



Original Research Article

“I don’t want to say I’m broke”: Student experiences of food insecurity at Queen’s UniversityElaine Power,^{a*} Julie Dietrich,^a Zoe Walter,^b and Susan Belyea^a^aQueens University^bUniversity of Saskatchewan

Abstract

Food insecurity, the inadequate or insecure access to food because of financial constraints, is an important public health concern, associated with poor physical and mental health. Recent research among post-secondary students shows that it also has consequences for academic performance; food insecure students are more likely to have lower grades and to drop out. This qualitative study aimed to describe the experiences of Queen’s University students who didn’t have enough money for food or who worried about having enough money for food. We conducted semi-structured interviews with 12 undergraduate, 10 graduate and 5 professional students. Participants included 14 students of colour and 2 Indigenous students. All described chronic food insecurity during their time at Queen’s, including 9 who experienced severe food insecurity, skipping meals and going hungry. Most participants cycled between different levels of food insecurity (severe, moderate, and marginal) depending on the availability of resources, though a few were severely or moderately food insecure on an ongoing basis. None escaped worry and anxiety about being able to properly feed themselves. Our sampling strategy netted a more diverse set of students than previously described in the literature on post-secondary student food insecurity, including first-generation Canadians, international students, Indigenous students, law students and undergraduate students transitioning to independent living. Our results demonstrate the human costs of market approaches to post-secondary education and lend support to the growing campaign in Canada for a basic income that includes young people.

Keywords: Food insecurity; university students; health; poverty; inequities; Canada

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Introduction

Individual and household food insecurity—the inadequate or insecure access to food because of financial constraints—has serious consequences for health and is recognized as an urgent public health concern (Power, Abercrombie, Fafard St-Germain, Vanderkooy & Dietitians of Canada, 2016). Adults who are food insecure are more likely to suffer overall poorer health and a variety of diseases, including mental illness, diabetes, heart disease and other chronic diseases (Heflin, Siefert, & Williams, 2005; Huddlestone-Casas, Charigo, & Simmons, 2008; Siefert, Heflin, Corcoran, & Williams, 2001; Siefert, Heflin, Corcoran, & Williams, 2004; Tarasuk, 2001; Vozoris & Tarasuk, 2003), and early death (Gundersen, Tarasuk, Cheng, de Oliveira, & Kurdyak, 2018) compared to those who are food secure. Children who live in food insecure households are more likely to experience poorer overall health (Cook et al., 2004; Cook et al., 2006; Kirkpatrick, McIntyre, & Potestio, 2010); cognitive problems and poorer social skills (Howard, 2011); various chronic illnesses, such as asthma (Kirkpatrick et al., 2010); and higher rates of mental illness, including suicide ideation and suicide attempts in adolescence (Alaimo, Olson, & Frongillo, 2002; McIntyre, Williams, Lavorato, & Patten, 2013). Representative surveys in Canada and the United States show a national population prevalence of food insecurity in the range of 12–13%, with some groups, such as Indigenous populations, racialized groups, and single mothers experiencing much higher rates (Coleman-Jensen, Rabbitt, Gregory, & Singh, 2018; Tarasuk, Mitchell, & Dachner, 2014). Food insecurity is highly correlated with income, in that the risk of food insecurity increases significantly as household income drops (Tarasuk, Mitchell, & Dachner, 2014).

Until recently, there has been little attention paid to food insecurity among post-secondary students. US and Canadian scholars have begun to investigate post-secondary student food insecurity in the context of tuition fees that are rising at rates higher than inflation, mounting levels of student debt (Walsh, 2018), uncertain post-graduation employment prospects, and concern about how social inequality is reproduced in higher education (Willis, 2019). Recent literature reviews have shown that estimates of the prevalence of food insecurity on post-secondary campuses in Canada, the US, and Australia are generally much higher than national rates (Bruening, Argo, Payne-Sturges, & Laska, 2017; Lee et al., 2018; Nazmi et al., 2018). Existing quantitative studies have been hampered by weaknesses including sampling, selection and reporting biases and the use of varied and non-validated survey instruments (Lee et al., 2018; Nazmi et al., 2018). In addition, students tend to be surveyed as individuals, whereas national prevalence rates refer to households. This means that these rates cannot be generalized to the broader university population where the research was conducted, or directly compared with each other or to measurements of food insecurity in the broader population. However, the overall evidence suggests that food insecurity may be a serious concern for a significant proportion of post-secondary students (Nazmi et al., 2018).

