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Assessing the Relationship Between Parenting Styles and Dietary Behaviors Among
Young Adults

By

Breanna M. Tofteland

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Science
In
Community Health

Minnesota State University, Mankato

Mankato, Minnesota

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Young Adults
Breanna Tofteland

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student's committee.

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Abstract

Assessing the Relationship Between Parenting Styles and Dietary Behaviors Among Young Adults

By Breanna M. Tofteland

Master of Science in Community Health

Minnesota State University, Mankato, 2018

Food continues to be the focus of lifelong dietary and social habits. Past studies have shown the importance of creating healthy habits in childhood to increase the probability of healthy dietary behaviors as adults. A concern nationwide is that unhealthy dietary habits formed as a child translates to habits practiced as an adult, resulting in obesity (CDC, 2016).

Past studies have shown that parenting styles are one of the contributing factors that influence how young adults view and interact with food. Branen & Fletcher's study concluded that there are significant correlations between habits formed in childhood that are still happening in adulthood (Branen & Fletcher, 1999). Authoritative parenting has been proven to be the most healthful form of parenting for both the child in the present and in the future. Permissive/neglectful or authoritarian parenting styles have been known as the two extremes that result in unhealthy dietary behaviors for both the child in the present and in the future (Mgbemere and Telles, 2013). This study has proven that authoritative parenting styles has a healthy affect on dietary behaviors among young adults. Neglectful and authoritarian parenting styles have a negative affect on dietary behaviors among young adults.

This study revealed that dietary behaviors have worsened among undergraduate students at Minnesota State University, Mankato after enrolling into college when compared to dietary behaviors in high school. There was a statistically significant difference between past and present dietary behaviors ($t(327)=-3.694$, $p<.05$). This study also revealed a statistically significant difference in present dietary behaviors between report parenting styles ($F(2,288)=6.069$, $p<.05$) specifically, between the Authoritative group ($n=234$) ($M=25.67$, $SD=3.37$) and the Authoritarian group ($n=24$) ($M=28.29$, $SD=4.53$).

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Chapter 1: Statement of the Problem

Introduction

Food plays many roles in our lives. Not only does food relate to proper fueling, food holds a social feature in many lives' as well. For instance, family dynamics around the dinner table is a major function in development of a child socially and mentally. Eating as a family around the dinner table at least three times a week grows healthy eating habits and reduces the risk of unhealthy eating habits by 20% (Berchemann, 2015). Berchemann also states that eating as a family lowers childhood obesity by 12% (Berchemann, 2015). Another vital positive found in regular eating at the dinner table as a family is the development of social-emotional health (Berchemann, 2015).

How adults view and consume food in their regular lives' may be developed as a child. Often times the style of parenting used with children can reflect choices made as an adult. There are four main types of parenting: permissive, authoritative, authoritarian, and neglectful (Mgbemere & Telles, 2013). Permissive parenting is a form of "fluid" parenting. There are few rules set by permissive parents but also find themselves nurturing before disciplining their child (Mgbemere & Telles, 2013). A permissive parent may be described as too tolerant with feeding styles as they have expectations but also want to avoid confrontation with their children. Authoritative parenting is a form of highly structured and accepted parenting. The children of authoritative parents usually have a structured routine but also find themselves able to confront their parents without fear of judgment. This is also the most

healthful form of parenting for children and their future development (Mgbemere & Telles, 2013). Authoritative parents are described as having the healthiest form of feeding style with their children as well. These parents stick to their rules but also show they have a great understanding of how to communicate with their children. Authoritarian parenting is the most rigorous form of parenting. There are usually high expectations of the children of authoritarian parents and is not be a clear line of communication between the child and the parent (Mgbemere & Telles, 2013). Authoritarian parents do not show any form of leeway with their feeding style, they will stick to the rules they have set without allowing any crossover. Neglectful parenting is without a doubt known as the most harmful forms of parenting on the child. Neglectful parenting usually results in an unhealthy line of communication and a difficulty in forming essential healthy relationships (Mgbemere & Telles, 2013). Neglectful parents have not set any form of structured feeding style with their children. Their meal times will be very irregular and unbalanced in consistency of expectations.

A concern nationwide is that unhealthy dietary habits formed as a child translates to habits practiced as an adult, resulting in obesity (Centers of Disease Control and Prevention, 2016). Obesity has continued to raise alarms in the past in the United States in both adult and child age groups. The CDC recognizes that about one-third of Americans are obese (CDC, 2016). This is a concern for health officials as obesity has proven to affect other health risks. Looking at how and when habits are formed with food may aid in lowering these rates.

Observational learning is defined as learning through the reflection of a person's environment and/or a person such as a family member or peer (Cherry, 2017). Observational learning and food relationships closely parallel each other. Children will learn from their parents as college students may learn from their peers and environment once they are self-regulating in their personal diets. Habits may be formed around the dinner table by watching and mimicking authority figures in a child's life just as a college student may gain late night study habits involving food and beverages through watching their peers (Cherry, 2017).

