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Title

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Journal

Berkeley Undergraduate Journal, 37(1)

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Publication Date

2023

DOI

10.5070/B337162077

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PARENT INFLUENCES ON THE DIETARY HABITS OF YOUNG ADULTS

By Liesl L. Bogaard

To better understand the processes through which eating habits during childhood are carried over into adulthood, I asked the question: under what circumstances and through which patterns do the feeding behaviors of parents become replicated and emerge as habitual in their children during young adulthood? I aim to investigate how parenting style and parent behaviors surrounding food and diet influence children's dietary habits in the long-term. Previous research indicates that income is a major factor determining parents' feeding behavior, so I set out to combine income level and parent feeding style in one study. I hypothesized that young adults who recalled their parents engaging in behaviors associated with the authoritative parenting style would be most likely to replicate those eating behaviors as habit from childhood into young adulthood. To better understand the process through which these variables ultimately cultivated the dietary behaviors of the young adults I interviewed, I selected three dietary habits—presence of breakfast, moderation of added sugar intake, sufficient vegetable consumption—that have been associated with positive health outcomes. I observed several distinct patterns: (i) young adults who continue to eat breakfast had previously experienced a high level of engagement from their parents surrounding the meal during childhood; (ii) young adults whose parents engaged with their children's added sugar intake were more likely to carry similar habits and attitudes related to sugar into young adulthood; (iii) many young adults experienced external factors which also initiated a significant transition towards healthier eating habits independent of their parents' influence.

Introduction

Food is ubiquitous. Humans cannot survive without it, and as a result, food is central to many sectors of human life and behavior. The study of human behaviors and food is centuries old, yet with each new exploration into the field, new questions and opportunities arise. I am particularly interested in exploring the relationship between the dietary habits initiated or enforced by parents and the persisting eating patterns of their children as they transition into independence. The question I address in this paper is: Under what circumstances and through which patterns do the feeding behaviors introduced by parents to their children become replicated and emerge as habitual in their children as they transition to young adulthood?

In other words, I set out to expand my understanding of the potential patterns and mechanisms through

which parents may or may not influence the dietary habits of their children, and whether outside factors, such as income, are likely to either prevail over or succumb to the effects of parent feeding behaviors. For the purposes of this paper, parent feeding behavior refers to the ways that parents choose to feed their children and introduce dietary habits into their children's lives.

Extensive research has shaped scholars' understanding of the intersections between parenting style, childhood health and development, and young adult dietary patterns. It is important to understand how these different factors may influence the diets of young adults—health behaviors developed during childhood and young adulthood have been considered predictors of long-term health. As children, individuals are exposed to an array of these factors. Prior research in these fields draws connections between the involvement and engagement of parents in their children's health behaviors and overall child health. Parenting styles have especially been linked to health outcomes of adolescents and young adults. For this reason, it is important to understand the potential relationships between health behaviors, diet, and parent-child experiences during youth. Due to the ubiquitous nature of eating and food in general, a multitude of factors influence the way that young adults eat, but for the purposes of this study, I am exploring which parent feeding behaviors significantly affect the dietary habits of their children in young adulthood. While research in the interdisciplinary field combining food and nutrition, family studies, and sociology is well-documented, I am pursuing answers to a question that uniquely combines these themes to better understand the complex relationship between parenting style, income, and child eating habits.

To address this research question, I conducted interviews with fifteen young adults living independently of their parents. Interviewees were asked questions related to several variables—particularly income and parent-introduced feeding behaviors, which, based on prior research, I found to be the most relevant to my question. Parent feeding style was assessed based on individual behaviors associated with one of three parenting styles that I encountered throughout the interviews: authoritative; authoritarian; and indulgent.

Out of the three health-related eating habits that I chose to focus on, breakfast and dessert/sugar intake were best transmitted into adulthood when parents actively engaged with the eating habits of their child and therefore tend to play a more active role in shaping dietary behaviors. In other words, the presence or absence of the behavior itself did not indicate transmission into adulthood so much as parent-child engagement surrounding the behavior. There seems to be a pattern in which parental engagement was related to certain eating habits, such as breakfast and added sugar intake, being more likely to be transmitted as a repeated behavior during young adulthood if parents made an active effort to ingrain them as habitual behaviors during childhood. I found that vegetable intake was less easily predicted; some young adults seemed to initiate vegetable-eating habits independent of behaviors introduced by their parents.

The young adults who presented the healthiest eating habits and behaviors could pinpoint a specific realization that motivated them to eat "healthier" and dedicate more effort to maintaining a healthy diet; they did not necessarily spend more energy on eating healthy, but they made an active mental effort to do so, naming strategies they use to eat foods they consider to be healthier. While certain behaviors seem to persist readily from childhood into young adulthood, the replication of other behaviors appeared unrelated to parenting style during transitions into independence. Some young adults could pinpoint a moment or event, independent of their parents' feeding habits, which significantly changed their relationship with diet and healthy eating habits. These participants provided me with a series of examples in which both income and parenting style were overwhelmed by some external factor.

