I find myself going to bed late. I tried not to go to bed late, but there was nowhere to go, so I found that I went to bed late and woke up later in the day, and again, I became guilty about that, and I might be harder on myself” (KMK05).*

Moreover, the ongoing uncertainties and fears surrounding the COVID-19 pandemic brought about anxiety and psychological concerns. Some participants were confirmed to have sought specialist care for depressive symptoms. One participant said: *“It really affected my mental health, I wake up thinking about my family back home and having schoolwork to do too. I don’t work much because of the pandemic, and this affects me financially too. It has affected me psychologically” (SFD02).* Unhealthy practices such as those mentioned above with poor social support would most likely have a significant impact on participants’ physical and mental well-being.

### ***Financial Difficulties***

The COVID-19 pandemic also impacted participants in many ways. Following the provincial lockdown with business closures, many people got laid off leading to loss of financial support. As a result, participants reported financial hardships and disruption in their studies as those who supported them were laid off from work. They had limited options in terms of finding employment at the peak of the pandemic due to the layoffs. Although some participants held casual jobs in healthcare facilities, they reported difficulty to make ends meet. In addition, disqualify to apply for government relief programs due to the temporary residence status among study participants caused mental stress, leading to mental health instability, as a participant stated: *“It affected me, which also results in mental instability because I woke up thinking about how I will settle my bills and study. When you think about the family back home, that was another thing. My children are in school, they need to pay their fees back home, and I need to pay my fees here, and the little support that I would get was not coming due to the pandemic, so it stressed me a lot, mentally and it did impact my performance at that point” (HFG01).* Moreover, though participants struggled financially at the peak of the COVID-19 pandemic, their social well-being was also affected due to the public health measures of social and physical distancing protocols.

### ***Social Wellbeing***

At the onset of the pandemic, there was limited information about the COVID-19 virus and its mode of transmission. Participants who planned summer travels were emotionally



distraught as they could not be with their families in such difficult times. They relied on social media channels to keep in touch with family members. Time differences and internet connectivity often hindered effective communication on this platform. Furthermore, the social and physical distancing protocols instituted by the public health agencies due to the COVID-19 pandemic, limited participants ability to connect and socialize in person with friends, compatriots, and course mates. Participants therefore lost that supportive relationship from friends during the pandemic. They lost those genuine connections with families and friends around them. Eventually, the ensuing social exclusion from families and friends generated stress and loneliness to participants. A participant has this to say about the stress of being away from their family during the pandemic: *“It has been loneliness for me, and I guess same for my family back home. I wish I was with them at this critical time of the crisis. Who takes care of my family when any of them catches the virus? It stresses me a lot. We are not able to also visit friends around due to the social and physical distancing protocols in place”* (UFN07). As much as participants’ social well-being was affected by the pandemic, they also lost their international student community on campus due to the university closure. This is further highlighted in the next section.

### ***International Student Community***

The lockdown led to the closure of university buildings and resources, which international students depended on for community connection and socialization. Thus, participants’ way of life was disrupted as they could no longer meet on campus. International students’ communities on campus that forged participants’ connections, and assisted others in difficult times were lost due to the university closure, and social and physical distancing protocols enforced. It became difficult for those who needed support from their compatriots due to the inability to meet on campus. Moreover, though some participants were still connected via social media platforms, it was, however, difficult to organize supportive activities for those who were faltering during the pandemic. Some feel that they lost their sense of identity and belongingness, and social support, an important determining factor of their well-being. A participant had this to say: *“I think that it was better when we met on campus before this pandemic, it was just better that way as we checked on one another. I cannot go to my office again, don’t see any of you guys again. This isn’t helping matters man”* (KMK05).

