

Louisiana Tech University

Louisiana Tech Digital Commons

Master's Theses

Graduate School

Spring 5-2022

Familial Weight and Diet Talk's Relationship to Weight Satisfaction and Life Satisfaction

Jasmine Gilbert

Follow this and additional works at: <https://digitalcommons.latech.edu/theses>

**FAMILIAL WEIGHT AND DIET TALK'S RELATIONSHIP TO
WEIGHT SATISFACTION AND LIFE SATISFACTION**

by

Jasmine Gilbert, B.S., R.D., L.D.N.

A Thesis Presented in Partial Fulfillment
of the Requirements for the Degree
Master of Science

COLLEGE OF HUMAN ECOLOGY
LOUISIANA TECH UNIVERSITY

May 2022

LOUISIANA TECH UNIVERSITY

GRADUATE SCHOOL

April 3, 2022

Date of thesis defense

We hereby recommend that the thesis prepared by

Jasmine Gilbert, B.S., R.D., L.D.N.

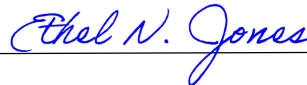
entitled **Familial Weight and Diet Talk's Relationship to Weight Satisfaction
and Life Satisfaction**

be accepted in partial fulfillment of the requirements for the degree of

Master of Science in Nutrition & Dietetics



Simone Camel
Supervisor of Thesis Research



Ethel Jones
Head of Human Ecology

Thesis Committee Members:

Vicky Green
Mary Fontenot

Approved:



Gary A. Kennedy
Dean of Applied & Natural Sciences

Approved:



Ramu Ramachandran
Dean of the Graduate School

ABSTRACT

Today, body weight can be a sensitive topic, and a person's insecurities and sensitivity to this topic may be rooted in their childhood experiences. Because of the sensitive nature of the weight issue, investigating early life experiences around familial weight and diet talk of young adults will provide information about their current feelings regarding weight satisfaction. Establishing the sources of this talk beyond that of parents and whether they affect later life and weight satisfaction has yet to be determined.

The purpose of this study is to determine if there is an association between familial weight and diet talk, its source and frequency, and weight and life satisfaction in college-age students (18-28 years of age).

This study utilized a cross-sectional online survey design with network sampling. The researcher-designed questionnaire included demographic items, the Satisfaction with Life validated scale, a researcher-developed Satisfaction with Weight scale, and self-reported height and weight. Participants were recruited via email through campus groups, classroom announcements by faculty members, and with posters/flyers around campus. All communications contained a link to the consent and questionnaire.

Responses from 249 participants from 16 different U.S. states were analyzed. The majority were female (68.3%) and identified as White, non-Hispanic (70.3%) with a mean age of 20.85 ($SD=2.60$) years. Participants ($n=229$) reported a mean household size of 4.72 persons ($SD=1.44$; range of 2 to 12). Most lived with parents and siblings (79.5%).

Pearson's correlations (two-tailed) explored the relationships among the SWLS, SWWS, and BMI. There was a significant positive correlation between SWLS and SWWS, $r(214) = 0.460, p < 0.01$; a significant negative correlation between SWWS and BMI, $r(214) = -0.363, p < 0.01$; and no significance was found between SWLS and BMI. When asked whether participants had experienced food intake or diet comments while growing up, 65.5% responded "yes", 24.9% responded "no", and 4.8% did not remember. Frequency of experiencing these comments were reported to be: several times per month (18.5%), 2 to 3 times per week (13.3%), once per week (11.2%), during holidays and celebrations (9.6%), four to six times per week (6%), and daily (4.8%). When asked whether these comments felt positive or negative, 39% of these participants reported the comments were both positive and negative, 18.9% responded that they were negative, and 6.4% positive.

To compare the presence of body weight comments with the SWLS and SWWS, independent samples t-tests were calculated which resulted in a significant difference between those who did and did not experience body weight comments. The mean SWLS score for those experiencing body weight comments ($M = 23.82, SD = 6.35$) was lower than the score for those not experiencing comments ($M = 26.60, SD = 5.56$); $t(218) = -3.142, p = 0.002$. The mean SWWS score for those experiencing body weight comments ($M = 19.94, SD = 7.38$) was lower than the score for those not experiencing comments ($M = 25.03, SD = 5.94$); $t(212) = -5.40, p < 0.01$. Therefore, those who experienced body weight-related comments had lower satisfaction with life and lower satisfaction with weight scores.

Independent samples t-tests were conducted to determine whether the presence alone of body weight or food intake/diet related comments resulted in significant differences between SWLS and SWWS scores for friends or teachers; no significant differences were found.

Data analysis results demonstrated a significant negative correlation between weight talk and both satisfaction scales. A significant difference in the mean scores for the SWLS and the SWWS was found if body weight comments were experienced.

Findings from this study may begin to fill that gap by contributing to the literature to and enable a better understanding of the dynamics that contribute to a person's weight satisfaction and life satisfaction. This is the first study known to this researcher that attempted to gather comments from extended family, friends, and teachers. Future investigations are needed to further explore grandparent interactions.

APPROVAL FOR SCHOLARLY DISSEMINATION

The author grants to the Prescott Memorial Library of Louisiana Tech University the right to reproduce, by appropriate methods, upon request, any or all portions of this Thesis. It was understood that “proper request” consists of the agreement, on the part of the requesting party, that said reproduction is for his personal use and that subsequent reproduction will not occur without written approval of the author of this Thesis. Further, any portions of the Thesis used in books, papers, and other works must be appropriately referenced to this Thesis.

Finally, the author of this Thesis reserves the right to publish freely, in the literature, at any time, any or all portions of this Thesis.

Author _____

Date _____

DEDICATION

This thesis is dedicated to Tyan and Warren Gilbert for always supporting me and pushing me to explore my interests.

TABLE OF CONTENTS

ABSTRACT.....	iii
APPROVAL FOR SCHOLARLY DISSEMINATION	vi
DEDICATION	vii
LIST OF TABLES.....	xi
ACKNOWLEDGMENTS	xii
CHAPTER 1 INTRODUCTION	1
Research Purpose	3
Justification	4
CHAPTER 2 REVIEW OF LITERATURE.....	5
Body Weight	5
Important Periods of Development.....	5
Existence of Teasing and Weight Talk.....	6
Family Interactions	7
Effects of Early Maternal Eating Disorders.....	7
Parental Weight and Diet Talk.....	8
Familial Weight and Diet Talk	9
Parent Versus Sibling Weight and Diet Talk.....	10

Maternal - Child Relationships	11
Role of Social Media	13
Body Image and Body Satisfaction.....	15
Life Satisfaction Measurement	16
Weight Satisfaction Measurement	16
Research Purpose	17
Hypotheses	17
CHAPTER 3 METHOD	19
Research Design.....	19
Participants and Setting.....	19
Questionnaire	20
Procedures.....	20
Statistical Analysis.....	20
CHAPTER 4 RESULTS	21
Discussion.....	31
Limitations	34
Conclusion	34
APPENDIX A OPERATIONAL DEFINITIONS	36
APPENDIX B RESEARCH MATRIX	38
APPENDIX C QUESTIONNAIRE.....	40
APPENDIX D RECRUITMENT EMAIL.....	52
APPENDIX E RECRUITMENT FLYER/POSTER	54
APPENDIX F HUMAN USE APPROVAL LETTER.....	56

REFERENCES58

LIST OF TABLES

Table 1	<i>Socio-Demographics of the Study Sample (N=249)</i>	22
Table 2	<i>Sources and Type of Body Weight Related Comments</i>	23
Table 3	<i>Sources and Type of Food Intake/Diet Related Comments</i>	24
Table 4	<i>Comparison of Satisfaction with Life Item Scores by Experience of Body Weight Comments</i>	27
Table 5	<i>Comparison of Weight Satisfaction Item Scores by Experience of Body Weight Comments</i>	28
Table 6	<i>Comparison of Satisfaction with Life Item Scores by Experience of Food Intake/Diet Comments</i>	29
Table 7	<i>Comparison of Weight Satisfaction Item Scores by Experience of Food Intake/Diet Comments</i>	30

ACKNOWLEDGMENTS

I cannot express enough thanks to my committee for their continued support and encouragement. My committee chair Dr. Simone Camel, Dr. Vicky Green, and Dr. Mary Fontenot. I offer my sincere appreciation for the learning opportunities provided by my committee. To them I offer my heartfelt thanks.

CHAPTER 1

INTRODUCTION

Today, body weight can be a sensitive topic, and a person's insecurities and sensitivity to this topic may be rooted in their childhood experiences (Mendo-Lázaro, 2017). Exploring factors from the early life of adults may prove insightful when investigating current weight and life satisfaction. Because of this, investigating the early life experiences around familial weight and diet talk of young adults may provide information about their current feelings regarding weight satisfaction. Neumark-Sztainer et al. (2003) defined familial weight talk as negative weight-related talk, including teasing, negative comments about appearance, critical comments about body shape and or size, and discussions about dieting (Neumark-Sztainer et al., 2003). In this study, familial weight and familial diet talk will also be discussed separately and will be defined as discussions and comments about body weight and discussions or comments about diet or eating behaviors, whether they be positive or negative.