Prior Research

Parenting Style and Health Behaviors During Young Adulthood

Previous research indicates that parenting style potentially plays a very influential role in the health outcomes and health behaviors of their children. Generally, parenting style is known to be measured on two scales: demandingness and responsiveness (Sartaj & Aslam 2010, 48). Demandingness indicates the extent to which parents enforce their own expectations through discipline, while responsiveness refers to the level encouragement of individuality and self-assertion from their children.

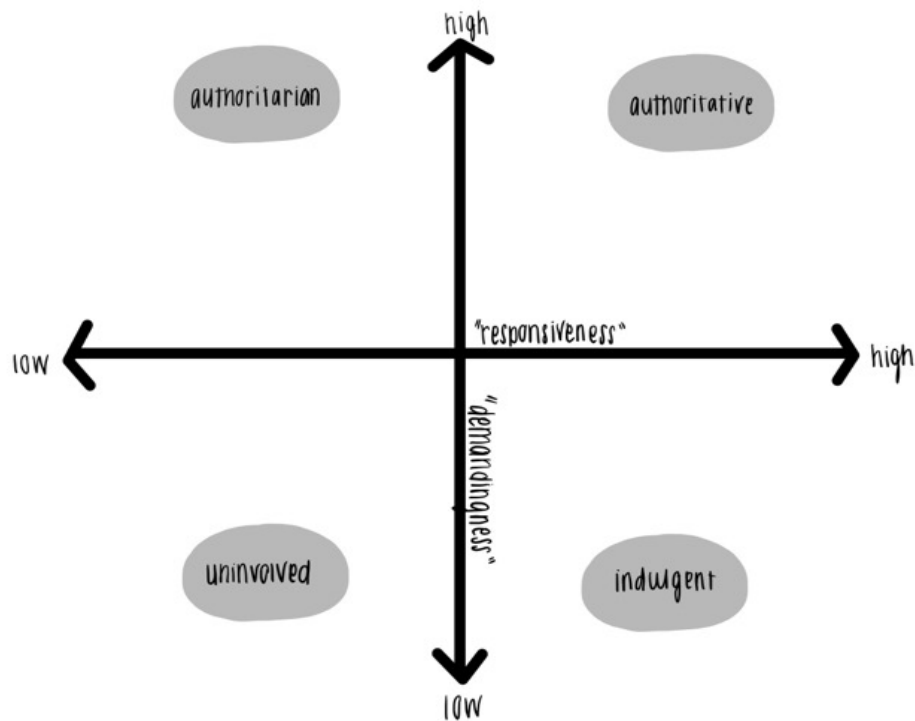


Figure 1 diagrams where each parenting style falls on the demandingness and responsiveness spectrums.

Adolescents raised by authoritative (high demandingness, high responsiveness) parents are associated with having better health adjustment than children raised by authoritarian (high demandingness, low responsiveness) parents (Sartaj & Aslam 2010, 47). The level of high expectation and individual agency involved in the authoritative parenting style is also associated with better psychological health, which is linked to higher overall health as well (Sartaj & Aslam 2010, 51-52).

The patterns linking parenting style to health is likely conveyed in dietary behaviors of children as well. Like authoritative, the uninvolved (low demandingness, low responsiveness) parenting style increased the odds of poor mental and physical health, while the authoritative parenting style has been associated with the healthiest behaviors (Zahra, Ford & Jodrell 2013, 486). A predictable difference in fruit intake can also be seen between authoritative and authoritarian parenting styles (Zahra, Ford & Jodrell 2013, 486). Despite some eating behaviors of children stemming largely from genetic components, parenting style has been shown to decrease natural food fussiness surrounding fruit consumption (Rodenburg et al. 2012, 7), indicating that parent feeding behaviors style likely play a role in shaping healthy eating habits in children even when genetics may interfere with taste preferences. In line with the other research, neglectful parenting increased unhealthy outcomes and higher weight in children who have a strong desire to eat (Rodenburg et al. 2012, 7). These findings suggest that parents are capable of influencing child eating behaviors through parenting style, and they do so either actively or passively via feeding behaviors and patterns.

Parent feeding style has been found to contribute the eating habits of children in other ways as well. Authoritative feeding style promotes a higher dietary quality, indicated by a particular study that observed feeding style throughout a dinner and compared the healthiness of the food served with the food consumed by children (Arlinghaus et al. 2018, 733). The authors found that the authoritative feeding style was the most effective and significantly different from the authoritarian feeding style. The proportion of healthy food consumed compared to the food served at dinner was higher for authoritative parenting. This demonstrates a more specific pattern of feeding behavior that impacts the eating choices of children, where the children of authoritative parents were more likely to choose healthier foods when presented with them.

Income Level and Cultural Factors that Shape Parent Feeding Behaviors of Children

Parent feeding behaviors have been linked to several factors adjacent to parenting style and dietary involvement. These factors have been known to play a role in the development of children's eating habits. One of the most significant of these factors is income level, influencing a variety of logistical, cultural, and symbolic influences on parent feeding behaviors. Because income has been associated with parent feeding behaviors, it is important to understand several ways in which this factor comes to fruition in a practical sense.

