Meal Preparation Constraints in Emerging Adults in College

Rachael Alpert

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Emerging adults in college are in a time of adjustment, and as a result of this, their diets can suffer. In previous studies, meal preparation has proven to result in a healthier and more nutritious diet. With the understanding that an increase in meal preparation leads to the improvement of diet and nutrition, my study looks at what factors constrain meal preparation in emerging adults. The constraints emerging adults have with meal preparation and maintaining a healthy diet can include the frequency of meal preparation, confidence in cooking, time constraints for meal preparation, financial worry for grocery shopping, and a good understanding of healthy foods. My classmates and I surveyed 157 college students between the ages of 18 and 29 on many aspects of their lives, including their perceived limitations in meal preparation. The results of my study demonstrated that a good understanding of healthy foods and confidence in the ability to cook a healthy and well-balanced meal was associated with an increase in meal preparation. These results of experience and knowledge help to form the foundation for successful meal preparation, and it can help cultivate healthier diets for emerging adults in the future.

Having a foundation of healthy food habits begins at home in the kitchen. Participating in cooking and meal preparation results in healthier eating behaviors. Project EAT conducted a study on the confidence in cooking and meal preparation in young adults to see if it would result in more nutritious eating later in life (Utter, Larson, Laska, Winkler, & Neumark-Sztainer, 2018). The preliminary questionnaire started in 1998 to 1999 and included students from 31 different Minneapolis public schools. They self-reported on their regular meal consumption and preparation. Questions included their family’s food habits and their frequency of food preparation involvement. The follow-up surveys were distributed through mail and email in 2003–2004 (ages 18 to 23) and again in 2015–2016 with age-related questions on eating behaviors and meal preparation. The final survey included 1,158 participants. It showed that those who...
scored themselves with high adequacy in cooking and meal preparation (25% of the participants) in the survey taken in 2003–2004 (ages 18 to 23) scored themselves higher in healthy eating in the final survey in 2015–2016 compared to those scoring themselves with lower adequacy. This study defined healthy eating as a diet higher in vegetables and lower in fast food. The results of this study show the importance of exposure to cooking from a young age. It is suggested that the decline of home cooking both in practice and as a taught skill has resulted in poorer nutrition. Home economic classes and family dinners are on the decline, while BMI rates and poor nutrition are increasing. Instilling the importance and practice of cooking and food preparation at home from a young age can help increase positive food behaviors later in life.

The limited availability to healthy foods because of financial instability, compounded with the lack of confidence in food preparation, results in difficulty for emerging adults in maintaining healthy food behaviors. Knol, Robb, McKinley, and Wood (2019) looked at the relationship between the financial accessibility to purchase healthy and nutritious food and students’ meal preparation habits and confidence in cooking. The participants used in this study were 19,965 undergraduate students aged 19 or older living off campus independently from their parents and attending the University of Alabama. This population of students is considered financially vulnerable and often have to balance both a school and work schedule. This online cross-sectional survey was conducted from February to April in 2016. The questions asked included perceived ability to cook meals, resources to fresh food, and food security. Food security is broken down into 4 categories (high, marginal, low, and very low), with low food security indicating negatively disrupted and reduced nutritional food consumption. The completion of the survey resulted in 38.3% of the students reporting their food security to be low or very low. These students did not have the finances to comfortably go grocery shopping. Participants in this category recorded their financial availability to healthy and nutritious food to be low, resulting in lower meal preparation and confidence in cooking. It was also reported that students who scored lower in financial ability to purchase groceries also had lower reports of health and grades. Thus, the barriers college students face in obtaining healthy food options can negatively affect their health and growth.

In addition to financial instability, there are other barriers that emerging adults face in maintaining a healthy diet. In the 2004 Fall semester, 408 college freshmen from a United States public college in an urban area participated in a food study. Yeh, Matsumori, Obenchain, Viladrich, Das, and Navder (2010) conducted a survey asking these students about their food choices, including their knowledge of the recommended fruit and vegetable consumption and daily vitamin use. The survey was taken by participants at the beginning of the semester and again at the end of the semester. Factors measured by the study included where the majority of their meals were consumed, the difficulties they faced eating healthy foods, and their demographics. The study measured several barriers to eating fruits and vegetables as well, including time constraints around preparation, the quality of the food, and competing foods. Participants reported that the greatest barrier for them was the time constraints around preparation, leading to the greatest reduction of fruit and vegetable consumption. The results of the study showed a decrease of healthy eating, including less fruits and vegetables and more fast-food consumption on the second round of surveying. The constraints around preparation time partly explained the increase of fast-food consumption over healthier options. Food knowledge and time constraints are the leading factors of emerging adults choosing unhealthy foods over healthier ones. Education on how to choose and prepare healthy food options would result in emerging adults building a more nutritious diet.

