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Gender, sexuality, and food access: An exploration of food security with LGBTQIA2S+ university students

Eli Lumens [a] *
University of Alberta

Mary Beckie [b]
University of Alberta

Fay Fletcher [c]
University of Alberta

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Abstract

Although research has been limited to date, food insecurity in the United States has been shown to be more pervasive among the lesbian, gay, bisexual, transgender, queer, questioning, intersex, agender, asexual, and Two-Spirit (LGBTQIA2S+) community, affecting millions annually. College and university students also experience statistically significantly higher rates of food insecurity than nonstudents. This research examines food insecurity at the intersection of the LGBTQIA2S+ community and the university and college student population, as told by the community itself. A qualitative, participatory approach and methods of Photovoice and semi-structured interviews with eight self-identified LGBTQIA2S+ university students studying at the University of North Carolina

[a] * *Corresponding author:* Eli Lumens, Graduate Student, Master of Arts in Community Engagement, University of Alberta.
Eli Lumens is now Community Food Coordinator, Food Bank of Central & Eastern NC, Raleigh, North Carolina 27604 USA; +1-704-999-1977; elilumens@gmail.com

[b] Dr. Mary Beckie, Professor and Director of Community Engagement Studies, School of Public Health, University of Alberta; Edmonton Clinic Health Academy, 11405 - 87 Ave NW, Edmonton, Alberta T6G 1C9, Canada; mbeckie@ualberta.ca

[c] Dr. Fay Fletcher, Professor Emeritus, School of Public Health, University of Alberta; Edmonton Clinic Health Academy, 11405 - 87 Ave NW, Edmonton, Alberta T6G 1C9, Canada; fay@ualberta.ca

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at Greensboro (UNCG) were used to explore the factors influencing participants' food access. Data were analyzed using thematic decomposition analysis guided by intersectionality and queer theories. LGBTQIA2S+ identities were found to significantly impact food access, which was further influenced by physical, socio-cultural, and political environments. Barriers to food access include experiences with discrimination on and off campus, poor support systems, a lack of full-selection grocery stores on or near campus, religious influences, the stigma associated with needing food assistance, mental and physical health conditions, financial constraints, time limitations, and lacking transportation options. Understanding the intersectionality of LGBTQIA2S+ students' experiences and providing relevant and effective support is needed to improve equitable access to nutritious and affordable foods. The findings of this research provide novel insights into food insecurity, an issue that is increasingly influencing the health and well-being of LGBTQIA2S+ university students.

Keywords
LGBTQIA2S+, university students, qualitative research, food insecurity, photovoice, queer theory, intersectionality theory, North Carolina

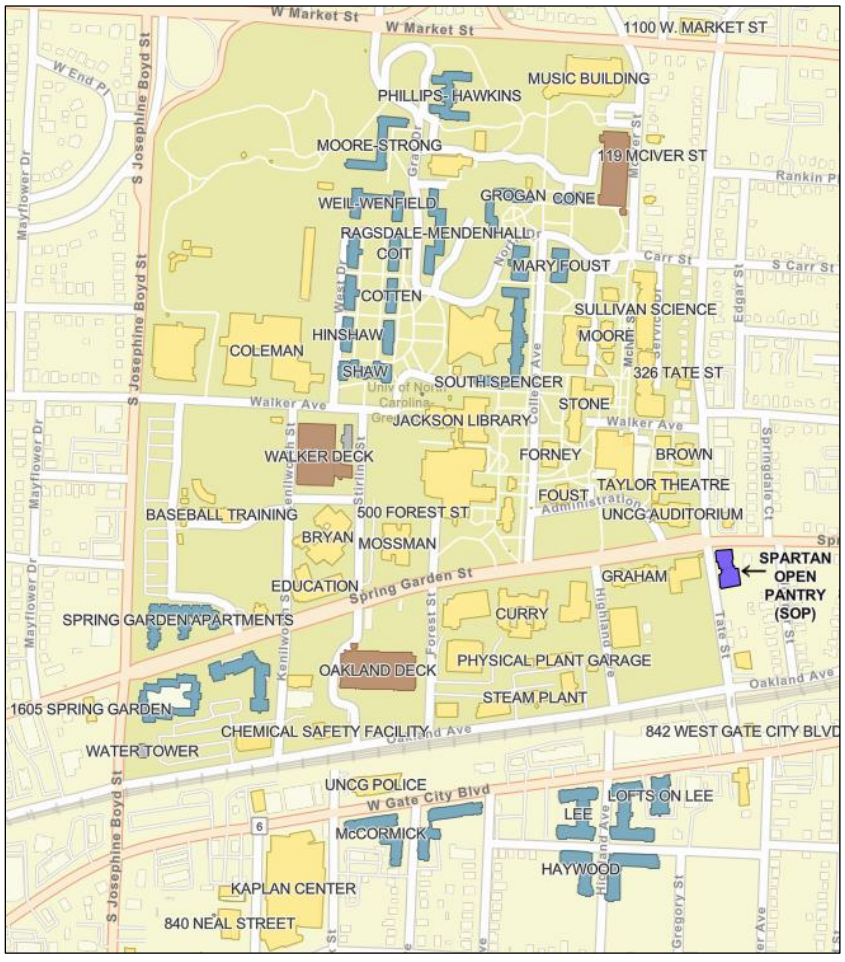
Introduction

In the United States, 33.8 million individuals, or 10.4% of the civilian noninstitutionalized population, reported experiencing food insecurity in 2021, with roughly one-third suffering from disrupted eating patterns, reduced food intake, and nutritional insufficiency due to lack of finances and resources (Coleman-Jensen et al., 2022). Individuals outside of the demographic norm, that is, not "white, thin, male, young, heterosexual, Christian, and financially secure," are more likely to experience food insecurity due to hierarchical relations of power steering food policy, attempting to change individuals rather than address sources of inequity (Kepkiewicz et al., 2015; Lorde, 2016). The consequences of contemporary food security policies catering to dominant groups are highlighted when focusing on the experiences of a specific systemically marginalized group, such as the lesbian, gay, bisexual, transgender, queer, questioning, intersex, agender, asexual, and Two Spirit (LGBTQIA2S+) community (Manuel, 2006). LGBTQIA2S+ adults are more than twice as likely to have diminished food access for themselves or their households in comparison to the general population (Patterson, Russomanno, & Jabson Tree, 2020; Wilson & Conron, 2020). In 2020, more than 27% of adults in the LGBTQIA2S+ community, or 3 million people, experienced food insecurity (Wilson & Conron, 2020). College and university students also experience statistically significantly higher rates of food insecurity than nonstudents, with 34% of students reporting experiencing previous 30-day food insecurity in fall 2020, according to The Hope Center for College, Community, and Justice (The Hope Center). The Hope Center administers the nation's largest, longest-running annual assessment of basic needs insecurity among college students: the #RealCollege Survey (Baker-Smith et al., 2020; The Hope Center, 2021). The Hope Center found that students who identify as LGBTQ were more likely to experience basic needs insecurity and reported that 65% of LGBTQ students experience some form of basic needs insecurity, such as food insecurity, housing insecurity, and/or homelessness (The Hope Center, 2021). There has, however, been a lack of in-depth research on food insecurity amongst LGBTQIA2S+ university students, although recent research has begun to explore this topic (Collier et al., 2021; Henry et al., 2023). A myriad of factors may contribute to this gap in research, such as research on specific population intersections being more complex to study and analyze in comparison to studies focused on single population factor or a lack of research funding. To further address this gap, this research examines food insecurity experiences of LGBTQIA2S+ students at the University of North Carolina at Greensboro (UNCG) and the sociocultural, political, and environmental factors that pose barriers and create opportunities to improve food access.