Statement of the Problem

Obesity rates of adults show that eating habits are unhealthy (Hurt, 2010). About 60% of Americans are obese with one of the main contributors being fast food consumption (Hurt, 2010). Determining the extent to which dietary behaviors change or stay the same after enrolling in college could potentially show a need of improving nutrition health practices during childhood. These habits may be formed through childhood but may also be changed in a college environment. Deciphering this difference will help to find contributing factors of decision making with food. How do eating habits that are gained as a child compare to how a young adult will consume food once they are not dependent on their parents in a college setting?

Significance of the Problem

Habits involving food choice and consumption are gained typically as a child. These habits may influence how college students are consuming food once they become independent with choices around food. These decisions may not only affect

students in their college years but also how they view food as they age. By finding out if there are connections with habits made as a child and eating habits of college students, there may be room for improvement in nutrition education at both the elementary level and at the college level.

Research Questions

- 1) What were the food consumption practices of participants while attending high school?
- 2) What are the food consumption practices of participants now after enrolling in a large, mid-western university?
- 3) What are the differences, if any, between food practices in high school vs. food practices after enrolling in a large, mid-western university?
- 4) What are college student's perceptions of their parental influence on decision making of food consumption?
- 5) What is the relationship between parent styles and food consumption practices while enrolled in a university?

Limitations

- 1) Relying on college students' voluntary answers via the survey instrument.
- 2) Recall bias of childhood structure around food relationships.
- 3) Unequal sample sizes for ANOVA test.
- 4) Unequal sample size of male and female participants.

Delimitations

- 1) Data collected by only surveying college students of large, Midwestern University.

Assumptions

- 1) Assuming college student will remember what their general eating habits were growing up.
- 2) Assuming college students will give honest answers.

Definition of Terms

- a) Authoritarian parenting: high expectations of the children with no clear line of communication between the child and the parent (Mgbemere and Telles, 2013)
- b) Authoritative parenting: high expectations of the children with clear lines of communication between the child and the parent (Mgbemere and Telles, 2013)
- c) Behavioral capability: having the ability to accomplish a behavior (University of Twente, 2017)
- d) Expectancies: hopeful outcomes from a behavior (University of Twente, 2017)
- e) Neglectful parenting: unhealthy line of communication and inattentive to their children (Mgbemere and Telles, 2013)
- f) Observational learning: learning through observing respected figures or environment (University of Twente, 2017)

- g) Permissive parenting: there are few rules set but also find themselves nurturing before disciplining their child (Mgbemere and Telles, 2013)
- h) Reciprocal determinism: collaboration of change via behavioral capability, situation, and personal modification (University of Twente, 2017)
- i) Reinforcements: reactions to behavior, could be positive or negative (University of Twente, 2017)
- j) Self-Control: involvement of targeting personal growth through goal setting (University of Twente, 2017)
- k) Self-Efficacy: one's positive ability to complete a behavior (University of Twente, 2017)
- l) Social Cognitive Theory: understanding of how behavior, environment, and people affect each other both directly and indirectly (University of Twente, 2017)

Chapter Two: Review of the Literature

Introduction

The purpose of this study is to assess how parenting styles and food dynamics in a household correlate with habits around food once one reaches adulthood, more specially, college students. This chapter will address an outline of research found around habitual eating as a child. Specifically, this chapter will address how home life and relationships with food directly and or indirectly influence healthy and unhealthy eating. This chapter will also address how becoming an independent adult, such as a college student affects eating habits.

The literature review has been organized into five different parts. The Social Cognitive Theory will be addressed to look at the theoretical framework of this research. Benefits of education in healthful eating are also discussed, followed by effects of parenting styles on eating habits. Other topics will include family dynamics around the dinner table and the risks of restricted and controlled eating.

Social Cognitive Theory

There are multiple factors that could potentially influence how one has established their eating habits as an adult. The Social Cognitive Theory looks at how behavior, environment, and people affect each other both directly and indirectly (University of Twente, 2017). Observational learning is a big part of how one will pick up on these eating habits, especially as a young child. The Centers for Disease Control and Prevention states that “staff role modeling” is an importance part of how children will learn. Through watching role modeling in their live, or

observational learning, children learn to adapt and pick up on what is being demonstrated to them. An example of this would include healthy eating (CDC, 2017).

A person's environment also plays into an individual's self-efficacy and behavioral capability related to food. As a child, are the parents supportive of healthful eating? Do the parents value and practice healthy eating habits in their family dynamic? Are college students exhibiting self-efficacy towards healthful eating? Do college students feel they have the behavioral capability to practice healthy eating without the guidance of their parents or guardians? These are all questions to ask when looking at eating habits in both children and college age students. Environment plays an important role in an individual's decision making (Cherry, 2017).

