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FACTORS CONTRIBUTING TO FOOD INSECURITY IN SOUTH AFRICAN UNIVERSITIES: A SOCIOLOGICAL ANALYSIS AT THE UNIVERSITY OF ZULULAND

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ABSTRACT

Food insecurity remains a pervasive, complex, and structurally embedded crisis within global higher education, disproportionately impacting students in South Africa because of the historical inequality and the continued socio-economic challenges that persist in democratic South Africa. This article presents a comprehensive qualitative investigation into the systemic and localized factors contributing to food insecurity among first-year university students located at the University of Zululand in KwaZulu-Natal which is a historically disadvantaged institution in South Africa. Grounded in the Social Ecological Theory, the research explores and discusses student behavioural and food consumption patterns, interpersonal networks, and institutional infrastructures that intersect to shape student's dietary consumption patterns. The study employed an interpretivist paradigm and a purposive sampling approach to attain data from 80 first-year students, 10 food vendors, and 10 academic and support staff members through semi-structured interviews and focus group discussions. The findings reveal that, even though students possess an adequate understanding of nutritional guidelines, they experience financial constraints due to delayed financial aid disbursements and the high cost of on-campus food, and are compelled to adopt unhealthy and detrimental coping mechanisms. Survival strategies include meal skipping, debt accumulation, and a reliance on calorie rich but nutrient-deficient foods. The narratives revealed that this diet impairs cognitive function, academic performance, and psychological well-being. The article concludes that resolving student food insecurity necessitates systemic, multi-level interventions, encompassing institutional food pantries, regulated campus food pricing, and integrated financial literacy programs.

KEYWORDS: Food Insecurity, Students, South Africa, Universities, Nutrition, Mental Well-Being, Student Diets, Carb Rich Foods.

1. INTRODUCTION

While food insecurity is a documented phenomenon globally, affecting tertiary students even in high-income countries such as the United States, Germany, and Australia (Goldrick-Rab et al., 2018; Hughes et al., 2011; Kötzsche et al., 2024), the crisis is acutely magnified in South Africa. The contemporary South African university is conventionally theorized as a primary vehicle for upward social mobility, cognitive development, and socio-economic emancipation. However, a growing body of scholarly research indicates that higher education institutions are concurrently sites of material and resource deprivation, mirroring the broader structural inequalities of the societies in which they are embedded. For instance, more than 50% of students at The University of KwaZulu-Natal come from disadvantaged backgrounds, and they are resource-poor and experience food Insecurity (Sabi, Kolanisi, Naidoo, & Siwela, 2021). Central to this deprivation is the escalating prevalence of student food insecurity, which is defined by the Food and Agriculture Organization (FAO) as the absence of reliable access to adequate, safe, and nutritious food required to maintain an active and healthy lifestyle (FAO, 2022).

The legacy of structural inequality, high national unemployment, and escalating inflation rates creates a highly precarious environment for students originating from historically marginalized backgrounds. Over the past decade, empirical evidence from South African institutions indicates an alarming trajectory.

In the 2010s, studies revealed that more than half of the surveyed student populations at institutions like the University of the Free State (UFS) and the University of KwaZulu-Natal (UKZN) endured varying degrees of food insecurity (Van den Berg & Raubenheimer, 2015; Munro et al., 2013). Recent data underscores the persistence of this crisis; a 2021 survey at the University of the Western Cape (UWC) found that 68.5% of students had experienced food insecurity during that academic year, and a 2025 Daily Maverick report highlighted that between 11% and 38% of all South African students face the daily reality of severe hunger (Pelser, 2026).

The structural drivers of this challenge are multifaceted. The transition from secondary to tertiary education often corresponds with a sudden loss of critical social safety nets. Many students who relied on the National School Nutrition Programme and the Child Support Grant lose these lifelines upon reaching adulthood and entering university, while simultaneously facing bureaucratic delays in their

National Student Financial Aid Scheme (NSFAS) allocations (Institute for Social Development, 2025). Despite substantial national interventions, NSFAS financial allocations frequently fail to cover the synchronized demands of tuition, housing, academic materials, and adequate nutrition (Broton & Goldrick-Rab, 2016).

Furthermore, many first-generation students bear the burden of remitting portions of their study stipends back to their impoverished families, effectively transforming educational subsidies into household survival grants. This dynamic is particularly visible at historically disadvantaged institutions (HDIs) situated in rural or peri-urban geographies, such as the University of Zululand, where localized economies restrict access to diverse and affordable food markets.

