

A photograph of a Bowling Green State University campus during autumn. In the foreground, a large, semi-transparent white circle contains text. To the right, a large orange 3D 'BGSU' sign sits on a lawn. In the background, a multi-story brick building with arched windows is visible under a cloudy sky. A black lamppost with an orange banner that says 'BOWLING GREEN STATE UNIVERSITY BGSU' stands in the middle ground. The ground is covered with fallen yellow and orange leaves.

# Bowling Green State University

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About 20,000 students

# Emotional Eating & Food Insecurity among Community Dwelling Older Adults

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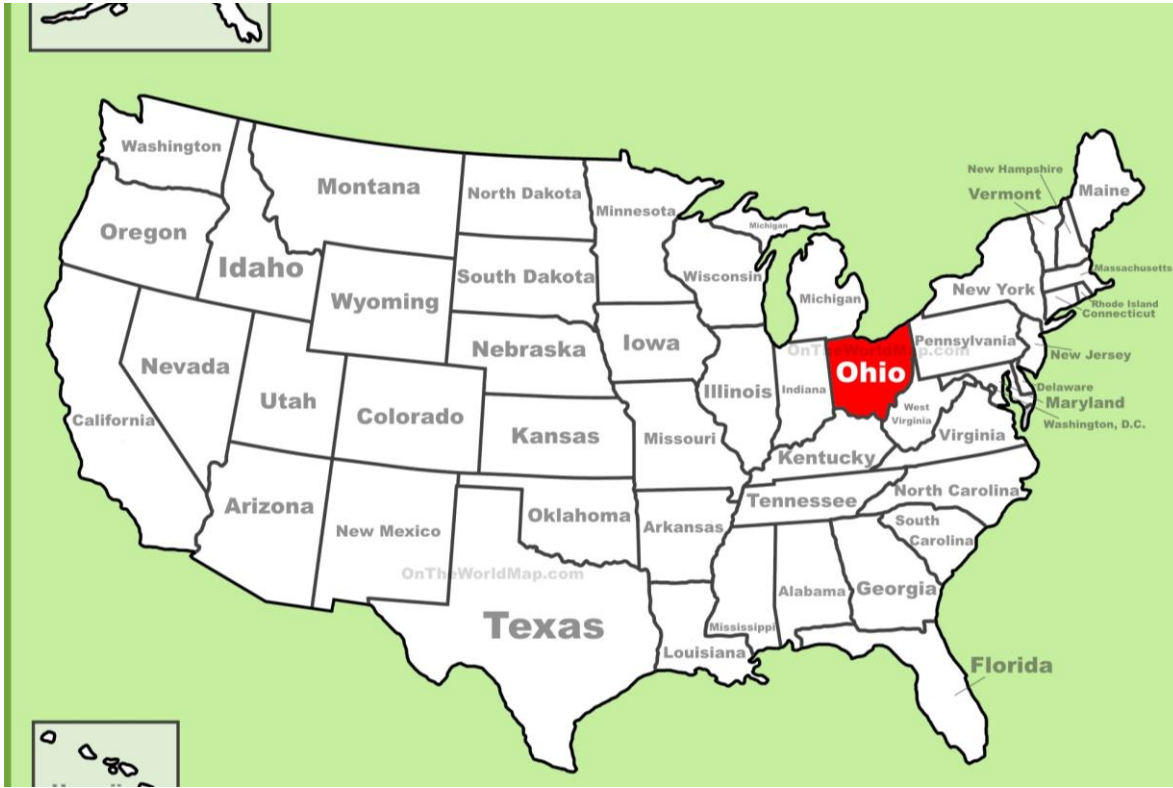
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# Agenda

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- “Bad Enough To Cook For Two, Worse For One” – Mixed Method Evaluation of Eating Behavior among Community Dwelling Older Adults
  - Interdisciplinary Study (Social Work, Public Health, Food & Nutrition)
  - Partnership with community agency (Wood County Senior Center)
- Home delivery meal during the COVID-19 pandemic in the U.S.A
- Eating behavior & food insecurity among Korean American older adults
- Takeaways from the lessons TODAY
- Q & A