Weight satisfaction is how the participant views their weight and how satisfied they are with it based upon results from the tool created. Life satisfaction is one's perspective on their life and their level of satisfaction with their life. This study will investigate how the presence, source, and frequency of familial weight and diet talk affects a person's weight satisfaction and life satisfaction in college-aged students.

Some studies can be found addressing this area, however, they often say that this talk is present, but do not document frequency or source, nor do they compare the impact of negative and seemingly positive weight and diet talk.

Research indicated that there is a relationship between family views and discussions about weight and diet and an individual's body weight satisfaction. Parental encouragement has been shown to affect a child's diet. Parents who encouraged healthy eating "very much" compared to the group who encouraged healthy eating "quite a lot" had a higher score on the diet quality index (Faught et al., 2016). Thus providing the foundation for better understanding of the perceived relationship between parent's interest in their child's diet and their diet quality. This study, as with many, analyze short term rather than long-term effects on the child's eating behaviors which this current study seeks to explore.

People can influence a person's feelings about their weight because family circumstances and dynamics can shape an individual's feeling about the weight (Millestein, 2008). The Social Cognitive Theory explains the relationship between the environmental and individual factors that can ultimately affect the behavior of a person (Merrifield, Kami A, 2015). In order to understand the connection between the familial weight and diet talk and weight and life satisfaction, it is important to identify the underlying factors that influence a person's beliefs. The Social Cognitive Theory is an appropriate framework for this discussion because it effectively demonstrates the complex relationship that exist between the individual, the community in which they interact and work and behaviors they inhibit through the multitude of interactions at

various levels within their environments. Through this research we shall gain valuable information on how familial weight and diet talk from childhood affects young adults.

To summarize, there is a gap in the literature regarding the impact of weight and diet talk and its lingering effects on young adults. This type of talk, positive or negative, its frequency and source may have lasting effects on weight and life satisfaction in adults and should be investigated. Establishing the sources of this talk beyond that of parents and whether they impact later life and weight satisfaction has yet to be determined.

Research Purpose

The purpose of this study is to determine if there is an association between familial weight and diet talk, its source and frequency, and weight and life satisfaction in college-age students (18-28 years of age). There is a gap in the literature around whether family members other than parents, who engage in weight diet talk, have an influence on children's future body weight, weight satisfaction, or life satisfaction. Young adults were chosen as they have the most recent memories of experiencing childhood and adolescent weight and diet comments. As some individuals have extended family residing in the household or in close proximity to children, there may be more frequent interaction than what has been considered in the past. It is warranted that these interactions also be explored in research studies. Additionally, much of the published research addresses negative weight and body talk, but does not distinguish the effects of seemingly positive talk. This research explored how comments and discussions related to weight and diet from family members affect a person's weight and life satisfaction.

Justification

The current literature is limited in identifying specific family members, in addition to parents, engaging in weight and diet talk with children and whether that exposure has lasting effects into young adulthood. Therefore, this study sought to provide insight into the impact of other family member's weight talk and diet talk on a person's weight satisfaction and life satisfaction among college-aged participants. This research will provide insight into which family members or people have an influence on weight satisfaction and life satisfaction and how the frequency of these comments and discussions influences children into their college-age years. This study will add to the literature and will inform future intervention efforts.

CHAPTER 2

REVIEW OF LITERATURE

Body Weight

Body weight can be a sensitive topic and often a person's insecurity and sensitivity related to their body weight has been influenced by childhood experiences (Mendo-Lázaro, 2017). Because of this, investigating the early life experiences around familial weight and diet talk of young adults may provide information about their current feelings regarding weight satisfaction. Neumark-Sztainer et al. (2003) defined familial weight talk as negative weight-related talk, including teasing, negative comments about appearance, critical comments about body shape and or size, and discussions about dieting. In this study, familial weight and familial diet talk will also be addressed separately. Familial weight talk will be defined as discussions and comments about body weight and familial diet talk will be defined as discussions, comments about food intake or diet, whether they be positive, or negative.

Important Periods of Development

The complexity of the brain has become more understood over the past thirty years due to ongoing research (Tierney, & Nelson, 2009). This greater understanding of the brain has prompted a better understanding of how experiences affect the brain and encourages specific behaviors, including childhood experiences. While families

can influence behaviors, it remains difficult to pinpoint exact environmental incidents that trigger future behaviors.

Brain development is most critical during the period from birth to 5 years of age (Gilmore et. al, 2017). Therefore, parents should be aware of the behaviors during early childhood that may support a healthy developmental pattern. Comments made about a child's weight in their presence, during this period, could potentially have a detrimental effect on the child's eating behaviors and subsequently their body weight. Further research is needed to determine the effects of comments heard at an early age in order to better understand how families and society can promote a healthy environment as it relates to body weight for children and support the development of a healthy self-image that transcends into adulthood.

Even after the critical period of brain development, there can still be lasting effects of weight and diet talk even into adolescence and early adulthood (Keery et al., 2005). Researchers explored the prevalence and effects of familial teasing on body dissatisfaction, eating disturbances, and psychological functioning; the participants were in middle school aged girls. Those who reported parental and sibling weight-related talk were more likely to report being dissatisfied with their body. Whether this dissatisfaction continues into adulthood requires additional research.

Existence of Teasing and Weight Talk

There has been research reported assessing the effect of teasing and other weight talk in individuals and how it affected them later in life. Weight talk is something that can seem unavoidable in today's society. Its existence, good or bad, may effect an individual in a way that follows them into adulthood. Currently, there is limited literature that

discusses the sources of teasing and its impact. In addition, there is only a sparse amount of research that identifies the best approaches to use to promote health body and weight satisfaction under these circumstances. Negative comments about weight that are directed towards young children can influence their perception of self in such a way that they develop insecurities and a poor self-image (Allen, et al., 2014). Unfortunately, there may be a select group of individuals that believe negative comments about weight is motivating, therefore see themselves as helping others improve weight status.

Family Interactions

Family dynamics vary greatly from family to family, and have been shown to have an effect on the well-being of individual family members (Mars et al., 2009). Anderson (2014) noted that typically parents/caregivers and extended family members interact with younger family members on a consistent basis. These interactions, during the most impressionable years of development, are very influential in helping a child develop a positive self-image. Therefore, the familial structure and interactions can have an impact on a child's mental well-being. Weight talk and diet talk were not examined in this study. As such, research is needed to determine whether weight talk and diet talk that occurs during childhood affects their satisfaction with their body weight and general life satisfaction as adults.

Effects of Early Maternal Eating Disorders

A study was conducted examining the relationship between mothers with a current or past eating disorder and its effect on their children (Allen, et al., 2014). The mothers reported whether they had an eating disorder, their child's weight and their

feelings about their child's weight. The researchers concluded that in this small sample, the children of mothers indicating a current or past eating disorder reported significantly higher levels of global eating disorder symptoms and emotional eating than other children. Moreover, mothers with a current or past eating disorder reported significantly more concern about their children's weight than other mothers (Allen, et al., 2014). This study demonstrated a relationship between a mother's condition and experience and its potential impact on their children. Interestingly, this study did not evaluate the mother's eating behaviors specifically, just the presence of an eating disorder at one point and the concern for their child's weight. The child's perception of body weight or body image was not measured in this study.

Parental Weight and Diet Talk

Lydecker et al. (2018) examined the associations of parental fat talk (negative comments about oneself or towards the child), increases in irregular eating patterns, and overweight status in children. This study focused on parents of pre-adolescents (ages 9-11) and adolescents (ages 12-15). The researchers found that parents who were obese engaged in fat talk in the home more frequently than those who were not obese. Additionally, the fat talk directed towards the child's weight led to disordered eating in their children. In a similar study, researchers evaluated the risks of fat talk in adolescent girls and boys. They found more fat talk was experienced by adolescent girls compared to boys (Sharpe & Naumann, 2013). While these studies explored the effects of parental weight and diet talk, they did not explore the potential impact of this talk if delivered by other family members, its influence on children, or its long-term impacts on eating behaviors into adulthood.

Walsh et al. (2017) investigated the perspectives and attitudes of fathers about dietary factors and physical activity levels in their children. Interviews were conducted to determine whether fathers promoted healthy behaviors and physical activity behaviors within their family. Researchers concluded that fathers across all socio-economic classes evaluated prioritize these things (Walsh et al., 2017). Although this research was meaningful, it did not establish a relationship between fathers' beliefs about diet and exercise nor the influence it has on their children. As a result, more research is needed to explore how parental and familial talk effects their children's weight and life satisfaction.