Gambling has emerged as a means of survival and leisure activity undertaken by many students that receive the allowance from NSFAS. At present there is no systematic measuring approach that can determine or report on how these allowances are spent. Wayward spending has been documented to be a contributing factor to student impoverishment and food insecurity (Nkonki, 2026).

Despite these alarming statistics, qualitative explorations focusing explicitly on the lived experiences of students at rural universities remain sparse. The available literature frequently fails to adequately document the multiple systemic determinants that contribute to the prevalence of food insecurity on these specific campuses, nor does it deeply explore how institutional food environments influence student dietary behaviour patterns. There is a distinct gap in the existing body of knowledge regarding how food insecurity is negotiated, experienced, and survived by students navigating the specific spatial and economic constraints of campuses like the University of Zululand (Mhlongo et al., 2021).

1.1. Research Aims and Questions

This research aims to explore the multifaceted determinants of food insecurity among first-year students at the University of Zululand, and analyses how these factors affect dietary practices, academic performance, and overall student well-being. The narratives supported by empirical research describe in detail experiences that shed insight on student financial mismanagement and the impact of the lack of structural support which reframes campus hunger as a complex. Key research questions guiding this analysis are:

What do students perceive to be the meaning of

the terms 'food insecurity' and 'healthy eating'?

How does food insecurity impact the academic performance and holistic well-being of first-year students at the University of Zululand?

What are the primary environmental, economic, and structural factors that contribute to food insecurity on this campus?

What roles do institutional structures (such as the Student Services Department) and campus food vendors play in either mitigating or exacerbating this crisis?

To deconstruct the complexities of food insecurity, this analysis employs the Social Ecological Theory, originally conceptualized by Urie Bronfenbrenner (Bronfenbrenner, 1979). In sociological and public health research, theoretical frameworks are essential for structuring lived experiences into coherent analytical categories, allowing researchers to investigate the interaction between individual agency and overarching structural constraints (Merriam & Tisdell, 2016).

2. SOCIAL ECOLOGICAL THEORY

Unlike reductionist paradigms that attribute food insecurity solely to an individual's poor budgeting, lack of nutritional knowledge, or impulsive consumer behaviour, the Social Ecological Theory posits that human behaviour and material realities are determined by the numerous reciprocal relationships and interactions between the individual and the relevant environmental systems (McLeroy et al., 1988). The RISE Framework (A Socio-Ecological Model for College Student Basic Needs) similarly advocates for situating student financial struggles, food insecurity, and housing instability within their broader social, political, and economic contexts (Center for Equitable Higher Education, 2026). The application of this framework to tertiary educational institutions allows for a rigorous, multi-tiered analysis of the localized and structural variables that impact student dietary habits at the University of Zululand. This study is intersected to four levels within this theory, which is introduced and described below.

2.1. The Microsystem (Individual Level)

The microsystem encompasses the personal attributes that directly affect behaviour, including financial literacy, nutritional awareness, dietary practices, time management, and psychological resilience (Sallis, Owen, & Fisher, 2015). At this level, food insecurity is analysed by considering the student's capacity to budget, their knowledge of macronutrients and micronutrients, and their

psychological responses to scarcity, such as stress-induced eating or meal skipping. However, the Social Ecological Theory emphasizes that individual characteristics alone are insufficient to explain behavioural outcomes.

2.2. The Mesosystem (Interpersonal Level)

The mesosystem indicates the impact of direct social networks, including peer dynamics, familial relationships, and community expectations (Bronfenbrenner, 1994). In the context of university students, this level includes the reliance on peer food-sharing networks, the practice of borrowing and lending money within social circles, and the profound economic pressure to share grant funds with impoverished family members back home. Cultural dietary preferences and the social stigma associated with poverty also influence a student's decisions to seek help or to mask their deprivation.

2.3. The Ecosystem (Institutional and Community Level)

The exosystem involves the formal and informal organizational structures that affect behaviour, despite the individual not having a direct role in the structure and the manner in which it is governed. For university students, the exosystem represents the immediate campus infrastructure and the localized food economy. Critical factors include the pricing strategies of campus food vendors, the nutritional quality of the food available on or near campus, and the presence or absence of institutional food supplies. In the case of the University of Zululand, the geographical isolation of the campus from major, affordable retail supermarkets makes affordable food inaccessible to students (Story et al., 2008).