Benefits of Education in Healthful Eating

Peterson explains education can improve opinions and habits around food consumption (Peterson, 2010). The Peterson study examined how behaviors changed around healthful eating after a pre and posttest intervention and implementing an educational intervention. The authors found that 20% of students felt they were more aware of food choices during meal times after the intervention (Peterson, 2010). There was an increase in the self-reporting of healthy foods such as fruits and cottage cheese. The increase of awareness of healthy food after the intervention was the main reason reported for the increase in the consumption of healthy foods (Peterson, 2010). The message taken from this study was that interventions around foods might be beneficial in the college dining hall setting. An

increase in education in healthful eating can benefit choices being made around food practices. Healthy dietary behaviors with an increase in education can be proven by the positive changes in perceptions and selections of healthy foods (Peterson, 2010). Although only using the results of the Peterson study, this correlation of education and healthy eating habits could be applied to parental influence by saying parents implementing nutrition education in the household may be encouraging their children to make healthier food choices on their own.

Not only does healthful eating lead to proper development both physically and psychologically in childhood, healthful eating leads to long-term benefits as well (CDC, 2017). As children are educated on healthy eating, habits and behavior will reflect the education given. The CDC states that although intake of healthy foods such as fruits have increased between 2003-2010, there is still room for improvement as children are falling short of recommendations (CDC, 2017). There will always be room for improvement but as education highlights the importance of healthy eating, there will be positive changes made as shown in the fruit example. Long term healthy eating brings multiple benefits to adults as they age. By practicing healthful eating adults lower the risk of obtaining health issues. Examples given by the CDC (2017) include but are not limited to: diabetes, iron deficiency, high blood pressure, cancer, osteoporosis, dental cavities, and heart disease.

Effects of Parenting Styles on Eating Habits

Barnes (2012) published an article that assessed how parenting styles in childhood affected eating habits in college via an Internet survey. This study

evaluated 264 traditional college freshmen through a survey on the Internet. The ages ranged from 18-20 years of age (Barnes, 2012). The results showed that parenting styles actually did not show a prediction in healthy eating in this sample. There was evidence from some students that they felt their parents have influenced their current eating style. The study also showed that these students were not eating to the standards of dietary recommendations. The research done found a small amount of evidence proving parenting styles is affecting college freshmen eating habits but more research should be done (Barnes, 2012).

Although this sample taken in the Barnes (2012) study did not show significant evidence that parenting styles affects college freshman eating habits there was some evidence pointing to the fact that their parents may have influenced their decisions. Mgbemere and Telles (2013) explain that the style of parenting may play a role in how the child develops their eating habits. Permissive parenting shows that even though rules are set around eating routines, these rules can be easily broken. An authoritative parent on the other hand has set the rules around eating routines and has also developed a healthy communication line between parent and child—an extremely beneficial form of parenting (Mgbemere & Telles, 2013). The other two extreme styles of parenting are authoritarian and neglectful. These are two very different but negative forms of parenting. Authoritarian shows intense control over their child and their eating routine where a neglectful parent will show the opposite. Neglectful parents do not have any form of structure and has an unbalance of consistency of expectations (Mgbemere & Telles, 2013). Parenting

styles play a major role in how a child develops. Savage (2008) states that there is evidence that permissive and authoritarian parenting styles have been proved to be linked to negative eating habits in young adults.

Family Dynamics around the Dinner Table

Lee (2014) examined if there is a direct correlation with the number of family dinners and eating behaviors in children. The Lee study used a survey with third graders, more specifically with 70 different elementary schools. The survey was given using a two stage stratified cluster sampling (Lee, 2014). The results revealed that children eating at least five family dinners throughout the week showed multiple benefits. These benefits include more regular eating habits, positive behaviors with others at the dinner table, and eating breakfast routinely. Children who had four or less family dinners in a week showed to have a positive correlation with irregular eating habits around routine and behaviors at the dinner table (Lee, 2014). The children eating at least five family dinners throughout the week also showed to have an increase in healthful eating. The study shows that eating as a family more often throughout the week shows to aid in health eating habits and behaviors (Lee, 2014).

Mason (2016) specifically looked at how childhood experiences have affected college students' decisions around consumption of food. The Mason study used a Qualitative action approach with Photovoice technology (Mason, 2016). The results of this study showed that during childhood, family dynamics and food chosen by the parents were the main contributors of consumption. College students concluded

that time, money, and or access was main contributors to consumption now (Mason, 2016). The study also concluded that students are in search for healthier and more accessible food options. This study concluded that experiences in childhood does affect eating habits in college students to a certain degree but ultimately the subjects expressed a need and a want for healthier options that are easier to access (Mason, 2016).

Berchermann (2015) explains that regular family dinners have been proven to hold many benefits. She highlights five different benefits particularly: 1) Eating as a family around the dinner table at least three times a week grows healthy eating habits and reduces the risk of unhealthy eating habits by 20% (Berchermann, 2015) 2) Eating as a family lowers childhood obesity by 12% (Berchermann, 2015) 3) Eating as a family will lower unhealthy eating disorders by 35% (Berchermann, 2015) 4) Eating as a family can help aid responses to difficult social situations such as cyberbullying (Berchermann, 2015) and 5) Eating regularly at the dinner table as a family encourages the development of positive social-emotional health (Berchermann, 2015).