College students are often balancing busy schedules. Therefore, they may overlook the importance of
healthy eating. Pelletier and Laska (2012) looked at how the external factors of Midwestern college students’ lives affected their availability to prepare healthy and balanced meals. The factors of their lives included financial status, amount of time spent working and in class, where they lived, and if they were in a relationship. The student sample included 598 two-year community college students and 603 four-year public university students. The results of the survey showed the factors differed by gender. Those that scored highest in feeling they were unable to make time to prepare meals included women attending the public university, those with higher financial constraints, and those whose parents had lower educational backgrounds. Men reported more time spent at school and work being a main factor of their limited time spent on meal preparation, whereas women reported family and relationships as a higher factor in their inability to spend time on meal preparation. It was reported that more than 50% of the participants felt they didn’t have a healthy diet and 41.5% felt that their lack of a healthy diet was a direct result of their schedule. The students who have poor diets were also earning lower grades. The importance of a healthy diet is abundantly clear and should come as a priority regardless of a busy schedule.

The way emerging adults view food is important in understanding their food behaviors. Many studies look into a specific population of emerging adults based on their school status. In a study by Betts, Amos, Keim, Peters, and Stewart (1997), they investigated the way emerging adults with differing school statuses viewed food. Participants were reached through a mail-in survey in 10 different states throughout the United States. Those included in the study were 736 students enrolled in college, 237 individuals who graduated from college, and 328 individuals who graduated from high school and were not currently attending college, totaling 1475 participants. The survey measured the degree of influence certain factors had on their food choices, including financial, social, nutritional value, how gratifying the food is perceived to be, and convenience. The study found students valued the convenience of food over nutritional value. Those at a graduate level were more concerned about the nutritional value of the food than its cost. The nongraduates valued how gratifying the food was over its nutritional value. Emerging adults in this study reported the factors that influence them in their food choices change in relation to their academic placement. The results of this study show that school status is perhaps the most significant factor that dictates food choices. Identifying how different categories of emerging adults view food and the underlying factors of food choices will effectively help educate them on better nutrition.

These studies show that emerging adults in college have many constraints to meal preparation and healthy eating. A lack of confidence in cooking and financial worry for grocery shopping tends to decrease meal preparation (Knol, Robb, McKinley, & Wood, 2009). They demonstrated how busy schedules negativity affect the diets of emerging adults in college (Pelletier & Laska 2012; Utter, Larson, Laska, Winkler, & Neumark-Sztainer, 2018; Yeh, Matsumori, Obenchain, Viladrich, Das, & Navder, 2010). Additionally, the results show that more meal preparation is associated with a healthier diet (Betts, Amos, Keim, Peters, & Stewart, 1997). All of the aforementioned studies examine the specific conditions that helped form my study. With the understanding that higher meal preparation may lead to healthier eating, we must increase confidence in cooking and a good understanding of healthy foods. There needs to be more food literacy for emerging adults. In my study, I looked at the frequency of meal preparation in relation to other limitations emerging adults face with eating healthy. Time constraints and financial worry are a general concern for emerging adults, and my study looked at how they relate to meal preparation. The ability to have a healthy diet should not be negatively impacted by the
lack of confidence in meal preparation, time constraints, food knowledge, or financial restrictions. Having a good understanding of healthy food, confidence in cooking, and fostering an education and practice regarding meal preparation could positively impact future generations.

The emerging adult population is at risk of the negative effects of unhealthy eating. Finding the barriers that emerging adults are facing while navigating their food behaviors is important to help change the direction of unhealthy eating. Investigating this will help find ways to best support healthy food habits in emerging adults. This study is an attempt to investigate the ways to best support healthy food habits in emerging adults.