2.4. The Macrosystem (Policy and Societal Level)

The macrosystem signifies the most extensive sphere of influence, and includes national policies, the broader socio-economic climate, and historical structural inequalities. Within South Africa, the macrosystem includes the bureaucratic efficiency and disbursement schedules of NSFAS, national inflation rates affecting basic food commodities, and the enduring spatial and economic legacies of apartheid that disproportionately disadvantage Black African students during the Apartheid era and present-day South Africa (Fynn, 2024; Trumbo, 2008).

The interdependence of these systems reveals the causal mechanisms of food insecurity. For instance, a macro-level delay in state financial aid directly restricts a student's purchasing power at the micro-

level, compelling them to rely on informal borrowing from peers at the meso-level, or to purchase cheap, nutrient-deficient items from unregulated campus vendors at the exo-level. This ecological perspective establishes that interventions must target structural and environmental reform rather than relying exclusively on behaviour modification at the student level.

3. LITERATURE REVIEW

3.1. *The Dimensions of Food Insecurity*

Food security is a multidimensional concept founded upon four theoretical pillars: availability, accessibility, utilization, and stability (FAO, 2020). In the context of higher education, *availability* pertains to the physical presence of food outlets, dining halls, and grocery stores on or near campus. *Accessibility* is predominantly an economic variable, dictating whether students possess the financial resources to purchase the available food. *Utilization* involves the nutritional quality of the food accessed and the physical facilities (e.g., dormitory kitchens) required to prepare it safely. *Stability* implies consistent, uninterrupted access to food without cyclic disruptions caused by delayed financial aid or sudden economic shocks (Smith & Johnson, 2021).

The sociological literature available explains that student food insecurity develops because of the lack of accessibility and the manner in which food is utilized. Even when food is physically available on campus, exorbitant pricing structures often make food items unaffordable for students who come from impoverished backgrounds (Wright et al., 2016). Consequently, students suffer from a phenomenon known as "hidden hunger" a state where caloric intake may be sufficient to stave off immediate starvation, but the food consumed is highly processed, energy-dense, and utterly devoid of essential micronutrients (Whitney & Rolfes, 2018).

3.2. *Global Perspectives on Student Hunger*

The vulnerability of university students to food insecurity is increasingly recognized as a global crisis, challenging previous assumptions that students in high-income welfare states are adequately protected from basic needs insecurity. In the United States, research by the Wisconsin HOPE Lab and the Hope Center for College, Community, and Justice reveals that between 36% and 45% of higher education students face food insecurity (Goldrick-Rab et al., 2018). This precarity correlates strongly with heightened stress, depression, diminished grade point averages, and increased dropout rates (Maroto, Snelling, & Linck, 2015).

Similar trends have been documented across Europe and Australia. In Germany, despite the existence of robust state financial aid systems and minimal tuition fees at public universities, a substantial proportion of students report moderate food insecurity. These students have reportedly relied on cheap, energy-dense foods which compromise their diets (Kötzsche et al., 2024). Research conducted in Australia found that 48% of university students faced food insecurity, a figure that surged dramatically during the COVID-19 pandemic, reflecting broader crises of education marketization and youth precarity (Jeffrey, Dyson & Scrinis, 2022). Across these global contexts, specific demographic groups exhibit heightened vulnerability, notably first-generation students, racial and ethnic minorities, and students without consistent familial financial support (Trumbo, Mayer & Daily, 2025; Hagedorn-Hatfield, Hood & Hege, 2022).

3.3. *The African and South African Context*

In Africa, food insecurity among tertiary students is exacerbated by severe macro-economic challenges, unreliable state welfare systems, and the high cost of education. Studies that focus on Ghanaian and Nigerian universities report exceptionally high prevalence rates. Agbetsise et al. (2024) classified approximately 61% of tertiary students in Ghana as food insecure, highlighting the importance of food secure households, especially if student financial aid is non-existent or insufficient.

In South Africa, students are challenged when they transition from secondary to tertiary education and are often left worse off as first-year university students. As highlighted during the 2025 Hunger Hearing at the University of the Western Cape, many students who relied heavily on the National School Nutrition Programme and the Child Support Grant lose access to this support structure once they matriculate and leave school (Bhoola, 2023). This immediately puts them at risk for immediate nutritional deficits because of inadequate dietary consumption patterns, especially whilst they await their first NSFAS disbursements (Institute for Social Development, 2025). In many instances, these payments are unlikely to be timeous and sometimes are insufficient in ZAR value.

