



The future of the workplace

White Paper 1: Factors affecting the mental health of adults from 18-30 years old in Quebec - a cultural perspective.



From our Chief Research Officer:

At the start of last year, **41.1%** of adults reported symptoms of anxiety and depression as compared to **11%** in Jan 2019 (1). There's no question that the pandemic is taking a toll on our mental health. What is especially troubling, however, is the impact it is having on the **GenZ** and **millennial generation**. The same study found that adults aged 18-24 years old reported the highest symptoms of anxiety and depression (56.2%) compared to other age groups.

- What are the various **factors** causing the increased vulnerability of this age bracket to poor mental health?
- And what are the other contributing factors that help us paint a better picture of this demographic and what it means for the future of our workforce?

As the first social microlearning platform designed to prevent burnout, Nurau is dedicated to **uncovering what is behind poor mental health** at the workplace and **designing preventative solutions** targeting these factors. The R&D team at Nurau aims to gather data that ultimately drives the development of our own product as well as informs the decisions of other stakeholders in the field of mental health.

In 2020, Nurau conducted a survey amongst **131 graduate students in Quebec** as they are entering the workplace. We wanted to understand how they experienced pressure, competition, as well as support from their peers, family, friends, supervisor and institution. The results will be analyzed in four studies, each looking at the wellbeing landscape amongst graduate students from a different angle.

There is little literature looking specifically at the local Quebec context, thus this study aims to shed more light on how broader mental health issues manifest themselves at a local level. **It is only with localized data that we can develop targeted solutions.**

This first paper looks at the data through a cultural lens and aims to answer these questions:

- How do international and domestic students perceive their mental health similarly or differently?
- How do their support networks and awareness of resources differ?

This white paper offers insight into the role culture plays in the specific mental health challenges we encounter and the availability of support systems we need to address them.





Executive Summary

Nurau, Inc. conducted a bilingual online survey to understand the mental health landscape among graduate students in the Canadian province of Quebec. The information from this survey was collected between 25 December 2020 and 7 July 2021. A total of 131 graduate students participated in the survey.



In Study 1, we specifically found that international students:

- Experience more pressure, especially as it relates to their research and job opportunities.
- Tend to compare themselves more to their peer than domestic counterparts.
- Have a more negative perception of their supervisor.
- Experience less support for their mental health.
- View their engagement in graduate studies to have a greater negative impact on their ability to establish an intimate relationship.

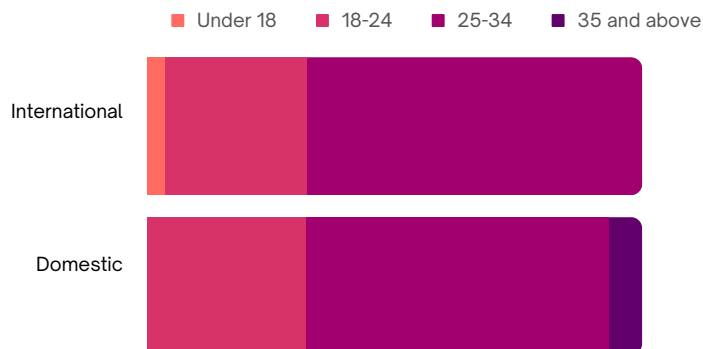




Demographic Information

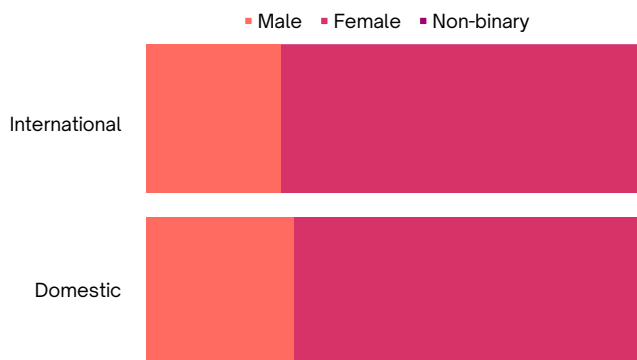
From the 131 individuals who completed the Graduate Student Mental Health Survey, a total of 56 students considered themselves to be 'international'. The remaining 75 participants in this sample were from Canada (i.e., domestic students). This section will present the demographic information of these two subgroups.