Familial Weight and Diet Talk

Familial weight talk has been defined as negative weight-related talk, including teasing, negative comments about appearance, critical comments about body shape and or size, and discussions about dieting (Neumark-Sztainer et al., 2003). Negative weight-related talk occurs when a family member talks about another's weight along with general diet talk with references to body size or shape. Familial weight talk is a generalized term that has been reported in the literature, but may not always have the familial relation clearly delineated. For example, the research may not necessarily identify whether those engaging in the talk are 1st degree, 2nd degree, or 3rd degree relatives. In addition, there has been a lack of specificity in some studies regarding the frequency of weight talk, which may constitute an amount that impacts the person receiving negative weight talk. In a study conducted by Pudney et al. (2019), the aim was to determine if weight talk was associated with weight stigma. Weight stigma in this study was defined as weight bias or weight-based discrimination. The researchers concluded that experiencing weight stigma was indirectly associated with a greater

frequency of weight-based conversations (Pudney et al., 2019). However, they were unable to conclude that the greater frequency of stigma was a direct result of the weight-based conversations, but that those who reported weight stigma did have an increased frequency of weight-based conversations. In summary, people who felt more stigmatized about their weight had received more comments about their weight or had more weight-based conversations. It should be noted that this study investigated parents' weight talk but did not investigate the impact of the rest of the family members as sources of weight or diet talk.

Parent Versus Sibling Weight and Diet Talk

Currently, the literature supports the association of negative weight talk with the onset of obesity in children. This can subsequently have an impact on a child's health. When children are singled out by family members because of weight, the comments may harm the development of a positive perception of self and healthy dietary behaviors (Balentekin et al., 2014). In a separate study, the aim was to understand what factors such as weight control behaviors in the child's home and accompanying weight talk in the child's home and how these factors could best be identified. The researchers analyzed how parents responded to a given scenario to identify the presence of weight talk in the home. The children from this study reported that the family members were a main source of the weight talk. There was no significant data collected regarding whether these comments were welcomed or were said with ill intent. Only that weight talk was present in the home (Berge et al., 2015).

Berge et al. (2016) sought to assess the prevalence of negative weight talk within the immediate family. They identified who within the family made comments. Family

members included: mother, father, brother, or sister. The researchers found that the highest negative weight talk came from siblings, specifically older brothers. If there was a younger brother within the family, there was less negative weight-based talk reported.

Future research should consider including other influential family members such as grandparents, siblings, aunts, uncles, and any other extended family members to determine whether they play a role in familial weight and diet talk, and whether they should be considered regarding the development of negative weight satisfaction and weight in young adults. Also, there has not been an exploration of how weight and diet talk by teachers may influence weight and life satisfaction. Teachers spend significant amounts of time with children and are often addressing health issues, therefore, have significant influence on future health outcomes.

Maternal - Child Relationships

Mother - daughter relationships can be complex, creating a dynamic that can affect many aspects of life. Bauer et al. (2013) concluded, after studying mother-daughter pairs that “frequent parental weight talk lead to harmful weight control methods and poor psychological health in the adolescents”. The researchers followed 218 mother-daughter pairs who were surveyed to determine what effects maternal weight talk had on their respective daughters’ weight satisfaction. They aimed to establish a relationship between weight talk and the effect on the daughters. The researchers concluded that more frequent comments from mothers was associated with higher depressive symptomology. Depressive symptomology in this study was defined as reported use of weight control behaviors and low self-worth ratings. Family dynamics and mother-daughter

relationships are important factors to examine when analyzing the effect of weight and diet talk.

Cerniglia, et al. (2017) explored how mothers and daughters interact and sought to identify familial traits that are common in families having children with anorexia nervosa. Identifying common traits in families may provide insight into how disordered eating patterns may change, worsen or improve in the presence of specific family dynamics. The study concluded that the most common trait found in these families with children experiencing anorexia nervosa was rigidity. The most common characteristics from their profiles were interpersonal boundary problems, poor tolerance of conflicts, and low levels of general satisfaction in their family (Cerniglia et al., 2017).

The association of child eating disorder behaviors with having a parent with an eating disorder was studied by Lydecker and Grilo (2016). These researchers explored the behaviors of children during feedings and concluded that parents with an eating disorder were more likely to report child's binge eating behaviors and compulsive exercise. These results showed a need for clinical interventions for parents with eating disorders that also addressed behaviors with their children to prevent children from developing disordered eating patterns. Those who are born to parents with an eating disorder need to be monitored to ensure healthy lifestyle choices begin early and continue through adolescence and into adulthood. These same households may have other detrimental events occurring such as weight and diet talk. Limited research is available specifically exploring weight and diet talk by parents with eating disorders. In addition, according to this study, parents may be more likely to report these behaviors in their children and having previously, existing conditions may be associated with negative

outcome in the children (Bauer et al., 2013). Determining whether awareness and responses to a child's weight and eating behaviors is due to a parent's condition and whether that influences the parent's behaviors in a way that may be detrimental to children has yet to be elucidated.

There is a significant amount of research that examines the parent and child relationships in relation to eating disorders, which gives valuable insight into family dynamics surrounding weight. Lydecker, et al. (2016; 2017; 2018) has studied aspects of parent-child relationships in relation to disordered eating, including how binge eating disorders (BED) in parents can affect their children's eating patterns. During the 2017 study, Lydecker, et al. relied on the parents to report the BED behaviors that they had noticed in their children. The researchers concluded that the "parents with BED were significantly more likely than parents with obesity and no eating disorder, and those at a healthy weight to report child binge eating behaviors, and more likely than healthy weight parents to report their child's perceived overeating. Parents with BED felt greater responsibility for child feeding than obese parents, and felt more concern about their child's weight than obese and healthy weight parent" (Lydeker et al., 2017). This is one of the few studies that look at BED and how its effects can be transferred generationally. More research is needed to understand how this transfer occurs. Of concern is whether there is a similar occurrence of transfer in regards to weight and diet talk, body weight, weight and life satisfaction.

Role of Social Media

There has been a documented increase in the number of individuals seeking treatment for disordered eating, which has been blamed on the rise of the use of social

media sites. (Micali et al., 2013). Social media is part of everyday lives and may be a factor that should be examined for its effect on the development of eating disorders. In a study conducted to explore how social media affected disordered eating in college age women, researchers “measured their disordered eating, Facebook intensity, online physical appearance comparison, online fat talk, body mass index, depression, anxiety, perfectionism, impulsivity, and self-efficacy” (Walker et al., 2015). They concluded that the group of subjects with higher the Facebook intensity did not have a direct correlation between the use of Facebook and negative feelings toward their body in the college-aged women in this sample. However, other studies did document negative effects of social media use.

Today’s media portrays the need for men and women to act and look a certain way (Ata, & Thompson, 2010). Portrayal of an ideal body archetype can be very damaging, resulting in a stigma towards those who do not fit within the archetype’s parameters. This pressure can leave people feeling unattractive when their body types are underrepresented in the media (Greenberg et al., 2003). This type of stigma may also play a role in weight and life satisfaction and may represent the context within which people conduct their lives. Tiggemann et al. (2013) conducted a study on exploring how the internet and Facebook was related to adolescent girls’ body image. They concluded that Facebook users were more concerned about their body image than non-users. They did not evaluate the participants’ use of other social media platforms or their time spent on the internet. The internet-based studies above succeeded in looking for the links connecting them to eating disorders/ body image outcomes, but did not take into account the family dynamics. Since there are many factors that affect the development of a

person's body image, weight and life satisfaction, more research needs to be conducted to establish the effect of any of these influencers. This proposal will explore the relationship between the source of familial weight and diet talk, in a variety of and household compositions, and whether that talk is associated with weight and life satisfaction in college age individuals.

Body Image and Body Satisfaction

Body image and body satisfaction comes from within and it is how a person sees, thinks, and feels about their body. In a study of approximately 1200 college-aged females, researchers determined that of those who reported being dissatisfied with their bodies, 77% had a higher BMI and felt pressure from society to be thin (Ganesan, 2018). This study supports the concept that societal pressure can have an effect on young adult females. It did not investigate potential familial influences on the participants' weight satisfaction or dissatisfaction.

A systematic review was conducted to determine the psychological effects of childhood obesity and overweightness. The review found that childhood obesity and being overweight as a child correlated with depression, low quality of life, and lower self-esteem as adults (Rankin et al., 2016). The overweight children participating in this study were also more likely to be clinically diagnosed with depression when compared to normal weight children who were only self-reporting depression. It remains inconclusive whether these psychological conditions are a cause or consequence of obesity/overweight status. Regardless, obesity and overweight status can have an effect on self-esteem and quality of life. This supports the need for additional research to better understand the sources of weight dissatisfaction and life dissatisfaction.

Life Satisfaction Measurement

Life satisfaction has been defined as how one views their life and how satisfied they are with their life. Life satisfaction can be measured using the Satisfaction with Life Scale (SWLS) created by Pavot and Diener (2008). This standardized SWLS measures life satisfaction as it applies to wellbeing. This scale has been shown to be valid (Cronbach's alpha: 0.88) and is a commonly used scale used to measure life satisfaction. The scores from this tool have been used to predict future behaviors and evaluate mental health. The SWLS is a 7-point Likert style scale with a score range of 5 to 35, the score of 20 representing a neutral score.