Empirical evidence across South African institutions demonstrates the chronic nature of this crisis. A study at the University of KwaZulu-Natal highlighted that 55% of students from low-income households were severely food insecure, often forced to distribute their limited resources among family

members (Moloi, 2018; Munro et al., 2013). Furthermore, a recent study by Fynn (2024) investigating Open Distance and e-Learning (ODEL) students shattered the assumption that remote students are less vulnerable; the findings revealed that 55% of the sample experienced severe food insecurity, with African students and members of the LGBTQI community at a statistically higher risk.

The COVID-19 pandemic served as a catalyst that further laid bare these structural inequalities. Wagner et al. (2026) conducted a cross-sectional study assessing hunger among South African university students during the lockdown. They found a weighted prevalence of hunger at 16.4%, identifying that first-generation students and financial aid recipients are more likely to experience hunger, even though many students returned to their family homes during the lockdown period.

3.4. Contextualizing Healthy Eating and Coping Mechanisms

A critical aspect of the literature examines how students navigate the dissonance between nutritional knowledge and economic reality. A well-balanced diet, emphasizing fruits, vegetables, whole grains, and lean proteins, is essential for maintaining cognitive function, sustaining the immune system (via micronutrients like Vitamin C, Zinc, and Iron), and preventing non-communicable diseases (WHO, 2020; Calder, 2020; Bhoola, 2023).

However, studies show a concerning shift towards unhealthy eating behaviours among South African students, driven almost entirely by economic constraints and challenging campus food environments. Students frequently resort to coping mechanisms such as meal skipping, reducing portion sizes, or exclusively purchasing hyper-processed and affordable fast foods (Mchiza et al., 2015; Swart et al., 2021). In addition to economic factors, cultural perceptions heavily influence dietary choices. Traditional foods, such as *igwinya* (fried dough) or *pap* (maize porridge), hold significant cultural value and are highly affordable, yet they often lack the comprehensive nutritional profile required for optimal cognitive performance (Dlamini, 2019; Kittler, Sucher, & Nelms, 2016).

South African students exert considerable agency in the face of food insecurity. Qualitative research utilizing photo elicitation in KwaZulu-Natal (2020-2021) demonstrated that food plays a critical role in shaping youth identities, social status, and gender roles. Despite the scarcity, young people practice food-sharing as a means of solidifying social relationships and maintaining resilient support

networks, showcasing significant sociological agency amidst structural deprivation.

4. RESEARCH METHODOLOGY

To rigorously investigate the complex, deeply personal phenomenon of food insecurity, this study adopted an interpretivist research paradigm coupled with a qualitative methodology (Creswell, 2014; Merriam & Tisdell, 2016). The interpretivist paradigm asserts that reality is socially constructed; therefore, understanding the subjective meanings, emotional responses, and socio-cultural values that actors attach to their material conditions is paramount (Denzin & Lincoln, 2018). A qualitative approach allowed the researchers to explore the psychological, social, and academic dimensions of hunger, yielding nuanced insights that quantitative metrics or standardized hunger scales often fail to encapsulate.

4.1. The University of Zululand, KwaDlangezwa Campus

The research was conducted at the KwaDlangezwa campus of the University of Zululand, situated in the northern region of the KwaZulu-Natal province, South Africa. As a rural/peri-urban campus, it inherently limits student access to diverse, large-scale retail supermarkets, thereby increasing the student body's reliance on campus dining infrastructure and local informal street vendors (Louw et al., 2017). This environment provides a space where students experience the impact of the interplay among spatial isolation, informal food economies, and student nutritional outcomes

4.2. Sampling Approach

The study utilized non-probability, purposive sampling to recruit a triangulated cohort of participants, ensuring a holistic, multi-stakeholder perspective on the campus food ecology (Patton, 2015; Etikan et al., 2016).

The final sample comprised 100 participants, divided into three distinct groups:

First-Year Students (n=80): Selected due to their heightened vulnerability during the transition from secondary schooling to independent living, their generally limited financial literacy, and their unfamiliarity with campus support structures (Henry, 2017).

Campus Food Vendors (n=10): Included to provide critical insight into the economics of the campus food supply, student purchasing trends, pricing constraints, and the nutritional quality of available stock.

Academic and Support Staff (n=10): Comprising lecturers, clinic personnel, and Student Counseling Centre staff, to assess the institutional and physiological impact of student hunger on academic performance and overall campus health.