The overall food insecurity rate (among all ages) in North Carolina was 10.9% in 2019 through 2021, close to the US average of 10.4% (Coleman-Jensen et al., 2022). UNCG, located in the city of Greensboro (Figure 1) in north-central North Carolina, is a four-year, public university with a student population of over 19,000. Wesley-Luther, a

nonprofit campus ministry, was identifying significantly high rates of food insecurity among university students in Greensboro and in 2009 established the Spartan Open Pantry (the Pantry) to address this. The Pantry now serves the students, staff, and faculty of UNCG and students of Greensboro College (a private college affiliated with the United Methodist Church). At the time of this research, the Pantry was located within College Place United Methodist Church (Figure 1; Wesley-Luther, n.d.-b). The Pantry is open two evenings a week and provides a client-choice food pantry that mimics a traditional grocery store. Individuals choose their own food and nonfood items, including a to-go hot meal service offering one entrée and one or two side dishes with vegetarian options, a water bottle, and condiment packets.

Figure 1. The Spartan Open Pantry Shown in Relation to the University of North Carolina at Greensboro Campus at the Time of This Research



We selected UNCG as the site of this research because of the first author's familiarity with the university and the Pantry, and their location within the American South, the region of the U.S. with the highest rate of food insecurity (Coleman-Jensen et al., 2022; Food Research & Action Center [FRAC], 2020). While there is no single shared characteristic among the southern states to explain the high incidence of food insecurity, there are higher levels of poverty, high white–minority wage gaps, and high unemployment rates, and lower rates of educational attainment, participation in federal nutrition programs, and access to healthy food in the South compared to other regions (FRAC, 2020; U.S. Census Bureau, 2020). Situated in North Carolina, the first author was responsible for the data collection as part of their master's degree research. As a genderfluid, queer, white researcher, they wanted to fully capture LGBTQIA2S+ university students' experiences of food access within this setting. The second and third authors served as co-supervisors for this research and have expertise in critical food studies and community-engaged research with systemically marginalized populations.

Queer theory and intersectionality theory informed the selection of methodology and research methods used to explore food access with individuals who self-identify with the LGBTQIA2S+ and student communities. Looking at the implications of race and ethnicity, as is characteristic of a traditional intersectionality theoretical lens, was excluded as a research parameter due to time and recruitment constraints during a global pandemic. Additionally, participants shared that they were comfortable speaking with our corresponding author due to

a shared LGBTQIA2S+ identity. Researcher self-reflexivity and a queer theoretical framework supported the mitigation of power relations between researcher and participants. However, this would not have existed had we also studied the implications of systemically marginalized racial or ethnic identities on food security.

The remainder of this article begins with an overview of literature relevant to the guiding theoretical frameworks as well as an examination of food insecurity among the LGBTQIA2S+ university student community in the context of North Carolina. We will then provide an overview of the methodology and methods followed by a presentation of key findings and themes emerging from the study. These findings are then thematically analyzed in relation to the literature before providing concluding comments.

Literature Review

Guiding Theoretical Frameworks

Informed by intersectionality theory and queer theory, we explored food access at the intersection of specific markers of identity and distinction, specifically gender, sexuality, and status as a college or university student. Intersectionality theory examines ways individuals occupy multiple social positions simultaneously, creating complexities in how they interact with the world. This theory challenges the established notion that individual-level factors and failings are the reason for poor health and food insecurity, as opposed to decreased food access being the result of institutional influences and contemporary biopolitics (Carney, 2014; Kapilashrami & Marsden, 2018; Manuel, 2006; Patterson, Russomanno, & Jabson Tree, 2020). Queer theory challenges exclusionary tendencies of sex, sexuality, and gender identity categories and promotes intentional self-reflexivity by the researcher (Harris, 2001; Jagose, 1996; Meyer et al., 2022). This intentional self-reflexivity allows researchers to mitigate power relations between themselves and the research participants, which may prompt willingness for participants to share their experiences due to shared identities or experiences, as was the case with our first author, a member of the LGBTQIA2S+ community.

Food Insecurity in the American LGBTQIA2S+ Community

The LGBTQIA2S+ community faces barriers to food access, some of which are shared with their cisgender, heterosexual counterparts, and some of which are unique to the community. At younger ages, individuals in the LGBTQIA2S+ community may grow up feeling different from their family of origin or household, which may be exacerbated by underlying sentiments of rejection and judgment from their families, friends, peers, and teachers (Abramovich, 2012). Those sentiments may result in tense or even hostile living spaces and decreased social support networks, which have even greater impact when they escalate to housing insecurity for youth who are less likely to have options for alternative accommodations (Abramovich, 2012). Youth are also less likely to have support systems through established chosen family, or a network of friends that act as a family outside of their family of origin or household (Abramovich, 2012). Macklin et al. (2023), with The Williams Institute, found that about one third of LGBT high school youth experienced bullying in the past year, nearly double the rate of their non-LGBT peers, which increases their likelihood of skipping school or avoiding spaces such as the lunchroom or cafeteria, decreasing their access to school-based meals. While these characteristics may change as LGBTQIA2S+ individuals age, additional factors impact food security, especially for those who are also situated within one or more other systemically marginalized communities.

Patterson, Russomanno, and Jabson Tree (2020) conducted a study in the U.S. at the intersection of women's race and sexual orientation to look at the population-level prevalence of food insecurity, the relative prevalence of food insecurity in Black and white sexual-minority women versus white heterosexual women, and the excess prevalence of food insecurity due to belonging to two or more systemically marginalized groups. They found 9.85% of white heterosexual women had experienced food insecurity over the past 12 months, compared to 24.16% of white sexual-minority women (Patterson, Russomanno, & Jabson Tree, 2020). However, when Patterson, Russomanno, and Jabson Tree (2020) looked at the intersection

of race and sexual orientation with Black sexual-minority women, they found a rate of 38.07%, an increase of 386% over their white heterosexual counterparts. These findings have been supported by recent research, including an April 2022 report from The Williams Institute, which found that LGBT people of color were three times more likely than white non-LGBT adults to face food insufficiency during the COVID-19 pandemic (Conron et al., 2022). The Williams Institute study shows not only that individual markers of identity and distinction affect food access, but also that the intersectionality of those markers can drastically affect food access and, consequently, health. In an attempt to mitigate barriers to food access, many LGBTQIA2S+ individuals turn to public food assistance programs, such as supplemental nutrition financial programs and community-based emergency food assistance services.

Research shows that sexual-minority adults are 1.36 times more likely than heterosexual adults to participate in the Supplemental Nutrition Assistance Program (SNAP), and approximately 27% of sexual-minority adults received SNAP benefits in 2013 (Brown et al., 2016; Patterson, Russomanno, Teferra, & Jabson Tree, 2020). Among transgender and cisgender adults, Conron and O'Neill (2021) found that transgender adults experienced food insecurity at a rate of 19.9%, compared to 8.3% of cisgender adults. However, less than one-third (28.7%) of income-eligible transgender adults reported they or a household member currently received SNAP, in contrast to 38.5% of cisgender adults (Conron & O'Neill, 2021). For transgender adults, a barrier to enrollment in public benefits programs like SNAP is obtaining identity documents aligning with a person's gender presentation, as prior negative experiences such as verbal harassment and being denied benefits or service on the basis of being transgender inhibits seeking food resources (Conron & O'Neill, 2021; James et al., 2016). In an effort to mitigate barriers and promote equitable access to SNAP for LGBTQIA2S+ individuals, the U.S. Department of Agriculture (USDA) announced a policy in May 2022 including discrimination based on sexual orientation or gender identity in the prohibition against sex discrimination under Title VII of the Civil Rights Act of 1964. This prohibition is consistent with the Supreme Court's 2020 decision in *Bostock v. Clayton County*, in which the Court held that the prohibition on sex discrimination under Title VII extends to discrimination based on sexual orientation and gender identity (Cheyne, 2022; U.S. Equal Employment Opportunity Commission [EEOC], n.d.). There is no data on its effects, if any, thus far. In addition to, or instead of, supplemental nutrition financial programs, many individuals in need turn to community-based emergency food assistance services.