Exposure to healthy foods and parenting style may intersect with income. A major pathway through which income has been suspected to play a role—somewhat indirectly—in dietary behavior is through combatting neophobia in taste acquisition. Neophobia is thought to be a natural taste aversion to certain foods, particularly healthier foods, such as vegetables, that is largely protective against unknown and potentially dangerous foods that young children might encounter when they become mobile. Children seem to prefer sweet and salty tastes (often found in foods rich in lipids and carbohydrates) over the acquired tastes of a more diverse diet (Daniel 2015, 35). Due to several social and economic factors, neophobia has potential to limit the taste preferences of young children to few accepted foods, many of which are considered less healthy, therefore shaping their eating patterns. According to previous research, children can overcome neophobia. An effective solution to taste aversion because of neophobia is repeated exposure to novel healthy foods. Evidence indicates that children should try food 8-15 times before they begin to acquire a taste for the food (Daniel 2015, 35).

Further, some research suggests that the type of exposure also matters, which is where parenting style intersects. Wardle et al. found that repeated and gentle exposure increased liking for healthy foods more effectively than a reward-based exposure (2003, 346). This suggests that authoritative parenting would likely combat neophobia most successfully. However, low income or food insecure families are less likely to take the risks that are involved in food exposure for the purpose of taste acquisition, particularly the risk of food waste. Despite the encouraging results of repeated exposure to healthier foods, low income parents and/or families experiencing food insecurity struggle to financially support healthy dietary behaviors for their children because they are hesitant to throw away unwanted foods (Daniel 2015, 37-40). Risk of food waste and lack of gentle exposure to healthy foods are some of the proposed mechanisms through which income level may influence the feeding behaviors of parents to establish a more indulgent parent feeding style.

Another area of research indicates that cultural/symbolic factors are involved in the association between income level and dietary quality. Low-income parents are likely to use food, particularly unhealthy foods, as a buffer against other types of material deprivation, while wealthier parents may view and use food as an avenue of health (Fielding-Singh 2017, 424). Whereas high-socioeconomic status parents consistently enforce rules around food, low-socioeconomic status parents were more likely to say yes to food their children requested, even if it was not the cheapest or the healthiest option (Fielding-Singh 2017, 432). Income level has therefore been shown to play a role in parents' feeding styles, as Fielding-Singh's research indicates that low-income parents may lean towards the indulgent parenting style in terms of feeding their children.

Health Outcome Associations with Breakfast, Added Sugar Intake, and Vegetable Consumption

It is important to understand how these factors influence eating habits because many specific dietary behaviors have been linked to overall health outcomes. Because the behaviors that children develop in youth have the potential to become habit as they age, certain behaviors can be indicative of overall health.

Eating breakfast, for example, has been linked to lower body mass index (BMI), better overall diet quality, and decreased risks of chronic disease, such as diabetes (Mullan et al. 2012, 1638). Skipping breakfast has been found to be associated with less healthy dietary behaviors, even across countries and cultures (Pengpid & Peltzer 2020, 2889). It was found that skipping breakfast increased the likelihood of young adults encountering or participating in 11 out of 15 health risks behaviors, suggesting better cognitive function and healthier overall food choices during the day as mechanisms for lower health risk behaviors (Pengpid & Peltzer 2020, 2891). Other research has also associated breakfast consumption with improved cognitive function. Interestingly, it has been suggested that the conscious planning of eating breakfast may not be a necessity if it has already been established

as a habit (Mullan et al. 2012, 1650), meaning that those who eat breakfast as children may experience less obstacles to consuming breakfast during adulthood and are possibly more likely to do so.

Sugar intake and vegetable consumption are well-known indicators of health-related dietary behavior. Following the suggestions in the Dietary Guidelines for Americans (DGA) is believed to increase overall health and reduce the risk of chronic disease. The DGA recommends that individuals should aim to consume less than 10% of one's daily energy as added sugars (U.S. Department of Agriculture 2020). The DGA also suggests 2 ½ cups of vegetables every day for a typical 2,000 calories diet, but 90% of Americans do not satisfy this recommendation (U.S. Department of Agriculture 2020). Parents who are concerned with their children's health may try to reduce the proportion of sugar and increase the amount of vegetables served in their diets.

Research has indicated that positive parental involvement is likely influential in regulating sugar intake and increasing vegetable consumption. For example, framing motivation around decreasing consumption of sugar-sweetened beverages (SSBs) by describing outcomes in positive terms was more effective than framing outcomes in negative terms (Zahid & Reicks 2018, 6). Healthy eating guidance is also related to increased vegetable consumption (Melbye et al. 2021, 5715), suggesting that parenting style and guidance influences dietary habits of children. Neophobia plays a strong role in taste aversion to vegetables (Vereecken, Rovner & Maes 2010, 590). The simple act of parents eating more vegetables does not seem to offset natural neophobia significantly. Instead, a child-centered feeding style, such as saying something positive about the food a child is eating, is linked to higher vegetable intake (Vereecken, Rovner & Maes 2010, 594).