Age



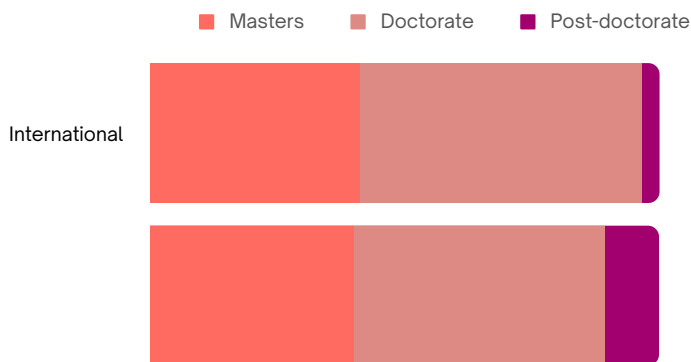
For both the international and domestic subsamples, the majority was between 25 and 34 years of age (67.9% & 61.3%, respectively), followed by 18 to 24 years (28.6% & 32%, respectively).

Gender



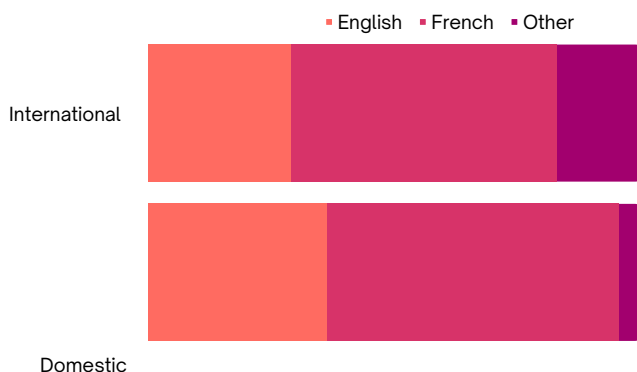
Females comprised most of the students in both of the international and domestic subsamples (71.4% & 69.3%, respectively).

Program



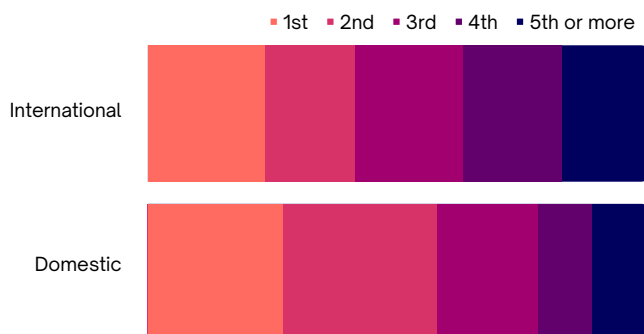
A majority of the participants in both subsamples were in the midst of completing a doctorate degree (international = 55.4% & domestic = 49.3%).

University



Most of both the international and domestic respondents were attending a French-speaking university (53.6% & 58.7%, respectively).

Year of Study



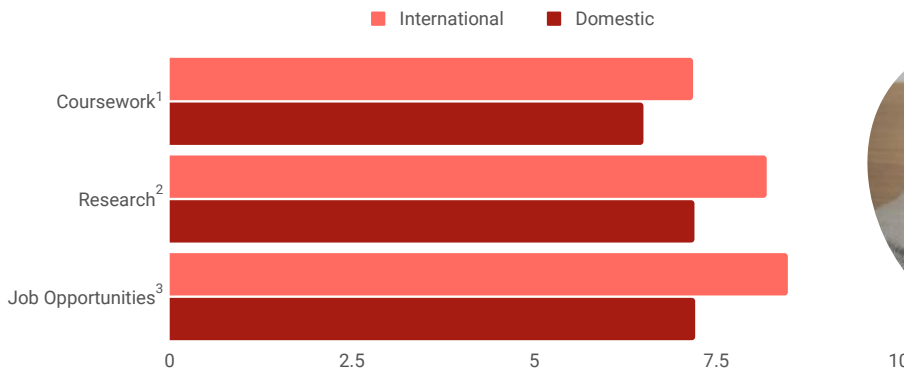
For the international graduate students, they were distributed almost evenly across all years of study. Most of the participating domestic graduate students were in the first three years of their studies (77.4%).



How do international students experience pressure & competition?