Community-based emergency food assistance services like food pantries and soup kitchens are a vital source of food access, but a lack of comprehensive coverage and support from the political environment threatens this access by failing to protect LGBTQIA2S+ individuals from discriminatory practices (Abramovich, 2012; Patterson, Russomanno, Teferra, & Jabson Tree, 2020). Most community-based emergency food assistance services in the U.S. are run by faith-based organizations, which may display pervasive anti-LGBTQIA2S+ bias (Patterson, Russomanno, Teferra, & Jabson Tree, 2020; Russomanno & Jabson Tree, 2020; Wilson & Badgett et al., 2020). Additionally, the federal Religious Freedom Restoration Act (RFRA) and related state laws allow institutions, such as food banks and community-based emergency food assistance services, to deny services to community members based on religious beliefs (Russomanno & Jabson Tree, 2020). While research suggests personal pride in one's gender identity or sexual orientation may buffer against potential issues of discrimination or transphobia while utilizing local community-based emergency food assistance services, anti-LGBTQIA2S+ bias can decrease available resources even further for already systemically marginalized individuals (Russomanno & Jabson Tree, 2020). In its 2020 decision in *Bostock v. Clayton County*, the Supreme Court noted that its decision did not address issues related to religious liberty, including the RFRA (EEOC, n.d.). However, at the time of this study, there was no definitive data on whether or how the USDA's expansion of protections under Title VII of the Civil Rights Act of 1964 will affect the RFRA.

Food Insecurity in North Carolina

North Carolina was ranked 17th of the top 20 states with the highest rates of food hardship in the United States in 2016 and 2017, and the Greensboro–High Point metropolitan statistical area (MSA), defined by the Census Bureau as areas that include central cities plus surrounding counties with strong socio-economic relations to the central cities, was ranked 14th of the top 20 MSAs (FRAC, 2018). In their 2018 study, FRAC defined food hardship as a measure of whether households had adequate financial resources to purchase food over the previous 12 months in 2016 and 2017. Factors contributing to food insecurity in North Carolina include the physical, sociocultural, and political environments.

Physical Environment

The physical environment refers to a geographic area and the opportunities and barriers it allows for, such as place-based food environments in addition to characteristics of the built environment like sidewalks and availability of public transportation (Ver Ploeg et al., 2009). Place-based food environments play a large role in food access at the community level because agri-food systems determine food access options (Jang & Kim, 2018). A significant limitation at the community level is having little to no reasonable food access. The term "food desert" has been commonly used in the U.S. to describe such conditions in specific geographic areas, such as through the US Census Bureau labeling individual census tracts as food deserts. The term "food apartheid" is gaining traction as a way to better capture the reality of the conditions of these communities. Food activists argue that the reference to a desert detracts from the inherent life and vibrancy of a community, while also implying that this is similar to a naturally occurring ecosystem (Lu, 2021). The term also creates the impression that the issue is a general scarcity of food, rather than the reality that there is a scarcity of fresh produce and affordable nutritionally dense food (Lu, 2021). The shift in language to use the word "apartheid" is significant, as it represents the manmade political and economic systems that have perpetuated unequal access to resources and networks through racial discrimination and segregation in South Africa (Lu, 2021). Comparatively, food insecurity is greatly impacted by systemic racism, which has created the political and economic systems that segregate communities of color and historically marginalized communities into lower-income neighborhoods that grocery stores do not cater to (Jang & Kim, 2018; Lu, 2021; Ver Ploeg et al., 2009).[1]

An example of food apartheid is the Greensboro–High Point MSA, which was found to have a 19.2% rate of food hardship, defined by the Food Research & Action Center as a measure of whether households had adequate financial resources to purchase food over the past 12 months in 2016 and 2017 (FRAC, 2018). However, the 2018 National Survey of Student Engagement found that half of the UNCG student population worries about paying their basic bills and 20% of students skip meals due to finances (Wesley-Luther, n.d.-a). Furthermore, a 2017 study conducted by Wesley-Luther and the Dean for Students Office found 34.9% of UNCG students are food insecure in a given year (Wesley-Luther, n.d.-a). This is significantly higher than the local MSA rate of food hardship (19.2%), showing there is a concentrated rate of food insecurity specifically on the university campus, shown in Figure 1 (FRAC, 2018; Wesley-Luther, n.d.-a).

Sociocultural Environment

Sociocultural environmental factors include those within immediate physical surroundings, social relationships, and social groups as created by distinguishing categories within society (Barnett & Casper, 2001; Manuel, 2006). For the LGBTQIA2S+ community specifically, the sociocultural environment of North Carolina is greatly influenced by factors such as social inequality and religious institutions and practices, largely due to the state's location in the American South (Barnett

[1] Throughout this article when referring to food apartheid in others' research, we use the terms the authors utilized in their own work, most commonly "food desert." Using the terms as originally used by the researchers best reflects their findings because the terms used affect how findings are interpreted.

& Casper, 2001). The South is part of a region referred to as the "Bible Belt," known for an intense devotion to church and conservative views on gender and sexuality (Worthen, 2018). Those beliefs often include acute stigmatization, or societal disapproval, driven by a strong narrative of "sin" and "immorality" related to being in the LGBTQIA2S+ community, as well as societal rejection of those who are different from the perceived norm due to misconceptions and fear (Worthen, 2018). This stigma is present from birth through adulthood, and is often internalized, especially during and after the initial process of coming out (Worthen, 2018). Research has shown people in the American South are the most likely to have negative attitudes towards the LGBTQIA2S+ community compared to the rest of the country (Worthen, 2018). These stressors can have a significant impact on health and quality of life, positioning LGBTQIA2S+ individuals to have an increased risk of health disparities such as poor physical and mental health; however, a lack of culturally sensitive and competent care often exacerbates these disparities, causing individuals to avoid preventative and regular healthcare (Rowan & Beyer, 2017).

Political Environment

The LGBTQIA2S+ community experiences a different political environment in North Carolina than their non-LGBTQIA2S+ counterparts. Many LGBTQIA2S+ individuals are excluded from protections that come with legislative policies and programs, such as those that protect individuals from loss of employment, which lessens their ability to sustain adequate food access. To further illustrate how the American South creates blanketed oppression toward gender- minority individuals, an example of a North Carolinian law with clear ramifications is presented: the 2016 House Bill 2 (HB2), or the Bathroom Bill. House Bill 2 was passed to counter an ordinance from the Charlotte City Council allowing transgender individuals to choose to use public bathrooms corresponding to their gender identity (Harrison, 2016). Additionally, HB2 nullified existing antidiscrimination ordinances across the state and prevented cities and counties from passing and establishing their own in-house antidiscrimination policies and practices and from putting antidiscrimination requirements on private contractors (Gordon et al., 2016).

At the political level, public policies such as HB2 contribute to loss of self-esteem and confidence for LGBTQIA2S+ individuals. Such policies show policymakers and employers do not care about the well-being and protection of employees. In addition to declines in mental and emotional well-being contributing to depression, its consequences, and its severity, the lack of protections also endangers the financial livelihoods of LGBTQIA2S+ employees, jeopardizing their housing, healthcare, and food access stability. While HB2 was partially repealed in April 2017, the ban on local governments passing nondiscrimination ordinances remained in effect until December 2020 (Silva, 2017). Since the ban's expiry, several towns, cities, and counties have approved ordinances to protect LGBTQIA2S+ individuals against discrimination from businesses and public services, such as lodging and dining (Robertson, 2021). While some progress has been made toward the LGBTQIA2S+ community's recovery from years of lacking protections and politically-backed discriminatory practices, that progress has faced significant opposition and setbacks.