Overall, research seems to indicate that informed, gain-framed messaging in addition to gentle exposure to healthy foods—which are behaviors associated with authoritative parenting—are the most effective promotional tools to encourage a healthy diet in young children and adolescents. I aim to understand how these facets of diet, parenting style, parent-introduced feeding behaviors, and healthy eating patterns, intersect as children transition into adulthood and develop their own dietary habits.

Methods

The study conducted was a cross-sectional study. Because the purpose was to analyze the dietary habits of young adults and discern patterns of behavior replication from childhood, interviews were conducted with young adults, age 19-24 years. Participant interviews collected information on current and former eating habits. Fifteen young adults, who were born and raised in the United States were included in the study. Eight of the interviewees identified as biologically female, and seven of the interviewees identified as biologically male. Eight of the interviewees identified as white, one identified as black, one identified as Mexican, one identified as Indian, and the remaining participants identified as mixed race/ethnicity. While I did not incorporate race/ethnicity into this study as a variable, interview participants were recruited with racial/ethnic diversity under consideration to promote a diverse sample.

Participants were largely recruited from an intake survey, which asked baseline questions about variables and factors necessary for recruitment. Some of the questions, such as age and zip code of primary residence, confirmed that interviewees were eligible as participants in this study. Over half of the interviewees identified themselves as employed at least part-time; some of the employed participants were also students.

The rest of the intake survey gathered information pertaining to variables pertinent to the results of the study. Interview participants were primarily selected based on response to income and education level questions from the recruitment survey. Young adults who identified themselves across the socioeconomic spectrum, ranging from low-income to high-income were recruited to participate in the interviews.

Participants were also selected based on education level. While most were enrolled full-time in college or had a college degree, several participants completed some college before withdrawing and one opted against attending higher education. These participants were grouped in a separate demographic from those who were currently enrolled or graduated from a four-year institution. Of the variables examined in this study, income and education level were the only two variables included directly from the preliminary survey.

Interviewees were questioned on their food security status at the start of the interview. All but two interviewees answered that they have never experienced food insecurity in the last month. Therefore, the results

of this study are largely limited to young adults who are food secure. Participants were asked about their general relationship to food at their current age before discussing childhood eating habits. Participants were asked to describe a typical dinner meal and a typical morning (breakfast) meal as a young child. Three specific habits that I focused on throughout the interview were the presence or absence of breakfast, sugar intake, and vegetable consumption because they have been shown to be accurate indicators of a healthy diet. I focused on the patterns that emerged from childhood into young adulthood among these three habits to begin understanding the mechanisms through which they are continued—or not continued—as the participants aged. Interviewees were also questioned about parent behaviors related to parenting style, such as parental involvement and engagement level in the development of dietary habits during childhood.

Findings

I interviewed individuals whose parents presented primarily with authoritative and indulgent parenting styles. Compared with the authoritative style, which is often thought to encourage agency and health-promoting habits in children, the indulgent style is believed to produce less diet-conscious young adults. I examine the relationship between parenting styles and the dietary habits of young adults through three widely recognized health-oriented dietary practices: presence of breakfast; dessert and added sugar intake; and vegetable consumption. While these habits indicate a possible association between parent feeding styles and dietary behavior, some patterns and trends indicate that outside factors may be more significant in shaping the food choices of young adults.

Parent Feeding Style and Behaviors Exist Independently of Income Level

I interviewed a sample of young adults with a varied income scale during childhood, and I found that despite what prior research suggests, behaviors associated with the indulgent parenting style occurred across the income range. Young adults raised across a variety of household income levels recalled parent-introduced feeding habits that are associated with the authoritative and authoritarian parenting styles, each of which have been frequently associated with higher incomes levels.

Of the several young adults interviewed, despite being brought up in a range of socioeconomic backgrounds, some recalled specific behaviors from their parents that were associated with an indulgent style of parenting, which is sometimes associated with low-income households. These behaviors and patterns often provided significant leeway to children regarding food consumption without setting expectations for diet in return. An interviewee who was brought up by both of her parents in a middle-income household remembered that if her parents ever made something that she didn't like, they would prepare a separate meal for her to eat instead. A high-income interviewee also explained that her mom rarely ever ate the same food as her; instead, her mother prepared a child-friendly "orange meal" for her daughter separate from her own meals. Kelsey, a 22-year-old university student, who was raised in a middle-low-income household, also explains how her parents were very relaxed when it came to food:

They [my cousins] were raised speaking Vietnamese and the culture is just super different. Whereas, my dad doesn't speak it, so my mom speaks English a lot with me, and she also learned to make more Americanized food, and she kinda was a more chill parent? She wasn't super hard-o Asian tiger mom. She had her moments but most of the time it was her kinda going with it, and taking after my dad a little bit, and seeing how he parented us. I think that's the biggest difference.