4.3. Data Collection Methods

Data collection occurred through a combination of focus group discussions and semi-structured in-depth interviews. Ten focus group discussions were conducted with the first-year students, comprising 8 participants per group. Focus groups are highly efficacious in sociological research as they encourage participant interaction, allowing students to articulate shared experiences, debate coping mechanisms, and generate collective insights in a socially supportive environment (Morgan, 1997). Semi-structured interviews were conducted with the vendors and staff members. This format offered the flexibility to pose pre-established questions while allowing the researcher to explore spontaneous and related themes regarding institutional challenges and economic constraints (Kvale & Brinkmann, 2009).

4.4. Data Analysis and Ethical Considerations

All focus groups and interviews were audio-recorded (with explicit participant consent) and transcribed verbatim. The qualitative data was subsequently subjected to thematic analysis, following the protocols established by Braun and Clarke (2006). Transcripts were systematically coded to identify recurring patterns, which were then categorized into overarching themes aligned with the core tenets of the Social Ecological Theory.

To ensure the trustworthiness and scientific rigor of the qualitative data, the study adhered to Lincoln and Guba's (1985) criteria: credibility (achieved via member checking), transferability (achieved through thick, detailed contextual descriptions), dependability (maintained via a comprehensive audit trail), and confirmability (achieved through the triangulation of data sources, students, staff, and vendors). Strict adherence to ethical protocols was maintained, including the administration of informed consent forms, guaranteeing the right to withdraw without penalty, and ensuring anonymity of all participants.

5. STUDY FINDINGS

5.1. Student Perspectives: Nutritional Knowledge Versus Economic Reality

The qualitative data reveals a stark dichotomy between students' theoretical understanding of

nutrition and their practical dietary habits dictated by material reality. When queried regarding their perception of healthy eating, the majority of students demonstrated a sophisticated understanding of nutritional requirements. Forty percent (n=32) defined healthy eating accurately as a balanced intake of macronutrients (carbohydrates, proteins, fats) alongside fresh fruits and vegetables, while 30% (n=24) specifically highlighted the importance of vitamin-rich, nutrient-dense foods for sustaining immune function.

"I ensure to incorporate foods abundant in vitamins, particularly vitamin C, as it helps prevent illness, which I cannot afford." (Participant 19)

More than 35% of respondents identified financial constraints as the absolute primary barrier to consuming a balanced diet, leading to a forced reliance on hyper-processed, low-cost carbohydrates.

"Maintaining a healthy diet is challenging when one is financially constrained. You ultimately consume noodles daily due to financial constraints." (Participant 8)

Another student (Participant 9) explained in detail that, although he is fully aware of the kind of food he should be eating, it is far more affordable to eat traditional foods prepared by himself at his campus residence. The data illustrates the mesosystemic pressure placed upon students. Thirty-five percent (n=28) of the cohort indicated that the challenge of balancing multiple financial obligations severely curtailed their food budget. In many instances, students reported prioritizing remittances to their impoverished families over their own immediate dietary needs, which demonstrates the complex intersection of familial duty, cultural practices, and individual starvation. Students expressed in their interviews that they feel overwhelmed and often stressed when managing these circumstances, and it does impact their mental wellbeing as a scholar.

"It's a continual balancing act. You must decide between sending funds to your family and procuring sufficient sustenance for yourself." (Participant 5)

Alongside structural poverty, 30% (n=24) of students acknowledged that a lack of financial discipline contributed to their unbalanced and precarious financial planning. These participants noted that impulsive spending on cosmetics, clothing, or social activities during the immediate aftermath of stipend disbursements frequently resulted in severe food deficits by the month's end. Students admitted and described during interviews that they often make these choices to enjoy a social life and to withstand peer pressure on campus. Many female students explained that they are forced to spend their stipend on toiletries, as there is no

additional financial support from their families.

5.2. Coping Strategies Among Students

Table 1 outlines the measures students employed to mitigate hunger on campus

Table 1: Coping Strategies Utilized by Food-Insecure Students.

Coping Strategy	Prevalence	Mechanism and Sociological Implication
Group Buying & Communal Cooking	35% (n=28)	Pooling micro-funds to purchase bulk staples. Fosters social cohesion and reciprocal support, reflecting collectivist resilience, though it may mask individual deprivation.
Financial Borrowing	25% (n=20)	Borrowing money from peers to manage monthly expenses. Alleviates immediate hunger but frequently results in cyclical debt traps and compounded future financial stress.
Meal Skipping/Rationing	25% (n=20)	Deliberate reduction in meal frequency (often skipping breakfast or lunch) to stretch limited groceries. Poses severe physiological risks, undermining metabolic function and cognitive endurance.
External Support Requests	15% (n=12)	Seeking emergency financial assistance from family members. Often a last resort that places secondary financial burdens on already impoverished households.