One of the most notable pieces of legislation on this topic is the Equality Act, which was first passed in May 2019 by the U.S. House of Representatives and is intended to amend existing civil rights laws to explicitly add sexual orientation and gender identity as protected classes (Human Rights Campaign [HRC], n.d.; Killough, 2019). The companion bill that was introduced in the U.S. Senate died in committee. The Equality Act was reintroduced and passed for a second time in the House of Representatives in February 2021, after which the companion bill introduced in the Senate again died in committee (Freking, 2021). Despite the significant opposition the Act has faced in the Senate thus far, the Act was reintroduced to the House of Representatives and a companion bill introduced in the Senate in June 2023, with no decisions having been made at the time of this study (HRC, n.d.). Successful passage of this legislation would create uniform protections for the LGBTQIA2S+ community nationally (Freking, 2021; HRC, n. d.). Also in June 2023, the U.S.

Supreme Court ruled that the Colorado Anti-Discrimination Act, a civil rights law stating that businesses and organizations cannot refuse services to customers based on sexual orientation, race, or disability, is in violation of the First Amendment right to free speech (Liptak & VanSickle, 2023). The Supreme Court in a six-to-three vote ruled in favor of a web designer in Colorado who claimed she had a First Amendment right to refuse wedding-related artistic services for same-sex marriages, which prompted a dissent from the three justices against the ruling, who noted that the decision marked the first time in Supreme Court history that a business open to the public had been granted a constitutional right to refuse service to people from protected classes (Liptak & VanSickle, 2023). This decision could provide precedent for business owners to evade punishment for discrimination against LGBTQIA2S+ customers across the country, where about 20 states currently have laws that explicitly protect people from being refused services or otherwise discriminated against in public due to their sexual orientation or gender identity (Graham, 2023; Liptak & VanSickle, 2023). Of the remaining states, several interpret existing laws prohibiting sex discrimination to apply to bias relating to sexual orientation and gender identity, while municipal laws cover many residents in states that do not offer those protections, all of which are now on questionable legal footing (Graham, 2023). These represent a fraction of the recent legal and judicial decisions highlighting the precarious nature of legal protections for the LGBTQIA2S+ community. They also highlight the vital importance of protecting against discrimination, such as in food and nutrition access, as well as public services and accommodations, employment, healthcare, and housing access, as these all impact economic stability and long-term physical, mental, and emotional health outcomes.

Methodology and Methods

We utilized a qualitative, community-based methodology in this research. Participants in this study were self-identified LGBTQIA2S+ students enrolled at UNCG. Self-selection sampling was used to decrease the influence of any biases or preconceived notions of real or assumed LGBTQIA2S+ identities. No other requirements were placed upon participants, allowing for a diverse array of experiences from participants with varied demographics and backgrounds. Information about the study was disseminated through multiple channels at the university, including the Pantry, the Office of Leadership and Civic Engagement, the LGBTQ+ Education & Research Network listserv, master's and doctoral listservs, and more. Participants were each provided a gift card valued at US$20.00 to support their food access for their participation in this study. They were made aware they would receive the gift card even if they withdrew from the study, and each participant was able to choose the store they would prefer a gift card to, with the understanding that lessening their financial burdens in any category would increase their available financial capacity for food purchases. Despite this, recruitment of participants was challenging, which may have resulted from internalized stigma such as homophobia, biphobia, and transphobia, as well as the stigma associated with needing food assistance. Recruitment may have also been affected by the impacts of the COVID-19 pandemic (see Kobakhidze et al., 2021), as data collection took place between February 2022 and June 2022, but that was not investigated as a factor affecting participants' food access.

Of the eight participants recruited, in terms of gender, most identified as cisgender (n=5) and/or as female (n=5). In terms of sexual orientation, participants identified as either bisexual (n=3), lesbian (n=3), or queer (n=2). The first author shared their LGBTQIA2S+ identity with participants to position themselves in relation to their research during an information and consent meeting. This meeting took place with each participant prior to beginning data collection, and participants may have also been made aware of the shared identity through third parties that disseminated the study information. All participants were full-time students, and most were enrolled in graduate studies (n=5). Participants were not asked to self-identify their ethno-cultural, immigration, or racial backgrounds. However, based on appearance and interview content, more than half of the participants in this study were white or white-passing (n=5).

The research consisted of two iterative phases

for data collection. Prior to the start of data collection, each participant met with the corresponding author for an introduction and consent meeting, in which they discussed and consented to the research study procedures, risks and benefits related to participation, voluntary participation terms, and confidentiality and anonymity information, and could ask questions for clarification. A third phase would have consisted of a focus group during which participants would have been given an opportunity to reflect on and discuss key findings. The third phase was originally planned, but due to researcher and participant time constraints, COVID-19 precautions, and the protection of individual anonymity, it did not take place.

In Phase 1, participants used photovoice methods to identify local physical, socio-cultural, and political environmental factors that serve as opportunities and barriers to food access.[2] Photovoice (Wang & Burris, 1997) was chosen as a participatory method to prompt reflection on environmental factors and their perceived influence on food access (Kapilashrami & Marsden, 2018). Each participant was given an orientation to the photovoice technique during their initial information and consent meeting and utilized their own devices, such as cell phones, for the activity. Definitions of each environment and examples of various environmental factors were provided to help guide participants. Participants were asked to take notes on why they chose to photograph particular environmental factors. Participants collectively took 65 photos during Phase 1. In Phase 2, each participant submitted their photos and notes for review, and one-on-one semi-structured interviews were conducted to discuss photovoice materials. Each interview began with participants reflecting and elaborating on their photos and notes to help understand their opportunities for or barriers to food access. Interviews were used to explore how participants' individual LGBTQIA2S+ identities affect their food access and to identify any overlap between environmental factors and LGBTQIA2S+ identities. Semi-structured interviews lasted 15 to 75 minutes, with an average duration of 35 minutes.

Due to COVID-19 precautions and scheduling constraints, all interviews were conducted via Zoom meetings, audio-recorded, and transcribed verbatim. The audio transcription feature of Zoom meetings was enabled to create preliminary transcripts that were then reviewed and cleaned for accuracy. All data (photovoice materials and interviews) were subjected to Stenner's thematic decomposition analysis to identify, code, and analyze data into themes reflective of individuals' social positions (as cited in Ussher & Mooney-Somers, 2000; Braun & Clarke, 2006). Coding was done by hand without the use of a software program. This research was approved by the University of Alberta's Research Ethics Office for research with human subjects.

Findings

In this section, we present and analyze the data gathered through Photovoice and semi-structured interviews with the eight self-identified LGBTQIA2S+ university students enrolled at UNCG who took part in this study. Three major themes emerged from the data: (a) LGBTQIA2S+ identities and food insecurity, (b) spatial opportunities and barriers to food access on- and off-campus, and (c) intersectional factors affecting food security. Findings associated with these themes and related subthemes are discussed in the following sections.

LGBTQIA2S+ Identities and Food Insecurity

The first major theme centers on participants' experiences with food insecurity as relates to their LGBTQIA2S+ identities. While some limitations to food access this community faces are shared with other populations, this section focuses on unique challenges identified by participants. These challenges result from a combination of environmental factors and systemic marginalization.

Passing as Cisgender and/or Heterosexual

Discrimination on the basis of gender identity and/or sexual orientation, or homophobia, biphobia, and/or transphobia, significantly affects

[2] Wang and Burris (1997) define photovoice as an image-based technique by which individuals can "identify, represent, and enhance their community" (p. 369) through capturing their surroundings and experiences in photographs.