Overall, the COVID-19 pandemic affected participants' physical, financial, emotional, and social wellbeing. To mitigate this impact, participants used different coping mechanisms. These strategies are presented in theme 2 of the study:

### **Coping with COVID-19 Disruptions**

Coping mechanisms refer to the strategies participants employed to manage their well-being during the COVID-19 pandemic. Some of these coping mechanisms are the negative consequences of the pandemic as some participants did not have many healthy coping strategies but rely on these unhealthy practices below to manage their well-being. Whereas some coping

mechanisms were healthy, others were unhelpful. These include changes to participant's eating and sleeping patterns, emotional support from their families and friends, and engaging in hobbies. As mentioned previously, the lockdown measures and the university's closure motivated participants to learn new recipes and tried different dishes. Participants engaged in this habit of trying out new recipes due to the loneliness and boredom they experienced as a result of the public health measures. They believed these activities were helpful in reducing the boredom and loneliness they experienced being away from family and friends. This according to some participants, helped them to cope with the lockdowns, as stated by one participant: *"....I used to eat a lot, cook, and eat...I would find new recipes and cook, I wouldn't usually eat as much if I was working"* (KMK05). A few others employed sleeping as a coping strategy to manage their loneliness and boredom. Three participants disclosed that they slept more during the lockdown since there was nothing to do when they were not inspired to do academic work. *"I kind of slept more if there is nothing to do. I rather will sleep to temporarily forget about this COVID-19 and it helps me a lot"* (SFG02). Some participants also sought emotional and financial support from family and friends to maintain their well-being during the pandemic. This is further highlighted in the next sub-heading.

### ***Seeking Support***

Emotional support was one primary coping strategy employed by all participants to manage their well-being during the pandemic. Due to the travel ban, participants resorted to connecting with family members and friends via social media channels. A participant stated: *"If I have stress, I think I wanna let it out to my brothers; I guess I will share my concern with them. I increased my time with my phone just talking to them, chatting with them, and friends"* (SME03). A few participants received support and counseling from their faculty. However, two participants sought the support of mental health professionals to cope with the impact of the COVID-19 pandemic, as exemplified by this participant: *".... I spoke with a mental health specialist online as it was difficult for me. My supervisor also helped me"* (HFG01).

As the pandemic impacted participants' socioeconomic status, financial support from family members and friends was a source of relief for some participants which helped them cope. The university and the provincial government also provided some financial relief to a few participants, which relieved some financial burdens. A participant stated the following: *"So, in a way, the university did help us, they supported us through a bursary, and then I worked in health. However, my pay scale was low, so the government also supported me, and those two factors also considered how I was financially supported"* (AFI04).

Additionally, some participants sought social support through coping strategies such as playing soccer, going to the gym, and hiking to manage the pandemic's stress.

### ***Religious Activities***

Despite the uncertainties of the COVID-19 pandemic, some participants engaged in religious activities remotely to cope with the pandemic stress and loneliness. Engaging in

religious activities gave participants optimism as they were positive about the COVID-19 pandemic. Through prayers, participants found peace and hope as they had absolute faith in God. Two participants indicated they were closer to God during the pandemic than they ever were. They had private prayers and joined religious services virtually which according to them was essential to their coping, as stated by a participant: “... *praying, I firmly believe in God; we are Christians in my family. We believe in God and that what God cannot do does not exist, which helped me a lot*” (UFN07). Also, a few participants that got the opportunity to work in care homes somehow were supported emotionally by co-staff and residents.

### ***Emotional Support Through Caregiving***

In addition to the above coping strategies, some participants assumed caregiver roles in long-term care facilities during the pandemic. Participants interacted with staff and residents of these care facilities where they worked. They reported feeling needed as they provide care to the residents. This helped in the establishment of a bond of friendship with the residents and staff who in many ways also needed people to share their experiences of the pandemic, as they were also lonely due to the social and physical distance protocols. As caregivers, participants expressed spiritual needs such as hope and finding meaning in life which helped them to cope with the stress of the pandemic. Some participants believed caring for the vulnerable helped them cope with the emotional challenges of the COVID-19 pandemic as they shared the experiences of residents and staff of these care facilities. “*I work in a care home, I’m kind of emotionally attached to the residents. The residents help me by encouraging me to stay strong*” (AFI04). These emotional support at the care homes were crucial for participants who worked during the pandemic.