Risks to Restricted Eating

Pfieffer (2009) looked at the effects of restricted eating. The main function of this study was to address how childhood eating habits and stress affects eating habits in adulthood. This study used a survey to question 267 female adults to address how restricted eating in childhood affects how they are choosing to eat now in adulthood (Pfieffer, 2009). The research found that restricted or emotional eating

in adulthood is related to forced eating habits in childhood. This study also found a link with stressful mealtimes in childhood and binge and or restricted or emotional eating as an adult. This study concludes that restricted and or forced eating in childhood can lead to eating disorders or unhealthy eating habits in adulthood (Pfeiffer, 2009).

Branen and Fletcher (1999) examined the correlation between eating habits in college students compared to their recollections of childhood. Branen and Fletcher (1999) used a survey distributed to college students via mail and 546 surveys were sent back completed. About half of the participants were female and half of the participants were male aged between 18 and 23 years old. This study found that if food or dessert was given as a reward for finishing food or accomplishing something the same practice has been carried on as adults (Branen & Fletcher, 1999). There were also factors that indicated if there was a routine set around food consumption, meal times and habits were more regular (Branen & Fletcher, 1999). The subjects also indicated that eating dessert regularly in adulthood contributed to they was served dessert as children (Branen & Fletcher, 1999). The people that tend to finish their plates consistently as adults are the ones who were taught or forced to finish their plates in childhood, which could turn to damaging habits. The study concluded that there are significant correlations between habits formed in childhood that are still happening in adulthood (Branen & Fletcher, 1999).

Summary

This chapter has analyzed and compiled literature on the topics of the Social Cognitive Theory, the benefits of education in healthful eating, the effects of parenting styles on eating habits, family dynamics around the dinner table, and the risks to restricted eating. Chapter three will continue with the research methodology.

Chapter Three: Research Methodology

Introduction

The purpose of this study is to examine the association between food consumption practices during high school compared to those enrolled in a large, Midwestern university. This chapter will go through the research design, sample selection, survey used, data collection, and an analysis of the data.

Research Questions

- 1) What were the food consumption practices of participants while attending high school?
- 2) What are the food consumption practices of participants now after enrolling in a large, Midwestern University?
- 3) What are the differences, if any, between food practices in high school vs. food practices after enrolling in a large, Midwestern University?
- 4) What are college student's perceptions of their parental influence on decision making of food consumption?
- 5) What is the relationship between parent styles and consumption practices while enrolled in a university?

Research Design

A cross sectional design will be used to determine how eating habits in current college students is comparing the recollection of their own eating habits in high school. A cross sectional design will be used to gain an insight over a

population. A correlational design will also be used to assess the significance of relationship between food practices in high school vs. food practices in college and parental influence.

Instrumentation

A 20-item survey will be used in this research study. The survey is adapted from Laurel Branen and Janice Fletcher (1999) "Comparison of college students' current eating habits and recollections of their childhood food practices" from the Journal of Nutrition Education assessing past versus present day eating habits. To address how parent styles affect food choices, a grouping of sentences reflecting the parenting styles of neglectful/permissive, authoritative, and authoritarian were added to the survey. The perceived parenting style inventory was adapted from Brittany Kelly (2013) "The Relationship Between Parenting Style and Obesity in Adulthood" a dissertation from Walden University. A series of five demographic questions end the survey. These items were added to address how parental styles influence eating habits and to address the possibility of a relationship between the two.

The questions on the survey are very easily read. To assess past and present eating habits, participants answered a range of ten questions in the form of a modified likert scale of never (1), rarely (2), sometimes (3), often (4), and always (5). Three of the ten questions were reverse scored based on healthy dietary behaviors. The lower the score, the healthier the participants were. The scores could range from ten to 50. The questions are based off of current and past eating habits

and could be answered in multiple different ways depending on the individual student and their experiences. The survey has been assessed for face validity by a panel of experts by Branen and Fletcher (1999). The updated survey that will be used will again go through a form of face validity by a panel of experts.

This survey will aid in assessing not only how college students are currently consuming food but also how the college students consumed food as a child based off of their own recollection. The survey instrument will also aid in determining if parents or guardians have or had an influence on the participant's decision making of food.

Sample Selection and Data Collection

Being that university students are the priority population for this research study, the researcher will obtain a sample of students by gaining permission from University professors to go into classrooms to hand out surveys at a regular scheduled class time. This research study will be using a combination of purposive sampling and convenience sampling, as the survey will be used in assessing college students with the main purpose of evaluating college students eating habits. General education courses will be selected and all university students will be able to complete the survey. General education courses will be selected to collect a wide variety of participants.

