

Theoretical Application to Understand Food Insecurity Among College Students: A Multi-Systems Life Course Perspective

Tracey Marie Barnett, Reina Olivo, Valandra, Kameri Christy
University of Arkansas, Fayetteville, USA

Empirical studies have shown a distinct relationship between academic performance and food insecurity in college students. Specifically, food-insecure students are more likely to report a lower grade point average than their food secure counterparts. Since the Great Recession, more attention has been given to the topic of hunger and food insecurity among college students; however, the literature still lacks a comprehensive examination of various issues facing today's college students. Using a multi-systems life course (MSLC) perspective, this paper provides a conceptual explanation of the lived experience of college students by offering a better understanding of the unique challenges faced by this population. Findings from this study will assist researchers, practitioners, and university administrators in their efforts to address hunger among this population.

Keywords: multi-systems life course perspective, hunger, food insecurity, college students, university

Introduction

The USDA (United States Department of Agriculture) defines food insecurity as the lack of access to affordable and fresh foods to live an active, healthy, and productive life. According to the 2017 U.S. households food security data, approximately 12% (15 million) of households, which is equivalent to 40 million people, in the United States were food insecure in 2017. However, food insecurity among college students is drastically higher. Although college students are often labeled as entitled millennials or emerging adults (Cairns, 2017), according to Dubick, Mathews, and Cady (2016), in the largest study to date, 48% of students at community colleges and four-year colleges/universities qualified as being food insecure.

To explore the challenges of food insecurity among college students, from March to May 2016 (Dubick et al., 2016), a total of 3,765 students in 12 states (eight community colleges and 26 four-year colleges and universities) were asked questions from the U.S. Department of Agriculture's Adult Food Security Survey Module. Despite having a meal plan, working 20 or more hours a week and receiving financial aid, many students in this sample were food insecure. Some even accepted benefits from the supplemental nutrition assistance program (SNAP) formerly known as food stamps. However, limited resources and increased stress can create the perfect storm to hinder student success. As one can see, food insecurity could potentially have a negative impact on the academic success and overall health and wellbeing of many students. Although very

Tracey Marie Barnett, LMSW, Ph.D., assistant professor in the School of Social Work, University of Arkansas, Fayetteville, USA.
Reina Olivo, BA, MSW student, School of Social Work, University of Arkansas, Fayetteville, USA.
Valandra, MSW, Ph.D., African & African American Studies Program, associate professor in the School of Social Work, University of Arkansas, Fayetteville, USA.
Kameri Christy, MSW, Ph.D., professor in the School of Social Work, University of Arkansas, Fayetteville, USA.

little attention has been given to campus food insecurity, findings from this recent national study indicate that serious strides must be taken to start developing action plans to address this critical public health issue.

After the Great Recession, food insecurity among college students began to gain a lot of attention in the peer-reviewed literature, so much so that four systematic literature reviews have been published on the topic (Bruening, Argo, Payne-Sturges, & Laska, 2017; Lee et al., 2018; Nazmi et al., 2018; Abe, 2016). Also, the College and University Food Bank Alliance (CUFBA), founded in 2012, identified 641 campuses (as of June 4, 2018) in which a food pantry exists or where one is being started (CUFBA, 2018). While the topic of food insecurity among college students is gaining a lot of attention and food pantries are being created to respond to the challenges that students are facing due to poverty and hunger (Cady, 2014), we have yet to find an effective way to address the issue on all campuses across the country.

Theory and Social Work Practice

In social work practice, theories act as the conceptual tools that are used in the assessment of clients and their environments. Theories also guide social workers in the development of intervention programs and play an important role in directing research (Robbins, Chatterjee, & Canda, 2012). Social workers practice with diverse ethnic groups in various agencies such as child welfare and mental health, and the role of culture, norms, and values must always be considered when implementing interventions. Food insecurity among college students is such a complex challenge that it must be addressed intersectionally from the micro, mezzo, and macro levels, and social workers are among the best professionals to help tackle this issue (Donaldson & Daughtery, 2011; Kaiser, 2011). It is imperative for the social work profession to utilize and understand intersectional and multicultural approaches to food insecurity among college students in order to guide culturally competent interventions in conjunction with public health and public policy.