Method

Participants

A sample of 157 emerging adult college students were used for this study. They completed an online survey with 75 questions written by myself and my classmates. This study defines emerging adults as those ranging in age from 18 to 29. The median age was 20.70, with a standard deviation of 1.981. With regard to gender, 81.5% of the participants identified as female, 6.6% as male, 1.3% as neither, and .6% as both. For race and ethnicity, 89.8% of the participants identified as European American (White, Non-Hispanic), 7.0% as Hispanic, 1.9% as African American (Black), and 1.3% as Asian American. Of the participants’ college status, 13.5% were freshman, 20.6% were sophomores, 25.8% were juniors, 34.8% were seniors, and 5.2% were other. When asked about adulthood status, 33.8% said they felt they were an adult, 5.7% said they did not feel they were an adult, and 60.5% felt in some ways yes, in some ways no.

Procedure

The process used for collecting participants was contacting students virtually through email and social media posts. I acquired my participants’ names from the BSU mobile application that includes a class roster. In my BSU email I typed the name of my classmates in the recipient portion and suggested contacts filled in the rest of the email address. I was able to send one email to all participants at the same time with the “blind carbon copy” function hiding the email addresses of all other recipients, maintaining their privacy. In the email I sent to my classmates I introduced myself, informed them I am a BSU student majoring in Psychology and conducting research for my Research Methods class:

I’m a BSU senior studying Psychology. My Research Methods class is conducting research and I am inviting you to be a part of it. The research is a web-based survey assessing many different aspects of life as an emerging adult. Participants must be a current college student and be between the ages of 18 to 29. The survey only takes about 5-10 minutes of your time and by completing it you are helping me to complete an assignment in one of my classes. The survey is available here…

The link included a consent form before taking the survey, agreeing they are a willing participant in this study. The 75 questions included the five detailed below, as well as 70 additional questions that my classmates created, measuring many different aspects of life, including social media habits, academic experiences, and self-esteem. The end of the survey included a debriefing that informed participants that the information received from them will be kept confidential and used for this study alone.
Measure

Confidence in cooking. This variable measured the participant’s self-perceived confidence in cooking. The participant was asked to respond to the statement “I feel confident in cooking myself a healthy well-balanced meal.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes higher confidence in cooking and a lower score denotes lower confidence in cooking.

Financial stability for grocery shopping. This variable measured the participant’s financial stability for grocery shopping. The participant was asked to respond to the statement “I am able to go grocery shopping without financial worry.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes more financial stability when it comes to grocery shopping and a lower score denotes less financial stability in grocery shopping.

Time constraints on meal preparation. This variable measured the participant’s self-perceived time constraints on meal preparation. The participant was asked to respond to the statement “I don’t have enough time to prepare all my own meals.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes more of a time constraint in meal preparation and a lower score denotes less of a time constraint in meal preparation.

Frequency of meal preparation. This variable measured the participant’s frequency in meal preparation. The participant was asked to respond to the statement “I prepare all of my meals myself.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes a higher frequency of meal preparation and a lower score denotes they are not frequently preparing their own meals.

A good understanding of healthy foods. This variable measured the participant’s understanding of what foods are healthy. The participant was asked to respond to the statement “I have a good understanding of what foods are healthy to eat.” The response options were comprised of a five-point Likert scale, 1 signifying “Strongly Disagree” and 5 signifying “Strongly Agree.” A higher score denotes the participant has a good understanding of what foods are healthy to eat and a lower score denotes the participant does not have a good understanding of what foods are healthy to eat.

Results

The measures I used were to discover where patterns formed in the constraints of meal preparation. I was looking to find how the measures relate among one another and with the demographics of the participants. I found a significantly positive correlation between age and confidence in cooking ($r = .243, p = .003$), demonstrating that as the age of the participant increased, confidence in cooking also increased. There was a weak positive correlation between self-esteem and confidence in cooking ($r = .057, p = .478$), but this relationship was not significant. This demonstrates there is no relationship between self-esteem and the confidence participants have in cooking. There was a significantly positive correlation between confidence in cooking and financial stability for grocery shopping, ($r = .301, p < .001$), demonstrating that as the confidence participants felt in being able to prepare a healthy well-balanced meal increased, their financial stability for grocery shopping also increased. Those that
have more experience cooking are more confident in their ability to shop and cook for themselves.

