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Unwrapping school lunch: Examining the social dynamics and caring relationships that play out during school lunch

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Abstract

Students are important stakeholders in school food programs. Yet children's daily experiences and voices are often overlooked in advocacy around school food. In Canada, where the federal government recently expressed interest in creating a National School Food Program, nearly no research has documented the first-hand experiences of children during lunch. This ethnographic study draws on data collected during 36 lunchtimes in three Canadian schools during a transitional period in a school district's lunch program. The findings unwrap the powerful role of students' perceptions of and relationships to food in shaping their social interactions, and their sense of care, connection, and identity. Classroom observations coupled with photos of school lunches demonstrate the wide diversity of foods eaten at school and the nuanced, complex, and sometimes divergent meanings children give to food, school lunch and the people involved in preparing, serving, supervising, and sharing lunchtime experiences. Students demonstrated indepth knowledge of the food choices and attitudes of their peers and actively marked out their identities vis-à-vis food. Students frequently talked about food as a site of care and support, and both the social relationships and care work that played out were a major part of school lunch experiences. Understanding the intricacies of children's school lunch experiences, including the relationships, meanings, and values that shape school lunch, will be critical for creating robust school food programs and policies in Canada that better serve the needs of children and reduce rather than reproduce existing health and social inequalities.

Keywords: School lunch; children; care work; ethnographic research

Introduction

School-based policies and programs that improve children's access to nutritious food, wellbeing, and educational outcomes have long been recommended by international health and education advocates (CDC, 1996; Jaime & Lock, 2009; McKenna, 2010; Veugelers & Schwartz, 2010; WHO, 2020). Successful school lunch programs in particular can contribute to improved dietary quality among children, with the potential to benefit students from across the socioeconomic spectrum (Everitt et al., 2020; Greenhalgh et al., 2007; Hernandez et al., 2018). In countries like the United States where a national school lunch program exists, school food programs contribute to reduced rates of food insecurity for households with children (Arteaga & Heflin, 2014; Gundersen, 2015; Ralston et al., 2017) and positively affect not only school attendance, but also academic achievement (Anderson et al., 2017; Cohen et al., 2021; Hinrichs, 2010).

Some studies, however, find that school food programs can reproduce inequality by reinforcing stigma for those participating in programs labeled or understood as being designed for poor students (Best, 2017; Gaddis, 2019; McIntyre et al., 1999; McIsaac et al., 2018; Poppendieck, 2010). Other programs fall short of their stated goal to feed hungry children when cost or fear of stigma discourages participation (Bhatia et al., 2011; Poppendieck, 2010; Raine et al., 2003). Programs may miss the mark if adult program designers assume that they know what will resonate for children and disregard the lived experiences of the end users. Consequently, meal programs may not work well for children who can exert their agency by opting out. We can learn much by allying with and listening to children and those responsible for caring for them in the school setting, so that these key stakeholders can meaningfully take part in research and inform the design of programs that affect them. As such, researchers can support the enactment of the United Nations Convention on the Rights of the Child that asserts that children have the right to give their opinions and to be listened to in matters that concern them (Pais & Bissell, 2006).

School lunch in Canada

Unlike the United States and most other Organization for Economic Cooperation and Development (OECD) countries, Canada does not have a nationally-funded school lunch program (Everitt et al., 2020). The Canadian government expressed interest in creating a National School Food Program in 2019 (Government of Canada, 2019), and the federal Liberal Party who were re-elected to lead a minority government in September 2021 further pledged to invest \$1 billion over five years towards a "national school nutritious meal program" in their campaign platform (Liberal Party of Canada, 2021), yet the majority of students currently bring a packed lunch from home. In 2004, fewer than one in ten students reported eating a lunch prepared by schools when asked about what was consumed on the previous school day. That year was the last time the national Canadian Community Health Survey asked an explicit question about where foods were prepared on nationally representative twenty-four hour dietary recalls (Tugault-Lafleur et al., 2017). Given that relatively little scholarly attention has examined Canadian children's experiences with school lunch, Canada additionally serves as an important case to examine the benefits and challenges of school food programs due to the absence of nationally coordinated efforts. Further research is needed to inform the developing national political interest in school food programs.

The administration of Canadian school lunch programs is complex (Ruetz & McKenna, 2021). While there is minimal federal or provincial oversight of existing programs (Hernandez et al., 2018), Ruetz & McKenna (2021) estimate that provinces and territories contribute over \$90 million annually to partially support a variety of free school food programs which serve over one in five Canadian students, often implemented in partnership with non-governmental organizations and highly reliant on volunteer labour. Research reveals a diverse array of models for funding and delivery of school food programs across the country, of which only a fraction are lunch programs (Everitt et al., 2020; Ruetz & McKenna, 2021). For example, in British Columbia (BC), the province where this study took place, no specific governmental funding for school lunch programs exists. However, the BC Ministry of Education's CommunityLINK funding program is intended to support the "academic achievement and social functioning of vulnerable students" and can be used to support school lunch programs at the discretion of eligible schools (Province of British Columbia, 2021, para 1). Some school districts or individual schools also organize their own ad hoc lunch programs using diverse program designs, including those led by parent groups, non-profit organizations, or run by the schools or districts themselves drawing on a mix of funding sources (BC Teachers' Federation, 2015). There remains a notable lack of comprehensive or publicly available data which has documented the number, variety, reach or effectiveness of school lunch programs in BC (Ruetz & McKenna, 2021).