Kelsey's parents were indulgent with her eating habits. They never asked her to eat vegetables; instead, she "made" her mother remove the veggies from dishes before eating them. For the most part, I found that parenting style and feeding behaviors associated with certain parenting styles existed across the income spectrum. This finding contradicts prior research that suggests a lower income is associated with indulgent feeding habits, and higher income parents are more likely to practice authoritative and authoritarian child-feeding behaviors.

Also, across income levels, I found that parents' indulgent feeding patterns existed more on a spectrum,

setting up expectations for eating without implementing them. A low-income participant, who now lives and works in San Francisco, said his parents would encourage him to eat certain foods, but they never enforced a rule about eating. Even in an argument, he recalls, his mother never truly made him eat foods if he did not want to try them. An interviewee who was raised in a high-income household, also experienced indulgent parenting on a spectrum. His parents made a rule that no matter what, “You gotta try it”, but if he did not like something, his mother would prepare something separate or find something for him to eat so he would not have to eat food he did not like. In these interviews, I encountered a range of income levels associated with the indulgent parenting style. Although lower-income parents are thought to demonstrate more indulgent feeding behaviors compared to higher-income households, this was not always evident from the participants in this study. In some families, including those of Bradley, Sammy, and Allison, indulgent parenting was present in middle- and high-income households.

While authoritative parenting style is typically associated with higher income levels, I encountered low-income interview respondents whose parents were highly engaged in their eating habits. Roxy, who was raised in two low-income households, remembers her dad:

Would make pasta a lot when I was younger, I remember he would make a lot of other dishes as I got older. And that was something that we would kind of be in the kitchen to do together. And we'd usually sit down and chat before I went and did like schoolwork and stuff. So that was a lot more like have a formal like sit down like chat about our days. And like that was pretty consistent every time we were together.

During mealtimes, Roxy's dad was very active and engaged in the process of eating. When she decided to follow a vegetarian dietary pattern, he adjusted his own behaviors to accommodate, cooking food with her and involving her in his process. To this day, Roxy still communicates with her dad about cooking and food. Whenever she cooks something new, she sends a picture to her dad, and they share cooking tips and healthy eating advice. In Roxy's case, her father's authoritative parenting behaviors, such as becoming involved in her mealtimes, has clearly persisted into adulthood.

Authoritative parenting styles that set high expectations and a more rigid relationship with food also appeared to exist across an income spectrum. Cassidy, a middle-income college student, whose parents upheld stricter rules around eating, remembers that her parents engaged her often in cooking and mealtimes during childhood. They were involved but firm. Regarding vegetable intake, she says:

I think my parents were very on top of me for that. Like it was definitely not the type of upbringing that I'm allowed to be a picky eater. So, vegetables are the priority in your diet. I guess they raised me to not really have the choice to dislike them.

As a child, without the option to avoid vegetables, Cassidy explains that she has always liked vegetables, and she now eats several servings per day. Her parents practiced a firm feeding style, which appears to have impacted her dietary habits even now as a young adult. She makes an active effort to eat vegetables and practice healthy eating every day. In the cases of both Roxy and Cassidy, income does not appear to impact young adult eating habits via parenting style because feeding style appears to exist independent of income status.

I also observed a differentiation between overall parenting style and specific parent feeding behaviors. For example, when asked about if her parents were strict, a middle-low-income interviewee recalls, “No! To their face, I would always listen to them. I never let them think I was disobeying them.” Here, she describes a behavioral pattern of authoritarian parents. Unexpectedly, despite their excessive rigidity as parents, she describes parent-introduced feeding behaviors that were very involved. Aligned with the results of other interviews, her young adult eating habits may be associated with her parents' behavior specific to engaging her in the eating process. She says, “I would say [I was] relatively involved. I was always in the kitchen with my mother.” Her mother actively engaged her in cooking and mealtimes as a child, indicating a possible pattern: involvement and engagement may be a significant factor in developing eating habits, regardless of income and potentially even

overall parenting style.

Examination of Three Specific Dietary Behaviors

I examined three specific dietary behaviors with more scrutiny—habitual breakfast eating; added sugar intake; and vegetable consumption—to understand how parenting styles may influence the way that eating habits carry over from childhood into young adulthood. Both the presence of breakfast and amount of added sugar intake (i.e., desserts and sweet treats) as a habit during young adulthood appeared to be associated with a high level of parental engagement in childhood eating habits. When parents engage with their children throughout the process of eating breakfast or dessert, their children appear more likely to replicate those habits when eating independently as an adult. On the other hand, no visible pattern could be observed regarding vegetable consumption. Most children whose parents engaged with them regarding a habit of vegetable intake during childhood continued to eat vegetables during young adulthood. However, some began eating vegetables independently of their parents' influence, suggesting that this particular habit is not necessarily related to parenting style.