A sample size of 375 undergraduate students is required being that the large, Midwestern University has 15,000 students enrolled as of 2015. Around 375

undergraduate students will need to be selected to achieve an accurate presentation of the college student population.

The researcher will gain authorization from the University instructors of a large, mid-western university prior to handing out the survey instrument. The researcher will select general education courses and go into classes at their regularly scheduled class time. Only university students that are eighteen or older will be able to complete the survey. The researcher will explain to the sampled classes that participation of the completing the survey is 100% voluntary and would remain confidential. A consent form will be handed out for the participant's own reading and documentation. The paper survey will be handed out during the regular scheduled class times and will be completed by the participants voluntarily over the course of February of 2018.

Data Analysis

The researcher will analyze the data collected by the survey with the use of SPSS. Descriptive statistics will be used to evaluate the questions answered in the survey. Table 1 explains how the research questions were answered and analyzed.

The first research question analyzes what food consumption practices of participants were while attending high school. Questions one, three, five, seven, nine, eleven, thirteen, fifteen, seventeen, and nineteen answered this research question. The second research question analyzes what food consumption practices of participants were after enrolling in a large, mid-western university. Questions

two, four, six, eight, ten, twelve, fourteen, sixteen, eighteen, and twenty answered this research question. The third research question analyzes the differences, if any, between food practices in high school vs. food practices after enrolling in a large, mid-western university. This question will be answered by comparing the answers of the two previous research questions. The fourth research question analyzes the college student's perceptions of their parental influence on decision making of food consumption. Question 21 answers this research question. The fifth research question analyzes the relationship between parent styles and food consumption practices while enrolled in a university. This question will be answered by comparing the answers from the second and the fourth research questions.

Table 1

Table of Specifications

Research Question	Survey items of methods used to assess RQ's	Level of Data (Nominal, Ordinal, Interval/Ratio)	Analysis needed to assess RQ
What were the food consumption practices of participants while attending high school?	Questions 1, 3, 5, 7, 9, 11, 13, 15, 17, 19	Ordinal	Descriptive statistics
What are the food consumption practices of participants now after enrolling in a large, mid-western university?	Questions 2, 4, 6, 8, 10, 12, 14, 16, 18, 20	Ordinal	Descriptive statistics
What are the differences exist between food practices in high school vs. food practices after enrolling in a large, mid-western university?	Questions 1-20	Interval/Ratio	Paired Samples t-test
What are college student's perceptions of their parental influence on decision making of food consumption?	Question 21	Nominal	Descriptive statistics
What is the relationship between parent styles and food consumption practices while enrolled in a university?	Question 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21	Interval/Ratio	ANOVA

Chapter 4: Findings and Discussion

Introduction

The purpose of this study is to assess how parenting styles and food dynamics in a household correlate with habits around food once one reaches adulthood, more specially, college students. Data was collected with the use of a 26-item printed survey. Exploration into this topic addressed the following research questions.

- 1) What were the food consumption practices of participants while attending high school?
- 2) What are the food consumption practices of participants now after enrolling in a large, Midwestern University?
- 3) What are the differences, if any, between food practices in high school vs. food practices after enrolling in a large, Midwestern University?
- 4) What are college student's perceptions of their parental influence on decision making of food consumption?
- 5) What is the relationship between parent styles and consumption practices while enrolled in a university?

Analysis and Interpretation of the Data

A total of 328 surveys were completed for this study. Data for this study was collected from seven high enrollments, general education courses.

Demographic Results

Table 2 represents the demographic results of this study. The majority of the participants were Non-Hispanic; white females aged 19-20 years of age in their first year of college.

Table 2

Demographics Characteristics of Participants

Characteristics		n	%
Gender			
	Female	202	61.6
	Male	116	35.4
	Other	2	0.6
Ethnicity			
	Hispanic or Latino	12	3.7
	Non-Hispanic	304	92.7
Race			
	American Indian or Alaskan Native	2	0.6
	Asian	18	5.5
	Black or African American	32	9.8
	Native Hawaiian and Other Pacific Islander	3	0.9
	White	257	78.4

Table 2

Demographics Characteristics of Participants

Characteristics	n	%
Age		
18	59	18.0
19-20	170	51.8
21-22	65	19.8
23-24	15	4.6
25+	11	3.4
Year in School		
Freshman	125	38.1
Sophomore	106	32.3
Junior	61	18.6
Senior	24	7.3
Senior Plus	3	0.9

Findings Related to Research Questions**Research Question One: What were the food consumption practices of participants while attending high school?**

To assess past eating habits, participants answered a range of ten questions in the form of a modified likert scale of never (1), rarely (2), sometimes (3), often (4), and always (5). Three of the ten questions were reverse scored based on healthy dietary behaviors. The lower the score, the healthier the participants were.