## **Discussion**

The discussion section highlights the experiences of participants and how they survived the COVID-19 pandemic and the public health measures. The social determinants of health consist of personal, social, economic, and environmental factors that determine individual and population health (Kuehnert et al., 2022). Some of these factors include income and social status, employment, working conditions, education, physical condition, social supports, coping skills, healthy behaviors, race, culture, and more importantly, access to health services (Kuehnert et al., 2022). Participants' experiences with the COVID-19 pandemic and public health measures brought to light some of these concerning social factors.

The closure of campuses and the swift migration to remote teaching and learning led to the loss of campus connection, which had a significant impact on students' academic outcomes (Firang, 2020; Nguyen & Balastrahnan, 2020). This swift migration to remote learning was challenging for some students, especially those with inadequate support systems, as they struggled to adjust to online learning (Sahu, 2020). Similar to the findings from Patterson and colleagues' (2021) study, participants of this study found it difficult to focus on academic activities due to the pandemic controversies and emotions, and many social factors.

Moreover, the public health measures increased isolation and thereby limited the resources which students needed to succeed in their studies. These include library access and study space on campus, in-person support from faculty, and a lack of motivation to study (Patterson et al., 2021; Firang, 2020). The inability to access study materials via the library services and not being able to purchase recommended textbooks due to financial constraints meant that participants would fall behind in their academic progress. Furthermore, the university closure led to a loss of income through loss of scholarships and funding opportunities for international students who most often than not, study under scholarship/funding. Loss of this financial support through inadequate funding due to the pandemic were very important defining moments for participants. Participants worried about the stress of the pandemic and how to pay their tuition, support themselves financially as well as their families who depended on them for survival (Firang, 2020; Sahu, 2020).

The COVID-19 pandemic not only disrupted students' social life but also brought about emotional distress which is consistent with the literature (Firang, 2020). This study highlighted how the pandemic stress caused physical impacts such as changes in eating and sleeping patterns. These unhealthy practices have the potential to predispose participants to physical and psychological concerns including sleeping and eating disorders, subsequently impacting their well-being.

Participants in this study shared numerous similar experiences of the COVID-19 pandemic, such as risks of contracting the virus themselves and that of their families abroad. The international travel ban aggravated the impact of the pandemic crisis on international students, which brought additional stress and anxiety. The fear of not being able to return to Canada deterred participants from reuniting with their families during the pandemic. One could only imagine being in such circumstances and how that could impact their overall well-being. Participants' experiences during the pandemic might just be a wake-up call to Canadian higher education institutions to find the most suitable way to advocate for their international students to be able to reunite with families in times of crisis. Some participants struggled to renew their expiring study permits and travel documents/visas during the COVID-19 pandemic adding to the stress as they battled through the pandemic. These documents would have helped them travel home when the public health restrictions were relaxed. A support letter from international students' department or college could have facilitated the renewal of their study permit and visas. This would have minimized the psychological trauma international students go through.

Participants depended on technology such as Skype, phone calls, and other social media to connect with extended families, however, its effectiveness was often hampered by connectivity issues. They reported uneasiness anytime they were unable to connect with their family due to issues of network failures, especially during such a hard time. This brought a lot of anxiety to participants as they could not stay focused on their academic activities. Without the needed social support some participants had their mental health affected. Additionally, international students lost social networks forged on campus, a unique finding from this study. Domestic students had their families and friends around to provide the needed emotional and financial support during the lockdown, but international students, including participants in this

study, felt isolated with devastating psychological consequences (Elmer et al., 2020; Firang, 2020).

