

# 2-Year Student Food Security Module: Cognitive Interviews

Mae Howell<sup>1,\*</sup>, Rita Fiagbor<sup>2</sup>, and Onikia Brown<sup>3</sup>

<sup>1</sup> Undergraduate Student, Department of Nutrition, Dietetics, and Hospitality Management, Auburn University

<sup>2</sup> Graduate Student, Department of Nutrition, Dietetics, and Hospitality Management, Auburn University

<sup>3</sup> Associate Professor, Department of Nutritional Sciences, Auburn University

Food insecurity is the state of being without reliable access to enough affordable and nutritious food to live a healthy and active life (USDA, 2019). The rate of college student food insecurity (<50%), is much higher than the rate of US household food insecurity (11%; GAO, 2018; Coleman-Jensen et al., 2019). Most recently, 35% of surveyed college students were classified as food insecure during the COVID-19 pandemic (Owens, et al. 2020). More research has been reported about college students experiencing food insecurity at 4-year institutions. Thus, the importance of determining and addressing food insecurity at 2-year institutions will add to the body of literature and impact health and societal outcomes.

The project objective is to determine changes that need to be made to the 10-item Food Security Survey Module (FSSM) to be more accurate to college students through cognitive interviews.

Participants were 18-24 years old, enrolled as students at a partnering Alabama Campus Coalition for Basic Needs Junior College/University, and spoke English. Participants completed a demographic survey in which they were to choose a pseudonym and complete the USDA 10-item FSSM module. Students were asked to supply an email address for communication with the student researcher. At the end of the survey, participants were redirected to a calendar system in which they can select a time for the virtual, semi-structured interview. Participants were able to choose their pseudonym to complete the poll. Based on responses from the 10-item FSSM, students will be placed into two categories: food secure and food insecure, before their interview. During the recorded semi-structured, virtual interview, participants were asked questions about the 10-item FSSM. The interviewer read each FSSM ques-

tionnaire item out loud and asked the participant to respond using think-aloud, comprehension, retrieval, confidence judgment, and response probes as outlined in Collins (2003). Additional questions were asked for more detailed responses, clarification, or ask what could be modified to capture their experience. Each participant was offered an e-gift card of \$25 at the end of their completed interview.

Cognitive interviews were coded via Atlas ti. Themes being coded for included definitions of terms such as “household”, “balanced diet”, and “hungry”. Themes were also coded for the difficulty of each question. The themes picked out through Atlas ti allow for identification of changes that need to be made to the Food Security Survey Module.

## Statement of Research Advisor

Mae’s research is focused on determining the appropriateness of food insecurity questions within 2-year college students. This work advances our knowledge of food insecurity in this population and her findings are preliminary to developing a more appropriate and accurate assessment tool. Mae has a sound understanding of community-based participatory research and she presented her research at the Student Research Symposium at Auburn University.

- Dr. Onikia Brown, Department of Nutritional Sciences, College of Human Sciences

## References

- [1] Collins D. (2003). Pretesting survey instruments: an overview of cognitive methods. *Qual Life Res*, 12, 229–38.
- [2] Food insecurity, better information could help el-

eligible college students access federal food assistance benefits. (2018). gao.gov. Government Accountability Office. <https://www.gao.gov/assets/700/696254.pdf>.

[3] Nikolaus, C.J., Ellison, B. & Nickols-Richardson, S.M. (2019a) College students' interpretations of food security questions: results from cognitive interviews. *BMC Public Health*, 19, 1282. <https://doi.org/10.1186/s12889-019-7629-9>

[4] Nikolaus CJ, Ellison B, Nickols-Richardson SM. (2019b). Are estimates of food insecurity among college students accurate? Comparison of assessment protocols. *PLoS One*, 14(4), e0215161.

[5] Richards, R., Brown, L. B., Williams, D. P., Eggett, D. L. (2017). Developing a questionnaire to evaluate college students' knowledge, attitude, behavior, self-efficacy, and environmental factors related to canned foods. *Journal of Nutrition Education and Behavior*, 49(2), 117-124.

[6] United States Department of Agriculture. (2012). U.S. adult food security survey module: Three-stage design, with screeners. Economic Research Service. <https://www.ers.usda.gov/media/8279/ad2012.pdf>.

## Authors Biography



Mae Howell is a junior-year pursuing a B.S. degree in nutrition-dietetics. She completed cognitive interviews and coded interviews.



Rita Fiagbor is a graduate student pursuing a Ph D. in nutrition. She helped with conducting interviews.



Dr. Onikia Brown is an associate professor in the Department of Nutritional Sciences. She served as a mentor and helped create the study design.