History of the Multi-Systems Life Course Perspective

The multi-systems life course (MSLC) perspective was developed by faculty at the University of Arkansas, School of Social Work in the early 2000's. The impetus for developing this perspective was two-fold: (1) to address the historic bifurcation of micro versus macro social work practice by (2) creating a framework that more accurately reflects the dynamics of social work practice. In 2003, with the goal of advancing the MSLC perspective in social work practice, the School of Social Work began its Master of Social Work (MSW) program. To that end, faculty determined there would be a single concentration; advanced generalist practice from the MSLC perspective. After seven years of crafting and modifying the MSLC perspective, Murphy-Erby, Christy-McMullin, Stauss, and Schriver (2010) published their seminal article to introduce MSLC to the practice and academic communities, "Multi-systems Life Course: A New Practice Perspective and Its Application in Advanced Practice With Racial and Ethnic Populations". Since then, University of Arkansas faculty has written about the usefulness of using MSLC with teaching sex education to Latinx teens and their parents (Murphy-Erby, Stauss, Boyas, & Bivens, 2011; Stauss, Murphy-Erby, Boyas, & Bivens, 2011), and the interactive nature of social inequalities (Norris, Murphy-Erby, Green, Willis, & Jones, 2013). MSLC has been used in articles pertaining to cultural competence with indigenous populations in Australia (Hollingsworth, 2013), domestic violence within the Irish traveling community (Allen, 2011), examining cultural differences in aging of Cambodian refugees (Dubus, 2014) and preparing social work students to effectively engage differences in practice (Constance-Huggins, 2017).

Purpose of the Study and Theoretical Model

The primary purpose of this study is to fill a gap in the research literature by understanding the experiences of food insecure and food secure college students through evidence based literature, health, culture, and ecological specific theoretical frameworks. This study marks the first known attempt to build a conceptual model using multiple theories, along with mediating and moderating variables to explain the relation among college students who are food insecure and those who are food secure. Based on the evidence that we will use to build a theoretical conceptual model, our future goal is to statistically test and validate our conceptual findings.

MSLC Applied to Food Insecurity Among College Students

Ecological Systems Theory

Ecological Systems Theory (EST) considers a person as the center of five nested structures: micro-, meso-, macro-, exo-, and chrono-systems. When change occurs at one level of the ecological system, this can possibly affect the other levels and could influence one's developmental outcomes indirectly or directly through multiple contextual changes (Bronfenbrenner, 1979; Bronfenbrenner & Ceci, 1994). Camelo (2017) explored food insecurity through the EST lens among college students and examined predictors of food insecurity and the effects on college students. The microsystem consists of the college student. Considerations for unpacking the experiences of food insecurity among college students at the mezzo-level would involve assessing the influence of family, friends, social networks, and the university. A social worker may consider the possibility that surmounting family financial obligations such as medical bills or younger siblings may impede a college student from asking their parents for food financial assistance. The peer-pressure of attending social events and partaking in the full college experience may lead the college student to save less and spend more of their semester refund check for the sake of socializing.

At the meso level, a social worker would examine how the university addresses food insecurity among their college students along with whether the student's family is able to intervene. Camelo (2017) expressed that the macrosystem of a college student looks at societal factors that influence a social disadvantage in a student's life. As such, one may ask: How is food insecurity among college students being addressed through the campus food pantry and what barriers, if any, are college students encountering as they attempt to apply for the supplemental nutrition assistance program (SNAP)? Macrosystem factors that may affect a student's food insecurity status in college may include if the student had access to adequate education in grades pre-K through 12th grade, healthcare, housing, and a job while in high school or in college. An example of the exosystem's impact on the college student would be a parent's job affecting how much or how little they can help their college student with expenses. The chronosystem of the college student would consist of the changes that a student experiences throughout their college career, such as times of being food secure and insecure along with if the student and their family have experienced intergenerational poverty and economic disparities.