As researchers, grassroots advocates and government actors are now actively debating the importance and future design of Canadian school lunch programs following the Covid-19 pandemic (Agriculture and Agri-Food Canada, 2019; BC Teachers' Federation, 2021; CHSF, 2020), it is imperative to incorporate the voices and perspectives of students. This ethnographic study therefore draws on data collected during thirty-six lunchtimes in three Canadian schools during a transitional period in a school district's lunch program. New insight is garnered through describing the school lunch experiences of students and staff at three schools before and after the transition to a new district-wide school lunch program. While specific details regarding the two programs' approaches, funding schemes, administration, uptake and parental perspectives and barriers to use have been published in a public report (Black et al., 2020), the current study findings go beyond the program report to illuminate how food serves as a marker of identity and conduit to dynamic interactions and relationships that shape students' broader experiences and overall sense of wellbeing and connection. Understanding the intricacies of children's school lunch,

will be critical for creating robust school lunch programs and policies in Canada that better serve the needs of children and reduce rather than reproduce existing health and social inequalities.

Study methods

Study context

This paper draws on fieldwork from three suburban Canadian schools during a district-wide transition from a highly subsidized, in-house lunch program that served a small number of students in each school to a program described as cost-shared and universally accessible, offered to all students through an external catering company (Black et al., 2020). The broader study involved a variety of research methods, including ethnographic observations, in-depth interviews, and a parent survey (Black et al., 2020). This paper draws solely from the ethnographic observations. Ethics approval was obtained from the school district and the University of British Columbia Behavioural Research Ethics Boards.

In June 2017, this school district passed a motion with the aim of nurturing a school district where "no child is hungry and every child eats healthy" (New Westminster Schools, 2018, p. 8). To meet this goal, the district partnered with the local health authority to develop a plan to address documented concerns related to inequitable access to nutritious, culturally appropriate, tasty foods that would be feasible and cost-effective for all eleven schools in the district. In September 2018, a dietitian was hired into the role of School Nutrition Coordinator to support the development, implementation, and evaluation of the meal program. Also in 2018, following a Request for Proposal, the district partnered with a private caterer to develop a lunch program aimed at providing parents with the option to order school lunches through an online ordering system with the aim of addressing the key themes arising from the detailed environmental scan previously developed by the health authority partners in partnership with school district staff (New Westminster Schools, 2018).

The new lunch program was launched at three district schools in February 2019 to provide monthly school lunch menus with a variety of options, including daily vegetarian and gluten-free options. The set cost for all entrées was \$5.75 and optional side dishes (side salad, fruit, or dessert) could be ordered online for \$1.25 to \$1.50. Available drinks included milk (dairy or soy) for \$1.25 and chocolate milk (dairy or soy), offered once per week, for \$1.50. The School Nutrition Coordinator worked closely with the caterer to ensure that menus developed met the Guidelines for Food and Beverage Sales in BC Schools (Province of British Columbia 2013). As part of the program's commitment to nutritional quality, the menus also ensured that a fruit or vegetable was included with every entrée, that additional fruit and vegetable side dish options were frequently available for purchase, and that milk and milk substitutes could be purchased daily.

Program participation was entirely voluntary, and parents could order meals each day, or for occasional use only. Fifty cents from each full-priced entrée were allocated to support a subsidy program wherein families with significant financial need could submit an application to receive a full or partial subsidy after providing a brief statement of financial or other needs that reduce their family's ability to provide a healthy meal for their child(ren). With approval from a school district staff person, a subsidized family could receive a lunch entrée at no charge (full subsidy) or a partial subsidy where the entrée cost either \$2.75 or \$1.00 (depending on self-reported need). Neither drinks nor side dishes were included as part of the subsidy program but could be purchased for \$1.25 to \$1.50. During the 2018–2019 school year, the subsidy program and approvals were overseen by the School Nourishment Program Coordinator.

In comparison, in the former program, parents previously paid "what they could" through an anonymous envelope payment system with payment details known only by school staff. While the former program was designed to meet the needs of children perceived as vulnerable and in need of support, it was estimated by district staff that only a minority of those previously participating regularly constituted "high needs" students.