The practice of meal skipping was a recurrent theme. As one student articulated, *"I occasionally forgo meals to extend the duration of my groceries"* (Participant 10).

5.3. The Academic and Psychological Impact of Hunger

The consequences of food insecurity on student performance are severe. Fifty percent (n=40) of students indicated that hunger directly caused diminished concentration during academic instruction, while 30% (n=24) reported chronic fatigue and reduced productivity in both academic and daily activities.

"Concentration is difficult when one is hungry. At times, I struggle to recall the lecturer's statements." (Participant 18)

Beyond cognitive impairment, 20% (n=16) of students emphasized the profound emotional toll of food insecurity, citing persistent anxiety, stress regarding their next meal, and feelings of social isolation that further exacerbated their academic difficulties.

5.4. Staff Perspectives: Institutional Observations of Deprivation

The integration of academic and support staff perspectives confirms that student food insecurity is not merely a private, hidden struggle, but a highly visible institutional crisis. A unanimous 100% (n=10) of interviewed staff reported recurrent complaints of student hunger, particularly clustered toward the end of the month as financial resources depleted.

Lecturers corroborated the cognitive consequences reported by students, noting that hungry students frequently exhibited an inability to focus or engage actively in seminar discussions. The behavioural trends observed by faculty included

rising absenteeism and poor academic performance.

"Students who are hungry frequently find it difficult to focus and engage actively in discussions... Rising absenteeism and reduced engagement are prevalent trends." (Lecturer)

"In some instances, students do not attend classes during this time, which impacts their ability to meet long-term learning objectives." (Lecturer)

Clinic personnel documented the somatic results of students who are deprived and present themselves with chronic fatigue, headaches, gastrointestinal distress, and compromised immune responses. Often these student numbers increase towards the end of the semester and at times when students await their funding. Staff from the Student Counselling Centre highlighted that food insecurity is a pervasive issue impacting mental health and collectively indicated that it is a leading cause of depression and anxiety among the student population at The University of Zululand.

5.5. Food Vendor Perspectives: The Economics of Campus Nutrition

Interviews with informal and formal campus food vendors provided critical insights into the localized food economy (the exosystem). The data confirms that vendor offerings are intrinsically tailored to student poverty, creating a feedback loop of nutritional deficit.

When asked about the most frequently purchased items, vendor responses indicated a heavy reliance on cheap, energy-dense fast foods; 30% of vendors cited fat cakes (*igwinya*) and fried chips, 20% cited fried chicken portions, and 10% cited simple sandwiches which very often comprised of processed meat and cheese. Vendor pricing strictly accommodates limited student budgets; 30% of vendors noted that their most expensive meal item was priced below R50 (approximately \$2.75 USD),

whereas other vendors explained that their most expensive prepared meal ranged between 3 USD and 4 USD but these meals were prepared with a variety of cooked vegetables, a carbohydrate and a protein component which was usually chicken or beef. It was expressed that upon payment of funds, students then opt to have one of these meals sporadically, occasionally or once off due to budget constraints.

Furthermore, vendors confirmed the cyclical, policy-driven nature of food insecurity. Seventy percent (n=7) reported a drastic surge in sales at the beginning of the month, coinciding directly with the disbursement of NSFAS allowances, followed by a precipitous drop in foot traffic as student funds evaporated.

"We experience peak activity immediately following month-end when students receive their allowances... sales reach their peak at the start of the month." (Food Vendor)

While vendors meet hunger needs, 80% (n=8) of student participants acknowledged that their meals lack nutritional balance. They cited high operational costs and low profit margins as the primary barriers preventing them from offering fresh produce or lean proteins.

"We offer economical food, but it lacks nutritional value. It helps students avoid hunger, although it fails to fulfill all dietary requirements." (Food Vendor)

6. DISCUSSION OF FINDINGS WITHIN SOCIOLOGICAL THEORY

The synthesis of the empirical findings confirms that food insecurity at the University of Zululand is a complex, intersecting systemic problem. Through the lens of the Social Ecological Theory, the analysis critiques student dietary choices and consumption patterns, which are shaped by structural inequity, student poverty, institutional inadequacy, and socio-economic deprivation (McLeroy et al., 1988).