The largest survey to date in Canada, with over 4000 students at five universities, found an overall prevalence of food insecurity of 39% (Silverthorn, 2016). Even with weaknesses in the

study design which may have inflated the prevalence, such a high rate is concerning. The existing research shows that students who are food insecure are less likely to eat a healthy diet or engage in physical activity; more likely to have lower grades and trouble focussing on their studies; more likely to suffer poorer overall physical and mental health; and more likely to defer their studies or drop out compared to food secure peers (Bruening et al., 2017; Bruening, van Woerden, Todd, & Laska, 2018; Farahbakhsh et al., 2017; Lee et al., 2018; Suzanna M. Martinez, Webb, Frongillo, & Ritchie, 2018). Risk factors of food insecurity for post-secondary students include having a low income, being a member of racialized group, being a first-generation post-secondary student, not having support from family, having children (Bruening et al., 2017; Lee et al., 2018), and being a member of a sexual minority (Willis, 2019). In other words, campus food insecurity disproportionately affects those who are already marginalized (Shipley & Christopher, 2018) and may play a role in reproducing social inequality by limiting students' ability to complete higher education, one of the most powerful determinants of social mobility (Brotton & Goldrick-Rab, 2018; Willis, 2019).

Queen's University in Kingston, Ontario is not a post-secondary institution that most Canadians would associate with poverty or food insecurity. It is one of Canada's oldest universities and has a reputation as an 'elite' (though publicly funded) school that attracts students from private secondary schools. However, belying Queen's reputation as a university of privilege, 22% of all Queen's students qualify for a needs-based bursary (www.queensu.ca/promise-campaign/) and a food bank has operated on campus for over twenty years. Preliminary analysis of the 2019 cycle of the National College Health Assessment survey at Queen's shows that 3.4% of respondents often or most of the time skipped meals or went hungry because they could not afford to eat and 6.3% worried about their food running out before they got money to buy more. Troublingly, these students were more likely to report tremendous stress, have a lower GPA, and worse mental health (K. Humphrys, personal communication, November 2019). Previous unpublished research with Queen's food bank clients found that some experienced profound food deprivation and tremendous stress related to inadequate finances (Power & Zhao, 2013; Zhao, 2013). The current qualitative research project builds on this unpublished research to investigate Queen's University students' experiences of food insecurity.

Methods

Undergraduate, graduate, and professional students were recruited by social media, notices at the campus food bank, and via listservs. We invited Queen's students who worried about running out of food or did not have enough money to buy groceries in the current academic year to participate. A \$30 honorarium was provided. Similar to Henry (2017), participants were recruited easily and quickly. The study was granted clearance by the Queen's General Research Ethics Board (GPHE-119-12).

Individual semi-structured interviews of approximately 40-75 minutes were carried out in a private space on campus. One interview was conducted by phone with a graduate student who had returned to her home city. Audio-recorded interviews were conducted by the first and third authors between December 2017 and December 2018. Interviews were transcribed verbatim and inductively coded by the second author. The coding scheme was developed by the second author in consultation with the first and fourth author. Data were managed using ATLAS.ti qualitative data analysis software. We followed Tracy (2010) to ensure high quality research design, data collection and analysis.

Results

Characteristics of the sample

Twelve undergraduate, 10 graduate, and five professional students participated in interviews, with six men and 21 women overall. Another graduate student, a fifth-year doctoral student with three children, wanted to participate but said she could not manage an hour out of her day, even by phone. In our analysis, we did not include the interview data of a first-year undergraduate woman who focussed on the poor quality of food available in residence. Thus, 26 participants were included in the analysis.

Of these 26 students, there were 14 students of colour and two Indigenous students. Two mature women students had survived intimate partner violence. Of the 11 undergraduate students, six were students of colour and immigrants to Canada. The remaining five were white and had Ontario Student Assistance Program (OSAP) government loans. One undergraduate participant was a parent.

Of the 15 graduate and professional students, seven were students of colour and two were Indigenous. Five were international graduate students and four were parents.

Food insecurity status

We categorized the severity level of participants' food insecurity based on their accounts of their experiences, using categories developed by the University of Toronto PROOF Centre for Food Insecurity Policy Research (PROOF, 2018). These categories are:

- severe – skipping meals, reducing food intake, going one or more days without food;
- moderate – compromising the quantity and/or quality of food; and
- marginal – worrying about running out of food and/or limiting food selection.