Life Course Theory

Elder (1995) stated that life course theory "highlights the influence that human agency along with the intersection of social, cultural, historical and developmental factors have in shaping the trajectory of any developing organism" (p. 110). Forman, Mangini, Dong, Hernandez, and Fingerman (2018) stated that throughout one's life course, food insecurity can affect physical and psychological health problems. Examples

of how food insecurity may impact an individual at various stages in the life course can be seen during the prenatal stage, continuing through infancy, and in the toddler years. Also, a young child's academic and social skills may be impaired and during adolescence, anemia and lower bone mineral density may be present. Lastly, in adults, obesity, hypertension, diabetes, metabolic syndrome can manifest, and one may experience more hospitalizations (Forman et al., 2018).

The life course theory has several main constructs which include socio-historical and geographic, timing of one's life, heterogeneity variability, linked lives and social ties to others, and human agency and personal control (Elder, 1995). It is important to assess these constructs with more depth when exploring food insecurity among college students. With the socio-historical and geographic construct, it is important to consider the community and surrounding environment of the university. For example, if food insecurity is an issue in the town where the university is located, then a college student in that town is at greater risk of experiencing more food insecurity. When focusing on the historical aspect, it is imperative to consider if the student has previously experienced food insecurity and what if any problems were associated with their experiences. When looking at the construct, timing of one's life, it would be important to consider what things a student is trying to accomplish, such as a degree or participation in a university organization or sports team, job, and/or internship. Is a student's level of campus involvement greater due to the free food that student organizations provide? Or, are the on-campus dining hall hours flexible enough for the student who may be juggling multiple jobs and an internship? The heterogeneity variability construct applies to which population of students may be more susceptible to food insecurity based on demographic characteristics such as race, gender, and economic status. Linked lives and social ties are important to look at in college students who are experiencing food insecurity or those who are food secure. Friends and university organizations are influencers on how a student will eat. Some friends may want to eat at local restaurants or spend money, while other friends may consider how to help their friend who is food insecure, and participation in a university organization will sometimes offer students free food. The last construct to address is human agency and personal control. A university campus may host financial literacy workshops so college students could be aware of how to manage a budget, however a financial literacy workshop may not apply to every student. Just because a student has a lower income or is food insecure, it may not mean that they need a financial literacy class. However, knowing something and putting it into practice does not always manifest. There may be times when a student is in a bind, and has to choose between what basic need is more important to pay each month: rent or food or, if they have time to prepare a meal or need to grab something on the go.

Symbolic Interactionism

Blumer (1969) stated three components that make up symbolic interactionism. The three components are as follows:

Human beings act towards things on the basis of the meaning that the things have for them, the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows, and these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things one encounters. (p. 2)

When looking at food, Pelto, Pelto, and Messer (1989) wrote about classifications for food based on cultural symbolic dimensions. The eight classifications that were created included hot-cold, health, age, gender, illness, rituals, and economic status. These authors hypothesized that the eight classifications would play a part in one's food selection, food preferences, and dietary intake. In this case, meanings were given to different

foods and how they affected the way one eats. Ochs and Shohet (2006) discussed some ways that food has become a socialized symbol through culture, a comfort during emotional stress, a reward for appropriate behavior, and a sign of good health. Fraser (2014) also talked about symbolic interactionism in the context of food and said that the way people view food can be due to the time of year, the physical location that one is in, and one's cultural beliefs. Lastly, Daugherty (2017) looked at food insecurity in college students using a symbolic interactionism framework in which he considered a student's cultural, historical, and social context to put meaning to why a student may be experiencing food insecurity. Based on these studies (Daugherty, 2017; Frasher, 2014; Ochs & Shohet, 2006; Pelto et al., 1989), it would be helpful to consider the role of symbolic interactionism when attempting to understand the meaning made of food in the life of a college student.