Documenting what lunchtime looks like and means to students

We embedded ourselves during lunchtime at two elementary schools and one middle school beginning in early 2019 when the former lunch program was still in place. The schools served families across income levels, with many low- or middle-income students, and English language learners, and reflected the diversity of the district where nearly 40 percent of the population identify as a visible minority on the 2016 Canadian Census (Statistics Canada 2017), including families who identified as South Asian, Chinese, Filipino, First Nations and Metis and other students of colour. There were no lunchrooms or cafeterias in these schools and students had about fifteen to twenty minutes to eat in their classrooms. Teachers occasionally lingered or met with students during lunch but were typically on break during lunchtime. At the elementary schools, one or two select students occasionally left class during lunch to serve as monitors/aides for students in lower grades.

To document students' experiences of lunch before and after the implementation of the new food program, fieldwork was done in January and May 2019. Two classes from the higher grade levels were selected in each of the three schools (two elementary schools and one middle school) for a total of six participating classrooms. In this district, elementary schools serve children up until grades four or five, and some classes combined students in more than one grade level; hence, the oldest classes of students in the classrooms observed ranged from grades three to five in the elementary schools. All students in the middle school were from grade eight. Our rationale for sampling the oldest grades was based on the school district's concerns about stigma in the original lunch program and the presumption that the experiences of stigma would be most

salient or severe for the oldest students. Fieldworkers visited each class six times: three times before the new program was implemented (visits #1, #2, #3) and three times after it had been running for a few months (visits #4, #5, #6). During visits, fieldworkers wrote detailed notes then immediately typed up fieldnotes, which they shared with the research team within forty-eight hours of the visit. Fieldnote excerpts in this paper are true to their original form except for occasional light editing to improve clarity or maintain confidentiality (Emerson et al., 2011). During the third and sixth visits, research assistants accompanied fieldworkers to the classrooms and took before- and after-lunch photos and helped students complete a brief written activity about their lunch. We verbally asked students several questions about lunchtime (e.g., What do you like/not like about lunchtime? What do you think of the new school lunch program? How is it different from the old school lunch program?).

Adult staff, called "noon-hour supervisors," were hired for one hour shifts during lunchtime and were responsible for roaming the hallways to oversee numerous classrooms at once, monitoring student behaviour and safety issues. These paid staff persons were nonteaching staff, responsible for multiple classes at once, were frequently observed checking in on classrooms and monitoring safety, noise, and behavioural concerns, including ensuring doors were locked/closed appropriately or calming noisy classrooms. While we documented lunchtime conversations and personal and caring interactions between these supervisors and students, for the most part, students were left in their locked classrooms with limited adult supervision.

Description of the lunch programs before and after the meal program transition

The two lunch programs were quite different from one another. More specific data about differences in program participation rates and perceived strengths and limitations of the new program from the perspectives of parents can be found in the publicly available program report (Black et al., 2020). Briefly, the former program was highly subsidized for all participants. Designed with the intent of ensuring that children in low-income households had access to a meal at school, it was supported largely by provincial CommunityLINK funding for vulnerable populations (Province of British Columbia, 2021). Given the limited funding, the program was only available in a small number of district schools and to a limited number of students. Estimates from the district suggest that the previous program had capacity to serve lunches to less than 20 percent of enrolled students. Among students who did regularly participate in the previous program, fewer than one-third were considered to be "vulnerable", with the district reporting concerns that many families were using the program for "convenience", with some families in need potentially missing out due to perceived program stigma. Meals were sold below cost, typically less than three dollars per meal, and included a carton of milk and at least one side (e.g., fruit or a bag of crackers or cookies; see for example lunch photos in Figure 1-a). Participating families paid what they could by submitting an envelope to their school with

whatever sum they felt they could afford (including none). Two paid in-house school lunch workers employed by the district coordinated the daily operations of this program, based at one of the elementary schools and the middle school where this research took place, both of which had kitchens similar to large home kitchens. The middle-school lunch worker also prepared lunches for an adjacent elementary school which was another one of our field sites.

The school district implemented a new food program in these three pilot schools in February 2019, which rolled out more widely across the district the following school year. The food for the new program was prepared by an external catering company and delivered by catering staff directly to the schools. The district subsequently eliminated the positions of the two in-house lunch workers, while the noon-hour supervisors remained on staff to monitor students during lunchtime.



Figure 1: School Lunch Photos

Figure Legend:

Figure 1a: Pasta meal from the former school food program prepared by in-house lunch staff; old lunch program (orange border).

Figure 1b: Pasta entrée from the new school food program provided by an external catering company. Students in one class described the new program food as "airplane food" to mean it was made by an anonymous company and felt "less homemade" than food prepared by lunch staff; new lunch program (purple border).

Figure 1c: Home-packed lunches were the most common lunches and often included several items such as a main dish, cookies, or crackers, small sweets, or desserts, and/or fruit; and home-packed lunches (blue border).

Figure 1d: Some students packed and prepared their own lunches, such as heating up prepackaged chicken pot pie.

Figure 1e: Hot entrée of turkey, peas, and gravy from the new school food program. The source of the fruit cup and apple are unknown, as students sometimes supplemented program meals with food brought from home, gifted by, or traded with other students despite a formal policy discouraging students from sharing food.

Figure 1f: Home-packed lunch with apples sliced thinly by Dad the way the student liked them.