Most participants described experiences of food insecurity that changed over time according to their incomes and the demands on their finances. However, none of the students who had experienced severe food insecurity ever stopped worrying about running out of food.

Severe food insecurity

Nine participants described skipping meals and going hungry because they did not have enough money for food. This is an unambiguous sign of severe food insecurity. For some this was chronic, while for others it was episodic or cyclical. For example, Ruby¹, an international graduate student who was a single mother, bought and prepared the best food she could afford for her elementary school-aged child but subsisted on small portions of inexpensive food herself. When asked if she got hungry, she replied, “Of course” but she said that she had gotten used to it with all the practice she had. She had unintentionally lost about 10 kilograms since coming to Canada.

An Indigenous student, James, in his third year at Queen’s, described cyclical periods of hunger. November was a challenging time for him because his savings from the summer were gone and the next installment of his funding package was not yet available. In November, he would eat “a coffee for breakfast, a couple oranges for lunch and then cereal for dinner.” He described another time when his dad had sent him some money after a lean period:

I went to the grocery store to get food, and I almost passed out in the store... It was actually pretty bad. ... I just, I grabbed the first thing that I could see and just started chomping down. So, here's this guy— dizzy headed looking guy—sitting in the middle of the aisle, in Loblaws [grocery store], snacking away.

Other students also described periods of dizziness from lack of food. One kept a stash of candy to boost her blood sugar when she felt dizzy. Another had landed in the hospital emergency room after fainting from lack of food.

Several students carefully timed when they would eat, cutting their meals down to two, or sometimes one, per day. Faith, an international graduate student who waited two months to get a social insurance number and could not be paid for her work as a teaching assistant until she did, ate a meal of “rice, oil and a pinch of salt” once a day for two months.

I would strategically eat it late in the afternoon, so I wouldn't get worried about dinner... My concentration, my studies were also affected because it got to a point that I would really hear sounds from my stomach, and then it would remind me that I'm hungry, but 'Hey, I can't eat now. I have to wait for a while.' And I would smell food all around, but I couldn't

¹ All names are pseudonyms.

have access to food. And so, (sigh) yeah, it was, it was tough, honestly. It was tough.

Although Faith’s situation improved once she started being paid for TA work, she was still food insecure. She had eliminated meat and fish from her diet, except for rare occasions when she had some extra money left over at the end of the month. Even though she loved these foods, she did not feel she could afford them regularly. She stated, “it makes me sad sometimes,” referring to her inability to buy the foods she enjoyed so much.

Moderate food insecurity

Almost all the students we interviewed could have been described as moderately food insecure at one point or another, limiting the quantity or the quality of the foods they purchased and ate. Some participants described marginal food insecurity most of the time, but they moved into moderate food insecurity when their income dropped or expenses suddenly increased. One international graduate student, Grace, said that she thought about money constantly and was always stressed as a result. However, with careful budgeting and constant attention to their finances, she and her husband were usually able to eat well, with lots of fresh fruits and vegetables; she was even able to prepare snacks when they hosted other graduate students. However, Grace’s delicate financial balancing act was derailed when her husband’s 11-year old son came to visit for two months over the summer. She described it as “the one period of time that we bought crappy food,” such as hot dogs. She felt physically ill during this period, which she ascribed to the poorer quality food she was eating.

Other students, like Faith, described how they normally eliminated whole categories of food, such as meat, fresh produce, or dairy. A few students had become vegetarian to save money. Experiences of moderate food insecurity were sometimes highlighted by participants’ answers to the question of how they would eat if they had enough money for food. For example, Jessica, an international student, stated that if she had enough money for food, she would “actually eat a balanced diet and eat three times a day.”

Charlotte, a domestic undergraduate student who was the first in her family to go to university, described spending a maximum of \$30 per week on groceries.² In speaking about her food budget, she said, “It’s definitely enough to get by, but it’s definitely not enough to be healthy.” She ate mostly what she called “cheap” or “boxed” food such as Kraft Dinner. She said she felt “guilty” about buying better quality food because, “there’s always something coming up that I anticipate having to spend money on, so for that reason, I try not to spend money.” At the time of the interview, paying her \$200 utility bill had left her with \$20 in the bank until her next pay cheque in two weeks. She anticipated eating “lighter” meals of cheap boxed and frozen food until she got her paycheque. Though she expected her parents would help her with money to buy

² This is about half the amount that the local Public Health Unit estimates it would cost to eat an economical healthy diet for a woman of her age. See: www.kflaph.ca/en/healthy-living/Cost-of-Healthy-Eating.aspx

groceries, she did not want to ask and be “a burden” because they were “not in a great financial situation” themselves.