The three constructs of symbolic interaction are meaning, language, and thought. Each of these plays a part in understanding food insecurity among college students. The meaning a college student gives to their food can be anchored to their culture and what is acceptable in terms of food. What meanings around food did their parents emphasize during their infancy? Is food a scarcity in their household or is there an overabundance? The meaning that food has can influence the student's appreciation or non-acceptance of food in the dining hall or at the campus food pantry. Language can be a symbol of how one views food insecurity and how he or she believes others may view food insecurity. For example, verbalized perceptions of food insecurity from others may help or hinder a student's current food status. If a person feels like they will be shamed or feel ashamed by those around them, then they may be less likely to ask for help during moments when they are food insecure. The perception that one has about their food also plays into the construct of thought. Depending on one's perception of their food insecurity, a student may not reach out for help due to shame. Thought also plays a role in when a student decides to accept that they might be food insecure.

Social Change Perspective

Theories of Change according to Murphy-Erby et al. (2010) include social justice, social change, and social action and within those three aspects power and oppression are considered. The National Association of Social Workers (2018) considered the following as part of their social justice priorities: voter rights, criminal justice/juvenile justice, immigration, and economic justice. Food insecurity could be considered within the scope of economic justice due to the economic toll one may have in securing food for their home. Bruce-Davis, Gilson, and Matthews (2017) discussed that one way to apply social justice to food insecurity in college students is to make sure that students have food access on the weekends and during school breaks. Additionally, campuses should also consider how they are providing food to students while classes are in session. Things that campuses should consider would be the price of campus food plans, how food pantries are implemented and advertised, and how often campus organizations offer free food. For example, at the University of Arkansas, meal plans range from \$2,470 to \$4,250 per year. The way that food pantries are implemented and advertised along with how often campus organizations offer free food varies depending on the campus and organization. Marple (2018) also discussed food justice in regard to who has access to food based on race and class inequalities. When considering Marple's outlook on food justice on a college campus, it is important to consider who is food secure or insecure and the opportunities and resources they may be able to receive. Opportunities may include who is able to access scholarships, grants, government assistance programs or receive an athletic scholarship.

Dunfey (2017) defined social change “as changes in human interactions and relationships that transform cultural and social institutions” (Para. 2). Fox (2017) referenced Nelson and Dodd (2016) who stated that social change in food systems can work when connections are made between university and community representatives. Fox further explains that at the Ohio State University (OSU) there are many organizations on and off campus along with individuals on and off campus that are collaborating to help inform and shape the food system by teaching, conducting research and participating in stewardship. The way that the OSU is working to address food insecurity on campus is something that may be implemented on all college campuses. Through research, more information can be discovered on the causes and effects of food insecurity on college campuses and even the larger population in the United States. Another way that social change can be applied to food insecurity in college students would be to change public policies on food access. One way that this could be done would be to make SNAP easier to apply for and keep as a college student. Allison (2018) discussed how difficult it is for a college student to meet requirements for SNAP due to needing to work a part time job, at least 20 hours a week to maintain SNAP benefits. A student who is working 20 hours a week may have difficulties with attending class and finishing class assignments. Barriers to accessing a part time job may include transportation and the time a student has to commit to a job.

The Cabinet Office (2015) stated that social action “is about people coming together to help improve the lives and solve the problems that are important in their communities” (p. 5). Bruce-Davis et al. (2017) discussed that social action is a part of social justice in that once a problem is identified then steps can be made through critical thinking on how to solve the problem and then implementation of the solution can occur. Marple (2018) discussed that action can be taken by student food cooperatives to address food issues on campus through providing students a way to “think, rethink, and enact their food politics and activism” (p. 3). The student food cooperatives that Marple (2018) discussed and their implementation on campuses look at addressing what foods are available on campus to students and implementing ways that students can access the food that is on campus. Social action on college campuses can allow students to come together to discuss the implications and thoughts about food insecurity on a campus. Emerging from those discussions could be solutions to addressing food insecurity and if those solutions are feasible then hopefully they can be implemented to reduce food insecurity among college students. Some actions that have taken place to address food insecurity on campuses have been food pantries and community gardens.