The scores could range from ten to 50. A frequencies distribution that established the mean and standard deviation was calculated. The participants (n=328) showed their past eating habits had a mean score of 25.52 (SD=3.93). This shows the participants recalled having neutral dietary behaviors growing up. Table 3 represents the past eating habits of the participants.

Table 3

Past Dietary Behaviors of Participants

Item	n	Never n(%)	Rarely n(%)	Sometime s n(%)	Often n(%)	Always n(%)
I was required to clean my plate	327	55(16.8)	51(15.5)	75(22.9)	89(27.1)	57(17.4)
I ate dessert as mealtime	324	40(12.2)	171(52.1)	93(28.4)	18(5.5)	2(0.6)
I snacked between meals	328	57(17.4)	146(44.5)	95(29.0)	27(8.2)	3(0.9)
Adults used food as an incentive	327	63(19.2)	104(31.7)	119(36.3)	33(10.1)	8(2.4)
My eating depended on my moods	328	36(11.0)	85(25.9)	116(35.4)	68(20.7)	23(7.0)
I ate more than I should have eaten	328	24(7.3)	89(27.1)	135(41.2)	68(20.7)	12(3.7)
I ate less than I should have eaten	328	65(19.8)	132(40.2)	104(31.7)	23(7.0)	4(1.2)
I ate regularly scheduled meals	328	73(22.3)	155(47.3)	52(15.9)	37(11.3)	11(3.4)
My parents talked about nutrition	328	31(9.5)	69(21.0)	111(33.8)	77(23.5)	40(12.2)

Research Question Two: What are the food consumption practices of participants now after enrolling in a large, Midwestern University?

To assess present eating habits, participants answered a range of ten questions in the form of a modified likert scale of never (1), rarely (2), sometimes (3), often (4), and always (5). Three of the ten questions were reverse scored based on healthy dietary behaviors. The lower the score, the healthier the participants were. The scores could range from ten to 50. A frequencies distribution that established the mean and standard deviation was calculated. The participants (n=328) showed their present eating habits had a mean score of 26.14 (SD=3.59). This shows the participants currently state they have worse dietary behaviors now after enrolling in a large, Midwestern University than they did growing up. Table 4 represents the current eating habits of the participants.

Table 4

Present Dietary Behaviors of Participants

Item	n	Never n(%)	Rarely n(%)	Sometimes n(%)	Often n(%)	Always n(%)
I clean my plate	326	2(0.6)	13(4.0)	79(24.1)	150(45.7)	82(25.0)
I eat dessert as mealtime	328	58(17.7)	150(45.7)	90(27.4)	27(8.2)	3(0.9)
I snack between meals	327	60(18.3)	129(39.3)	99(30.2)	34(10.4)	5(1.5)
I use food as an incentive	328	78(23.8)	112(34.1)	110(33.5)	24(7.3)	4(1.2)

Table 4

Present Dietary Behaviors of Participants

Item	n	Never n(%)	Rarely n(%)	Sometimes n(%)	Often n(%)	Always n(%)
My eating depends on my moods	328	25(7.6)	59(18.0)	126(38.4)	91(27.7)	27(8.2)
I eat more than I should have eaten	328	19(5.8)	99(30.2)	144(43.9)	54(16.5)	12(3.7)
I eat less than I should have eaten	328	52(15.9)	114(34.8)	117(35.7)	41(12.5)	4(1.2)
I play with my food	328	215(65.5)	71(21.6)	30(9.1)	11(3.4)	1(0.3)
I eat regularly scheduled meals	327	22(6.7)	103(31.4)	109(33.2)	76(23.2)	17(5.2)
I consider nutrition when selecting food	328	67(20.4)	105(32.0)	101(30.8)	43(13.1)	12(3.7)

Research Question Three: What are the differences, if any, between food practices in high school vs. food practices after enrolling in a large, Midwestern University?

The participants (n=328) showed their past eating habits had a mean score of 25.52 (SD=3.93). This shows the participants recalled having neutral dietary

behaviors growing up. The participants (n=328) showed their present eating habits had a mean score of 26.14 (SD=3.59). This shows the participants currently state they have worse dietary behaviors now after enrolling in a large, Midwestern University than they did growing up. By comparing table 3 and table 4 from the first and second research questions, participants showed that their dietary behaviors have worsen since enrolling in a large, Midwestern university. There are four questions the participants scored higher in their present eating habits verses their past. The participants identified that they clean their plate more often now at 45.7% (Often) verses past 27.1 % (Often). The participants also showed there food choices depend on their mood more often now at 38.4% (Sometimes) verses past 35.4% (Sometimes). The participants also concluded that they eat more than they should now at 43.9% (Sometimes) verses past 35.4% (Sometimes) as well as eat less than they should now at 35.7% (Sometimes) verses past 40.2% (Rarely). The past dietary behaviors had a mean score of 25.52 (SD=3.93) and the present dietary behaviors had a mean score of 26.14 (SD=3.59). These results revealed that dietary behaviors have worsened after enrolling in a large, Midwestern university a statistically significant difference between past and present dietary behaviors ($t(327)=-3.694$, $p<.05$).