Of the interviewee sample, individuals whose parents were less involved in the process of eating breakfast presented as less likely to continue eating breakfast as a young adult. Parenting behaviors which encouraged breakfast habits on an active level seem to be significantly more effective at encouraging habitual breakfast patterns. For example, Bradley remembers that his parents were not very invested in whether he ate breakfast or not. If his mom made it, he would eat it, but she would not care if he decided not to eat breakfast one morning. Now, Bradley explains that he's not a huge breakfast person; if he has enough time, he might eat a banana or an English muffin, but he does not put forth an active effort to eat breakfast each morning. Other interviewees whose parents engaged minimally in breakfast behaviors also reported an absence of habitual breakfast consumption. Kelsey describes her dad as someone who, "didn't really care too much," about breakfast because he did not eat it himself. Every morning, he prepared a glass of chocolate milk for her to drink before school. Today, she explains that she still prefers not to eat breakfast because she's "just not used to it." Based on these responses from interviewees, it is possible there is an association between parental involvement breakfast as a habit during childhood and a replication of the pattern into young adulthood.

Beyond the habit of simply eating breakfast itself, I observed a negative relationship between parents' level of engagement with breakfast and the presence of breakfast as a habit in young adulthood. For example, one interviewee, who grew up in a low-income family, had access to school meals, where she remembers eating breakfast most days. Today, however, she explains that she hardly ever eats breakfast. Her parents hardly ever engaged her in the process of breakfast. She describes her mom as generally uninvolved from a large proportion of meals, and her breakfast at her dad's house was casual—on the days he made breakfast, he rarely ate it with her. Overall, her parents were largely removed from her breakfast behaviors. Even though she habitually consumed breakfast at school, she was never actively engaged with the process itself. She never developed a sense of importance surrounding breakfast patterns. Here, I posit that even more important than the presence of eating breakfast during childhood is active and intentional engagement by parents with their children's breakfast habits.

For example, Cassidy remembers that she always ate breakfast when she was a child; she says, "it just always came as a tradition." She described that even as a young child, the habit of eating breakfast was always "inherent," and her parents would tell her it was the most important meal of the day. She remembers that even though breakfast patterns varied based on the day, she would usually sit down and eat it with either of her parents. In line with other feeding practices in Cassidy's childhood household, her parents actively engaged her in the process of eating breakfast, taking valuable time out of each day to emphasize the importance of eating a meal in the morning. Today, Cassidy explains that she tries to eat breakfast every day. She still feels that it is an important meal and believes that she should be eating breakfast to provide herself with energy to start off the day.

Another interviewee also felt that his day had not begun if he had not eaten breakfast. He explained that as an athlete, he often has early morning practice. On those days, he is sure to wake up extra early to eat his breakfast. He remembers always loving breakfast, and he never wanted to skip it as a child. His family ate breakfast every single morning, with consistent routines in place, such as oatmeal every Thursday and pancakes on Sunday. He recalls that he and his sister would ask for their pancakes to be chocolate chip, but each time, his mom would

“push back” and they would have “blueberry and banana pancakes the other half [of the time] which are still very good.” His family, particularly his mom, who was the primary point of contact for food during childhood, emphasized the importance of a healthy breakfast. He explains that she was health-conscious, encouraging fruits and berries over sugar during breakfast. This approach to breakfast, which actively engages children in healthy eating habits and communicates with a child why their parent makes certain choices, appears to present a pattern of transmitting healthy breakfast habits into young adulthood.

The patterns for the persistence of habits from childhood into young adulthood that are associated with dessert intake and added sugar consumption may present similar patterns. Parents who are more indulgent with their children’s sugar consumption habits appear more likely to produce young adults who are also indulgent with their own sugar intake because they lacked engagement regarding sugar consumption during childhood. One interviewee’s family had dessert almost every night, and while he does not recall overindulging in dessert portions, there were no rules surrounding dessert consumption or serving sizes during his childhood. He explains that he has eaten dessert for as long as he remembers, and now, he says, “If I have something to eat for dinner, I’ll usually eat it.” Another interviewee, whose parents, for the most part, kept her relatively uninvolved with meals and food, recalls a similar experience. Her mother would allow her to eat whichever sugary foods she wanted, if she bought them with her own money. Starting from a young age, she and her friends would stop by a gas station near school to buy candy and soda. Today, she admits that sometimes she struggles to regulate her own candy consumption:

Like, candy for example, also sounds so good and I’m really craving it, but then I eat an entire box and I’m [then] a little sick to my stomach.

As a young adult, her relationship with candy and sugar seems to reflect her relationship with added sugar intake throughout her childhood as well. Her parents regarded added sugar with a relatively indulgent attitude, which seems to have carried over into a regular habit as a young adult.

Some parents were slightly more relaxed about their children’s added sugar intake, but they also explained that treats were acceptable to eat in moderation. Cassidy remembers that desserts in her household were incorporated into their diets. However, her parents were somewhat strict; they didn’t want her sugar consumption to become too regular, and they were vocal with negative connotations surrounding treats. She explains that today, she does not try to limit her own intake on sugar, but she does believe in moderation. Despite her parents presenting a more permissive attitude towards sugar intake, allowing it in a similar manner as that of the two above interviewees’ parents, Cassidy’s parents discussed their concerns with sugar intake and overindulgence. Her situation supports the idea that parents who engage with their kids and actively discuss eating behaviors may produce children with a healthier relationship with dietary patterns of added sugar consumption in young adulthood.