Summary of Theoretical Framework and Literature Review

After reviewing the food insecurity among college students literature, it is clear that this topic is still in its infancy and studies are mainly assessing the problem through a nutrition and calorie deficit lens. Very few studies employ a theoretical framework to guide their research and interpretation of findings as they relate to factors that influence a college student’s experience of being food insecure or food secure. To get a better understanding of how food security or food insecurity is experienced by college students, a robust theoretical framework is needed to address this multifaceted social problem.

The integration of MSLC and systematic literature findings provide a comprehensive conceptual model to aid in understanding how a college student experiences food security or food insecurity. Each component used for this conceptual framework strengthens our approach to answering the overarching research question: What variables are associated with college student food security and college student food insecurity and what factors mediate and/or moderate these associations (see Figure 1).

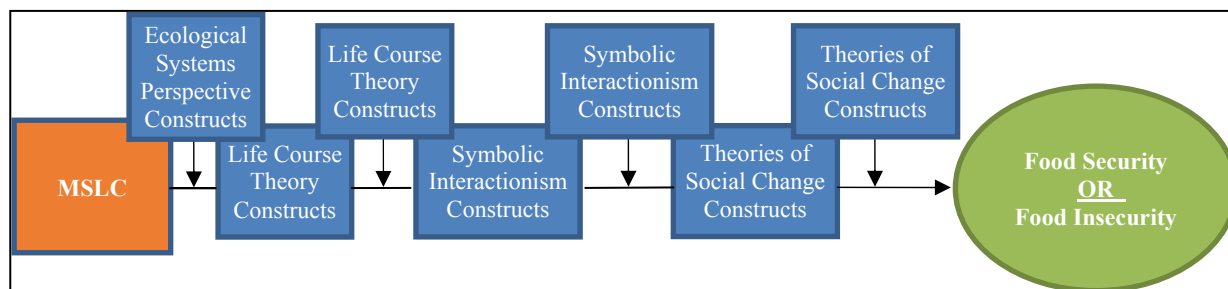


Figure 1. Theoretical model linking constructs from the Ecological Systems Perspective, Life Course Theory, Symbolic Interactionism, and theories of Social Change to further explore the association between college students who are food secure and those who are food insecure. ORANGE = independent variable; GREEN = dependent variables; BLUE = theoretical construct variables.

Summary of Theoretical Conceptual Model

A direct causal relationship is assumed between being a college student and constructs from the ecological systems perspective. A spurious relationship is when “two variables are related because they share a common cause, but not because either causes the other” (Jaccard & Jacoby, 2010, p. 143). We hypothesize that all theoretical constructs from MSLC are related because they all share the common cause of explaining food insecurity and food security among college students, but they do not cause each other.

We hypothesize that some or all theoretical constructs from the ecological systems perspective, life course theory, symbolic interactionism, and theories of social change could possibly moderate the association between being a college student who is food secure and a college student who is food insecure. There is also a possibility that some or all theoretical constructs from the ecological systems perspective, life course theory, symbolic interactionism, and theories of social change could possibly mediate the association between being a college student who is food secure and a college student who is food insecure.

Conclusions

Food insecurity among college students is a serious complex phenomenon. Previous research has examined food security primarily through a lens of nutritional intake and caloric deficit with little theoretical grounding. The use of theory to guide our understanding of the factors contributing to food insecurity among college students is critical to developing effective culturally responsive research and interventions that recognize and address the complexity of the issue. The MSLC perspective offers social work practitioners and researchers a comprehensive, intersectional, multicultural context for understanding food insecurity among college students. The MSLC perspective magnifies multisystemic, life course factors, including the sociocultural and historical practices that impact the lives of college students living with food insecurity and the meaning they make of their experiences. Furthermore, the use of the MSLC perspective positions social workers for addressing food accessibility and justice considerations relevant to the experiences of food insecure college students. These social change implications have the potential for shaping current public policy and health initiatives. Thus, the theoretical constructs of the MSLC perspective expand our current understanding of mediating and moderating variables associated with being a college student and food security or insecurity.

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