There were also relationships between confidence in cooking, meal preparation, and a good understanding of healthy foods. There was a significantly positive correlation between confidence in cooking and frequency of meal preparation ($r = .385, p < .001$), demonstrating that as confidence in cooking increased, frequency of meal preparation also increased. There was also a significantly positive correlation between confidence in cooking and a good understanding of healthy foods, ($r = .249, p = .002$), demonstrating that as confidence in cooking increased, a good understanding of healthy foods also increased. In addition to these findings is the significantly positive correlation between frequency of meal preparation and a good understanding of healthy foods ($r = .222, p = .005$), demonstrating that as frequency of meal preparation increased, a good understanding of healthy foods also increased. There was a positive correlation between confidence in cooking and time constraints on meal preparation, ($r = .048, p = .554$), but this relationship was not significant. The results of these correlations can better help understand how to increase healthy eating for emerging adults by increasing the frequency of meal preparation and a better understanding of healthy foods.

The lived experience of emerging adults can be so different with age, gender, and race factoring in how they relate to the world. However, my variables showed little relationship to the demographics of the participants. Male participants scored higher on confidence in cooking ($M = 3.85, SD = 1.12$) than female participants ($M = 3.51, SD = 1.363$), but this difference was not significant, $t(152) = 1.186, p = .238$. The skewed ratio of male ($n = 26$) to female ($n = 128$) participants may have affected these results. The results of one way between groups ANOVAs revealed that there was no main effect of adulthood status on confidence in cooking, $F(2, 154) = 1.615, p = .202$, nor a main effect of race and ethnicity on frequency of meal preparation, $F(3, 153) = .989, p = .400$. There was also no main effect of year in college on frequency of meal preparation, $F(4, 149) = .859, p = .490$. However, there was a main effect of adulthood status on meal preparation, $F(2, 153) = 3.307, p = .039$. Post-hoc pairwise comparisons using Tukey’s HSD test revealed that none of the groups scored significantly different from one another and the comparisons were not significant. From these results, it shows the overall need for help in meal preparation in the emerging adult population are not specific to one demographic.

Time and finances are often a constraint for many things in life, including meal preparation. There was a significantly positive correlation between having financial stability for grocery shopping and time constraints on meal preparation, ($r = .266, p = .001$), demonstrating that as financial stability for grocery shopping increased, time constraints on meal preparation also increased. I also found a significantly positive correlation between time constraints on meal preparation and frequency of meal preparation ($r = .149, p = .001$), demonstrating that the more time constraints participants reported, the more they reported higher frequency of meal preparation. There was a positive correlation for financial stability for grocery shopping and a good understanding of healthy foods ($r = .103, p = .198$), but it was not significant. Other correlations that were negative were financial stability for grocery shopping and frequency of meal preparation ($r = -.018, p = .822$), and time constraints on meal preparation and good understanding of healthy foods ($r = -.098, p = .223$), but these were not significant. These results show how more time constraints are significantly associated with more financial stability and more meal preparation.
Discussion

Emerging adults in college have limitations on their ability to have healthy diets. I looked at what constraints are keeping emerging adults from healthy eating. I investigated this by surveying college students in their frequency, confidence, and time constraints in meal preparation, in addition to their understanding of healthy foods and financial worry for grocery shopping. The significant correlations between these variables highlights the importance of confidence in cooking and a good understanding of healthy foods in relation to the frequency of meal preparation. With the increase of confidence in cooking and a good understanding of healthy foods, there is an increase in the frequency of meal preparation. These are all linked together, as I had expected. With the understanding that higher meal preparation is associated with healthier eating, we must increase confidence in cooking and a good understanding of healthy foods. The non-significant results show the minute impact of demographics in this study, but further testing with more diverse samples could find something different.

The results for financial stability and time constraints could benefit from further questioning. There was a significantly positive correlation between financial stability for grocery shopping and time constraints on meal preparation. This demonstrated that as financial stability for grocery shopping increased, time constraints on meal preparation also increased. This was the opposite of what I expected. College students who work a full- or part-time job might have the means to afford groceries but are restricted in their time for meal preparation because of their employment. I would be interested to know about their employment and how this relates to time constraints and financial stability. My results can be interpreted many different ways, and more specific questioning would be needed to determine the reasoning.

Studies have investigated many of the limitations emerging adults have with healthy eating, including confidence in cooking. One study showed how meal preparation resulted in healthier eating behaviors over a long-term period (Utter, Larson, Laska, Winkler, & Neumark-Sztai, 2018). With the confidence built through the practice of cooking and meal preparation, children will continue this skill into emerging adulthood. My study found a direct link between the confidence one has with cooking a meal and the amount they participate in doing so. My results confirmed those of this pervious study; confidence increases meal preparation, which in turn increases healthy eating. It would be interesting to do a follow-up study investigating how the healthy consumption of foods is affected later on in life.