Weight Satisfaction Measurement

The SWLS will also be used to model additional items in this current study regarding weight satisfaction and will be scored with the same method. This is necessary as there is not a n identified standardized, validated tool used for measuring weight satisfaction. Weight satisfaction is not as commonly measured as other variables in this area of study. Including this variable in the current study would be adding to the gap in the literature.

In a clinical study aiming to determine how weight satisfaction affected health behaviors, the level of weight satisfaction's relationship to health habits and tendencies were explored (Blake et al., 2013). This study was a cross-sectional analysis of the data from Aerobics Center Longitudinal Study (ACLS). Weight satisfaction was defined as participants' current weight minus their goal weight. The researchers concluded that higher levels of weight satisfaction – or the closer participants were to their goal weight – were correlated with positive health behaviors.

To summarize, there is a gap in the literature regarding the impact of weight and diet talk and its lingering effects on young adults. This type of talk, positive or negative, its frequency and source may have lasting effects on weight and life satisfaction in adults and should be investigated.

Research Purpose

The purpose of this study is to determine if there is an association between familial weight and diet talk, its source and frequency, and weight and life satisfaction in college-age students (18-28 years of age). There is a gap in the literature around whether family members other than parents, who engage in weight diet talk, have an influence on children's future body weight, weight satisfaction, or life satisfaction. Some individuals may have extended family residing in the household or in close proximity to children, there may be more frequent interaction than what has been considered in the past. It is warranted that these interactions also be explored in research studies. Additionally, much of the published research addresses negative weight and body talk, but does not distinguish the effects of seemingly positive talk. This proposed research will explore how comments and discussions related to weight and diet from family members affect a person's weight and life satisfaction.

Hypotheses

Study hypotheses are:

H₀: The presence of familial weight and/or diet talk will not be associated with weight and/or life satisfaction. Family members including parents, siblings, grandparents, extended family.

***H₀**: The frequency of familial weight and/or diet talk will not be associated with weight and/or life satisfaction. Family members including parents, siblings, grandparents, extended family.*

***H₀**: The presence of weight and/or diet talk by friends and teachers will not be associated with weight and/or life satisfaction.*

***H₀**: The frequency of weight and/or diet talk by friends and teachers will not be associated with weight and/or life satisfaction.*

CHAPTER 3

METHOD

Research Design

This study utilized a cross-sectional online survey design with network sampling that began with college-age students enrolled at Louisiana Tech University (LaTech). The researcher-developed questionnaire was designed using Qualtrics survey software (Appendix C). No data collection occurred prior to approval by the LaTech Institutional Review Board (IRB). Data analysis was completed using SPSS versions 25 and 28.

Participants and Setting

Study participants included enrolled students at LaTech University who were between 18 and 28 years of age served as the initial contacts for the network sampling. LaTech University is a regional, co-educational university with an enrollment of 10,289 students located in north Louisiana (LaTech, 2022). Participants were recruited via email (Appendix D) and online through campus groups, clubs, organizations, classroom announcements by faculty members, and additionally with posters/flyers around campus (Appendix E). All communications contained a link to the consent and questionnaire. Once the potential participant clicked the link, they were presented with the consent form to document their eligibility and agreement to proceed to the questionnaire. The target sample size was 150 participants.

Questionnaire

The researcher-developed questionnaire had 28 items including: 10 socio-demographic items, 3 familial talk items, 5 standardized life satisfaction questions (SWLS) (Pavot & Diener, 2013), 5 weight satisfaction items, 3 frequency of weight talk items and self-reported height and weight. The standardized life satisfaction survey was used as a model for the creation of weight satisfaction items. The questionnaire gathered self-reported height and weight for Body Mass Index calculation.

Procedures

The questionnaire was pilot-tested to ensure face validity with a group of five college-age students. Once LaTech IRB approval was received, recruitment communications were sent via email and posted on campus. Qualtrics housed the data until the data collection ended. Following collection, data was downloaded from Qualtrics and analyzed using SPSS versions 25 and 28 software.

Statistical Analysis

The characteristics of the participants were analyzed using descriptive statistics such as frequencies and measures of central tendency. Correlations were used to explore associations between variables and t-tests were used to compare the means of continuous variables of SWLS and SWWS between the presence or absence of comments, categories of family members who are initiating the weight and diet talk and the frequency of that talk. Cronbach alphas were used to test reliability of the SWLS and SWWS scales. All statistical analyses used an alpha of $p \leq 0.05$ for significance.

CHAPTER 4

RESULTS

Data collection took place in December of 2021. A total of 272 persons opened the questionnaire, however, six did not answer any items, and 17 responded only to the age question. The remaining 249 questionnaires were analyzed. These respondents resided in 16 states. The majority were female (68.3%) and identified as White, non-Hispanic (70.3%); mean age was 20.85 ($SD=2.60$) years. A majority of students were classified as Sophomores (64%) with a variety of major areas of study. See Table 1 for additional sociodemographic data.

Participants ($n=229$) reported a mean household size of 4.72 persons ($SD=1.44$; range of 2 to 12). Most lived with parents and siblings (79.5%), followed by parent or parents only (9.6%), then multigenerational households (5.2%) and grandparents (2.8%). Two participants reported living with persons other than parents or grandparents

Table 1*Socio-Demographics of the Study Sample (N=249)*

	<i>n</i>	<i>%</i>
<i>Sex</i>		
Female	170	68.3
Male	72	28.9
Transgender	2	0.8
Prefer not say/Missing	3	1.2
<i>Race</i>		
White, Non-Hispanic	175	70.3
White, Hispanic-origin	17	6.8
African American	28	11.2
Native American or Alaskan Native	1	0.8
Asian, Pacific Islander	2	0.8
Southeast Asian Indian	1	0.4
Middle Eastern	1	0.4
Biracial, Multiracial	15	.06
Missing	7	2.8
<i>Classification</i>		
Freshman	45	18.0
Sophomore	64	25.7
Junior	49	19.7
Senior	42	16.9
Graduate level	39	15.7
Missing	10	4.0
<i>Area of study</i>		
Food Nutrition and Dietetics	65	26.1
Speech Pathology	11	4.4
Human Development and Family Studies	27	10.8
Nursing	15	6
Health Information Management	1	0.4
Biology, Chemistry	21	8.4
Forestry & Agricultural Sciences	2	0.8
Engineering, Math, Computer Science	14	5.6
Aviation	2	0.8
Business, Fashion and Retail Studies	29	11.6
<i>Education</i>		
Psychology, Sociology, Social Work	11	4.4
Double Major	11	4.4
Other	39	15.7
Missing	7	2.8

Note: Mean age: 20.85 (*SD* = 2.60)

Table 2 delineates the source of the body weight comments experienced by the participants and whether or not the comments coming from each source was considered positive, negative, or both. Interestingly, the largest proportion of positive-only comments came from mothers (11.2%) and female friends (16.9%), followed by fathers and female cousins; the largest proportion of negative-only comments came from male friends (10.8%) and siblings (9.2%), followed by mothers (8.8%) and grandparents (8.4%). For those reporting receiving both types but mostly positive comments, the largest sources were mothers (21.3%) and female friends (14.5%). For those receiving both types but mostly negative comments, the greatest sources were mothers (13.7%), grandparents (11.6%), and male friends (10.8%). Sources least likely to make any body weight related comments were male cousins (48.2%), uncles (45%), teachers (47%), and female cousins (39%).

Table 2

Sources and Type of Body Weight Related Comments

Source		Positive Comments	Negative Comments	Both, Mostly Positive	Both, Mostly Negative	None
<i>n</i>		<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)	<i>n</i> (%)
Mother	160	28 (11.2)	22 (8.8)	53 (21.3)	34 (13.7)	23 (9.2)
Father	159	20 (8.0)	18 (7.2)	28 (11.2)	29 (11.6)	64 (25.7)
Siblings	156	9 (3.6)	23 (9.2)	27 (10.8)	24 (9.6)	73 (29.3)
Grandparents	156	17 (6.8)	21 (8.4)	20 (8.0)	29 (11.6)	69 (27.7)
Aunts	155	15 (6.0)	17 (6.8)	23 (9.2)	19 (7.8)	81 (32.5)
Uncles	155	8 (3.2)	10 (4.0)	14 (5.6)	11 (4.4)	112 (45.0)
F ^a Friends	155	42 (16.9)	15 (6.0)	36 (14.5)	19 (7.6)	43 (17.3)
F ^a Cousins	152	19 (7.6)	6 (2.4)	23 (9.2)	7 (2.8)	97 (39.0)
M ^b Friends	155	16 (6.4)	27 (10.8)	17 (6.8)	27 (10.8)	68 (27.3)
M ^b Cousins	154	9 (3.6)	7 (2.8)	6 (2.4)	12 (4.8)	120 (48.2)
Teachers	156	12 (4.8)	7 (2.8)	10 (4.0)	10 (4.0)	117 (47.0)

^aFemale; ^bMale

When asked whether participants had experienced comments about their food intake or diet while growing up, 65.5% responded “yes”, 24.9% responded “no”, and 4.8% did not remember. Participants were asked how often they typically experienced these comments to which they responded: several times per month (18.5%), 2 to 3 times per week (13.3%), once per week (11.2%), during holidays and celebrations (9.6%), four to six times per week (6%), and daily (4.8%). For those experiencing these comments, when asked whether these comments felt positive or negative, 39% of these participants reported the comments were both positive and negative, 18.9% responded that they were negative, and 6.4% positive. See Table 3.