Research Question Four: What are college student's perceptions of their parental influence on decision making of food consumption?

Table 5 represents college student's perceptions of their parental influence on decision making of food consumption. A total of 10.1% (n=33) of participants

recalled their parents being a neglectful figure among dietary behaviors.

Approximately 71.3% (n=234) of participants recalled their parents being a authoritative figure among dietary behaviors. Lastly, there were 7.3 % (n=24) participants that recalled their parents being an authoritative figure among dietary behaviors.

Table 5

Parenting Styles

Item	n	%
Neglectful	33	10.1
Authoritative	234	71.3
Authoritarian	24	7.3

Research Question Five: What is the relationship between parent styles and consumption practices while enrolled in a university?

The results of an Analysis of Variance (ANOVA) revealed a statistically significant different in present dietary behaviors between report parenting styles ($F(2,288)=6.069, p<.05$). A Tukey post-hoc analysis specifically showed statistically significant differences between the Authoritative group (n=234) (M=25.67, SD=3.37) and the Authoritarian group (n=24) (M=28.29, SD=4.53).

Summary

The focus of this study was to assess if parenting styles have an effect on dietary behaviors among young adults as well as how eating habits compare between the past and present.

The past dietary behaviors had a mean score of 25.52 (SD=3.93) and the present dietary behaviors had a mean score of 26.14 (SD=3.59). These results revealed that dietary behaviors have worsened after enrolling in a large, Midwestern university and that there was a statistically significant difference between past and present dietary behaviors ($t(327)=-3.694, p<.05$).

The results of an Analysis of Variance (ANOVA) revealed a statistically significant difference in present dietary behaviors between report parenting styles ($F(2,288)=6.069, p<.05$). A Tukey post-hoc analysis specifically showed statistically significant differences between the Authoritative group ($n=234$) ($M=25.67, SD=3.37$) and the Authoritarian group ($n=24$) ($M=28.29, SD=4.53$).

Chapter Five: Summary, Conclusions, and Recommendations

Summary

Food continues to be the focus of lifelong dietary and social habits. Past studies have shown the importance of creating healthy habits in childhood to increase the probability of healthy dietary behaviors as adults. A concern nationwide is that unhealthy dietary habits formed as a child translates to habits practiced as an adult, resulting in obesity (CDC, 2016).

The social cognitive theory assesses how behavior, environment, and people affect each other both directly and indirectly (University of Twente, 2017). The Centers for Disease Control and Prevention states that “staff role modeling” is an important part of how children will learn (CDC, 2017). Observational learning plays a significant role in how a child will pick up on dietary behaviors and how habits are developed as young adults. This study has shown that parenting styles are related to how young adults are choosing foods in adulthood.

Past studies have also shown that parenting styles are one of the contributing factors that influence how young adults view and interact with food. Branen and Fletcher’s (1999) study concluded that there are significant correlations between habits formed in childhood that are still happening in adulthood. Authoritative parenting has been proven to be the most healthful form of parenting for both the child in the present and in the future. Permissive/neglectful or authoritarian parenting styles have been known as the two extremes that result in unhealthy dietary behaviors for both the child in the present and in the future (Mgbemere &

Telles, 2013). This study has proven that authoritative parenting styles has a healthy effect on dietary behaviors among young adults. Neglectful and authoritarian parenting styles have a negative affect on dietary behaviors among young adults.

Conclusion

This study revealed that dietary behaviors have worsened among undergraduate students at Minnesota State University, Mankato after enrolling into college when compared to dietary behaviors in high school. There was a statistically significant difference between past and present dietary behaviors ($t(327)=-3.694$, $p<.05$). This study also revealed a statistically significant difference in present dietary behaviors between report parenting styles ($F(2,288)=6.069$, $p<.05$) specifically, between the Authoritative group ($n=234$) ($M=25.67$, $SD=3.37$) and the Authoritarian group ($n=24$) ($M=28.29$, $SD=4.53$).

Recommendations

Recommendations for Health Educators

Dietary behaviors in childhood undoubtedly have an effect on dietary behaviors among young adults. Parenting styles also hold relevance as to how habits established as children are developed, which in turn affect dietary health of young adults. Knowing this, health educators hold a responsibility to the youth to enforce the importance of healthful eating habits and behaviors. Enforcing healthful decision making around food at a young age, enhances healthful decision making as an adult. Implementing education courses throughout daycare centers, elementary school,

middle school, and high school as well as providing healthful choices through school lunch programs will aide in healthy future young adults.

Health educators also hold a responsibility to parents of youth to enforce the importance of the authoritative parenting style in relation to dietary behaviors. Implementing the significance of how parenting styles influence dietary behaviors early on to new parents will help to encourage not only healthy eating but also healthy communication between parent and child. Healthy eating habits as children benefits to pursue a healthier future for young adults.