Another study conducted looked at how a lack of confidence in food preparation and financial instability results in difficulty for emerging adults in maintaining healthy food behaviors (Knol, Robb, McKinley, & Wood, 2019). This study reported that students who lacked the financial ability to go grocery shopping also had lower health and grades. The barriers college students face in being able to access healthy food options negatively affects their health and growth. I also found that as confidence in cooking increased, financial stability for grocery shopping also increased. I interpreted this to mean that those who are confident in cooking are also confident in their ability to grocery shop. Something that would need further investigation would be confidence in grocery shopping. It could also be speculated that those who have the financial ability to go grocery shopping without worry do so more often, increasing their time spent cooking, and resulting in their confidence. Future research could investigate these possible causal relationships.

I asked my participants if they felt they had a good understanding and ability to create a healthy meal.
for themselves; in further studies, I would be interested to see if those who felt they understood also felt they had a healthy diet. I did not ask about a current diet; those who are aware of eating an unhealthy diet may be more inclined to make a change. Pelletier and Laska (2012) looked at the external factors of college students’ lives influencing their availability to prepare healthy balanced meals. My study asked participants about time constraints in relation to meal preparation. Pelletier and Laska investigated what, based on gender, the typically reported constraints were for emerging adults. They also noted how poor nutrition negatively impacted students academically, explaining the importance of a healthy well-balanced diet in emerging adults.

I found a significantly positive correlation between age and confidence in cooking, but there was no main effect of year in college on frequency of meal preparation. Also, those who answered yes to feeling like an adult scored higher in meal preparation. Therefore, my study shows some differences in age and adulthood status, but not by grade. In Betts, Amos, Keim, Peters, and Stewart’s (1997) study, they investigated the way emerging adults with differing school statuses viewed food. My study found a greater difference in adulthood status than in grade level. I only looked at students who were at the undergraduate level, whereas Betts et al. showed how differently emerging adults viewed food according to their school status. This study suggested that as the participants education level increased so did their interest in choosing foods with higher nutritional value. I did not find grade level differences in my study. I did find an increase in meal preparation in age of students, that could be explained by experience.

My study shows that experience and knowledge form the foundations for successful meal preparation and is related to healthier diets for emerging adults. In my study, adulthood status changed how meal preparation was perceived, and it would better serve this population to encourage meal preparation in those who do not feel as those they are defined as an adult. Programs could target emerging adults that build their cooking and meal preparation skills.

I did not include the specifics of food types such as fruits and vegetable consumption, or unhealthy options like fast foods. A study by Yeh, Matsumori, Obenchain, Viladrich, Das, and Navder (2010) looked at the regularity of healthy eating, with an emphasis on fruits and vegetables in college freshmen. This study showed that freshmen reported less healthy eating, including fewer fruits and vegetables, when given the option of less healthy foods. I hypothesized there would be a difference in year in college on meal preparation, but the results showed no main effect of year in college on frequency of meal preparation. A question that could be added to this study to further research, in addition to a good understanding of healthy food, would be healthy eating in practice.

The study I conducted left many questions unanswered in this broad topic of problems with meal preparation in emerging adults. An issue I did not address was the ability to cook or prepare meals in their place of living. Many students could be living in dormitories without the ability to cook. This year, fewer students lived on campus, so how would the results of this study differ in comparison to years to come or years past with more students living in dormitories? I did not ask about eating out or fast food, which is something that in relation to meal preparation would be important to look into. I would like to look into seeing if people consume fast food because of time constraints, or their lack of confidence in cooking, or their lack of healthy food knowledge.

Research done previously, in addition with my recent study, shows with the understanding that higher meal preparation leads to healthier eating, we must increase
confidence in cooking and a good understanding of healthy foods. From the results of my research, meal preparation can be increased with experience and knowledge. Cooking should be made to be a part of life, including at school and at home. Education for a better understanding of healthy foods should be a larger part of an elementary education. The simple act of cooking with your children can increase their confidence in the kitchen and build better habits of cooking on their own.

References


About the Author

Rachael Alpert is a graduating senior majoring in Psychology and minoring in African American Studies. Her research project was completed in the winter of 2020 under the mentorship of Dr. Joseph Schwab (Psychology). She presented a visualized poster version of her study at the BSU Mid-Year Symposium. Rachael plans to pursue her master’s in Clinical Psychology.