LGBTQIA2S+ individuals. Three participants spoke about how they are able to pass as cisgender and/or heterosexual, meaning someone would not look at them or their relationship and assume they were transgender and/or non-heterosexual, thereby decreasing their risk of garnering negative attention. When asked whether identifying as queer and Two-Spirit had affected his initial or sustained food access, one participant said: "I personally don't feel like it's had that much of an effect. But that's also mostly because most of the time I present as a cis man, which allows me privilege in different spaces" (Participant 7). In response to the same question, a cisgender, queer participant stated:

> Personally, I don't think so. I think for many people it absolutely could be harmful. Being a straight-passing man in a straight relationship, I do have a lot of the privilege of not experiencing a lot of the exploitation that other queer folks go through. … I am very lucky to say and privileged to say that my food insecurity is not impacted by my queerness. (Participant 3)

Discrimination and Microaggressions On Campus

Participants identified UNCG as either actively participating in discrimination or passively supporting discriminatory attitudes through microaggressions, such as comments or actions that subtly and often unconsciously or unintentionally express a prejudiced attitude toward a member of a systemically marginalized group like the LGBTQIA2S+ community (Merriam-Webster, n.d.). Staff at UNCG are not required to go through trainings, such as SafeZone and TransZone, focused on the LGBTQIA2S+ community. One participant, who was researching the transgender community on campus, found while students felt supported by their direct academic supervisors, support was diminished or absent during interactions with others in positions of authority. For example, participants commented they often felt mistreated (e.g., the wrong pronouns placed on IDs and business cards, despite requests otherwise) and their life experiences and challenges were generally not acknowledged by UNCG staff.

> If it gets to that point for a student who is transgender and they're going through their transition and exploring their transgender identity, that's gonna hit a little harder than it will hit me. Like how are you working with students in this when you keep using this type of language and passive microaggressions? (Participant 5)

Another participant spoke about UNCG's passive support of discriminatory attitudes in terms of corporations UNCG supports and provides space and funding to house on campus (see Figure 2). She remembered "feeling deterred" by having her main dining options aside from the cafeteria include "several companies that are either publicly anti–queer marriage or have funded right-wing political campaigns in the past" such as Chick-fil-A, Taco Bell, and Pizza Hut (Participant 6).

Support Systems

Support systems made up of friends, family, and other figures are important for everyone and can influence thoughts and feelings and affect perceptions of safety and comfort. For LGBTQIA2S+ individuals, having an affirming support system and connection to other LGBTQIA2S+ people promotes feelings of belonging and comfort. Most participants characterized their support systems as affirming their identities while also positively and/or negatively influencing their food access. Two participants lived with their partners, which prompted feelings of support and affirmation, as well as increasing their household income and therefore their food security. Both participants also noted related barriers, such as conserving gas for a partner with a longer commute, hence limiting grocery shopping options, or needing to purchase more expensive foods that a partner with food allergies could eat. Three participants spoke to various levels of reliance on their families for food access. Two participants said their families were unsupportive of or uneducated about LGBTQIA2S+ identities. One participant shared:

> I was homeless before, my mom kicked me out, and it had to do with, you know, me being bisexual. … I kind of forgot about that one. I

guess it did impact me. Yes, yeah. I try not to think about that one. (Participant 2)

Employment

Participants brought up employment in relation to how they are treated as LGBTQIA2S+ individuals. One participant said she was treated so poorly that she quit her job, while another stated: "[The university] put the wrong pronouns on my business cards and my ID because I said she/they, and they just put she/her/hers. And I was like 'okay, it's already starting'" (Participant 5). A third participant spoke about lost economic opportunities resulting from unemployment related to being part of the LGBTQIA2S+ community, saying:

> Obviously I didn't bring up the fact that I'm a lesbian in job interviews, but I think the fact that, regardless of how good I did or did not quote unquote pass, looking at background checks and employment history and stuff like, it would be very, very easy for employers to figure out that I'm trans. And I do think that's a big contributing factor to why, after I initially lost my job back in 2017, I was continuously unemployed until I started going back to school because genuinely up until the point that I was openly living as a woman, I never had any issues getting a job. I never got an interview for a job and did not immediately get the position offered to me afterwards. So that was a very new experience for me, going through like several interviews, and like not getting offered positions. And considering that the only thing that inherently changed is like "hi, I'm trans now," you kind of have to figure. … With the lost economic opportunity of being unemployed for an extended period of time, obviously, that has an impact on my ability to access food. (Participant 8)

Spatial Opportunities and Barriers to Food Access On and Off Campus

The UNCG is located in an area experiencing food apartheid with little to no reasonable food access, so students experience additional difficulties accessing food and food stores. While spatial accessibility of food, or lack thereof, affects all students at UNCG, the LGBTQIA2S+ community experiences described below are directly influenced by their identities.

Welcoming Attitudes at the Spartan Open Pantry

The Pantry (see Figure 3) is off campus and affiliated with, though not run by, UNCG and Wesley-Luther campus ministry, and participants men-

Figure 2. List of Dining Options at the University of North Carolina Greensboro and Their Respective Hours of Service During Spring 2022 Finals Period

Spartan Dining Spring Finals 2022 Hours of Service*
*Subject to change

	Thurs., April 28	Fri., April 29	Sat. April 30-Sun. May 1	Mon., May 2-Thurs., May 5
	10:00am - 2:00pm 4:00pm - 7:00pm	7:30am - 2:00pm 4:00pm - 7:00pm	10:00am - 2:00pm 4:00pm - 7:00pm	7:30am - 2:00pm 4:00pm - 7:00pm
Market	11:00am - 9:00pm	11:00am - 9:00pm	11:00am - 9:00pm	11:00am - 9:00pm May 5: 11:00am - 5:00pm
	11:00am - 3:00pm	11:00am - 3:00pm	Closed	Closed
The Market @ ELC	8:00am - 4:00pm	8:00am - 4:00pm	Closed	8:00am - 4:00pm
Chick-fil-A	7:30am - 5:00pm	7:30am - 5:00pm	10:30am - 2:00pm Closed May 1	7:30am - 3:00pm
BUILD SMOKED	11:00am - 2:00pm	11:00am - 2:00pm	Closed	11:00am - 2:00pm
	10:30am - 8:00pm	10:30am - 3:00pm	Closed	10:30am - 8:00pm May 5: 10:30am - 3:00pm
Express	11:00am - 4:00pm	11:00am - 3:00pm	Closed	Closed
Express	10:30am - 8:00pm	10:30am - 3:00pm	Closed	10:30am - 8:00pm May 5: 10:30am - 3:00pm
SALSARITA'S	10:30am - 7:00pm	10:30am - 3:00pm	Closed	10:30am - 7:00pm May 5: 10:30am - 3:00pm
	9:00am - 6:00pm	9:00am - 2:00pm	Saturday - Closed Sunday - 11:00am -	9:00am - 6:00pm Closed May 5
	11:00am - 2:00pm 5:00pm - 8:00pm	11:00am - 2:00pm	Closed	Closed

tioned the Pantry specifically was "very welcoming of LGBTQ people and so it feels comfortable there." Compared to other off-campus options for groceries, one participant said: "The food Pantry represents one of the most readily available sources of cheap, healthy food for me. It is within walking distance, and I can carry what I get back" (Participant 7). Participants mentioned that having the Pantry as an option was a significant opportunity for food access, but the Pantry also highlighted shortcomings of the university in addressing food insecurity. One participant described the relationship between the university and the Pantry by saying:

> [UNCG is] not actively combating food insecurity. … I think there are great, really fantastic resources like the Spartan Open Pantry. But they are not a recognized part of campus because they are off campus. And it's Wesley-Luther; it's not UNCG Spartan Open Pantry. (Participant 3)

Figure 3. Shelves of Food and Nonfood Items at the Spartan Open Pantry

Welcoming Attitudes Off-Campus in Downtown Greensboro

Two participants described downtown Greensboro as being "inclusive," "politically active," and a "queer-friendly … bubble." One participant provided a photo of the Green Bean Coffee House (Figure 4) on Elm Street in downtown Greensboro and noted:

> The pride and trans pride flags can be seen displayed in the window. I captured this because I have always felt that Elm Street is an inclusive area, adorning several pride flags at restaurants, as well as Black Lives Matter street art. (Participant 6)

For these reasons, both participants shared they prefer to visit, eat, and socialize in the downtown area when they venture off campus.