Recommendations for Future Research

Future research on this topic should include a larger sample size to enhance the diversity of the results of recollected parenting styles. Future studies should also include more questions about parenting styles to quantify the three parenting styles of neglectful, authoritative, and authoritarian. With gender playing a major role in society today, future studies should also measure the difference between in gender when comparing both dietary behavior changes in past verses present and changes in recollected parenting styles.

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Appendices

Appendix A

Institutional Review Board Letter of Approval



February 8, 2018

Dear Joseph Visker, PhD:

Re: IRB Proposal entitled "[1195934-1] Assessing the Influence of Parent Styles on Dietary Behaviors Among Young Adults"
Review Level: Level II

Your IRB Proposal has been approved as of February 8, 2018. On behalf of the Minnesota State University, Mankato IRB, we wish you success with your study. Remember that you must seek approval for any changes in your study, its design, funding source, consent process, or any part of the study that may affect participants in the study (see <https://grad.mnsu.edu/irb/revision.html>). Should any of the participants in your study suffer a research-related injury or other harmful outcome, you are required to report them to the Associate Vice-President of Research and Dean of Graduate Studies immediately.

When you complete your data collection or should you discontinue your study, you must submit a Closure request (see <https://grad.mnsu.edu/irb/closure.html>). All documents related to this research must be stored for a minimum of three years following the date on your Closure request. Please include your IRBNet ID number with any correspondence with the IRB.

Sincerely,

Handwritten signature of Mary Hadley in black ink.

Mary Hadley, Ph.D.
IRB Coordinator

Handwritten signature of Jeffrey Buchanan in black ink.

Jeffrey Buchanan, PhD
IRB Co-Chair

Handwritten signature of Julie A. Carlson in black ink.

Julie Carlson, Ed.D.
IRB Co-Chair

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Minnesota State University, Mankato IRB's records.

Appendix B

Survey Consent Form

Title: Assessing the Influence of Parent Styles on Dietary Behaviors Among Young Adults**Faculty Advisor:** Dr. Joseph D. Visker, Department of Health, Science, Minnesota State University, Mankato;**Student Investigator:** Breanna Tofteland**IRBNet #:** 1195934What is the purpose of the study?

You are being invited to take part in a survey research study designed to assess the influence of parent styles on dietary behaviors among young adults.

What is the purpose of this form?

This consent form gives you the information you will need to help you decide whether to be in the study or not. Please read the form carefully. You may ask any questions about the research, the possible risks and benefits, your rights as a volunteer, and anything else that is not clear. When all of your questions have been answered, you can decide if you want to be in this study or not.

Why am I being invited to participate?

You are being invited to take part in this study because you are a student at Minnesota State University, Mankato.

Participation is voluntary. If you choose not to take the survey or are not eligible, you need not proceed through the survey.

You may turn it in blank. Only individuals ages 18 years of age and above are permitted to take the survey.

What will happen during this study and how long will it take?

If you agree to take part in this study, your involvement will last for approximately 10minutes. You are being asked to complete a survey that will assess the influence of parent styles on dietary behaviors. Your completion of the survey marks the end of participation in this study.

What are the risks of this study?

There are few reasonably foreseeable risks in completing the survey. However, while the risk is extremely low, when collecting demographic data (such as age and race) there is a minute probability of a breach in confidentiality/anonymity. You are free to skip ANY question you do not feel comfortable answering. Please also do not put your names or any other identifying marks on the survey. Your responses will remain anonymous.

What are the benefits of this study?

There are no benefits to you the participant for completing this study. However, it is hoped that the information gained from this study will allow health professionals to better understand how parent styles influence dietary behaviors among young adults.

Who will see the information?

The information you provide during this research study will be kept confidential. To help protect your confidentiality, we will ensure that only the Principle Investigator and student investigator will have access to the completed surveys. Your name will NOT be attached to the survey nor will any other information capable of personally identifying you. Surveys will be stored in a secure location and all surveys will be destroyed within 5 years of completion of this study. The study will be completed by April 30, 2018. We will take all reasonable steps to protect your identity. If the results of this project are published your identity will not be made public.

Do I have a choice to take part in this study?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. You will not be treated differently if you decide to stop taking part in the study. The decision whether or not to participate will not affect your relationship with Minnesota State University, Mankato, and refusal to participate will involve no penalty or loss of benefits. If you have any questions about this research study, contact Dr. Joe Visker at 507-389-2757 or joseph.visker@mnsu.edu If you have any questions about participants' rights and for research-related injuries, please contact the Administrator of the Institutional Review Board at (507) 389-1242. This study is under the supervision of Dr. Joe Visker.

All participants have the right to a copy of the consent form. You have been provided a copy for your records. Thank you for your time and if you have any questions or concerns, please free to contact the Minnesota State University, Mankato Institutional Review Board or Dr. Joseph Visker (Primary Investigator).

Handing in a survey with responses on it indicates that you are at least 18 years of age and consent to participate in the research.

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