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# Eating Behavior among Community Dwelling Older Adults



- A mixed method study, including a **survey and focus groups**.
- To gain an understanding of the factors which lead to emotional eating behavior and how food insecurity and life events may be protective or detrimental to eating behavior
- 7 sites of Senior Centers in Wood County
- Study participants (n = 55): community dwelling older adults (60 + years old) who participated in congregate meals.
- Approved by Institutional Review Board (IRB) at BGSU Office of Research Compliance
- This project was financially supported by the Optimal Aging Institute, Bowling Green State University.

Source: Knippen, K., Lee, H. S., Ford, T., & Welch, P. (April 2020). "Bad Enough To Cook For Two, Worse For One" – Mixed Method Evaluation of Eating Behavior among Community Dwelling Older Adults. *Journal of Nutrition in Gerontology and Geriatrics*, 1-22. <https://doi.org/10.1080/21551197.2020.1759478>

# Survey Questions

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- Demographic items
  - Age, gender identity, race/ethnicity, education, health insurance status, household size, # of congregate meals/week
- Overall health and diet
- Emotional eating: Three Factor Eating Questionnaire-Revised 18 (TFEQ-18)
  - “when I feel blue, I often overeat”
  - “when I feel anxious, I find myself eating”
  - “when I feel lonely, I try to comfort myself by eating”
  - “when I am happy, I often find food more pleasurable”
  - “sometimes when I start eating, I just can’t seem to stop”
  - “I go on eating binges, even though I am not hungry”
- Food Insecurity
  - preparing low-cost meals
  - comparing prices before buying
  - buying healthy food for family
  - could not afford to eat balance meals
  - ran out of food, ate less than the recommended levels due to lack of money
  - went hungry because of lack of money; skipped meals or cut the size of meals due to lack of money

# Focus Group Questions

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- Some people love to eat any time while others eat only when they feel hungry. What types of situations or events make you want to eat?
- Can you recall other emotions that you experienced while eating that have not been mentioned?
- What people influence or have influenced your eating behaviors? Think of people from your childhood, adulthood, or people who influence you now.
- What life events have you experienced that have changed your eating behaviors?
- Thinking back about these life events, have there ever been times in your life when food access was limited, if so, how might these events have shaped your eating behaviors?
- How have your eating behaviors changed as you've gotten older?
- Can you provide examples of occasions when you ate food because you were anxious, feeling blue, or feeling lonely?
- Can you provide examples of occasions when you ate food because you were excited or happy?

# Data Analysis

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- **Quantitative data analysis**

- IBM Statistical Package for the Social Sciences, Version 24.0 (SPSS Inc., Chicago, IL)
- Descriptive statistics (mean, standard deviation (SD), and frequency)
- Non-parametric statistics (The Kolmogorov–Smirnov test ( $p < 0.001$ )) were selected for the bivariate analyses: Spearman correlation ( $r_s$ ), Mann–Whitney U (U)
- Kruskal–Wallis (KW) test for categorical variables with three or more levels
- Stepwise linear regression to evaluate correlates of emotional eating behavior

- **Qualitative data analysis**

- Transcribed reports, the note-taker summaries, field notes
- The authors independently reviewed the final transcripts line by line for inductive - the categorization of subcategories.
- NVivo, a qualitative analysis software (QSR International Pty Ltd. Version 12, 2018) for thematic analysis

# Quantitative Findings

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- Mean age: **75 years old**; 61.8% Silent Generation, 38.2% Baby Boomers (born 1946–1964)
- White, non-Hispanic (96.4%), females (74.5%) with the majority having at least a high school educational level or some college (87%)
- 70.9%: at least one emotional eating behavior
  - when feeling happy (56.4%), followed by eating when anxious (40%), eating when feeling blue (38.2%), eating when feeling lonely (32.7%), and binging (27.3%)
- High food security (58.2%); **marginal food security** (16.4%); **low or very low food security** (25.4%)
- **Food insecurity** was higher among those with a **lower-level education**(KW=12.53, p=0.01)
- Baby boomers than the Silent Generation were more confident to prepare meals at a low cost (U=4.58, p=0.03).
- Individuals with some college were more confident to make a grocery list before going to the store compared to those with a lower-level education (U=2.89, p=0.04).