Table 3

Sources and Type of Food Intake or Food Intake/Diet-Related Comments

Variable	<i>n</i>	Positive Comments	Negative Comments	Both Mostly Positive	Both Mostly Negative	No Comments
Mother	156	26 (10.4)	27 (10.8)	43 (17.3)	35 (14.1)	25 (10.0)
Father	154	21 (8.4)	25 (10.0)	30 (12.0)	28 (11.2)	50 (20.1)
Siblings	149	11 (4.4)	15 (6.0)	20 (8.0)	20 (8.0)	83 (33.3)
Grandparents	146	11 (4.4)	17 (6.8)	23 (9.2)	26 (10.4)	69 (27.7)
Aunts	144	11 (4.4)	11 (4.4)	16 (6.4)	18 (7.2)	88 (35.3)
Uncles	144	13 (5.2)	5 (2.0)	12 (4.8)	10 (4.0)	104 (41.8)
Male Friends	145	9 (3.5)	10 (4.0)	14 (5.6)	23 (9.2)	145 (58.2)
Female Friends	146	17 (6.8)	10 (4.0)	27 (10.8)	19 (7.6)	73 (29.3)
F ^a Cousins	145	12 (4.8)	5 (2.0)	12 (4.8)	7 (2.8)	109 (43.8)
M ^b Cousins	145	12 (4.8)	3 (1.2)	10 (4.0)	8 (3.2)	112 (45.0)
Teachers	145	9 (3.6)	8 (3.2)	10 (4.0)	9 (3.6)	109 (43.8)

^aFemale; ^bMale

The largest proportion of positive and mostly positive comments came from mothers, fathers and female friends. The largest proportion of negative and mostly negative comments came from mothers, fathers, and grandparents. The largest proportion of sources with “no comments” were male friends, uncles, and cousins.

To address this study’s objectives, the variables of satisfaction with life, satisfaction with weight and body mass index were measured. Satisfaction with life was measured using the SWLS which consisted of five Likert questions with responses scored from one to seven, resulting in a possible total score from 5 to 35, the score of 20 being neutral. The mean SWLS for this study was 24.71 ($SD=6.22$). Similarly, five questions were created by the researchers modeled after the SWLS questions for measuring satisfactions with body weight (SWWS). The mean SWWS for this study was 21.57 ($SD=7.34$). Reliability testing resulted in Cronbach’s alphas for the SWLS and the SWWS of 0.87 and 0.88, respectively. Body mass index (BMI) is a measure of body fat based on height and weight. According to the NIH, a BMI below 18.5 is considered underweight, 18.5-24.9 is normal weight, 25-29.9 is overweight, and ≥ 30 is obese. The mean BMI was found to be 24.9 ($SD=6.64$).

Pearson’s correlations (two-tailed) were employed to explore the relationships among the SWLS, SWWS, and the BMI. There was a significant positive correlation between SWLS and SWWS, $r(214) = 0.460, p < 0.01$. There was a significant negative correlation between SWWS and BMI, $r(214) = -0.363, p < 0.01$. No significance was found between SWLS and BMI.

To compare the presence of body weight comments with the SWLS and SWWS, independent samples t-tests were calculated. There was a significant difference found

between those who did and did not experience body weight comments. The mean SWLS score for those experiencing body weight comments ($M = 23.82$, $SD = 6.35$) was lower than the score for those not experiencing comments ($M=26.60$, $SD = 5.56$); $t(218) = -3.142$, $p = 0.002$. The mean SWWS score for those experiencing body weight comments ($M = 19.94$, $SD = 7.38$) was lower than the score for those not experiencing comments ($M = 25.03$, $SD = 5.94$); $t(212) = -5.40$, $p < 0.01$. Therefore, those who experienced body weight-related comments had lower satisfaction with life and lower satisfaction with weight scores.

Table 4 illustrates the results of the SWLS scores by item for those experiencing comments and those not experiencing body weight comments. When compared using t-tests, three items were found to be significantly different.

Table 4*Comparison of Satisfaction with Life Item Scores by Experience of Body Weight Comments*

SWLS Item	Body Weight Comments		No Body Weight Comments		t-test		
	<i>n</i>	<i>Mean (SD)</i>	<i>n</i>	<i>Mean (SD)</i>	<i>t</i>	<i>df</i>	<i>p</i>
In most ways, my life is close to my ideal.	150	4.87 (1.48)	70	5.26 (1.25)	-1.905	218	.057
The conditions of my life are excellent.	150	4.99(1.51)	70	5.54 (.124)	-2.688*	218	.008
I am satisfied with my life.	150	5.04(1.46)	70	5.69 (1.25)	-3.195*	218	.002
So far, I have gotten the important things I want in life.	150	5.13 (1.44)	70	5.44 (1.32)	-1.559	218	.120
If I could live my life over, I would change almost nothing.	150	3.80 (1.89)	70	4.67 (1.86)	-3.204*	218	.002

* $p < .05$. Note: 7-point Likert scale items.

Table 5 illustrates the results of the SWWS scores by item for those experiencing comments and those not experiencing body weight comments. All items were found to be significantly different. T-test results for SWWS item comparisons between those who did and did not experience body weight comments can be found in Table 5. All five items were found to be statistically significant, with mean scores being lower for those who experience comments.

Table 5*Comparison of Weight Satisfaction Item Scores by Experience of Body Weight Comments*

SWWS Item	Body Weight Comments		No Body Weight Comments		t-test		
	<i>n</i>	<i>Mean (SD)</i>	<i>n</i>	<i>Mean (SD)</i>	<i>t</i>	<i>df</i>	<i>p</i>
In most ways, my weight is close to my ideal weight.	145	3.96 (1.95)	70	5.00 (1.55)	-4.227**	218	<.001
The conditions surrounding my weight are excellent.	145	3.86 (1.70)	70	5.13 (1.34)	-5.966**	218	<.001
I am satisfied with my weight.	145	3.71 (1.98)	70	4.80 (1.71)	-4.159**	218	<.001
So far, I have gotten the important things I want in life.	145	5.03 (1.42)	70	5.49 (1.23)	-2.330*	218	.021
If I could live my life over, I would change almost nothing as it pertains to my weight.	145	3.39 (1.94)	70	4.66 (1.73)	-4.730**	218	<.001

* $p < .05$; ** $p < .01$. Note: 7-point Likert scale items.

Similarly, independent samples t-tests were calculated to compare the SWLS and the SWWS between those who did and did not experience food intake or diet comments. The mean SWLS score for those experiencing food intake and diet comments ($M = 24.51$, $SD = 6.16$) was lower than for those not experiencing comments ($M = 25.36$, $SD = 6.37$)

but was not statistically significant; $t(209) = -0.897, p = 0.371$. The mean SWWS score for those experiencing food intake or diet comments ($M = 21.30, SD = 7.69$) was lower than the score for those not experiencing comments ($M = 23.00, SD = 6.44$) but was not statistically significant; $t(203) = -1.517, p = 0.131$.

Table 6 illustrates the results of the SWLS scores by item for those experiencing comments and those not experiencing food intake/diet comments. When compared using t-tests, only the item “If I could live my life over, I would change almost nothing” resulted in statistical significance. Those who experienced comments had a lower mean SWLS score ($M = 3.86, SD = 1.95$) than those not experiencing comments ($M = 4.61, SD = 1.79$); $t(209) = -2.58, p = 0.011$. Greater satisfaction was reported by those not experiencing food intake/diet comments.

Table 6

Comparison of Satisfaction with Life Item Scores by Experience of Food Intake/Diet Comments

SWLS Item	Food Intake/Diet Comments		No Food Intake/Diet Comments		t-test <i>t</i>	<i>df</i>	<i>p</i>
	<i>n</i>	Mean (<i>SD</i>)	<i>n</i>	Mean (<i>SD</i>)			
In most ways, my life is close to my ideal.	150	5.01 (1.43)	61	4.97 (1.40)	.213	209	.831
The conditions of my life are excellent.	150	5.22(1.42)	61	5.03 (1.52)	.852	209	.395
I am satisfied with my life.	150	5.21(1.40)	61	5.43 (1.47)	-1.018	209	.310
So far, I have gotten the important things I want in life.	150	5.21 (1.40)	61	5.33 (1.39)	-.539	209	.590
If I could live my life over, I would change almost nothing.	150	3.86 (1.95)	61	4.61 (1.79)	-2.58*	209	.011

* $p < .05$. Note: 7-point Likert scale items.