Marginal food insecurity

Like Grace, described above, students who worried about having enough money for food often did a considerable amount of work to make sure they could eat reasonably well. They were often highly skilled budgeters and shoppers and used multiple strategies to lessen their food bill. They checked flyers for sale items, clipped coupons, travelled to discount grocery stores, and shopped on days when grocery stores offered student discounts. Those who had access to a vehicle would buy some items in bulk. Unlike the moderately or the severely food insecure students, marginally food insecure student had more flexibility in what they bought, and some ate a relatively healthy diet. For example, Amy, a domestic grad student described some of the work that she and her partner did, starting with what they knew would be at the campus food bank.

We write out a list, and we figure out what can be available at the food bank, and then we categorize based on what we've established is cheaper in one place or another, and since we go to No Frills [discount grocery store] and Costco, if it's worth getting the spinach at Costco we do that trip, and get what we can at Costco that we've, over time, figured out is cheaper there. And then the rest we get at No Frills.

A few students went to great lengths to save money. Two students described how they would regularly email companies whose products had ‘satisfaction guarantees’ to complain about the purchased product and then receive multiple coupons as compensation. One graduate student who lived on a low income for many years described multiple money saving techniques, including diluting shampoo and washing plastic wrap for re-use. Another student, who grew up in poverty and felt alienated by the culture of affluence at Queen’s, told the interviewer that he regularly shoplifted grocery items—but only at large chain grocery stores that he had decided could afford the losses.

Types of students

In this section we describe the types of students we interviewed, to highlight the diversity of issues contributing to food insecurity for Queen’s University students.

Undergraduate students who are first-generation Canadians

Seven students identified themselves as first-generation Canadians whose parents were helping to finance their studies to varying degrees. Some students had government loans and some had part-time jobs during the academic year. Several of these students described their parents as

working long hours to support their families. For example, Kevin, an only child whose family had come to Canada from China, described his parents as “always working” and “working crazy hours” at their jobs in Toronto restaurants. He had a credit card that his parents paid, and though they encouraged him to use it to buy food, he tried not to use it and did not want his parents to “waste their money” on food for him. Kevin and other students like him appreciated all that their parents had already done for them and did not want to further burden them. Bessey and colleagues (2020) describe a similar tension among food insecure undergraduate students in Nova Scotia who want to be financially independent.

Some first-generation Canadian students expressed acute awareness of their family’s financial precarity and did not want to further drain family resources. For example, Adam’s parents urged him to let them know if he needed money, but he said, “They’re not doing so well either and I feel bad asking them for money.” Heather was conscious of how challenging it was for her parents to afford their expensive rent in Toronto on one income. Her parents were not able to help her very much financially, so she relied on government loans and paid for her groceries from her part-time job. Dave, who grew up in Toronto, was the first in his family to go to university and he felt a lot of pressure to graduate to set an example for his nieces and nephews. He explained that his parents “want me to have a normal experience in University and not stress about money” but he worried that his parents were “drowning in debt” to keep up middle class appearances. He expected that once he had a job, he would have to pull them out of debt as well as pay off his own loan, which he estimated would amount to at least \$40,000 by the time he finished university.

One second-year student, Samantha, spoke of how poor her family was when they first moved to Toronto from China when she was three. She learned the importance of saving money at a young age and now struggled with seeing her bank account dwindle as she paid her bills but had no income.

I find with some of my other friends who grew up in an immigrant household, even though life’s a lot easier now, they still have this feeling of, “Oh, I need to save,” or it’s harder for them to go and get food, even though our parents might be like, “Hey, we’re okay now, you can go and get yourself something nice,” but growing up it’s been ingrained ... “Just in case anything happens, always save.”

In the first semester of her second year, after moving out of residence, Samantha prided herself on spending only \$10 per week on food. She tried intermittent fasting because of research that showed its health benefits; it also meant that she would eat two meals per day instead of three. Her parents grew concerned when she lost weight and encouraged her to spend more money on food. They started sending her care packages of food, which had the added benefit of being culturally appropriate food, which Samantha found difficult to find in Kingston. Samantha knew that she needed to learn to feel less anxiety about spending money to eat properly, but she was finding it difficult.