Amount of pressure

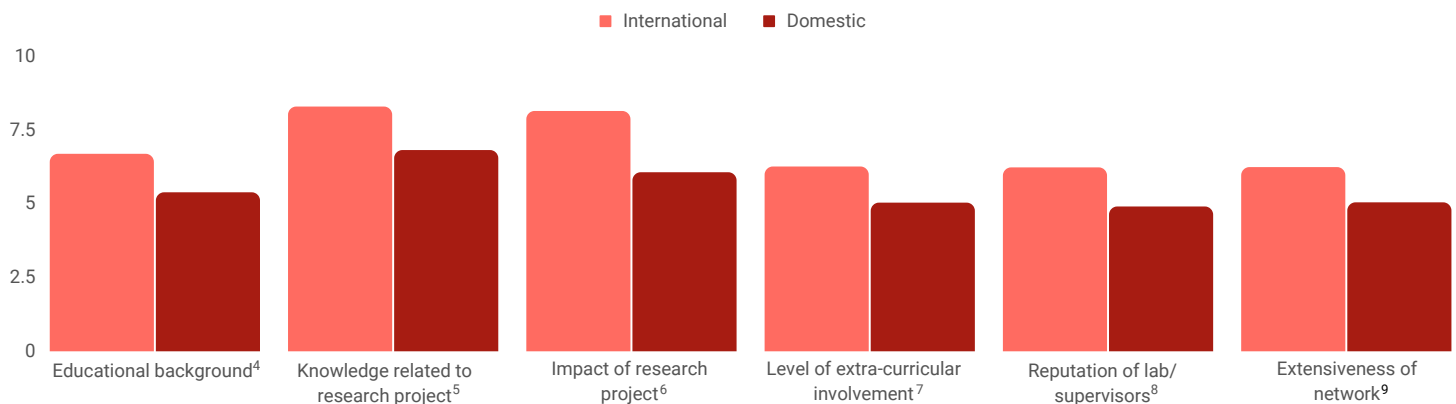
International graduate students **experience more pressure**, especially as it relates to their research and job opportunities. While coursework is more of an even playing field, **pre-existing networks for domestic students** could make it more stressful for international students to compete.



Not significant: $t(115) = 0.561, p = 0.576$ ²Significant: $t(111) = 2.167, p = 0.032$ ³Significant: $t(106.346) = 3.063, p = 0.033$. This question was graded on a Likert scale with 1 = not at all and 10 = extremely.

Frequency of comparison with peers

When asked how frequently they compared themselves with their peers on the following aspects, international graduate students reported comparing themselves more frequently than domestic counterparts. We found the following aspects of comparison to be significantly different amongst international and domestic students: **educational background, knowledge related to research project, research project impact, level of extra-curricular involvement, reputation of lab/supervisors and network extensiveness.**



⁴Significant: $t(106) = 2.436, p = 0.017$ ⁵Significant: $t(107) = 3.538, p = 0.001$ ⁶Significant: $t(108.434) = 4.381, p < 0.001$ ⁷Significant: $t(110) = 2.384, p = 0.019$ ⁸Significant: $t(103) = 2.267, p = 0.025$ ⁹Significant: $t(109) = 2.307, p = 0.023$. This question was graded on a Likert scale with 1 = never and 10 = always.

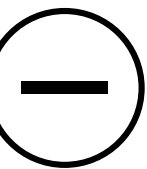
International students experience more pressure and compare themselves more frequently with their peers