Lack of Full-Selection Grocery Stores On and Near Campus

Most participants identified differences between foods they could purchase on campus or just off campus in comparison to available options further off campus. Participants expressed the further they traveled away from either the UNCG campus or the downtown Greensboro area, the less safe they

Figure 4. The Green Bean Coffee House on Elm Street in Downtown Greensboro

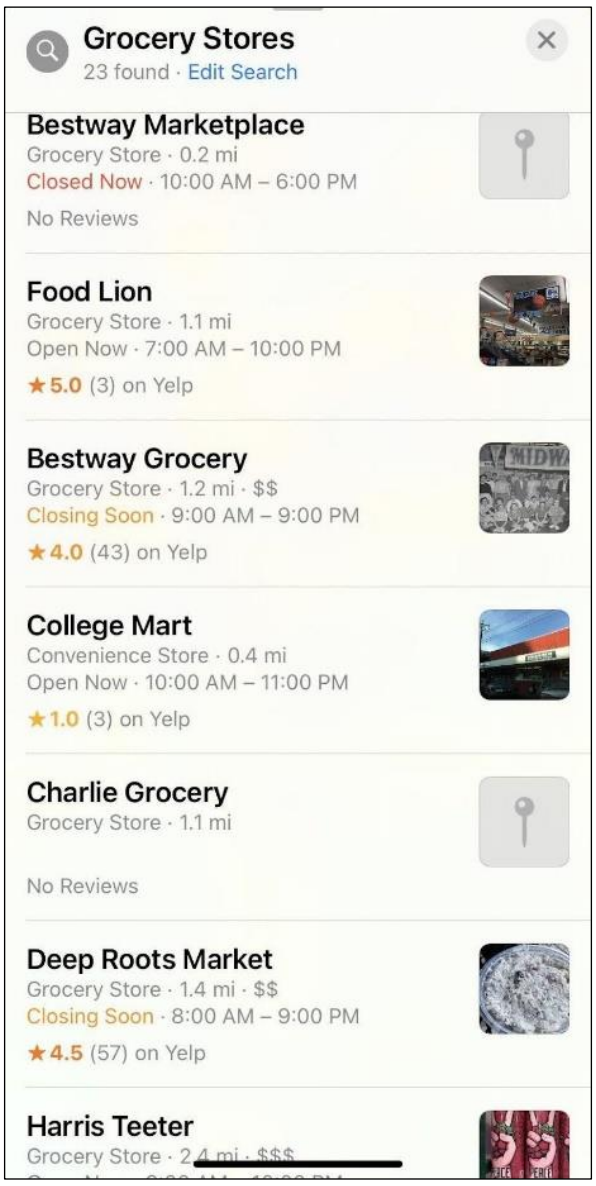
felt due to negative attitudes toward the LGBTQIA2S+ community in surrounding areas. However, a lack of full-selection grocery stores on and near campus forces many students to leave the area they feel safest in order to access food (see Figure 5).

Aside from the convenience store in the student center, there is one grocery-type store on campus: Bestway Marketplace. While this store does offer food items to students and accepts Flex dollars, participants describe it as having limited and often expired stock of meat and fresh product and high prices. Participant 8 commented that most of its shelving dedicated to "snack foods, candy, convenience items, and sodas," giving the overall impression of being "less of a grocery store and more of a hybrid convenience store." A secondary location, Bestway Grocery, is just over a mile from campus. Participants mentioned Bestway Grocery has a larger selection overall and better-quality produce than Bestway Marketplace, but similarly has high prices and sells more prepackaged snacks and sodas. Rather than devoting most of its shelving to convenience items, Bestway Grocery dedicates a great deal of its selling space to alcohol. Aside from the Bestway locations, just off campus is Firehouse Grocery. One participant who had previously shopped there commented:

> I've only gone there a few times for snacks just because they are essentially a convenience store. They don't have groceries; they have some grocery items, like loaves of bread, but I'm not getting my bread there because it's $4 or $5 for a loaf of bread, and I'm not doing that. I can't justify it. (Participant 5)

One participant noted the "closest full-size full-selection grocery store to campus is a 1.1-mile walk" through a residential area without sidewalks for the entire distance. The area is perceived as being "more dangerous" than surrounding areas due to it being a low-income neighborhood (Participant 8).

Figure 5. Screenshot from Google Maps of Grocery and Convenience Stores near the University of North Carolina at Greensboro Campus, with Distances



Negative Attitudes Off-Campus

Participants spoke about feeling uncomfortable and unsafe when going off-campus and away from the downtown area. Two participants specifically noted they avoid cities, towns, and general areas that make them feel uncomfortable or unsafe, decreasing their access to food stores. Describing their feelings about leaving the downtown Greensboro "bubble," one participant said: "Once I start going outside of the bubble, I get a little bit more uncomfortable like hitting Summerfield, and Burlington, and Jamestown" (Participant 5).

Another participant said some areas surrounding Greensboro have an environment she avoids because "I don't necessarily feel like I can just kind of go in holding my partner's hand. … And that just makes me not want to go in the stores that make me feel like that" (Participant 1).

Religious Presence Off Campus

Some participants expressed unease with religious presences in their local environments, which was noted as an aspect that was impossible to avoid in not only Greensboro but America altogether. One participant spoke of their discomfort with the close proximity of a voting poll location to a Baptist church (see Figure 6):

> Despite state being separated from church in the U.S. centuries ago, it is still nearly impossible to avoid Christian-affiliated symbols. For example, almost every NC license plate states "In God We Trust," as well as other federal signage. Voting is imperative for marginalized groups to gain access to food, stability, and political representation. Thus, the close proximity of policy to Baptist influence … can further distance LGBTQ+ people from their community and beyond. (Participant 6)

Intersectional Factors Affecting Food Security

This study yielded findings that represented experiences that affect a larger population but disproportionately position the LGBTQIA2S+ community to have diminished food access due to systemic minority identity–specific stressors, as reflected in the findings above (Kepkiewicz et al., 2015). For example, while this is not the case with the Pantry, most community-based emergency food assistance services in the U.S. are run by faith-based organizations, which may display pervasive anti-LGBTQIA2S+ bias (Patterson, Russomanno, Teferra, & Jabson Tree, 2020; Russomanno & Jabson Tree, 2020; Wilson & Badgett et al., 2020). So, while the stigma associated with needing food assistance does impact those outside of the LGBTQIA2S+ community as well as within it, for example, individuals within the LGBTQIA2S+ community have the added stress of decreased access to emergency food assistance solely based on their gender and/or sexual orientation.

Stigma Associated with Needing Food Assistance

Two participants mentioned that the stigma associated with needing food assistance influenced their likelihood of utilizing the Pantry or seeking assistance from other charitable food services. Both participants identified their families and upbringings as the roots of this internalized stigma. One participant spoke of her mother's influence throughout her upbringing:

> It's just like growing up she'd always tell me to never ask for help, you know, and never tell our personal business. We were poor growing up, … and I have that mindset of like you shouldn't ask for help. And so like whatever I do, go to the Spartan Open Pantry or whatever, I always just feel extremely guilty and stuff for asking for help. (Participant 2)

Figure 6. A Baptist Church across the Street from a Voting Location

Mental and Physical Health

Four participants spoke about their mental and physical health and related effects on their food access. One participant mentioned her upbringing playing a key role in developing an eating disorder, stating: "Ever since I was a child, [my grandma] would constantly call me fat. … Her constant put-downs really impacted me mentally and emotionally" (Participant 2). Three participants mentioned food allergies and sensitivities and dietary restrictions as significant barriers to their food access due to increased costs and decreased available selection of safe foods. One participant receives food from her parents at home because she has "many food sensitivities and, consequently, can't eat a lot of the food on campus" (Participant 4). However, the university's size limits on cold storage such as mini-fridges and freezers limit the amount of food she can accept.

