

Embodied Insecurities: Socio-Economic Status, Eating Patterns, and Metabolic Health

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Introduction

In the second half of the 20th century an expansion of national market-based food production and distribution began to replace smaller, subsistence practices. Broad-scale commodification of food encouraged a work-to-eat model, as affording food became more of a struggle for the working class. Neoliberalism and the passage of the North American Free Trade Agreement (NAFTA) in the 1990s exacerbated the increase in cheap processed foods and low wage jobs. In the United States, this meant job losses and shifts to low paying service jobs as a greater amount of income was spent on basic foods.

The eastern Kentucky county where this research is grounded was a 20th century coal county. Since 1988, coal production dropped by 92% and with this drop came massive job losses. Currently, 31.6% of households in this county live below the federal poverty level, compared to 17.2% in Kentucky.

Disordered eating is defined as a range of behaviors including (but not limited to) preoccupation with food, loss of control around food, and periods of caloric restriction. The national context of cheap food policies along with on the ground conversations concerning food, income, and eating behaviors led to the development of three research questions.

Research Questions

1. How do food procurement strategies – including the use of various food assistance programs – differ by socio-economic status?
2. How prevalent are income-based disordered eating behaviors? How does gender and age impact the prevalence of income-based disordered eating behaviors?
3. How has the metabolic health of long-term participants of the Tanglewood to Table walking program changed over 3 years?

An additional question organically arose due to the spread of the Covid-19 virus in the early Spring and Summer of 2020:

4. How has Covid-19 impacted food procurement strategies and eating behaviors?

Methods

Due to Covid-19, all research activities were moved online, via RedCAP or Zoom. All recruitment was conducted online through advertisements (Image 1) and word of mouth.

Field work in the research county has been conducted since August 2016, through program management work with individuals and organizations across eastern Kentucky as well as field visits. The eventual inclusion of metabolic health data as part of this larger study will come from three years of the Tanglewood to Table walking program. Data will include A1c, cholesterol, and BMI.

After University of Kentucky's Institutional Review Board approval of the study protocol, a survey was distributed in July 2020. The survey consisted of demographics, the Eating Attitudes Test (EAT-26; a validated clinical screening tool comprised of 26 disordered eating behaviors), and questions about the use of food assistance programs, gardening, health, and food procurement. Participants (n=181) received their choice of either a \$15 Wal-Mart gift card or \$15 to the local farmer's market. Survey data was analyzed utilizing SPSS.

Beginning in September 2020, semi-structured, in-depth interviews were conducted (n=30). Interviews lasted, on average, from 75-90 minutes. Participants were thanked with a \$25 Amazon gift card. All interviews were conducted via Zoom and recorded. All participant names have been changed.