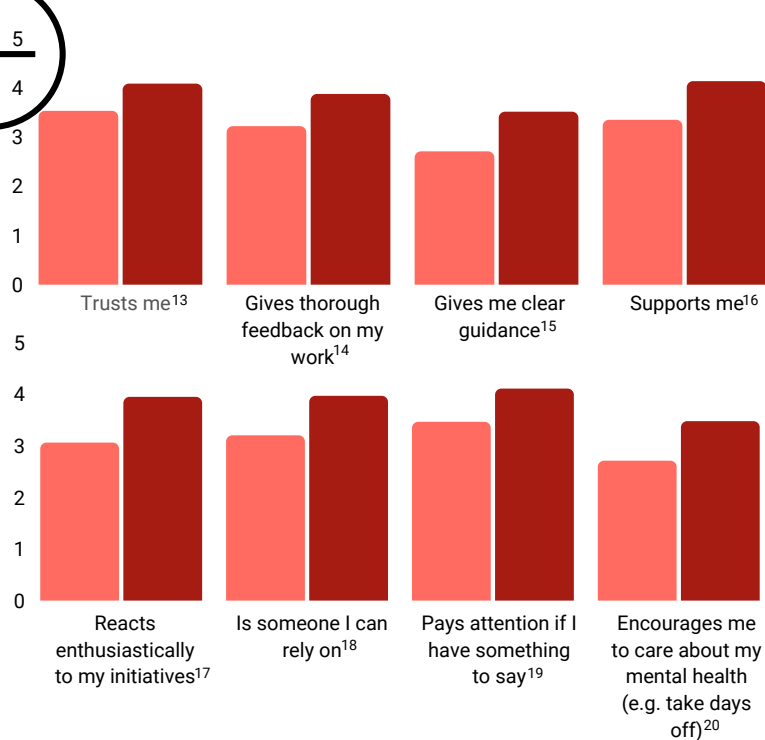
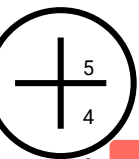
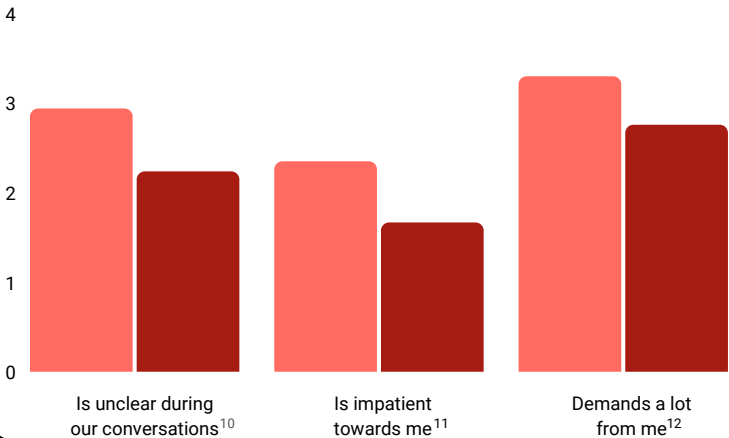
How do international students perceive their supervisor?

Perception of supervisor

International graduate students demonstrated a **more negative perception of their supervisor**, with a significant proportion of them reporting greater alignment with more negative items regarding their supervisor (e.g., is unclear during our conversations). As for more positive statements (e.g., trusts me), it was found that international graduate students agreed less frequently when compared to their domestic counterparts. Select quotes from respondents giving advice on supervisors are reported below.



International Domestic



"Choosing a supervisor that prioritizes you and your health is more important than reputation or publications."