Figure 1g: Packed lunch of cheese sandwich and mandarin orange wedges eaten by a student who played a game with another student during lunch.

Figure 1h: Finger foods, such as a cut-up apple sent from home, could be eaten at lunch or during recess.

Figure 1i: Families in one school often dropped off homemade hot lunches at noon, such as this roti wrap.

Figure 1j: Noodle Snacks and other packaged savory and sweet snack foods (e.g., granola bars) from home were popular with students.

Figure 1k: A student smiled upon seeing her favorite, dumplings, in her thermos. How students felt about their food could pervade their entire lunch experience.

Figure 1L: Uneaten food from a packed lunch of pepperoni pizza and watermelon slices.

The new program was described as a universally accessible cost-shared model because all students were invited to order lunch from the new program, whereas the earlier program had capacity limits. Households could apply for a financial subsidy through an online application process. With approval from a school district staff person, a full or partial subsidy could be granted, depending on a family's self-reported need. The district aimed to approve subsidies for any family who disclosed severe financial hardship or other special circumstances perceived as warranting support. The district did not require formal proof of financial need but asked families to estimate the expected duration for which they would likely need a subsidy. The program further encouraged families to "pay what you can" to assist the district in providing as many healthy meals as possible. While subsidized students could order from the same daily list of

entrees as students paying full price, neither drinks nor side dishes were included as part of the subsidy program but could be purchased at full price by subsidized students.

Data analysis

After several reviews of the fieldnotes and meetings to discuss emergent themes in the data, broad codes were finalized by the academic research team and used to compile and analyze data. Fieldnotes were coded and analyzed using NVivo v.12 in March 2019, prior to the implementation of the new meal program; one additional node was added in May after the program's implementation (see Table 1). Analyses were complemented by photos from 104 lunches, which revealed the types, quantities, packaging, and variety of foods students brought or purchased, and a small subset is provided in Figure 1 to illustrate the diversity of lunches captured.

Table 1: Analytic Nodes

ADULTROLE	Adult Roles
ATMO	Atmosphere
CLASSMOVE	Classroom movement
EATSTYLE	Styles of eating
FOODLIT	Food Literacy
FOODTALK	Talk about food
FOODTRADE	Swapping, sharing, trading food
FOODTYPE	Food types
HOMEFOOD	Home food
HYGSAFETY	Hygiene and food safety
PACKAGE	Food packaging
PROGFOOD	Program food
SOCDYNAM	Social dynamics
STIGMA	Stigma and food
STUDENTROLE	Student Roles
TIME	Time for lunch
VARIETYMONO	Food monotony/variety
***EXPENSE	Cost, price, expensive/cheap access to subsidy

***denotes node that was added in May 2019 following the implementation of the new program

Results

Eating styles and social interactions at lunch

The fieldwork revealed the highly diverse ways that students approached lunch for both students who brought lunch from home and those participating in the lunch programs. The most common lunches observed were home-packed lunches, which far outnumbered program lunches before and after the district implemented the new program. While the former program had only limited capacity and served the minority of students in these schools, our in-class observations and lunch photographs suggest that in the early months of the new program, school lunch participation appeared to have declined compared to the previous program. Unlike the previous program where parents typically signed up for full month at a time (but at a lower cost, with fewer menu choices), students were more frequently using the new program for only occasional, rather than daily use.

Home lunches usually consisted of a variety of items often separately packed in baggies, reusable containers, or thermoses (Figure 1c-d, f-k) and were more easily distinguishable from the new program packaging, which was distributed in individual packages labelled with students' names (Figure 1b and e). These new program lunches were far more visible and easier to discern from home packed lunches compared to the previous lunch program meals which came in brown paper bags with items more similar in style to home packed foods.

Yet, the story of what food and school lunches in particular meant to students and signaled to others went well beyond what we could see and quantify from the pictures of lunch. Our fieldnotes routinely documented the ways students influenced one another during lunch. Although students ate together in their classrooms, and had about fifteen to twenty minutes for lunch, their eating styles varied dramatically. Some students ate in rapid jags, eating several large bites in a row and sometimes finishing their food quickly. Some took small, measured bites, and ate throughout the lunch period. Some focused on their food while others appeared to be distracted by their peers or activities they were engaging in while they ate, including drawing, playing games, singing, dancing, or chatting with friends. Some students played games with others while eating or sat in a group and ate while socializing, sometimes sharing food as illustrated here, "At one table of three girls, there are grapes being passed around. One girl says she brought them and is sharing with her friends. They say they often share food...[Later I see these students sharing a Danish. At the end of lunch period], I notice that the girl who was sharing her Danish with her two friends is still eating her portion" (Middle school, visit #4).