> What [my mom] brings is limited by the amount that I can store in my refrigerator and freezer. I can't just simply buy a bigger appliance because each one is at the size limit for what is allowed on campus. I had to obtain accommodations and doctor's notes just to have a separate freezer. (Participant 4)

Finances

Six participants reported finances as significantly impacting their food access. In addition to increasing food prices, inflation has increased gas prices (see Figure 7), which makes it more difficult for students to seek off-campus food options. Students with Flex dollars as part of their meal plans can access only one limited-selection grocery store with high prices, one coffeeshop, and an array of eateries that are often either unhealthy, run by corporations that are "either publicly anti-queer marriage or have funded right-wing political campaigns in the past," or both (Participant 6).[3] Two participants mentioned that university is expensive, especially for students living and/or eating on-campus. One participant stated: "I can't help but feel there's something deeply broken about higher education if we're forcing people into tens of thousands of dollars of debt and they can't all even eat consistently" (Participant 8). Participants shared strategies they utilize to decrease food costs, though each had noted drawbacks. For example, multiple participants reported that they received food assistance through the Federal Supplemental Nutrition Assistance Program (SNAP), which one participant described as a "huge—unbelievably huge—benefit in terms of our food access and security," but also noted that the food assistance is a set monthly budget, so "there are some times, and maybe the end of the month, where things are a little harder" (Participant 1). Another strategy that one participant explained was using coupons for free meal-kit boxes, though their experiences with the service's quality have not been ideal:

> I've done HelloFresh before, because like I've had friends say, "Hey, I have a free box. Do you want it?" Yeah, yep, right now. I don't love it because they say they're really environmentally friendly, and there's so much packaging here. And the food is also … I've never gotten a quality vegetable from them; it's always like zucchini that you can bend in half, and it'll go right back. (Participant 3)

Figure 7. Cost of Gas per Gallon (US$)

[3] The UNCG defines Flex as: "a non-refundable stored value account on your SpartanCard which allows you to eat at UNCG" (UNC Greensboro, n.d.).

Time Limitations

Half of the participants identified the hours of the university's dining options as a significant barrier to their food access. While classes at UNCG can run until 8:30 p.m., most dining options on campus are not open past 7:00 p.m. This pushes students to seek off-campus options for dinner, which requires spending additional time and money. Even during the day, students who are seeking healthier options than what are available on campus or seeking groceries from a full-selection grocery store are forced to go off campus. Then, they have to factor in additional time for travel, which can be difficult for students with full-time course loads, jobs, extracurricular activities, health conditions, or other time-consuming factors to consider. One participant often goes to coffee shops for "filler" foods to get through the day:

> Sometimes I am too busy to go to the grocery store to get food. If I'm driving 15 to 20 minutes there and back, and also that's not accounting for the amount of time it takes me to get groceries … but I use these to get through the day. These make me not necessarily feel super hungry to eat so I can get by until I can find time or anything open in my schedule to go grocery shopping. (Participant 5)

Transportation

Three participants did not have cars, so they had to factor in walking time and distance whenever they left campus. This represents a safety concern, as one participant noted the walk to the nearest full-selection grocery store is 1.1 miles through a residential area without sidewalks the entire way so students "end up faced with either walking in the street or through people's yards to get [there]" (Participant 8). While there is a Greensboro Transit Agency bus system for which the university provides passes, two participants spoke of the unreliability of the bus system: "you can't really depend on them to get there at a certain time or anything, even if it does have a time associated with the website or the app" (Participant 4).

Discussion

Consistent with existing literature, our findings indicate stressors related to being part of a sexual and gender minority group have significant impacts on health and quality of life, in addition to the stressors already faced by college and university students (see for example, Frost et al., 2022; Haas & Lannutti, 2021; Henry et al., 2023; Laska et al., 2021). To buffer the negative effects of these stressors, many LGBTQIA2S+ individuals manage the visibility of their sexual orientations and/or gender identities by deciding whether to out themselves through subtle or overt expressions of sexual orientation or gender identity (Frost et al., 2022; Haas & Lannutti, 2021; Henry et al., 2023; James et al., 2016; Vale & Bisconti, 2021). Some participants in this research spoke about their ability to pass as cisgender and/or heterosexual. Passing was described as a privilege because it decreased their risk of garnering negative attention. This is corroborated by Frost et al. (2022) and Vale and Bisconti (2021), whose research shows that concealing one's sexual orientation and/or gender identity acts as a shield from overt forms of minority stress. Although participants did not explicitly speak to the stress and cognitive effort that comes with concealing one's identity, they did speak of avoiding areas and interactions that required them to conceal their identities and described their responses when faced with unsupportive environments. Participants described feeling chronic devaluation of their identities through prejudicial events, such as microaggressions and overt acts of discrimination by faculty and staff at UNCG. One participant, who identifies as non-binary, shared they felt the "type of language and passive microaggressions" used by faculty and staff would have a more intense effect on a transgender student going through their transition than on a student who had already transitioned.

The beginning of the coming-out process is a vulnerable time for many LGBTQIA2S+ individuals, especially for those in discriminatory, biased, or generally unsupportive environments, and many seek to create support systems to decrease negative effects of stressors (Frost et al., 2022; Goldberg, 2018; Haas & Lannutti, 2021; HRC, 2018; James et al., 2016). While participants shared the positive impacts of their support systems, such as affirmation of their identities, increased household income

and food security as a result of living with a partner, and receiving food from family members, they also described ways in which their support systems negatively impacted their food access to various degrees. This ranged from taking partners' needs into account (e.g., limiting vehicle use for food shopping to enable a partner's long work commute, or spending more money on groceries for a partner with food allergies) to relying on food support from family members who were unsupportive of or uneducated about LGBTQIA2S+ identities. One participant described a period of homelessness due to unacceptance of their identity by family members, a phenomenon found to be common especially for LGBTQIA2S+ youth, who make up between 20% and 45% of homeless youth and experience housing insecurity at disproportionately high rates (Abramovich, 2012; Applied Survey Research, 2017; Johnson, 2018; Romero et al., 2020; Wilson & Choi et al., 2020).

Mallory et al. (2020) and James et al. (2016) found discrimination against LGBT people contributed to decreased employee productivity, retention, and recruitment, in addition to resulting in unfair treatment by employers in hiring, pay, and promotions. In this study, participants also linked their experiences with anti-LGBTQIA2S+ discrimination to their employment history by sharing ways in which their identities are linked to negative workplace experiences and employment status. Participants' reports of quitting jobs over poor treatment highlight the importance of inclusive and safe working environments. Microaggressions such as misgendering negatively impact mental and emotional well-being, contributing to the prevalence of depression and can lead to eventual job loss or voluntarily leaving a workplace. Rates of under- and unemployment have been shown to be higher in the LGBTQIA2S+ community compared to the non-LGBTQIA2S+ population in the U.S. (Conron et al., 2022; James et al., 2016; Mallory et al., 2020), which creates a domino effect on housing, healthcare, and food access stability. Research shows that LGBTQIA2S+ community members have higher poverty rates when compared to cisgender individuals (James et al., 2016; Mallory et al., 2020). One participant in this research explicitly stated she considers transgender identity to be a "big contributing factor" to why she was unemployed for several years, and "the lost economic opportunity of being unemployed for an extended period of time, obviously, has had an impact on [her] ability to access food" (Participant 8). North Carolina is an employment-at-will state, meaning employers can treat their employees as they see fit and fire employees at will for any or no reason unless there is a specific law or employment contract providing protection (North Carolina Department of Labor, n.d.). The Supreme Court decision in *Bostock v. Clayton County* did hold that discrimination based on sexual orientation or gender identity is sex discrimination and, therefore, a violation of Title VII of the Civil Rights Act of 1964. However, the Court's decision did not address issues related to religious liberty, including not only the Religious Freedom Restoration Act but also the First Amendment and exemptions Title VII provides for religious employers. The Court's decision leaves some question as to how protected against discrimination LGBTQIA2S+ individuals are in the workplace, something many experience in North Carolina (EEOC, n.d.; North Carolina Department of Labor, n.d.).