Be honest about your mental health to yourself and to your supervisor

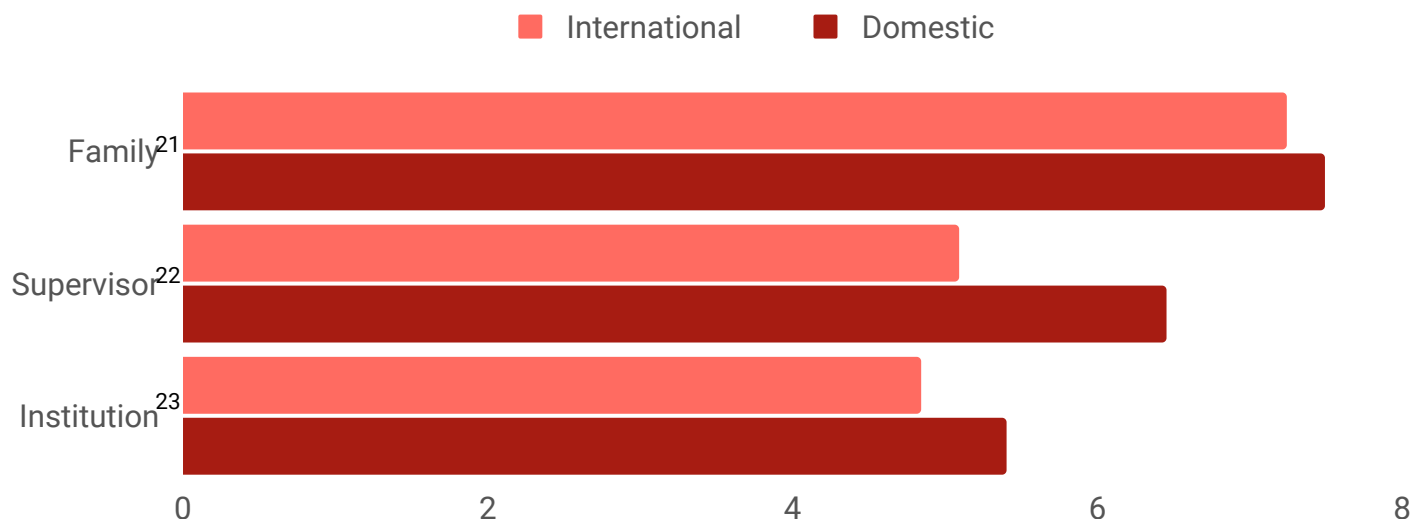
¹⁰Significant: $t(96) = 2.605, p = 0.011$ ¹¹Significant: $t(75.990) = 2.481, p = 0.015$ ¹²Significant: $t(96) = 4.381, p = 0.0499$ ¹³Significant: $t(94) = -2.105, p = 0.038$ ¹⁴Significant: $t(96) = -2.392, p = 0.019$
¹⁵Significant: $t(96) = -3.155, p = 0.002$ ¹⁶Significant: $t(96) = -2.932, p = 0.004$ ¹⁷Significant: $t(96) = -3.139, p = 0.002$ ¹⁸Significant: $t(96) = -2.689, p = 0.008$ ¹⁹Significant: $t(96) = -2.436, p = 0.017$
²⁰Significant: $t(96) = -2.508, p = 0.014$. The question was graded on a Likert scale with 1 = strongly disagree and 5 = strongly agree.



How are the mental health resources at our universities supporting these students?

Mental health support

International graduate students experience **less support for their mental health** than domestic graduate students. This difference in feelings of support is most affected by the support they feel from their supervisor, a finding that correlated to the more negative perception international students have of their supervisor shown above.



²¹Not significant: $t(96) = -0.422, p = 0.674$ ²²Significant: $t(96) = -2.473, p = 0.015$ ²³Not significant: $t(96) = -1.074, p = 0.285$. The question was graded on a Likert scale with 1 = not at all supported and 10 = fully supported.



International students experience less support for their mental health, especially from their supervisors.

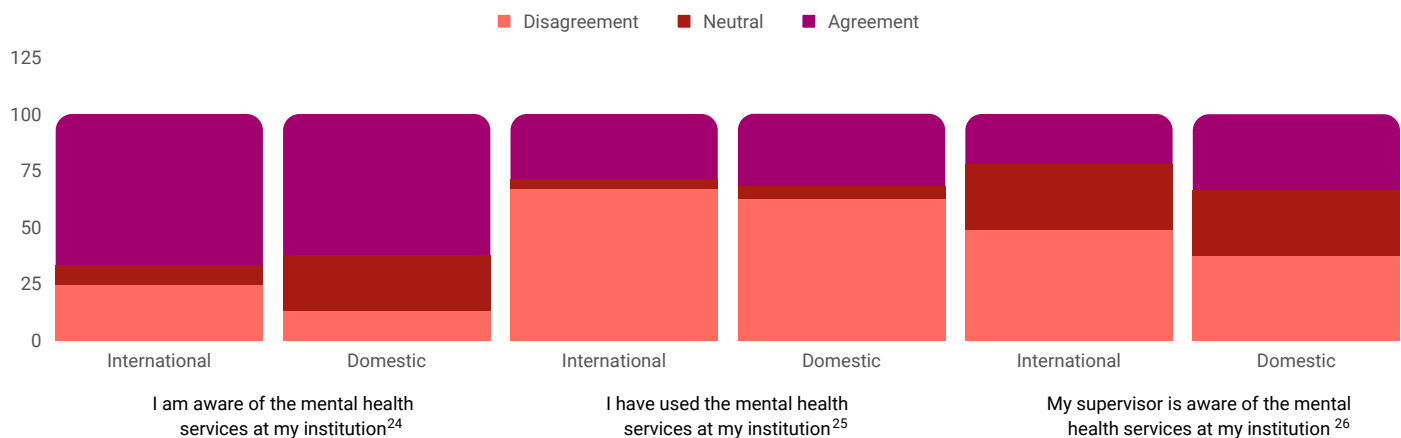


How are the mental health resources at our universities supporting these students?