Roxy, who experienced a very different philosophy of dessert during childhood, also demonstrates how active engagement with children’s eating habits may result in healthier habits as a young adult. She does not eat very much sugar because she does not like the taste.

But I would say that my preference for sweet stuff was always more catered towards like fruits and that was probably just because, I don’t know, maybe it was because those first two years of life my mom would only give me fruits and vegetables.

She feels as though this is why she never truly had a craving for sugar or sweet treats, and her mother always scared her away from added sugars. Roxy remembers that her mom often engaged her with added sugar intake by discussing the health dangers of eating too much. Another interviewee explains that as a kid, his mom allowed only home-baked desserts, and explained that they would not buy store-bought desserts with added sugars. Like Roxy, he claims that he almost never eats added sugars, but this is easy to do because he never really acquired a taste for it.

One interviewee’s mother also placed “a decent amount of limitations on sugar”, but he remembers that a lot of the food in their pantry wasn’t as low-sugar as it could have been: “The thing is though, is that a lot of

the things that we did have in our pantry that we thought was healthy, you know, like peanut butter bars and you know juices and stuff. Those did have a lot of sugar in them.” Even though his family may have consumed more sugar than recommended, they communicated with him about added sugar intake related to health concerns. These parents, despite their different approaches to parenting style, actively engaged with the idea of added sugar consumption, encouraging moderation and limitation to varying degrees. These participants also consume added sugar to somewhat different extents, but each practices moderation and makes an active effort to maintain their healthy habits from childhood, supporting the idea that actively engaged feeding behaviors encourages healthy dietary patterns during young adulthood.

In several cases, this trend of active parent engagement with eating habits transmitting healthy habits from childhood into young adulthood holds true for vegetable consumption. Some interviewees, including those with less healthy dietary habits, attribute their vegetable intake to their parents. Cassidy remembers eating vegetables very frequently as a child. She started eating them from a young age and claims they have been an integral part of her diet for as long as she can remember. Her parents were insistent on eating vegetables during childhood and in young adulthood, Cassidy has maintained this habit. Another interviewee also, despite her parents usually indulgent feeding style, feels that they “did a good job of exposing [her] to fruits and vegetables.” Many of the strategies that her parents used to encourage her to eat vegetables, such as making a smorgasbord, are behaviors that she still practices at 22 years old. She explains that learning how to eat raw vegetables from a very young age makes it a lot easier to incorporate vegetables into her diet now.

In other interviews, however, I encountered several young adults who felt as though they had to “teach” themselves to eat vegetables after reaching young adulthood. One, for example, grew up in a household with indulgent parents—they were not concerned with the quality of household meals, and he remembers very little discussion encouraging healthy eating or consequences for unhealthy eating. Kelsey also rarely ate vegetables as a young child. She was deeply hesitant to try them from a young age, and her parents never enforced any rules requiring her to even try them. Both the interviewees recall very explicitly that they had to teach themselves how to eat vegetables and incorporate them into dietary habits. One explains that he started out cooking his vegetables in excessive amounts of butter to acquire a taste for them, and he gradually decreased the amount of butter he was using until he acquired a taste for raw vegetables, which he now claims to love. Kelsey also remembers working from a heavily dressed salad to a much healthier one after acquiring a taste for vegetables. She still does not quite understand why her parents did not expose her to vegetables sooner:

I know, and I kind of had resentment towards my parents about it, because I was like, I wish they had made me eat these foods. I kind of gave them a whole bunch of other problems, like I was a really bad toddler, and child, or I had a lot of tantrums and stuff, so I feel like they were already done with that, and they didn't really want to try it, or I don't know, but yeah, I kind of had resentment to them about that because how else was I supposed to learn to eat vegetables as a 7 year old? No 7- or 8-year-old wants to eat a vegetable.

Based on Kelsey's sentiments and prior research, it appears that parents play some role in developing their children's taste preferences. However, both of these participants, along with several other interviewees whose parents did not expose them to vegetables from an early age, experienced a turning point outside of their parents' influence. In several cases, healthy eating habits appeared to be mobilized by factors other than parent engagement and involvement.

Turning Points and Periods of Increased Independence

I also observed several outside factors that seemed to overwhelm the influences and lasting effects of parent feeding styles and behaviors. The three motivators external to parenting style that I encountered throughout the interview process were social pressures, health outcomes, and eating disorder recovery. In this case, although the young adults who experienced them discussed the ways that parent-introduced feeding behaviors influenced their current dietary habits, they also recalled specific experiences that significantly transformed their dietary

patterns. This transition often appeared to occur independently of the behaviors adopted during childhood.