6.1. The Microsystem: Scarcity And The "Hidden Hunger" Paradox

At the individual level, the data negates the notion that malnutrition among students is predominantly motivated by nutritionally ignorant students. Participants demonstrated a highly sophisticated understanding of balanced diets, immune function, and the necessity of micronutrients. However, cognitive knowledge does not equate to material access. Unaffordability and inaccessibility to nutritious foods have been documented to be core reasons as to why students have become reliant and compelled to consume unbalanced and carbohydrate-rich meals. Available options on the campus include instant noodles, fried dough, and

processed starches, which brings to the fore the concept of "hidden hunger" and its relevance to this student population.

The consumption of sufficient empty calories to mask physical starvation, combined with chronic, debilitating micronutrient deficiencies, has become prevalent at many universities in South Africa (Rolfes, Pinna, & Whitney, 2015).

Severe economic constraints have motivated students to consume these nutritionally deficient foods, which can be detrimental to the well-being of the student in the long term. Furthermore, the 30% of students who explained their financial mismanagement primarily spent their allowances on non-essential lifestyle purchases must be analysed sociologically rather than moralistically. In highly stratified, status-conscious university environments, marginalized students often experience intense pressure to meet the demands of social inclusion through material consumption and attending social events, which requires the spending of funds (Watson et al., 2017). The psychological desire to mitigate the stigma of poverty often drives short-term aspirational spending, which inadvertently compromises their long-term food security.

The physiological and academic consequences at this micro-level are devastating. The widespread reports of poor concentration, fatigue, and academic failure illustrate how physiological deprivation directly sabotages the academic learning experience and the core emancipatory purpose of the university to uplift our population. The biological reality of hunger acts as an invisible structural barrier, ensuring that economically disadvantaged students are systematically less likely to achieve academic excellence compared to their food-secure peers (Taras, 2005).

6.2. The Mesosystem: Collectivism, Cyclical Debt, And the Remittance Burden

The mesosystem encompasses the interpersonal networks that heavily influence student survival. The study revealed that 35% of students prefer to engage in group buying and communal cooking is aligned with notions and practices of resilience, solidarity, and collectivism inherent in South African youth cultures. Group buying functions as an informal, decentralized social safety net, allowing students to maximize economies of scale and mitigate extreme destitution (Henry, 2017). As supported by recent studies on youth agency in KwaZulu-Natal, food-sharing is not merely an economic strategy; it is a critical social mechanism that plays an important role in solidifying relationships, constructing identities,

and maintaining support networks amidst economic uncertainty and structural scarcity (Siyaphambili Youth Project, 2021).

Data also revealed that 25% of students that opt to rely on borrowing food items and money enter micro-debt cycles that perpetuate their financial insecurity. The socio-economic pressure is most acutely demonstrated by the 35% of students who remit portions of their NSFAS stipends to their rural families. This finding is of immense sociological significance. It demonstrates that the state educational subsidy, which is theoretically designed to facilitate individual academic engagement, is immediately absorbed into the broader matrix of household poverty, which is plagued with unemployment. The first-generation student is positioned not merely as a learner, but as an economic provider, stretching already inadequate funding across multiple dependents. Consequently, student hunger cannot be decoupled from the broader macro-crisis of structural unemployment and poverty in the South African state (Tabe-Ojong et al., 2023).

6.3. The Exosystem: Spatial Isolation and the Complicity of the Campus Food Environment

The institutional environment plays a pivotal role in dictating dietary outcomes. The spatial geography of the Kwa-Dlangezwa campus isolates students from competitive, large-scale grocery retailers. This spatial monopoly empowers local food vendors, creating an environment where students are a captive market (Story et al., 2008).

While campus vendors provide a variety of nutritional and unhealthy food options, the empirical evidence demonstrates that the economic model, utilised by students, inadvertently perpetuates hidden hunger. Vendors have to cater to the micro-budgets of students to remain solvent, the local food economy is saturated with cheap and nutritionally void options (Bruening et al., 2017). The admission by vendors that offering healthier alternatives is economically unviable underscores a systemic market failure.

Furthermore, the absence of robust, formalized institutional support mechanisms at the University of Zululand represents a critical exosystemic failure. While sporadic relief efforts exist, the lack of a permanent, stigma-free campus food pantry leaves students wholly reliant on their fragile interpersonal networks or predatory coping mechanisms. Institutions of higher learning can no longer operate under the assumption that their sole purview is academic instruction; the empirical reality dictates

that they must engage as primary welfare providers to ensure student retention and success (Blagg et al., 2017).