# Quantitative Findings (cont.)

- Food insecurity & a lower level of perceived health ( $r_s = 0.39$ ,  $p = 0.003$ ) and diet ( $r_s = 0.48$ ,  $p < 0.001$ ), and BMI ( $r_s = 0.27$ ,  $p = 0.04$ )
- A higher level of food insecurity & lower daily fruit intake ( $r_s = 0.30$ ,  $p = 0.02$ )
- A positive association between emotional eating & # of fast-food meals/snacks per week ( $r_s = 0.30$ ,  $p = 0.02$ ).
- Emotional eating & educational level ( $\beta = 0.45$ ,  $p < 0.001$ ), low or very low food insecurity ( $\beta = 0.36$ ,  $p = 0.002$ ), perceived rating of overall diet ( $\beta = -0.34$ ,  $p = 0.005$ ), and # of congregate meals per week ( $\beta = -0.28$ ,  $p = 0.015$ )
  - Accounting for almost half (44.4%) of the variance in emotional eating  $R^2 = 0.444$ .



# Qualitative Findings

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- **Four distinct themes**
  - (1) critical life events (28% coverage from the NVivo coding)
  - (2) emotional responses and personal relationships (25%)
  - (3) food insecurity over the lifespan and learning how to do more with less (24%)
  - (4) dietary resilience (23%)

# Four Themes & Sub-categories

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## Critical life events

- Death of a spouse/partner or loved one
- Marriage or divorce
- Medical conditions
- Retirement and financial changes

## Emotional responses and personal relationships

- Sadness, loneliness, or anger & over and undernutrition eating behavior
- Positive emotions & overeating behavior
- **Life event and emotional response & emotional eating (i.e., spousal loss)**

## Food insecurity over the lifespan and learning how to do more with less

- Childhood experiences and the collective good.
- Recent challenges and frustrations

## Dietary resilience

- Lifetime eating behavior
- Coping & gender differences (Males vs. Females)
- Generational differences in food choice and eating behavior (Silent G vs. Baby boomers)

# Study Limitations & Future Study

- Social desirability bias
- Lack of diversity
- The majority of participants resided in a rural area for most of their life
- Generalization issue
  - Not reflect all community dwelling older adults
- Selection bias
  - Participants are ambulatory, have access to transportation, and are more social than those who do not visit centers
- Future studies should evaluate the concerns among the **homebound population**.

# Implications & Conclusions

- **Food assistance programs** for Baby Boomers and the Silent Generation
  - Older adults experiencing life changing events should be informed of food assistance programs.
- **Intergenerational partnerships**
  - The Silent Generation educate others re: the life skills of canning, cooking, and gardening
  - Creating a framework, programming for communities to adapt
- **Interdisciplinary partnerships and referral approaches**
  - A primary care provider, social worker, gerontologist, a registered dietitian-nutritionist, nurse, case worker, care coordinator, and health educator
- **Additional referral sources and partnerships** with local recreation/exercise centers, older adult education programs
  - To reduce social isolation and remain connected to their communities
- **Congregate meals** (both food and social support)
  - Providing nutrient rich foods and addressing the unique needs of older adults

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# The Impact of COVID-19

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- Home delivery meal during the COVID-19 pandemic in the U.S.A
- Korean American older adults
  
- Takeaways from the lessons TODAY
- Q & A



Thank you!

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