Some first-generation immigrant participants had parents who could have provided more financial assistance, but the students were acutely aware of their parents' sacrifices to provide a better life for them and were unwilling to ask for more. Others knew that their parents could not provide any additional funding because of the family's financial precarity. Participants wanted to fulfill their parents' dreams for them and hoped their parents would be proud of them. As other research has shown, it can be complicated for first-generation children to navigate complex family dynamics around post-secondary education (Wang & Nuru, 2017).

International students

Over the past few years, Canadian universities have intensified their efforts to recruit international students, whose tuition fees are much higher than those of domestic students and unregulated by government (Ireton, 2019). However, rapid fee increases make it difficult for international students to plan (Ireton, 2019). US scholars have noted a similar trend, without a corresponding increase in programs, services, or efforts to ensure students' academic and social needs are considered (Heng, 2017). One US study found high rates of food bank use among international students (El Zein, Mathews, House, & Shelnut, 2018).

Five participants were international graduate students, and one was an international undergraduate student. Their situations were varied. Two participants were able to get extra money from their parents when needed, though they hesitated to ask. Two others described sending money home to their families, one regularly and one for an emergency situation. One male graduate student had no cooking skills and regularly ate more expensive prepared or restaurant foods, while another male and two female graduate students described sophisticated budgeting, shopping, and cooking skills.

Two students were persistently and severely food insecure. Ruby's situation was the most challenging. As described above, she was an international graduate student who was a single parent to an elementary school-aged child. She had no financial support from her family, little social support in Kingston, and could not afford childcare. She had to give up her employment as a teaching and research assistant because she had so little time to do her own work, between caring for her daughter and the extra time it took her to read in English, which was not her first language. Ruby had come to Queen's specifically to study with her supervisor, an internationally renowned scholar, and was determined to finish her doctorate so that she could take up an academic position in her home country.

Jessica was the only international undergraduate student who participated in the research. She described her family as "very wealthy" but suspected that her parents were financially stretched, with all three of their children in Canada, attending university or private high school and paying tuition that increased every year. Her family sent her money only once per year, and at the time of the interview, Jessica had little money left for food. She said that her father did not believe that she could have spent so much money on food, not recognizing that food costs are much higher in Canada than in her home country.

Jessica loved to cook and considered that she had good food skills. However, not having much money for food and living far from campus were significant barriers to eating well. She described the ease of popping into the dining hall in first year with her meal plan, and never having to think in advance about what to eat. Now that she had to cook for herself, she often did not bother, and when she did, it would be “something quick.” She did not always take time in the morning to pack food with her, but found the options on campus expensive and could not justify buying them. Instead, she went hungry.

Sometimes I'll be in class and think, I just want a quick sandwich, but then I'm like, is it worth it to buy this five-dollar sandwich or, instead, go to Metro [grocery store] and buy two-dollar eggs and something else? I am always thinking before I eat, which I don't think is like a healthy thing, but before I take anything, I'm always calculating what is this going to take away from me if I have this now? And it's just, I'll be in class, and like let's say I forgot to have breakfast and, I have back-to-back classes, and I'm just hungry the entire day because all I'm thinking of is, "Just go home, wait 'til you get home and eat the groceries that you have (laughing), rather than spend five bucks now and then like, not have that five bucks and you've just had this one sandwich."

At one point, Jessica fainted and was taken to the emergency room, where she was diagnosed with iron-deficiency anemia and other nutrient deficiencies. She had little awareness of the existing resources on campus and was grateful to be connected to campus services and programs.

These accounts of food insecurity among international students highlight issues raised by other scholars about the ethics of a market-driven approach to international student recruitment (Altbach & Teichler, 2001; Heng, 2017) and domestic universities' responsibilities for the well-being of international students who often experience significant challenges, including racism, language and cultural barriers, social exclusion, and financial difficulties (Sherry, Thomas, & Chui, 2010).

*Indigenous students*³

There were two participants who self-identified as Indigenous. One student, James, was being funded by the federal government's post-secondary support program for Indigenous students, which paid his direct educational expenses (tuition and books) plus a living allowance of \$750 per month. His band added \$250, for a total of \$1000 per month. However, his rent at the graduate student residence was \$750 per month, leaving him only \$250/month for food, cable, cell phone, transportation, and other essentials. James noted that the federal government support program had set the living allowance in 1996, before cell phones or the expectation that all

³ Because of the low numbers of Indigenous students at Queen's, we have deliberately not identified Indigenous participants' programs to protect their confidentiality.

students had personal computers. He considered the lack of adequate funding for Indigenous students a broken treaty promise.