Awareness & usage of mental health resources

International status did not affect the students' awareness and usage of mental health resources to a significant degree. **Feeling less supported by one's supervisor and more pressure and competition from peers might in fact lead international students to seek out more help** and thus be more aware of the mental health resources available to them.

However, even though the majority of students were aware of the mental health resources available to them, they did not seem to think that their supervisors were, pointing to a **possible disparity between students and supervisors regarding attitudes towards mental health**. Evidently, more needs to be done to **educate supervisors on how to better support their students' mental health** and students should feel more confident about reaching out to their supervisors to talk.



²⁴Not significant: $t(96) = -0.426, p = 0.671$ ²⁵Not significant: $t(96) = -0.406, p = 0.686$ ²⁶Not significant: $t(96) = -1.340, p = 0.183$

International and domestic students are similar in awareness and usage of mental health resources, though they both believe their supervisors are much less aware.

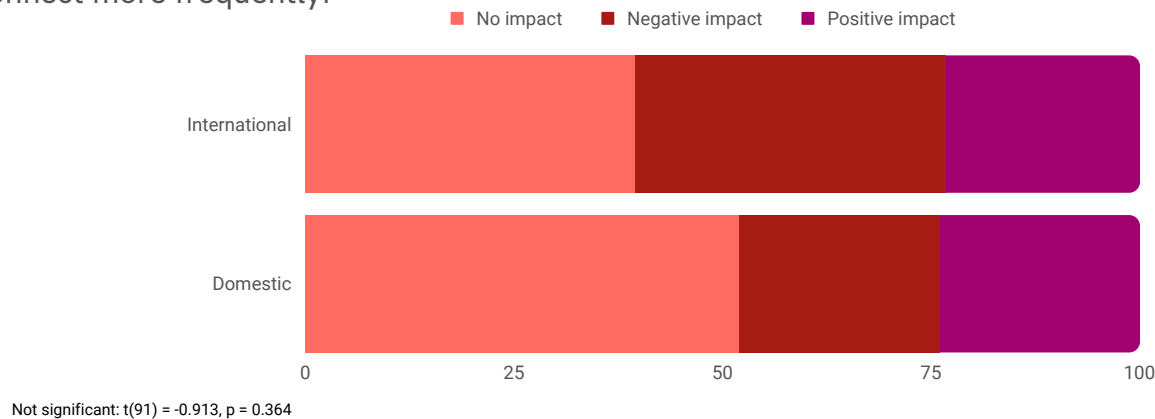




How do international students perceive the impact of their studies on their relationships?

Impact of studies on relationship with family

More international graduate students believed their studies had a **negative impact on their relationship with their family** (37% compared to 24%), although this difference was not significant. It is difficult to be living far from family for graduate school but this could also incentivize them to connect more frequently.