In addition to a lack of political protections in North Carolina, participants also spoke about their feelings of discomfort and lack of safety when leaving the UNCG campus and the downtown Greensboro area due to negative attitudes towards the LGBTQIA2S+ community. The sociocultural environment of North Carolina is significantly influenced by power relations, such as social inequality and religious institutions and practices, especially due to the state's location within the conservative "Bible Belt" area (Barnett & Casper, 2001; Worthen, 2018). This was reflected in the research with participants expressing discomfort with religious and conservative presences in their local environments. However, while the effects of conservative sociocultural environments on the LGBTQIA2S+ community have been studied, current research has not examined those effects in the context of food access. One participant specifically shared their discomfort with a voting location across the street from a Baptist church due to the negative relationship between organized religion and the LGBTQIA2S+ community. This religious

presence may deter LGBTQIA2S+ voters from visiting this polling location, endangering their access to political representation. Having supportive representation within the political environment is important, especially for systemically marginalized communities, because those representatives can influence and advocate for public policy expanding protections for stability, security, and equitable access to resources such as food. When voters are deterred from the polls, their ability to gain such representation is endangered.

A lack of full-selection grocery stores on and near the UNCG campus was also discussed as a significant barrier to food access. While the geography of food access has been well explored in the literature, there has been little research analyzing food access through an intersectionality theory lens, much less a queer theory lens. Much of the research on spatial intersectionality and food access focuses on associations in place-based food environments between food availability and sociodemographic characteristics, specifically socioeconomic status and race (Jang & Kim, 2018; Yang et al., 2020). This research shows neighborhoods with higher proportions of communities of color, systemically marginalized communities, and/or low-income communities in the U.S. are more likely to have fewer retail sources of affordable nutritionally dense foods and more sources of foods that are either not nutritionally dense, not affordable, or some combination thereof (Jang & Kim, 2018; Ver Ploeg et al., 2009; Yang et al., 2020). Although the lack of full-selection grocery stores on and near the UNCG campus may be due to aforementioned factors, when viewed through a queer theory lens, this research indicates additional factors not explored in current literature. Specific power relations affecting the LGBTQIA2S+ community in North Carolina such as social inequality and religious institutions and practices have created an additional, invisible spatial barrier to food access. The university campus, the Pantry, and the nearby downtown Greensboro area were identified by participants as forming a "bubble" that fostered feelings of safety and security. The campus itself was identified as such largely due to participants' familiarity with the area, while the Pantry and the downtown Greensboro area were specifically noted as being inclusive and queer-friendly. Participants reported that as they travel further away from these areas, they encounter negative attitudes toward the LGBTQIA2S+ community, which decreases their feelings of safety and security. However, in order to access full-selection grocery stores, they are forced to be in environments where they often have to conceal their sexual orientation and/or gender identity for safety.

Intersectional factors that affect a larger population but disproportionately affect the LGBTQIA2S+ community were also explored in this study. Analysis of these factors was informed by both intersectionality and queer theories and focused on how institutional influences, contemporary biopolitics, and exclusionary tendencies of simplistic explanations and universal truths have coalesced to further disadvantage the LGBTQIA2S+ community (Barker & Scheele, 2016; Carney, 2014; Jagose, 1996; Kapilashrami & Marsden, 2018; Meyer et al., 2022). Participants spoke about their food access in relation to their mental and physical health, a relationship well explored in the literature, but with the additional context of belonging to the LGBTQIA2S+ community. For example, one participant shared that she had many food sensitivities preventing her from eating most food on campus, so she relies on her parents to provide food for her. However, those relying on support from family members who are unsupportive of or uneducated about LGBTQIA2S+ identities may have to conceal their sexual orientation and/or gender identity, which pushes them to choose between the negative mental and emotional health effects of concealment or the negative comprehensive health effects of diminished food access (Frost et al., 2022; Vale & Bisconti, 2021).

Additional intersectional factors identified in the study included finances, time limitations, transportation, and the stigma associated with needing food assistance. Due to sexual- and gender-minority stressors, LGBTQIA2S+ individuals are more likely to experience significant impacts on their quality of life, including their ability to secure and maintain employment (Frost et al., 2022; Hoy-Ellis, 2016). Periods of underemployment and unemployment create financial insecurity, which

further exacerbates already unstable food security for LGBTQIA2S+ individuals. As shown in this research, individuals may need to travel outside of their local environment to access food, but financial insecurity can create additional barriers such as difficulties financing a personal vehicle and its related expenses. In this situation, participants either walked, asked for rides from friends, or utilized passes for the Greensboro Transit Agency bus system provided by UNCG. However, each of those options creates additional temporal barriers, as they either require additional time, rely on a schedule not set by the individual, or both. Financial insecurity also endangers budgets for food costs, so some participants with vehicles or having secured transportation opted to utilize the Pantry rather than visit a grocery store to purchase food. Although the Pantry was identified as a queer-friendly space, its location inside of a church may be a deterrent for some. Previous negative experiences with charitable food services that maintained anti-LGBTQIA2S+ biases are also deterrents. Combined with the stigma associated with needing food assistance overall, this research showed these factors pose significant barriers to food access for LGBTQIA2S+ individuals.

Conclusions

This research examines experiences of LGBTQIA2S+ university students with food insecurity and provides valuable information about the effects of identity and physical, sociocultural, and political environments on food access. This is an under-researched topic, and this research contributes novel insights into the factors influencing food access for LGBTQIA2S+ university students at North Carolina University at Greensboro in the American South. There is a tendency for contemporary food studies research to focus on individual-level factors and individual failings as reasoning for poor health and food insecurity, rather than identifying decreased food access as the result of institutional influences and contemporary biopolitics (Carney, 2014; Kapilashrami & Marsden, 2018). Thus, the physical, sociocultural, and political characteristics of place-based food environments, and the extent to which these create opportunities and barriers to food access, have not been widely researched, especially with a focus on systemically marginalized communities such as the LGBTQIA2S+ community or the university and college student population. Additionally, few, if any, food studies have utilized either intersectionality or queer theories as frameworks with which to explore their findings.

The findings discussed here relate to the overlap between local physical, sociocultural, and political environmental factors and LGBTQIA2S+ identities in the context of food access through the use of a qualitative, community-based approach. Eight self-identified LGBTQIA2S+ university students enrolled at UNCG took part in the study, which included using the Photovoice method followed by one-on-one semi-structured interviews. Three major themes emerged from the photographic and interview data: (a) LGBTQIA2S+ identities and food insecurity; (b) spatial opportunities and barriers to food access on and off campus; and (c) intersectional factors affecting food security. The themes that emerged from this research indicate LGBTQIA2S+ identities impact food access for university students studying at UNCG. In addition to unique LGBTQIA2S+ experiences with food access, our findings also include intersectional factors, such as the stigma associated with needing food assistance and financial constraints that affect a larger population but disproportionately position the LGBTQIA2S+ community to have diminished food access.

Although recent research has begun to explore the topics of food insecurity within the LGBTQIA2S+ community and amongst university students, the dearth of in-depth research on this specific population limits the ability to comment on whether the findings reported here are generalizable, highlighting a need for additional research. For this study, a better representation of LGBTQIA2S+ university students could have been achieved with a larger sample size. However, it was a challenge to recruit participants, which may have resulted from internalized stigmas such as homophobia, biphobia, and transphobia, in addition to the stigma associated with needing food assistance. Additionally, participants' significant time limitations, which also decreased available time to participate in the study, and COVID-19

precautions likely deterred some from participating altogether. Future studies could strive to include more participants and be designed to generate longitudinal evidence to provide a deeper understanding of factors involved and to show changes in food access over time with respect to the influences of LGBTQIA2S+ identities. Further research is also needed on experiences specific to sexual minorities and gender minorities, as well as the overlap thereof, in addition to intersectional factors disproportionately positioning the LGBTQIA2S+ community to have diminished food access. For all future research, it is important that studies respect the autonomy of the LGBTQIA2S+ community by fostering sustainable relationships through intentional engagement strategies that consider the interest, capacity, and resources that community members have to engage with the research (Durham et al., 2014).

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