Table 7 illustrates the results of the SWWS scores by item for those experiencing comments and those not experiencing food intake/diet comments. When compared using t-tests, one item was found to be significantly different

Table 7

Comparison of Weight Satisfaction Item Scores by Experience of Food Intake/Diet Comments

SWWS Item	Food Intake/Diet Comments		No Food Intake/Diet Comments		t-test		
	<i>n</i>	<i>Mean (SD)</i>	<i>n</i>	<i>Mean (SD)</i>	<i>t</i>	<i>df</i>	<i>p</i>
In most ways, my weight is close to my ideal weight.	145	4.29 (1.93)	61	4.44 (1.88)	-.524	204	.601
The conditions surrounding my weight are excellent.	145	4.18 (1.76)	61	4.59 (1.50)	-1.597	204	.112
I am satisfied with my weight.	145	4.01(1.96)	61	4.44 (1.93)	-1.464	204	.145
So far, I have gotten the important things I want in life.	145	5.23 (1.36)	61	5.10 (1.41)	.623	203	.534
If I could live my life over, I would change almost nothing as it pertains to my weight.	145	3.64 (1.94)	61	4.43 (1.86)	-2.689*	204	.008

* $p < .05$. Note: 7-point Likert scale items.

Spearman's correlations were utilized to evaluate the frequency of body weight and food/diet-related comments' association with SWLS and SWWS. A significant negative correlation was found between SWLS and frequency of body weight comments experienced, $r(149) = -0.71, p = 0.036$. A significant negative correlation was also found between SWWS and frequency of body weight comments as well, $r(144) = -0.346, p < 0.01$. As the frequency of body weight comments increased, both satisfaction scores decreased. Additionally, a significant negative correlation was found between SWWS and food/diet-related comments, $r(148) = -0.289, p < 0.01$. As the frequency of food/diet-related comments increased, the satisfaction with body weight decreased. No significant correlation was found for SWLS and food/diet-related comments.

Independent samples t-tests were conducted to determine whether the presence alone of body weight or food intake/diet related comments by individual family members, friends, or teachers resulted in significant differences between SWLS and SWWS scores. No significant differences were found for any individual family member, friends, or teachers.

Discussion

This study assessed a population of college students that began at Louisiana Tech University and was then networked to other campuses in the United States. Participants in the study provided important data related to their experience with body weight and food/diet related comments while growing up as well as their current satisfaction with their lives and body weight.

Weight talk or comments in literature have been measured but information regarding how the experience of receiving those comments affects persons later in life is

lacking. The first and second null hypotheses of this study stated: the presence of familial weight and/or diet talk will not be associated with weight or life satisfaction and the frequency of familial weight and/or diet talk will not be associated with weight or life satisfaction. Nearly 68% of this study's sample indicated that they had experienced body weight comments and 66% had experienced food intake/diet comments. It is also important to note that the presence of weight related comments correlated positively with the presence of the food intake or diet comments. Further investigation is needed to determine if those making weight related comments are also making diet related comments.

Data analysis results demonstrated a significant negative correlation between weight talk and both satisfaction scales. A significant difference in the mean scores for the SWLS and the SWWS was found if body weight comments were experienced. Therefore, the first null hypothesis was rejected for body weight comments. Only the presence of diet talk frequency was found to be associated with satisfaction with body weight, and no statistical difference was found between the mean scores of the SWLS and the SWWS. Therefore, the second null hypothesis is partially rejected. While the presence of diet talk alone was not found to be significant in this sample, it may warrant further investigation as this is the first time use of the newly developed SWWS question set. No significant differences between tool scores were found based on any individual family member, friends, or teachers being a source of the comments. Additional research is needed order to determine whether these results are applicable to larger populations and to validate the SWWS question set.

It is important to note that the presence of weight related comments correlated positively with the presence of the food intake or diet comments. This supports the need for further research regarding food intake and diet comments as a separate entity alone to distinguish their lasting effect on how one perceives their satisfaction with life or body weight.

The third and fourth null hypotheses of this study stated that the presence nor the frequency of weight and/or diet talk by friends and teachers would not be associated with weight and/or life satisfaction. Independent samples t-tests were conducted to determine whether the presence alone of body weight or food intake/diet related comments resulted in significant differences between SWLS and SWWS scores. No significant differences were found for male or female friends, or teachers. Therefore, the null hypotheses were accepted. Overall, the data indicated that parents, grandparents and female friends were most frequently the sources of weight and diet talk, which appears to have an effect on life and weight satisfaction as measured by the SWLS and the SWWS.

It is also important to note that the presence of weight related comments correlated positively with the presence of the food intake or diet comments. This supports the need for further research regarding food intake and diet comments as an entity alone to distinguish their lasting effect on how one perceives their satisfaction with life or body weight.

The third and fourth null hypotheses of this study stated that the presence nor the frequency of weight and/or diet talk by friends and teachers would not be associated with weight and/or life satisfaction. Independent samples t-tests were conducted to determine whether the presence alone of body weight or food intake/diet related comments resulted

in significant differences between SWLS and SWWS scores. No significant differences were found for male or female friends, or teachers. Therefore, the null hypotheses were accepted.

Limitations

The most important limitation is that of needing a validated tool for satisfaction with body weight. Despite being modeled after the SWLS and having a satisfactory Cronbach's alpha, the tool should undergo factor analysis. Additionally, research is needed to determine if the results found in this study can be extrapolated to a larger population of college students. Data collected was unable to identify the proximity, frequency of time spent together, or length of time spent with these family members and friends which could have affected outcomes. Attempts were made to recruit responses from different states, and indeed 16 states were included, however, the majority of responses came from the state of Louisiana.

Conclusion

Due to the sensitive nature of body weight and how insecurities about body weight can be rooted in childhood experiences (Mendo-Lázaro, 2017), it is important that research is conducted to shed light on how these childhood experiences affect people well into adulthood. This is what this study aimed to accomplish, to further characterize these experiences and to distinguish food intake and diet related comments from body weight comments. This study explored how comments from family, friends, or extended family affect one's life satisfaction and weight satisfaction. For some, the importance of extended family members and their comments may prove to also have an impact on their

life and body weight satisfaction, even though this study was unable to measure all of these effects. The purpose of this study was to determine if there was an association between familial weight and diet talk, its source and frequency, and weight and life satisfaction in college-age students. There has been a gap in the literature around whether family members other than parents, who engage in body weight and food intake/diet talk, have an influence on children's future body weight, weight satisfaction, or life satisfaction. This study's findings may begin to fill that gap by contributing to the literature to and enable a better understanding of the dynamics that contribute to a person's weight satisfaction and life satisfaction. This is the first study known to this researcher that attempted to gather comments from extended family, friends, and teachers. It is interesting that so many have experienced both weight and diet comments growing up, supporting the need for future research.

APPENDIX A

OPERATIONAL DEFINITIONS

Operational Definitions

Familial Weight Talk: defined as body weight-related comments or discussions, including teasing, negative or positive, about appearance, critical comments about body shape and or size.

Familial Diet talk- defined as diet-related comments or discussions may be positive or negative.

Familial talk- when any family member talks about the weight of the participant and general talk about diet. This can also be referring to body shape or size.

Weight satisfaction- how one views their body weight and how satisfied they are with their body weight. Measured by researcher-designed items.

Life satisfaction- how one views their life and their satisfaction with their life. Measured by the SWLS in this study.

APPENDIX B

RESEARCH MATRIX

Familial Weight and Diet Talk's Relationship to Weight Satisfaction and Life Satisfaction

Purpose Statement	Hypotheses	Study Design	Variables (+ Measurement Tool)	Type of Data	Primary Statistical Test(s)
<p>The purpose of this study is to determine if there is an association between familial weight and diet talk, its source and frequency, and weight and life satisfaction in college-age students (18-28 years of age).</p>	<p><u>H₀</u>: The presence of familial weight and/or diet talk will not be associated with weight and/or life satisfaction. Family members including parents, siblings, grandparents, extended family.</p> <p><u>H₀</u>: The frequency of familial weight and/or diet talk will not be associated with weight and/or life satisfaction. Family members including parents, siblings, grandparents, extended family.</p> <p><u>H₀</u>: The presence of weight and/or diet talk by friends and teachers will not be associated with weight and/or life satisfaction.</p> <p><u>H₀</u>: The frequency of weight and/or diet talk by friends and teachers will not be associated with weight and/or life satisfaction.</p>	<p>Cross-sectional, convenience sample</p> <p>Target sample size: 150</p>	<p><u>Independent:</u></p> <p>Presence and frequency of weight talk</p> <p>Presence and frequency of diet talk</p> <p>Family members categories</p> <p><u>Dependent:</u></p> <p>Weight and Life Satisfaction</p> <p>- Measurement tool</p> <ul style="list-style-type: none"> • SWLS Tool • Researcher developed weight satisfaction tool 	<p>Frequency and categorical</p> <p>Continuous scale</p>	<p>Descriptive statistics,</p> <p>Comparisons: t-tests, chi-square, ANOVA</p> <p>Regression if possible</p>

APPENDIX C

QUESTIONNAIRE

Familial weight and diet talk - Jasmine

Q1 Insert consent form here

- Yes, I consent to participate in this study and I am 18 to 28 years of age
- No, I do not wish to participate in this study

Skip To: End of Survey If Insert consent form here = No, I do not wish to participate in this study

Q2 What is your age?