Social interactions with their peers in the classroom also played an important role in lunchtime dynamics. Students were frequently documented observing their classmates' lunches and were aware of their classmates observing theirs. We documented students "checking in" with classmates as they made eating decisions or when deciding if it was time to speed up their eating to move onto games or socializing. For example, in one class where students went to music after lunch, a fieldworker observed the following: "One girl is still trying vigorously to chomp through her lunch even though nearly everyone else is now packed up ready to go to music. She is trying to quickly munch some watermelon. Her friend (now speaking in French since this is a French immersion class) comes to speed her along (and I think he says something like "it's time to finish up"—I wish my French skills were better here). The girl quickly tosses her Tupperware into her lunch bag" (Elementary school, visit #5).

Students' eating was often informed by their peers, including ideas about what constituted a good lunch and how they actually ate their food. Students knew a lot about what and how their classmates ate, often telling the fieldworkers what their classmates liked to eat and who typically ate what, including whether a classmate participated in the school food program, as this fieldnote excerpt from elementary school, visit #5 depicts "[A group of students say they don't participate in the program and] point out one student who does get the lunch program (I later learned that this student who was pointed out to me used to get the program lunch, but they no longer do under the new program).]"

Individual and collective identities and cultures signaled with food

Students also actively marked out their identities vis-à-vis food by declaring foods they liked and disliked, describing their eating styles, and displaying knowledge about food, among others. Students' identity marking around food often involved their peers. At times, students discussed or debated the nutritional quality of foods, as the below exchange illustrates: "Two boys playfully bicker. One says, 'It's the best combo of carbs.' The other replies, 'Yo, butter chicken is the best!'" (Middle school, visit #6).

Some students displayed an understanding of the value of food items through trading and commenting on others' items. Ownership and competition for items laid a foundation for several interactions observed among the students, which demonstrated how students actively negotiated to set the value of food. In one elementary class, students hotly debated the worth of an item up for trade, with one rebuffing an offer as too low by exclaiming, "Nothing is free!" (Elementary school, visit #1). However, more often, fieldworkers documented quiet, casual instances of food trading. Students were observed trading a bag of chips for a bun from the old lunch program, or strawberry yogurt for mango yogurt, for example. These kinds of exchanges reveal that students were assessing the value and worth of food items, but also engaging in a cooperative manner to pursue their own cravings and satisfy those of their peers.

Students also participated in peer food culture by knowing about the latest food craze and bringing food from home or buying food that others deemed desirable. Preferences for more "fast food" style foods (chicken sandwiches, burgers, pizza) were common, and students discussed in animated terms popular food items, which tended to be commercial snacks or treats.

"When I tell the boys [a group of students] I've never heard of Noodle Snacks, they get very excited. One tells me 'Everyone wants it'.... I ask him, 'If everyone wants it, is he tempted to trade it?' He says no with a grin. He likes the noodles too much to trade" (Elementary school, visit #4).

When a fieldworker remarked on the branded sports water bottles on many students' desks in one middle school class, in another example, a student casually responded, "We get them because we're rich," suggesting the water bottles served as markers of status. Students also often commented approvingly on items in their classmates' lunches that they liked. "A child says in an excited voice, 'Oh I have a donut too!' The student next to her says loudly 'Lucky!' and slaps the table for emphasis" (Elementary school, visit #3).

These moments publicly marked certain foods as desirable and offered an opportunity for students to trumpet items in their lunch and collectively share enthusiasm for certain foods.

Although we observed moments when children were unhappy about their lunch or appeared to be hiding the contents of their lunch, rarely did we observe students making derogatory comments about their classmates' lunches, perhaps because of our presence. In one incident, we overheard a small group of students teasing a classmate for bringing leftovers for lunch (Middle school, visit #3), although we regularly observed what appeared to be leftovers among home lunches. We also observed students who appeared upset but did not want to share why with the research team, as the excerpt below demonstrates. a "[A student] is red in the face. Her brow is crinkled, and her eyes are narrowed.... I hear her say 'What did they do to my bag?'.... [I] ask if she is okay. She shakes her head no. I ask if there is anything I can do, and she firmly shakes her head again. She then crosses her arms on her desk and rests her head on them" (Elementary school, visit #5). We observed examples of tension and conflict between students on more than one occasion, including instances that might be characterized as bullying. While fieldworkers were not in close enough proximity to the children engaged to hear or record the full context of these incidents or the extent to which they relate to lunch itself, there is evidence that children experience and actively try to avoid bullying and stigma for what they eat at lunch (Best, 2017; Edwards & Taub, 2017; Ludvigsen & Scott, 2009).

Students in classes together often shared similar sentiments about the program food, revealing how students formed collective understandings. In one middle school class (visit #6), students nearly unanimously described the new program as "airplane food," but we did not hear this term being used elsewhere. In another class, a seemingly popular student who "held court" during lunchtime, with groups of students gathered around his desk, participated in the new program. Students in this class tended to share a positive view of the program. For instance, a classmate told us, "I hear my friends talking about it [the new program] and [they] say it's good" (Middle school, visit #5). Despite often being asked individually for their impressions of lunchtime, students' responses revealed how their perceptions were socially formed.