6.4. The Macrosystem: Structural Inequality and Policy Failures

At the macro level, student food insecurity is a localized manifestation of national economic dysfunction and policy inefficiencies. The cyclical nature of hunger reported by both students and vendors peaking sharply at the end of the month is directly tethered to the bureaucratic mechanics of the NSFAS (Bhoola, 2024). Delays in the disbursement of allowances, coupled with the rapid erosion of purchasing power due to high national food inflation, create predictable, systemic periods of starvation.

The broader post-apartheid legacy dictates that the majority of the student body at historically disadvantaged institutions lack generational wealth or robust familial safety nets to absorb these macro-economic shocks (Mahlangu, 2021).

7. CONCLUSION AND RECOMMENDATIONS

This exhaustive investigation into the food ecology of the University of Zululand reveals that student food insecurity is a multidimensional crisis that fundamentally compromises the equity, efficacy, and emancipatory potential of higher education in South Africa. The findings explicitly demonstrate that the inability to access adequate, nutritious food is not a peripheral issue of personal budgeting or individual failure, but a systemic crisis operating simultaneously.

The empirical data depicts a bleak picture for many students. Students from impoverished backgrounds arrive at the university seeking social mobility, yet find themselves navigating moderate to severe food insecurity and inadequate access to resources. The necessity of remitting funds to struggling households, the bureaucratic delays in state financial aid, the spatial isolation of the rural campus, and the proliferation of low-cost, nutrient-deficient vendor foods collectively enforce a state of chronic, hidden hunger. The subsequent deployment of detrimental coping mechanisms—such as forced caloric restriction, meal skipping, and cyclical debt accumulation—exact a severe toll on students' cognitive capacities, emotional stability, and long-term academic trajectories.

The integration of the Social Ecological Theory clearly establishes that mitigating campus hunger requires moving far beyond behavioural admonishments. While enhancing financial literacy

is necessary, it is inadequate to address the problem. There are still structural economic deficits these students are forced face. To fulfil the constitutional mandate of equitable higher education, the university apparatus and the state must be fundamentally reconfigured to acknowledge and aggressively intervene in the basic physiological needs of the student populace.

7.1. Recommendations For Institutional and Policy Reform

To address the pervasive nature of food insecurity, interventions must be implemented simultaneously across institutional, environmental, and macro-policy levels.

Establishment of Institutional Food Infrastructure: The University of Zululand must establish a permanent, centralized, and destigmatized Campus Food facility. Drawing on successful models from other South African institutions such as the No Student Hungry (NSH) programme at the University of the Free State, which aligns with the UN Sustainable Development Goals (Pelser, 2026) this facility should be sustained through strategic partnerships with agricultural cooperatives, corporate sponsors, and philanthropic alumni. This facility must transition food aid from an ad hoc charitable response to a formalized, highly visible student support service.

Implementation of Subsidized Campus Meal Programs: The university administration should collaborate with campus food vendors to create a tiered, subsidized meal system. By offering vendors operational incentives, such as reduced rental fees, utility subsidies, or marketing support. The university can possibly mandate price ceilings on specific, nutritionally balanced "student meals." Additionally, the integration of digital food vouchers linked to student identification cards can ensure that

specific funds are ring-fenced exclusively for nutrition, protecting them from being diverted to non-essential expenses or familial remittances.

Integrated Financial Literacy and Psychosocial Support: While poverty is undeniably structural, empowering students with robust financial management skills can mitigate vulnerability. Financial literacy training focusing heavily on practical budgeting, debt management, and navigating the hidden costs of university life must be integrated into the mandatory first-year orientation curriculum (Bhoola, 2025; Watson et al., 2017). The Student Counseling Centre must proactively screen for food insecurity during standard mental health intake assessments, recognizing the profound, documented correlation between hunger, anxiety, and depression. Establishing formal, peer-led support networks can also help dismantle the toxic stigma associated with seeking nutritional and financial aid.

Macro-Policy Advocacy and Reform: At the policy level, university leadership must engage in sustained, aggressive advocacy with the Department of Higher Education and Training (DHET) and NSFAS. There is an urgent, undeniable need to re-evaluate the quantum of student living allowances, indexing them to current, food inflation rates rather than static historical baselines. Furthermore, the administrative bottlenecks that result in delayed stipend disbursements must be eradicated, as these temporal gaps directly trigger acute, predictable starvation periods on campus (Institute for Social Development, 2025).

By recognizing food security not as a peripheral welfare issue, but as a fundamental, non-negotiable prerequisite for academic success, higher education institutions can transition from being sites of compounded deprivation to true engines of holistic human development and social justice.

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