- Younger than 18
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- older than 28

Skip To: End of Survey If What is your age? = younger than 18

Skip To: End of Survey If What is your age? = older than 28

Q3 In which state do you reside?

Q4 What is your sex?

- Female
- Male
- Transgender male
- Transgender female
- Prefer not to answer

Q5 What is your race?

- White, non-Hispanic
 - White, Hispanic origin
 - African American or Black
 - Black, Hispanic origin
 - Native American or Alaskan Native
 - Asian, Pacific Islander
 - Indian (Southeast or Subcontinental)
 - Middle Eastern
 - biracial, please list _____
 - multiracial, please list _____
-

Q6 What is your student classification?

- Freshman
 - Sophomore
 - Junior
 - Senior
 - Graduate Student
-

Q7 What is your primary area of study?

- Food, Nutrition, Dietetics
- Fashion Merchandising and Retail Studies
- Human Development and Family Studies
- Nursing
- Health Information Management
- Biology or Chemistry
- Forestry & Agricultural Sciences
- Engineering, Math, & Computer Science
- Aviation
- Business
- Education
- Social Work
- Psychology or Sociology
- Liberal Arts (Literature, Language, History, Art, Architecture)
- Speech Pathology
- Double Major, please list

Other _____

Q8 Growing up, how many people lived in your household, including yourself?

Q9 Growing up, who lived in your household?

- Lived with parents only
- Lived with parents and siblings
- Lived with grandparent (s)
- Lived with extended family
- Lived with multiple adult generations in the household
- Other, please describe

End of Block: Demographics & Consent

Start of Block: Weight Talk and Source

Q10 Below are some questions pertaining to discussions about body weight and diet in your household when you were growing up. Please answer honestly.

Did you experience comments about your **body weight** from family, friends, or teachers growing up?

- yes
- no
- Don't remember

Skip To: Q14 If Below are some questions pertaining to discussions about body weight and diet in your household w... = no

Q11 Were the comments about your weight welcomed?

- Yes
 - No
 - Sometimes
-

Q12 If **weight talk** was present, how often were these comments typically heard.

- Daily
 - 4-6 times a week
 - 2-3 times a week
 - Once a week
 - several times per month
 - during holidays and celebrations
-

Q13 Who made these comments about your **weight** and did they feel positive or negative. Select all that apply.

	Positive Comments	Negative Comment	Both Mostly Positive	Both Mostly Negative	No Comments Were Made
Mother	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Father	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Siblings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grandparents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aunts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Male Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Female Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
female cousins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
male cousins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 Did you experience comments about your **food intake or diet** from family, friends, or teachers growing up?

- yes
- no
- Don't remember

Skip To: End of Block If Did you experience comments about your food intake or diet from family, friends, or teachers grow... = no

Q15 If **diet talk** was present, how often were these comments typically heard.

- Daily
 - 4-6 times a week
 - 2-3 times a week
 - Once a week
 - several times per month
 - during holidays and celebrations
-

Q16 Were these comments about your **food intake or diet** positive or negative?

- Positive
 - Negative
 - Both positive and negative
-

Q17 Who made these comments about your **diet and did they feel positive or negative.**
Select all that apply.

	Positive Comments	Negative Comment	Both Mostly Positive	Both Mostly Negative	No Comments Were Made
Mother	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Father	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Siblings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Grandparents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aunts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uncles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Male Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Female Friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
female cousins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
male cousins	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Weight Talk and Source

Start of Block: Frequency of weight talk and if it was unwanted or welcomed

Q18 How tall are you? Enter both feet and inches.

_____ Feet

_____ inches

Q19 How much do you weigh?

_____ lbs

End of Block: Frequency of weight talk and if it was unwanted or welcomed

Start of Block: Life satisfaction Tool SWLS

Q20 Below are five statements that you may **agree or disagree** with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

In most ways my life is close to my ideal.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q21 The conditions of my life are excellent.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q22 I am satisfied with my life.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

Q23 So far I have gotten the important things I want in life.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

Q24 If I could live my life over, I would change almost nothing.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

End of Block: Life satisfaction Tool SWLS

Start of Block: Weight Satisfaction modeled after SWLS

Q25

Below are five statements that you may or may not agree with; Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest with your responses.

In most ways my weight is close to my ideal weight.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q26 The conditions surrounding my weight are excellent.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q27 I am satisfied with my weight.

- 7 - Strongly agree
- 6 - Agree
- 5 - Slightly agree
- 4 - Neither agree nor disagree
- 3 - Slightly disagree
- 2 - Disagree
- 1 - Strongly disagree

Q28 So far I have gotten the important things I want in life.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q29 If I could live my life over, I would change almost nothing as it pertains to my weight.

- 7 - Strongly agree
 - 6 - Agree
 - 5 - Slightly agree
 - 4 - Neither agree nor disagree
 - 3 - Slightly disagree
 - 2 - Disagree
 - 1 - Strongly disagree
-

Q30 Do you receive financial assistance from your parents while in college?

- Yes
- No

End of Block: Weight Satisfaction modeled after SWLS

Start of Block: Financial aid

Q31 Do you receive Financial aid of any kind? Select all that apply

- Pell grant
- Student loans
- Scholarships
- No I did not receive any financial aid

APPENDIX D

RECRUITMENT EMAIL

Recruitment Email

Hello Students,

I am a graduate student at the university and need your help to conduct my research. I am researching how familial talk affects weight and life satisfaction. I have created a short quiz that will help me gain information on this area. I need participants 18-28 years of age, there is a link below where you can submit your response.

Link:

Thank you for your time,

Jasmine Gilbert RD LDN

APPENDIX E

RECRUITMENT FLYER/POSTER

LATECH

PARTICIPANTS NEEDED

Are you 18-28 years of age?

A student at LATECH?

Please scan the QR code or use the link to
access a short survey!

[https://latechnd.iad1.qualtrics.com/jfe/form/SV_6A3a124
tbtwjDGB](https://latechnd.iad1.qualtrics.com/jfe/form/SV_6A3a124tbtwjDGB)

APPENDIX F

HUMAN USE APPROVAL LETTER



OFFICE OF SPONSORED PROJECTS

MEMORANDUM

TO: Dr. Simone Camel and Jasmine Gilbert

FROM: Dr. Richard Kordal, Director of Intellectual Property & Commercialization (OIPC)
rkordal@latech.edu

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: November 17, 2021

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

"Familial Weight and Diet Talk's Relationship to Weight Satisfaction and Life Satisfaction"

HUC 22-039

The proposed study's revised procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. ***This approval was finalized on November 17, 2021 and this project will need to receive a continuation review by the IRB if the project continues beyond November 17, 2022.*** ANY CHANGES to your protocol procedures, including minor changes, should be reported immediately to the IRB for approval before implementation. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of Sponsored Projects.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Sponsored Projects or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

A MEMBER OF THE UNIVERSITY OF LOUISIANA SYSTEM

P.O. BOX 3092 • RUSTON, LA 71272 • TEL: (318) 257-5075 • FAX: (318) 257-5079

AN EQUAL OPPORTUNITY UNIVERSITY

REFERENCES

- Anderson J. (2014). The impact of family structure on the health of children: Effects of divorce. *The Linacre Quarterly*, 81(4), 378–387.
<https://doi.org/10.1179/0024363914Z.000000000087>
- Allen, K. L., Gibson, L. Y., Mclean, N. J., Davis, E. A., & Byrne, S. M. (2014). Maternal and family factors and child eating pathology: Risk and protective relationships. *Journal of Eating Disorders*, 2(1). doi:10.1186/2050-2974-2-11
- American Psychiatric Association; 2013. American Psychiatric Association: *Diagnostic and statistical manual of mental disorders*.
- Ata, R. N., & Thompson, J. K. (2010). Weight bias in the media: a review of recent research. *Obesity Facts*, 3(1), 41–46. <https://doi.org/10.1159/000276547>
- Balantekin, K. N., Savage, J. S., Marini, M. E., & Birch, L. L. (2014). Parental encouragement of dieting promotes daughters' early dieting. *Appetite*, 80, 190-196. doi:10.1016/j.appet.2014.05.016
- Bauer, K. W., Bucchianeri, M. M., & Neumark-Sztainer, D. (2013). Mother-reported parental weight talk and adolescent girls' emotional health, weight control attempts, and disordered eating behaviors. *Journal of Eating Disorders*, 1(1). doi:10.1186/2050-2974-1-45