Moreover, students' perceptions were shaped by more than the food itself; they were informed by ideas about the caring labour of lunch. The students who declared the new program to be like "airplane food," for example, used this term to also describe food made by an anonymous, corporate catering company, in contrast with food from the previous program made by the in-house kitchen staff with thought and care. Similarly, a student told us that now that the district had "replaced the cook. It's [the new catered food] less homemade" (Middle school, visit #4). Yet the catered meals involved more scratch cooking and fewer prepackaged foods than the food made by the lunch staff in the old program. In viewing the catered food as "less homemade" than the former program and akin to "airplane food," the students were responding less to what was on the menu and more to the relationships behind the food. The lunch worker who used to make their brownbag lunches was widely known and liked by students. The meaning of the food changed for them when they didn't view it as part of the school's caring web of support and instead saw it as coming from an unknown, for-profit company.

Food as a site of care and support

Although there was a great deal of variation in how students ate and the meanings they gave to lunch, there were also important commonalities. In particular, students often talked about food as a site of care and support, including being cared for by others through food and not feeling cared for. During our classroom observations, students routinely told us who prepared their lunches and considered their food needs. When a fieldworker commented on how thin and uniform the apple slices were in one elementary school student's lunch, she said her dad had cut them the way she liked them done. Another told us, her stepmom got her a thermos, indicating the container on her desk, so she now gets a hot lunch with bread (Elementary school, visit #3). Students didn't just describe receiving care, they also talked about caring for others through lunch, including by packing their own lunch. For example, an elementary student said she always packed her lunch rather than getting food from the lunch program. She explained that it was easier for her to get her own lunch. She quickly added that it was fun to pack her own lunch (Elementary school, visit #5). The student's response that it was easier for her suggests that she packed her own lunches to help her family. She may have added that she enjoyed doing this labour out of a perception that the fieldworker would negatively judge her family for not packing her lunch and a desire to protect them from such judgment. In another example, when asked what he'd heard about the new program, one elementary student replied, "I wish I could try it!" His mom said it was too expensive, he explained, adding that his family already paid quite a bit for his sports interests (listing four different sports he does), indicating an awareness of the limits of his family's budget and the kinds of trade-offs they must make, even while stressing the ways they prioritized his interests (Elementary school, visit #5).

It became clear that, in addition to food, social relationships and care work were a major part of school lunch. For instance, a fieldworker chatted with a woman holding a lunch bag in the front reception area of one of the elementary schools and learned that she was there to drop off lunch to her nephew: "I ask her if she is delivering food to a student and she laughs and says yes, explaining, 'He wants to pick it up from me to get hugs!' She is the boy's aunt and says she delivers his meal by hand Monday through Friday. She emphasizes what a big undertaking this is, stressing that she does this Monday through Friday at least twice while laughing. 'He wants it hand delivered,' she says. Then she adds, 'They want hot food'" (Elementary school, visit #4).

Both the former and new lunch program included a diversity of entrées including some hot or warm options (e.g., wraps and hot pasta dishes in the old program and a variety of entrées served in foil containers and kept warm until delivery in the new program). Yet, despite the opportunity to purchase hot food from the catered lunch, this excerpt reveals that a great deal of time, thought and care went into lunch, involving attending to a child's food and emotional needs. Students also talked about parents who included their favorite items in their lunch or knew exactly how to prepare their food. Children's responses showed appreciation for the practical and caring work of home-packed lunches.

Sometimes students expressed frustration about their lunch. An elementary school student whose mom "mostly" packed his lunch said he had cucumbers daily, but they were "not my favourite" and "after a while of eating them, they don't taste as good" (Elementary school, visit #4). Another elementary student whose mother dropped off hot lunch every day, complained that he always received the same lunch and "doesn't like his food anymore." When asked what he likes most about lunchtime, he replied, "Nothing" (Elementary school, visit #3). This example illustrates how much the caring work of lunch mattered to students. The student's response indicated he did not feel cared for during lunch and this negatively affected his entire lunchtime experience. In contrast, students who were pleased with what they had for lunch demonstrated happiness and could be seen contentedly eating the food. "I ask [a student] if she has a favorite lunch and she says, 'Dumplings.' As she says this, she is opening her Dora the Explorer thermos and I see that it is full of dumplings. She smiles…Later, I see her eating dumplings out of her thermos with her hand" (Elementary school, visit #3).

In addition to talking about the caring work that students themselves or family members did to make daily lunches, the fieldwork conducted after the new food program was implemented highlighted the care work of the lunch staff who oversaw the former program. Students in the two schools with a dedicated lunch worker expressed how much they missed them, even if they had not participated in the former program themselves. For example, a fieldworker spoke with a group of middle-school students, including one with no lunch, after the new program had been implemented and wrote the following: "I don't see this student with any lunch, and he and his fellow students start talking about how challenging it is for students who don't have a strong support network. They say, 'Some kids don't have any food.' These students were supported by the old program and felt like they could always go to [the former lunch staff] if they didn't have time (or their parents didn't have time) to pack a lunch. 'Now you just have to starve''' (Middle school, visit #6).