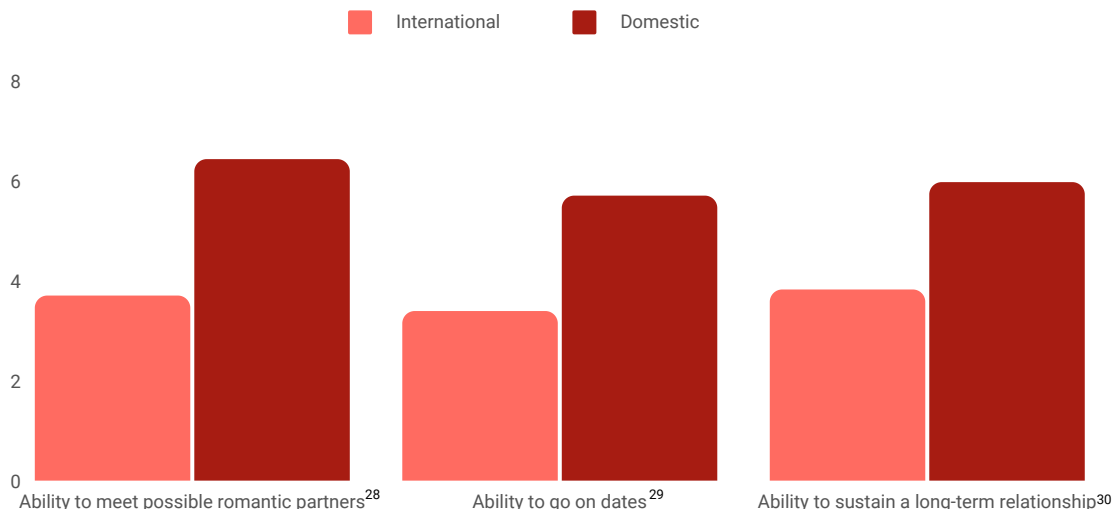


As an international student, I miss my family, but I talk to them every week so I [am] still close to them.



Impact of studies on intimate relationships

International graduate students viewed their engagement in graduate studies to have a greater negative impact on their ability to establish an intimate relationship. Interestingly, **the difference between international and domestic students was much more significant than that with family**. While bonds with family are easier to maintain, it seems that the ability to meet new people, date and have a long-term relationship is much harder as an international student.



²⁸ Significant: $t(36) = -2.998, p = 0.005$ ²⁹ Significant: $t(36) = -2.705, p = 0.010$ ³⁰ Significant: $t(35) = -2.227, p = 0.032$. This question was graded on a Likert scale with 1 = very negative and 10 = very positive.



Discussion & Recommendations

This study was sparked by the flurry of recent research outlining the current psychological crisis amongst the graduate student population (Masters, PhD or post-doc), a demographic that represents the future of our workforce (1-4).

Specifically, these studies found that:

47% of surveyed doctorate students and 37% of master's students could be considered depressed (6).

Over 85% of students felt nervous or worried a lot, were easily annoyed or irritated, and felt life was too stressful (5).

Graduate students were ~ 2-6 times more likely to experience depression and anxiety when compared to a general population (7-9).



Researchers have listed **social isolation**, ambiguous expectations, financial stress, competition, the **lack of belonging to the community and a poor relationship with one's supervisor** as some of the factors that contribute to the vulnerability of this population (10-15).

Discussion & Recommendations



Specifically, this study looked at how being a foreigner in a culture can affect one's mental health and interactions with others. It is clear from the data that international students have a significantly different lived experience compared to their domestic counterparts.

- They experience **more pressure**, especially as it relates to research and job opportunities, as well as **compare themselves more frequently** to their peers.
- They have a **more negative perception** of their supervisor, **feel less supported** with regards to their mental health and find that their studies have had a **significant impact on their ability to form and sustain intimate relationships**.



Yet despite the increased vulnerability of this population, their usage rates of these resources are equal to the rates of domestic students. More research needs to be done concerning the barriers stopping international students from using such resources, such as cultural stigma or lack of accessibility.

Our research is concordant with the larger landscape of the unique challenges foreign students face in universities, possibly due to additional sources of stress such as culture shock, language barriers, racial discrimination and homesickness (19, 21 - 24).

Previous studies have shown that:

- 45% of the surveyed Chinese students attending Yale University experienced depression symptoms and 29% had anxiety symptoms, which was higher than the general U.S. university population (depression: 12.8%; anxiety: 13%) (19).
- Depression was higher among international than domestic students (37.81% and 29.85%, respectively) among attendees of a Japan-based university (20).

We hope our research sheds more light on the experience of international students and inspires **mental health solutions** that take into account the unique challenge this population has in integrating into Quebec.



Want to listen to real students talk about their graduate experience? Listen to the following topics and more [here](#).

The mental health
of tomorrow

Adapting to
COVID-19



Becoming a
supervisor

Eating
well

From everywhere to
Quebec

Stress &
Anxiety



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As the first social microlearning platform for wellness at the workplace, Nurau gives organizations unparalleled access to cutting-edge live mental health & wellness training to make your business stronger, safer, and more equipped to face the growing mental health challenges of our time. Nurau is a wellbeing technology that helps organizations reboot their work culture and prevent burnouts everywhere.

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Disclaimer: The results presented in this report is based on data collected between 25th December 2020 and 7 July 2021. As a result, it presents a brief depiction of mental health among graduate students in the Canadian province of Quebec. It was also only collected from a small number of students and may not depict a completely accurate global perception of the wider population.

All comments or questions can be addressed to info@nurau.com.