One apparent and possible driver of an intentional transition into healthier eating habits appears to incorporate social interactions and pressures. In Kelsey's case, she explains that her friends "would make fun of [her], and it was a joke, saying, 'Oh, Kelsey eats like a baby, she eats meat and cheese and bread.'" Kelsey was motivated by embarrassment, and she began eating vegetables and until she eventually incorporated them fully into her diet. Allison, whose parents also did not enforce vegetable consumption during her childhood, experienced a similar transition. She explains:

Um, honestly, I felt like I was a child. I was like, you know, I should probably start eating better. Actual food. I was like, I should probably learn how to do something, and so it was a lot, eventually, my Instagram feed or my TikTok would be people cooking, and I would learn from them, and I'd be like, 'Oh I'm gonna try that.'

She encountered outside pressures from social media and by observing the world around her. While Allison's parents never encouraged her to eat "adult foods", she experienced a turning point independent of their influence in response to a social environment.

Another distinct motivator behind pivotal transitions in eating behavior that I observed during the interviews was a desire for maintained or improved health outcomes. In fact, some of the interviewees described experiencing a dietary turning point through a health scare or close encounter with illness. One interviewee names several experiences and stories he has encountered over that past several years which encouraged him to pursue a healthier lifestyle, but one that seemed to really impact his habits was his cousin's cancer diagnosis:

There's even a point where I didn't eat as much meat because for example, my cousin got colon cancer and he his doctor said you got to stop eating red meat. So, I kind of cut down on the red meat a little bit. I went vegan for a bit. I've heard from a lot of health professionals that eating vegan foods from time to time can be good for your health.

He explains that he makes an active effort to modify his diet based on health outcomes and goals, even preferring to surround himself with people who make similar healthy choices as himself. A different interviewee experienced a similar medical realization, although his own health was directly impacted. He explains that he was stressed out, unhappy, generally worn out, and beginning to gain weight. At the doctor's office, he was warned this his blood pressure was abnormally high for his age and gradually made a transition to an overall healthier lifestyle, including an active effort to work out and eat the foods necessary to support a healthier lifestyle. In both situations, the parents of these participants, while certainly influential in other ways, do not seem to be the primary reason for a sudden transition to a healthier lifestyle and higher quality dietary habits.

Throughout the interviews, I also encountered several young adults who had recovered from an eating disorder. These individuals noted their recovery as a major turning point in their relationship to food and dietary habits. One participant, for example, remembers when he realized that his eating disorder was becoming problematic: "I was just caring too much, and I would get anxious about what I was eating, and caloric intake, and I just realized I can't care, and I'll come back to that in a month. And then we'll see where we are." Independent of his parents, and based on his own research interests, he explains that when he reached a pivotal moment in his eating habits, he replaced his disordered eating with a more intuitive approach to diet.

Cassidy and another interviewee underwent similar transitions in dietary habits. They each reflect on the times in which they practiced extreme restriction, barely eating enough to sustain themselves throughout the day. The interviewee recalls, "In high school, I fully stopped being so anorexic, because I passed out in my room for a couple hours, I didn't even know I passed out, I just fell to the ground, and then I woke up in shock, like, what the f*** just happened? And then I was like, OK, I probably have to change." She realized that the way she was living was dangerous, and it was a bad example for her little sister. Cassidy also pushed the limits of safety before entering recovery. However, all three of the interviewees who recognize and acknowledge their struggle with an eating disorder have since reclaimed a very healthy relationship with food. Cassidy and the other interviewees

all practice dietary habits on the healthier end of the spectrum, based on the three dietary behaviors I analyzed, particularly compared with the overall interviewee sample population.

Conclusion

It is known that many factors influence the eating habits of young people. I encountered several of these factors in my interview process, including external social pressures, health constraints, and experiences with eating disorders. However, given that I focused specifically on understanding the relationship between parenting style and young adult eating habits, I found that the one of the most influential behaviors parents exhibit when shaping their children's eating habits is active engagement with the eating process. Simply performing a behavior, such as eating breakfast, for example, does not have the same long-term impact as parents who explained to their children why eating breakfast was important for their health, brain, etc. This engagement with healthy eating habits surrounding breakfast consumption and added sugar intake was a strong predictor of persistence of whether that habit carried over from childhood into independence. While habits related to breakfast and added sugar intake aligned with my hypothesis, I found vegetable consumption was less easily predicted. This may be due to the well-known association between vegetable consumption and improved health, so when young adults decide to eat healthier, they initially set goals to eat more vegetables, or because some interviewees were specifically informed by doctors or peers that they needed to increase their vegetable intake to be healthier.

There were certainly constraints present in my research. Due to time constraints associated with this research, the sample size of fifteen young adults is small. Also due to sample size, despite my efforts to create diversity among the interview participants, the sample of young adults I collected is likely not representative of the entire young adult population in the United States. Further, because this particular study focused largely on parent-introduced feeding behaviors and young adult dietary habits, the results may overlook potentially significant external factors which heavily influence young adult eating habits. However, the patterns that emerged related to parental engagement with their children's eating may be of importance. Parents are often curious how they can most effectively influence their children's healthy dietary behaviors so that healthy habits are maintained long-term. This research indicates that parent-introduced feeding behaviors may be consequential, and I would be interested to further pursue the mechanisms through which parenting style during childhood influences young adult's eating habits.

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