This vignette points to the appreciation students had for adults who prepared meals and looked out for their food needs, at school and at home. Students described how extras from the former program would be distributed around the school, with the lunch staff adept at figuring out how to get food to hungry students. Other students fondly recalled being able to do volunteer hours in the kitchen with the lunch staff. We also observed paper lunch bags from the previous program with personalized notes on them, and many students talked about the care and thoughtfulness of the lunch workers in knowing them, their preferences and caring for them. At the elementary school where students did not have a dedicated in-house lunch worker, there was still evidence that the lunch worker who prepared the students' brownbag lunches from the kitchen at the middle school made an effort to show care for the elementary school students. For example, a fieldworker wrote the following: "I noticed that the lunch bag [from the meal program] had the note 'have a nice day' written on it. I asked the student if there are always notes on the bag, and she said, 'only sometimes.' She also indicated that yesterday the bag had a star on it" (Elementary school, visit #3).

Overall, our fieldwork underscored that school lunchtimes are not just about food, they are also about nurturing relationships and connecting students with trusted adults. The removal of the lunch staff with the introduction of the new lunch program, staffed by an external catering company housed off campus and ordered by parents online, left a care gap in the schools. Unlike the in-house lunch staff from the former program, catering company staff from the new program had little direct contact with students or their families. We saw students with moldy home lunch, with no lunch, or with meager lunches. Particularly after the new program was implemented, students did not seem to know who to turn to for help when they needed it and expressed longing for the former lunch workers.

We also documented moments of connection between adults and students during lunch. Noon-hour supervisors and teachers reported wanting to know and support students' nutritional needs (e.g., one teacher had a supply of granola bars or other snacks on hand for a student who would otherwise not have lunch). Noon-hour supervisors were overheard engaging with students, including joking around with them and attempting to get to know them and their food needs. Yet supervisors were stretched thin, as this vignette describes: "A [noon-hour supervisor] drops by and talks to some of the students while bouncing on an exercise ball. I overheard her explaining that she can't just stay and only talk to them, there are over 400 other students that she has to see (or something to that effect)" (Elementary school, visit #2).

School staff also bemoaned the loss of the lunch staff and described struggling to know how to support students who received the wrong lunch order or were missing lunch.

[A noon-hour supervisor] laments the loss of [the staff person who oversaw the old program]. She says that [the former lunch staff person] knew the students and their specific dietary needs in a way that the new online ordering system doesn't. She gives examples of mistakes that would have been caught but the online ordering doesn't/can't. For example, a vegetarian student accidentally got a BLT [bacon, lettuce, and tomato sandwich] (potentially due to a mistake in ordering). The child couldn't eat the lunch and didn't want to eat the sandwich with the bacon removed and only told the lunch monitor [about the mistake] days later. She told him that next time he should tell someone right away (or she suggested swapping with another student who had a vegetarian lunch)

Black et al. July 2022

rather than going hungry because he had no lunch to eat. She seemed very concerned that a student couldn't eat and didn't have any lunch that day because of a technical error which was missed. [She describes other errors she's observed in the new program and]...wonders if there's a way someone can double check these kinds of errors or "self-correct." (Elementary school, visit #4)

Overall, our fieldwork reveals students' and school staff's awareness of the important role and value of strong support network[s] for addressing the barriers some students experienced in accessing school lunch, and the pitfalls when caring supports were insufficient to meet students' needs.

Discussion

This study underscores the richness and value of recording students' firsthand experiences during lunchtime, demonstrating how students connected through food, making sense of the care they both received and gave through the labour of lunch, and how this caring work informed students' perceptions of the food itself (Ludvigsen & Scott, 2009; McPhail et al. 2011). Pairing photos with ethnographic observations showed both the diversity and commonalities of foods consumed at lunchtime. This study illuminated how children wrap school lunch in layers of social and symbolic meanings that are about the food, but also surpass it as lunchtime was a time for learning, connecting, and meaning-making (Beagan et al., 2015; Chapman et al., 2011; Johnston & Baumann, 2014). While there are few comparable studies from Canada, our findings echo and extend a large body of international literature on the promises and challenges of school food programs for addressing childhood hunger, nutrition, care work, and social inclusion (Best, 2017; Gaddis, 2019; Poppendieck, 2010; Raine et al., 2003).

Like many existing meal programs in Canada (Everitt et al., 2020), the new program documented here was developed chiefly to address inequitable food access and the healthfulness of children's diets. Yet, the experiences of lunch for children went well beyond the nutritional quality or composition of lunches. In particular, children and adults demonstrated care for one another through food, and students expressed their awareness of and appreciation for those who care for them, including the previous school lunch staff, through the meanings they gave to food. Knowing who made their food and feeling cared for and recognized by them, positively shaped students' perceptions of lunch. Conversely, for some, not knowing who performed the labour of lunch or not feeling cared for or valued through it, led to negative perceptions of the food. Future lunch program developers will need to be attuned to these issues as parents and students may opt out of meal programs if they perceive that their social, emotional or nutritional needs are better served by sending a packed lunch from home (Black et al., 2020; Niimi-Burch, 2021).