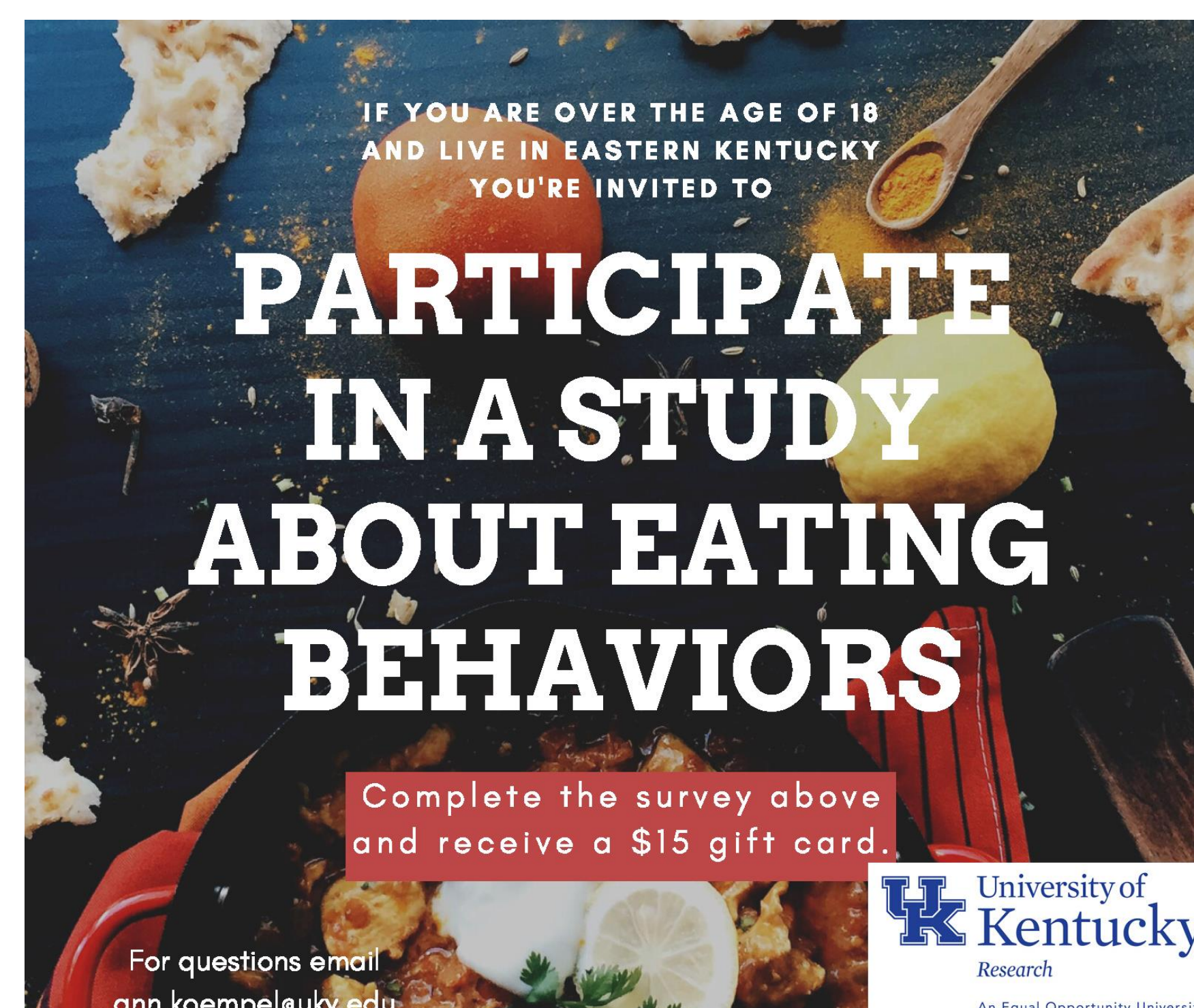


Image 1: Survey Advertisement



Image 2: Community meal and celebration, December 2019

Results

Food Procurement Practices

Eighty-five percent (85%) of survey respondents reported utilizing the grocery store to obtain the majority of their food. Food procurement practices are more complicated, however, as 36.1% reported gardening and 25% of respondents reported changing their food procurement practices seasonally to take advantage of gardening or fresh produce at the farmer's market. The average number of years spent gardening was 10, and 8 survey respondents indicated that 2020 was the first year they tried gardening. Interview data reflects a history and interest in gardening, across generations. For example, Hope (25 years old) stated that "[My family], we all planted a garden every year and we canned so much food."

	Interviewees (n=30)	Survey Participants (n=181)
Age	45.2	41.5
Gender (female)	69.8%	90%
Income		
<20,000	10.0%	9.3%
>60,000	46.6%	23.6%

Table 1: Frequencies of Key Demographics of Interviewees and All Participants



Image 3: Saturday at the Farmer's Market; 2020

Disordered Eating Behaviors

Twenty percent of survey respondents had a high overall score on the EAT-26, indicating high engagement in disordered eating behaviors. While there were no statistically significant differences in overall scores between higher income (household income greater than \$40,000/year) and lower income households, individuals from higher income households were significantly more likely to think about burning calories while exercising (p=0.005) and experience the impulse to purge after eating (p=0.006). Comparing by self-reported gender, men were significantly more likely to have high overall scores than women (p=0.003). Men were also significantly more likely to engage in twelve different specific disordered eating behaviors, such as avoiding eating when hungry, avoiding carbohydrates, and feeling that food controls their lives.

In interviews, disordered eating behaviors are more likely to be related to dieting behaviors than income or finances. For example, Larry, a 62-year old, stated "I honestly do think everybody has tried to go on all kinds of diets [for weight loss] and I mean I definitely have."

Covid-19

Due to Covid-19, there was an increase in food programs for children (under 18 years old), including a food box program funded by the USDA and distributed by the local community kitchen, a food box program from Baylor University, and additional SNAP benefits (~\$300/child). Interview participants found these programs necessary, even during non-pandemic times, but expressed concern over families without children and the older adult population. Interview participants also discussed ways they shared their extra food with those in need, even donating to food pantries they had once received food from.

Conclusion

Food procurement practices vary widely within this research county, from the grocery store to gardens to food assistance programs. While more analysis needs to be conducted on the EAT-26 data, preliminary results suggest that gender plays a greater factor in the experience of disordered eating behaviors than income. Covid-19, while causing food shortages in April/May of 2020, brought an increase in food assistance programs, particularly to families with children. These food assistance programs spread outside individual homes as families shared extra food with neighbors, friends, and food pantries.