The second student, Katie, applied for funding for her post-secondary education from her band, but was rejected. Now in her eighth year of university education, she had received a total of only \$8000 from her band, despite multiple applications. She was in a program with high, deregulated tuition fees and had “a crazy amount of debt.” Katie had a government (OSAP) loan, a student line of credit, and worked as a teaching and research assistant during the school year. Her parents had four younger children and were living on low incomes themselves. Katie was grateful for the groceries that they would sometimes bring, but she was not comfortable asking them for more. She was chronically, severely food insecure, and had lived on potatoes and noodles for much of her time at Queen’s. She also had dietary restrictions, notably gluten and dairy. Sometimes she was so hungry that she would eat the free pizza on offer at various events or the fry bread at the Four Directions Aboriginal Student Centre. Her stomach would then be upset for days. Katie was embarrassed to ask for assistance and felt a particular burden to not reinforce any stereotypes of Indigenous poverty.

Indigenous people in Canada suffer much higher poverty rates than non-Indigenous people, with rates among Indigenous children living on reserve at 60%, more than four and a half times the rate for white, non-immigrant children (Macdonald & Wilson, 2016). Moreover, while post-secondary education is an important route out of poverty, Indigenous people attain university degrees at a rate that is less than half that of the non-Indigenous population (Statistics Canada, 2013). Queen’s has committed to implementing the post-secondary education recommendations from the Truth & Reconciliation Commission (TRC) Calls to Action, including the elimination of educational gaps between Indigenous and non-Indigenous Canadians (Queen’s University Truth and Reconciliation Task Force, 2017). James’ and Katie’s stories suggest that Queen’s initiative to develop bridging and pathway programs to bring in more Indigenous students, while admirable, is inadequate. Without sufficient material support after they arrive, students who come to Queen’s through these programs may face high personal costs. This conclusion is supported by the results of a recent national survey of Indigenous post-secondary students, which found that improved funding is critical for student success (Indspire, 2018).

Law students

Five participants were enrolled in the JD program at the Queen’s Faculty of Law, while a sixth was doing graduate work in law. Tuition is deregulated at the Law School, meaning that tuition fees at the time of the interviews were approximately three times the tuition for graduate school. Participants’ experiences of food insecurity ranged from marginal to severe. Two were severely food insecure, one persistently and one cyclically. Two others had maintained moderate food insecurity during their studies.

The reproduction of social inequality was perhaps most visible and keenly felt at the Faculty of Law. Participants noted that some of their classmates had one and sometimes two

parents or grandparents who had attended law school. All participants noted the invisibility of poverty and food insecurity at the Law School, where they felt alienated from the pervasive ‘air of privilege’.⁴ Almost all Faculty of Law participants noted classmates’ luxury cars, naming Bentley, Mercedes and Lexus vehicles, as one of the most visible signs of the disjuncture between themselves and their classmates. One participant recounted his experience of being in a class about poverty and thinking to himself, “Hey, that’s me!”, but the class was conducted in a way that assumed that poverty was somewhere else, affecting others. Similarly, in response to a question about using the food bank, Adam stated, “We are expected to *donate* to the food bank.” Another agreed to participate in the study only after she was reassured that she would be the fifth participant from the Law School. She had cancelled a research interview appointment without explanation and stated afterward that she was embarrassed, believing she was “the only one” in the Faculty of Law who did not have enough money for food.

The invisibility of poverty was a double-bind. On the one hand, it allowed students to ‘pass’ without needing to explain themselves. On the other hand, it made them reluctant to ask for help, did not allow them to support each other, and left them feeling isolated from the other students. As one Law School participant stated, “I don't want to say I'm broke, because I know this person [classmate] just got dropped off in a Mercedes.” Most of the Law student participants spoke in glowing terms about a staff person who was able to help out with emergency bursaries and tickets to events, but as much as they appreciated her support and kindness, it was impossible for her to fill the gaping holes in their finances. Their experiences call into question the idea that access to professional education remains open and equitable when tuition fees are deregulated.