These findings also reinforce the importance of thoughtfully including the perspectives of children in school food research and program design (Pole et al., 1999; Wills, 2012). These

findings revealed the subtle ways that students' food choices, perceptions of the new lunch program, and lunchtime interactions reflect the multilayered and textured ways food intersected with their senses of identity, belonging, and connection with peers and adults in ways that were largely overlooked by school district staff and meal program designers. For example, the design of the new lunch program aimed to maintain the anonymity of students whose meals were subsidized, with the goal or reducing stigma for subsidized children and families. However, fieldwork revealed that students had in-depth knowledge of what their peers ate, who regularly received school lunch and where classmates' food came from.

Findings highlight one of the challenges schools face in efforts to mitigate stigma associated with targeted or subsidized school meals. Students' comments revealed several cases where the district's attempts to maintain the anonymity of students receiving subsidized meals likely failed. While the previous program provided little choice to students, in the new program, full paying students could select from a range of entrees and à la carte drink and treat options. Whereas students receiving subsidized lunches were only provided access to the entrée dish and neither drinks, such as milk, or desserts were subsidized. Students appeared to have in-depth knowledge about their classmates' eating patterns and preferences, and parents who were not using the subsidy program often ordered only infrequently and used the program to treat their children. Thus, even though all students received the same brown bagged lunch regardless of how much they paid in the original program, we suspect that students within most classes could, with relative ease, deduce which students were using the subsidy program in the new program (Black et al., 2020). Literature from the United States has previously documented the many complex obstacles that can be enacted by school lunch programs to participation including challenges in applying for and accessing meals, price barriers and stigma attached to receiving subsidized meals (Poppendieck, 2010). Despite the stated goal of being "universally-accessible", the overall frequency of ordering from the school lunch program declined after the introduction of the new program, and the subsidy program did not reach many potentially vulnerable students (Black et al., 2020). We therefore find that these key barriers, including ensuring access regardless of ability to pay and stigma related to accessing program subsidies, remain important considerations in the development of school lunch programs.

Still, current findings suggest that school lunch programs have the potential to deliver more than just food as these findings highlighted ways that school lunches can contribute to the collective care of students at school. Yet, to do so, the caring labour of feeding others and taking the time to know, see, and support students' food and care needs must be recognized and valued as a part of school food programs (Gaddis, 2019). While there is no robust publicly available measure of the funding for or availability of paid school food staff in Canada or British Columbia, a recent survey of school food programs across Canada suggests that the majority of provinces and territories are heavily reliant on volunteer labour and in-kind contributions from non-governmental partners (Ruetz & McKenna, 2021). The value of care work and meaningful relationships formed between students and the former program's food workers did not appear to be on the school district's radar and was not part of the formal job duties of teachers or noonhour supervisors who were chiefly responsible for monitoring safety and promoting acceptable student behaviour during lunchtime. However, this research demonstrates the many ways children felt the loss when the in-house lunch workers' positions were eliminated following the transition to an externally catered food program.

Caring through food involves intergenerational and peer relations, and our findings show how school policies and environments can facilitate and impede such relations. Care work should not be invisible, pushed to the margins, or fall to the extraordinary efforts of a few who go beyond the mandates of their job to try to fill care gaps. This study was co-designed with school district staff and local public health professionals and, in retrospect, overlooked seeking input from and incorporating the firsthand experiences of the in-house lunch staff who prepared and served meals, before their positions were eliminated, which was an important limitation of our work. Future school food research and monitoring efforts would be well served to explicitly describe the work of parents, volunteers and paid staff who are the forefront of ensuring students' food needs are cared for. While Reutz and McKenna (2021) have recently added to the literature by documenting the heavy reliance of Canadian school food programs on volunteers and non-governmental organizational partnership, the fulsome valuation and impact of this still largely undocumented food work remains pivotal for revealing the full potential of future school food initiatives (Gaddis, 2019). Further, inclusion of student-centred perceptions is an essential next step in developing future school lunch programs for Canada. Thus, additional research should focus more on student perceptions as collected in ethnographic and written student input to better inform program and policy development which includes a student-centred approach.

Conclusion

A major lesson learned from this research is that students need access to nutritious meals at school that nourish their bodies but also their sense of being cared for, valued, and recognized. By centering students' actions and voices in their classroom settings, and with supporting insights from adults involved in school lunch and photographic images of lunches, we show the powerful role of students' perceptions of and relationships to food and those who care for their food needs in shaping their social interactions, as well as their sense of care, connection, and identity. Understanding the intricacies of children's school lunch experiences, including the relationships, meanings, and values that shape school lunch will be critical for creating robust school food programs and policies in Canada that better serve the needs of children and reduce rather than reproduce existing health and social inequalities.

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