While the pandemic public health measures were needed to curb the spread of the COVID-19 virus, the emotional and socioeconomic costs of these measures on international students were not factored in (Firang, 2020). Findings from this study and related literature confirmed that international students from developing countries experienced more intense challenges than domestic students (Firang, 2020). This perhaps was due to the already existing many social factors that international students often face in their newfound homes. Furthermore, consistent with related literature, the closure of non-essential businesses caused some international students to lose part-time jobs. These students including study participants were ineligible for financial reliefs provided by the federal government and hence found themselves in a dire financial crisis with limited options for a reprieve (Khan, 2020; Patterson et al., 2021).

The federal government's temporary relaxation of the work permit for international students allowed them to work off-campus for unlimited hours from April 2020 to August 2020 (Immigration, Refugee & Citizenship Canada, 2020). The government's decision to allow international students to work more than the previous twenty hours a week was because the need for workers in long-term care facilities increased as many Canadian citizens quit these jobs during COVID-19 due to increased risk of contracting the virus in these environments. Working as care aids provided some financial relief to some participants, the majority of whom found work as support workers. However, international student worked out of financially necessity, something their domestic students' counterparts may not have done, putting their lives at risk of contracting the COVID-19. International students had no adequate government support such as health coverage for themselves and their families in any unlikely event (Lightman, 2021). The resultant psychological impact of working in risky environments to meet their sustenance expenses may increase the risks of mental illnesses for international students (Ganson et al., 2021). Nonetheless, it is unique to this study that the participants found meaning and purpose in working as care aides in long-term care facilities. They felt needed and valued which brought them closer to the clients, albeit in a different capacity.

There are more revelations from the findings in this study that were not found in the literature. For instance, existing literature mainly focused on the psychological aspect of the impact of the COVID-19 pandemic on international students' well-being while excluding the physical and spiritual aspects. In the literature, some students abused substances to mitigate the effect of the pandemic on their well-being (Firang, 2020); this contrasts with findings from the current study as none of the participants engaged in substance use. Also, distinctive to this study, participants had ample time at home due to the restricted movement; hence, they found delight in preparing different dishes to cope with the lockdown. As such, some participants resorted to unhealthy coping practices; ate more than they would have in response to the psychological impact of the pandemic; this helped them to cope with the pandemic stress. Others engaged in oversleeping as a mechanism to cope with the impact of the pandemic, a peculiar finding of this study.



## **Implications for Future Education, Practice, and Research**

The COVID-19 pandemic crisis brought to bear the many challenges that international students have been exposed to and challenged with in the past. To ensure that international students thrive in times of future public crisis, the social support from the host country through their post-secondary institutions is required. Academic institutions should anticipate and respond to potential mental health problems that international students experience due to isolation and disruption of their social networks in times of crisis. This could be achieved by providing services and creating supportive and accommodative instructional environments, reaching out to international students with dire psychological challenges, and being flexible with deadlines for the submission of academic work.

Additionally, faculty should be sensitive to the distress brought by a public health crisis and encouraged to adopt supportive pedagogical practices to support international students. Given the isolation international students experienced during university closure, the nursing program needs to proactively reach out to its international students to understand their challenges and provide assistance.

International students need to be involved in the decision-making process to collaboratively develop student-centered interventions such as student-led support or self-help groups and academic support. Future research could explore the long-term impact of the COVID-19 pandemic and associated public health measures on the entire international student body in this and other universities.

## **Limitations**

This study has some limitations to acknowledge. Participants were from one department of the university, however, international students from other departments may have different COVID-19 experiences from those in this study. The sample size of eight participant may be small considering the number of international students in Canada. Additionally, there could be biases due to the purposive sampling technique employed for recruitment of study participants.

## **Conclusion**

The COVID-19 pandemic and its measures negatively impacted the well-being of the international students. Financial challenges, lack of needed social support, social isolation, and inadequate access to academic and health services were identified as significant contributing factors to the well-being of this group of international graduate nursing students. Utilizing different coping mechanisms including talking to their loved ones, friends, and faculty, and seeking help from mental health professionals had been demonstrated being effective. Given that international students already faced several barriers in foreign countries even before the COVID-19 pandemic, universities must take swift action to update supportive measures to meet the evolving needs of their international student needs in future crises.



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