Transition to independent living

The majority of Queen’s undergraduate students live in residence for their first year and then move off-campus to rental accommodation for the remainder of their education. Five undergraduate participants described a challenging transition from first-year residence living to second-year independent living. They described independent living as less expensive than residence, but they were now responsible for doing their own meal planning, budgeting, shopping, food preparation, and clean-up. Juggling domestic demands with school work and sometimes part-time jobs work was overwhelming for a few, especially if they did not have previous experience of cooking for themselves.

For example, Kevin, a second-year Life Science student, had never learned to cook at home. He had been eating out a lot and was aware of how expensive it was, so he learned to cook “basic stuff,” such as scrambled eggs and rice, using YouTube videos. With a heavy course load

⁴ Law student participants noted pervasive class privilege; most also spoke of white privilege, sometimes in relation to settler colonialism.

and little time for meal preparation, he liked food that he could “grab and go”, such as sandwiches or bagels and cream cheese. But he was easily bored with the food he prepared for himself and wished he could afford to opt-in to a meal plan.

The transition to living independently is likely challenging for most students; however, it is more complicated for those who do not have food skills, or do not have enough money for food and cannot depend on family to help. Further research is needed to assess how food insecurity in the transition to independent living may affect students’ ability to continue their studies and succeed.

Effects of food insecurity

Similar to other research (Bessey, Frank, & Williams, 2020; Henry, 2017; Martinez, Frongillo, Leung, & Ritchie, 2018; Maynard, Meyer, Perlman, & Kirkpatrick, 2018; Meza, Altman, Martinez, & Leung, 2018), participants described a wide range of health effects that they attributed to food insecurity. These included unintended weight changes, anemia, light-headedness and fainting, headaches, persistent stress that sometimes intensified, and feelings of tiredness, weakness, being run down, lethargy and irritability. Some participants described an inability to concentrate and a preoccupation with food and money. Jamie, who only ate once a day because of her food insecurity, stated, “you just feel terrible, you can’t focus, your brain is just not working the way it should, you’re super lethargic.”

Two male participants said that they went to the gym less often or not at all when they did not have enough money for food. Another student from a low-income family took up smoking to help cope with his anger that he and his family had so little, while others around him had so much. Some felt guilty for not eating healthily, and those with dietary allergies or restrictions found it especially challenging to access food.

Charlotte described the stress and mental exhaustion involved in grocery shopping and “forcing” herself not to buy items she wanted because she had so little money:

I'll be in the [grocery] store and I'll look at something and I'll be like, "Wow, I really want to eat, I really want to buy this," but it's like, "No, don't buy it," like, "You don't need it," like, "You don't need that," like, "You can have something else, or you can make something else, or you can make use of what you already have at home." That kind of thing. ... So, it's mostly just me thinking to myself, and criticizing myself and not letting myself buy things.

Food insecurity also either set up or reinforced disordered eating patterns for some students, including eating only once or twice a day and ignoring hunger cues. It complicated or deepened existing mental health problems. For many students, food insecurity was inextricably

linked to feelings of social isolation, not being able to join their friends in social activities, and an ongoing sense of deprivation.

Not surprisingly, some students thought that food insecurity had affected their academic performance, especially when combined with the stresses of intense course loads, challenging courses, part-time employment, and financial worries.

Discussion and conclusion

Our results are broadly consistent with other qualitative research on food insecure university students (Bessey et al., 2020; Henry, 2017; Maynard et al., 2018; Meza et al., 2018) and has found similar results with respect to the effects of food insecurity, including feelings of shame, stigma, invisibility, and social isolation among participants. Unlike previously published qualitative research, our sample included graduate and professional students, and we deliberately recruited students who were not using the campus food bank. These recruitment strategies created a sample of students for whom the contexts of food insecurity varied. While the longstanding cliché of the ‘starving student’ (Henry, 2017; Maynard, Meyer, Perlman, & Kirkpatrick, 2018)) implies that there have always been postsecondary students without adequate resources to properly feed themselves, until recently, this phenomenon has not been taken seriously. There has been little effort to understand student experiences of food insecurity, which students are most at risk, or the extent or consequences of food insecurity among university students. Our sample is not random and cannot be considered representative; however, it is noteworthy that many participants came from backgrounds that are at higher risk of poverty, including students who are the first in their families to go to university in Canada (including Indigenous students, first-generation Canadians, and those from low-income families), and those with dependent children.