- Berge, J., Winkler, M., Larson, N., Miller, J., Haynos, A., & Neumark-Sztainer, D. (2018, April). Intergenerational transmission of parent encouragement to diet from *Adolescence into Adulthood*. Retrieved January 04, 2021, from <https://www.ncbi.nlm.nih.gov/pubmed/29511051>
- Berge JM, Hanson-Bradley C, Tate A, Neumark-Sztainer D. Do parents or siblings engage in more negative weight-based talk with children and what does it sound like? A mixed-methods study. *Body Image*. 2016 Sep; 18:27-33. DOI: 10.1016/j.bodyim.2016.04.008.
- Berge, J. M., Trofholz, A., Fong, S., Blue, L., & Neumark-Sztainer, D. (2015). A qualitative analysis of parents' perceptions of weight talk and weight teasing in the home environments of diverse low-income children. *Body Image*, 15, 8-15. doi:10.1016/j.bodyim.2015.04.006
- Blake, C. E., Hébert, J. R., Lee, D., Adams, S. A., Steck, S. E., Sui, X., . . . Blair, S. N. (2013). Adults with greater weight satisfaction report more positive health behaviors and have better health status regardless of BMI. *Journal of Obesity*, 2013, 1-13. doi:10.1155/2013/291371
- Celik, S. S., Celik, Y., Hikmet, N., & Khan, M. M. (2018). Factors affecting life satisfaction of older adults in Turkey. *International journal of aging & human development*, 87(4), 392–414. <https://doi.org/10.1177/0091415017740677>
- Cerniglia, L., Cimino, S., Tafà, M., Marzilli, E., Ballarotto, G., & Bracaglia, F. (2017). Family profiles in eating disorders: Family functioning and psychopathology. *Psychology Research and Behavior Management*, Volume 10, 305-312. doi:10.2147/prbm.s145463

- Faught, E., Vander Ploeg, K., Chu, Y. L., Storey, K., & Veugelers, P. J. (2016). The influence of parental encouragement and caring about healthy eating on children's diet quality and body weights. *Public Health Nutrition* 19(5), 822–829.
<https://doi.org/10.1017/S1368980015002049>
- Ganesan, S., Ravishankar, S. L., & Ramalingam, S. (2018). Are Body Image Issues Affecting Our Adolescents? A Cross-sectional Study among College Going Adolescent Girls. *Indian journal of community medicine: Official publication of Indian Association of Preventive & Social Medicine*, 43(Suppl 1), S42–S46.
https://doi.org/10.4103/ijcm.IJCM_62_18
- Gilmore, J. H., Knickmeyer, R. C., & Gao, W. (2018). Imaging structural and functional brain development in early childhood. *Nature reviews. Neuroscience*, 19(3), 123–137. <https://doi.org/10.1038/nrn.2018.1>
- Greenberg, B. S., Eastin, M., Hofschire, L., Lachlan, K., & Brownell, K. D. (2003). Portrayals of overweight and obese individuals on commercial television. *American journal of public health*, 93(8), 1342–1348.
<https://doi.org/10.2105/ajph.93.8.1342>
- Keery, H., Boutelle, K., van den Berg, P., & Thompson, J. K. (2005). The impact of appearance-related teasing by family members. *The Journal of adolescent health: official publication of the Society for Adolescent Medicine*, 37(2), 120–127.
<https://doi.org/10.1016/j.jadohealth.2004.08.015>
- LATECH Home*. Louisiana Tech University. (n.d.). Retrieved January 24, 2022, from <https://www.latech.edu/>

- Lam, Y., Maguire, S., Palacios, T., & Caterson, I. (2017). Are the Gut Bacteria Telling Us to Eat or Not to Eat? Reviewing the Role of Gut Microbiota in the Etiology, Disease Progression and Treatment of Eating Disorders. *Nutrients*, *9*(6), 602. doi:10.3390/nu9060602
- Levine, M. P., & Smolak, L. (2013). *Toward a model of the developmental psychopathology of eating disorders: The example of early adolescence*. In J. H. Crowther, D. L. Tennenbaum, S. E. Hobfoll, & M. A. P. Stephens (Eds.), *Series in applied psychology: Social issues and questions. The etiology of bulimia nervosa: The individual and familial context* (p. 59–80).
- Lydecker, J. A., & Grilo, C. M. (2016a). Children of parents with BED have more eating behavior disturbance than children of parents with obesity or healthy weight. *International Journal of Eating Disorders*, *50*(6), 648-656. doi:10.1002/eat.22648
- Lydecker, J. A., & Grilo, C. M. (2016b). Fathers and mothers with eating-disorder psychopathology: Associations with child eating-disorder behaviors. *Journal of Psychosomatic Research*, *86*, 63-69. doi:10.1016/j.jpsychores.2016.05.006
- Lydecker, J. A., Riley, K. E., & Grilo, C. M. (2018). Associations of parents' self, child, and other "fat talk" with child eating behaviors and weight. *International Journal of Eating Disorders*, *51*(6), 527-534. doi:10.1002/eat.22858
- Merz, E. M., Schuengel, C., & Schulze, H. J. (2009). Intergenerational relations across 4 years: Well-being is affected by quality, not by support exchange. *The Gerontologist*, *49*(4), 536–548. <https://doi.org/10.1093/geront/gnp043>

- Mendo-Lázaro, S., Polo-Del-Río, M. I., Amado-Alonso, D., Iglesias-Gallego, D., & León-Del-Barco, B. (2017). Self-Concept in Childhood: The Role of Body Image and Sport Practice. *Frontiers in Psychology*, 8. doi:10.3389/fpsyg.2017.00853
- Merrifield, K. A., Gamble, W. C., & Yu, J. J. (2015). Using social cognitive theory to understand meta-parenting in parents of young children. *Family Science*, 6(1), 362-369. doi:10.1080/19424620.2015.1076495
- Micali, N., Hagberg, K., Petersen, I., & Treasure, J. (2013, January 01). *The incidence of eating disorders in the UK in 2000–2009: Findings from the General Practice Research Database*. Retrieved January 04, 2021, from <https://bmjopen.bmj.com/content/3/5/e002646>
- Millstein, R. A., Carlson, S. A., Fulton, J. E., Galuska, D. A., Zhang, J., Blanck, H. M., & Ainsworth, B. E. (2008). Relationships between body size satisfaction and weight control practices among US adults. *Medscape Journal of Medicine*, 10(5), 119.
- M. Prince, V., J. Helliwell, R., E. Diener, R., E. Diener, M., P. Dolan, T., TW. Strine, K., . . . F. Ahmad, A. (2018). *The fundamental association between mental health and life satisfaction: Results from successive waves of a Canadian national survey*. Retrieved March 15, 2021, from <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-018-5235-x>
- Neumark-Sztainer, D., Wall, M. M., Story, M., & Perry, C. L. (2003). Correlates of unhealthy weight-control behaviors among adolescents: Implications for prevention programs. *Health Psychology*, 22(1), 88-98. doi:10.1037/0278-6133.22.1.88

- Pudney, E. V., Himmelstein, M. S., & Puhl, R. M. (2019). The role of weight stigma in parental weight talk. *Pediatric obesity, 14*(10), e12534.
<https://doi.org/10.1111/ijpo.12534>
- Ogden, C., Carroll, M., Lawman, H., Fryar, C., Kruszon-Moran, D., Kit, B., & Flegal, K. (2016, June 07). *US trends in obesity prevalence in children and adolescents, 1988-2014*. Retrieved January 04, 2021, from
<https://jamanetwork.com/journals/jama/fullarticle/2526638>
- Pavot, W., & Diener, E. (2013). *The satisfaction with life scale (SWL)*. *Measurement instrument database for the social science*. Retrieved from www.midss.ie
- Qualtrics. (2005). *Qualtrics* [Computer software]. Retrieved 2020, from
<https://www.qualtrics.com>
- Rankin, J., Matthews, L., Cobley, S., Han, A., Sanders, R., Wiltshire, H. D., & Baker, J. S. (2016). Psychological consequences of childhood obesity: psychiatric comorbidity and prevention. *Adolescent health, medicine and therapeutics, 7*, 125–146. <https://doi.org/10.2147/AHMT.S101631>
- Sharpe, H., Naumann, U., Treasure, T., & Schmidt, U. (2013). *Is fat talking a causal risk factor for body dissatisfaction? A systematic review and meta-analysis*. Retrieved January 04, 2021, from <https://pubmed.ncbi.nlm.nih.gov/23818118/>
- Stice, E., Marti, C., & Rohde, P. (2013). *Prevalence, incidence, impairment, and course of the proposed DSM-5 eating disorder diagnoses in an 8-year prospective community study of young women*. Retrieved January 04, 2021, from
<https://pubmed.ncbi.nlm.nih.gov/23148784/>

- Tierney, A. L., & Nelson, C. A., 3rd (2009). Brain Development and the Role of Experience in the Early Years. *Zero to three*, 30(2), 9–13.
- Tiggemann, M., & Slater, A. (2013). NetGirls: The Internet, Facebook, and body image concern in adolescent girls. *International Journal of Eating Disorders*, 46(6), 630-633. doi:10.1002/eat.22141
- Walker, M., Thornton, L., Choudhury, M. D., Teevan, J., Bulik, C. M., Levinson, C. A., & Zerwas, S. (2015). Facebook Use and Disordered Eating in College-Aged Women. *Journal of Adolescent Health*, 57(2), 157-163. doi:10.1016/j.jadohealth.2015.04.026