As government funding for university education has slipped below 50%, Canadian universities have turned to tuition to fill the funding gap (Usher, 2019). Tuition and mandatory fees for domestic students have increased at a rate higher than inflation, doubling between 1995-96 and 2019-20 (Usher, 2019). For international students, undergraduate tuition has increased by almost 70% in only the past ten years and is now \$35,000 annually in Ontario (Usher, 2019). In the context of decreased government funding for post-secondary education, the rate of tuition increase has attracted concern about accessibility for students from lower income families. However, despite increasing tuition, enrollment in university education has grown over the 21st century (Fréchette, 2016). In fact, the average national rate of participation in postsecondary education for young people from the lowest quintile of family income has grown the fastest, reaching 47%, still considerably less than the 80% participation rate of young people from the highest quintile of family income (Fréchette, 2016). Student debt levels rose dramatically in the

1990s but have stabilized as student assistance programs have moved away from loans to grants and tax credits (Usher, 2019).

While these descriptive statistics paint a picture that may seem reassuring, our results suggest that statistical averages may conceal a more complex reality. Some students, who cannot rely upon family resources to support them during periods of shortfalls, may be paying a high personal price for their university education. Their struggles are particularly invisible at Queen's, where the dominant student culture of privilege and affluence has hidden the needs of more marginalized students, reinforced their social exclusion, made it more challenging for them to ask for help, and threatened their ability to reach their full potential. Moreover, our results suggest that food insecurity may be contributing to what has been called a 'mental health crisis' on campus.

An inability to cover the cost of everyday living expenses is at the root of most of the problems described by participants. In the general population, food insecurity is a sensitive marker of material deprivation and thus a symptom of the broader problem of poverty (Loopstra & Tarasuk, 2013; Tarasuk, 2017). This suggests that eligible students may benefit more from a provincial or national basic income program to cover basic needs than from free or heavily discounted tuition. While the growing movement for basic income in Canada has focussed on high rates of precarious work among young people and the threat that automation poses to paid employment (Forget, 2018), student food insecurity may provide another compelling reason to implement such a program. For domestic students, an income that meets basic needs for food, shelter and clothing would go a long way to addressing most, though not all, of the issues our participants described. Our results also suggest that Queen's University and the Ontario government need to rethink their strategy of recruiting international graduate students to make up income shortfalls without providing adequate supports, especially adequate funding, to ensure the students' well-being. Finally, for the benefit of the minority of students who lacked food skills, the results support advocacy efforts to introduce food literacy curricula in secondary schools (Truman et al., 2017).

The implementation of a basic income program is well beyond the scope of a university's remit. However, universities could use their considerable authority to support and advocate for a basic income for students, in recognition of the primary importance of income as a determinant of health (Raphael, 2009) and food insecurity (Loopstra & Tarasuk, 2013; Tarasuk, Mitchell, & Dachner, 2016). Queen's University has adopted the *Okanagan Charter: An International Charter for Health Promoting Universities and Colleges* (Okanagan Charter, 2015) which includes two calls to action: "to embed health into all aspects of campus culture" and "to lead health promotion action and collaboration locally and globally" (p. 3). The recommendations of the recent Queen's University Report on Food Insecurity (Sebesta & Queen's University Food Insecurity Working Group, 2019) are aligned with the Charter, particularly around the promotion of well-being in food and nutrition and in social inclusion. However, without addressing the key underlying problem of income, these recommendations are essentially symptom management.

Universities concerned with addressing student food insecurity could learn from the cautionary tales of the wider community, where efforts to tackle food insecurity have been relegated to the voluntary sector at the community level. Food banks have been the primary response to food insecurity in Canada for the past 40 years. While well-intentioned, the efforts of food banks do not shift empirical measurements of individual and household food insecurity, and leave completely unserved the vast majority of food insecure households that do not access them (Loopstra & Tarasuk, 2012; Tarasuk, Fafard St-Germain, & Loopstra, 2019). The most significant unintended effect of food banks may have been to provide a cover for the dismantling of the Canadian social security net (Power, 2017; Tarasuk, Dachner, & Loopstra, 2014).

As institutions promoting critical thinking skills and retaining considerable authority, universities are in unique positions to produce sharp analyses of the primary causes of food insecurity and avoid the pretense that food programs are the best solutions. Ultimately, universities have a responsibility to advocate for real solutions that promote the health and well-being of their students.

Addendum: In January 2021, Queen’s University announced that there would no longer be a fee differential for international doctoral students.

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