

EVERYONE ELSE IS DOING IT (I THINK):
THE POWER OF PERCEPTION AND SOCIETY IN FAT TALK

A Thesis
by
Courtney Bramblett Rogers

Submitted to the Graduate School
Appalachian State University
in partial fulfillment of the requirements for the degree of
MASTER OF ARTS

May 2016
Department of Psychology

EVERYONE ELSE IS DOING IT (I THINK):
THE POWER OF PERCEPTION AND SOCIETY IN FAT TALK

A Thesis
by
Courtney Bramblett Rogers
May 2016

APPROVED BY:

Denise M. Martz, Ph.D
Chairperson, Thesis Committee

Amy T. Galloway, Ph.D.
Member, Thesis Committee

Rose Mary Webb, Ph.D.
Member, Thesis Committee

James C. Denniston, Ph.D.
Chairperson, Department of Psychology

Max C. Poole, Ph.D.
Dean, Cratis Williams Graduate School

Copyright by Courtney Bramblett Rogers 2016
All Rights Reserved

Abstract

EVERYONE ELSE IS DOING IT (I THINK): THE POWER OF PERCEPTION AND SOCIETY IN FAT TALK

Courtney Bramblett Rogers
B.A., Lee University
M.A., Appalachian State University

Chairperson: Denise M. Martz, Ph.D.

Fat talk (FT) involves critiquing one's own appearance in social conversations and has been associated with negative outcomes such as higher body dissatisfaction, increased depression, and a greater perceived sociocultural pressure to be thin. FT has been conceptualized by others as a social extension of body image. Although parents, peers, and media have all been established as distinct sociocultural influences on body image and eating behaviors, there has been minimal exploration of the influence of family, friends, and media in extant FT literature. This study addresses this gap in the literature by investigating the relationships between an individual's FT, internalization of thin ideal, and the self-reported and perceived influence of her mother and closest friend's FT. A sample of undergraduate, primarily Caucasian female students ($N = 233$), their mothers, and their friends completed a set of online self-report surveys assessing FT behavior and other related variables. To assess perceptions of friend and mother's habitual FT, participants completed the FT questionnaire twice more: once as they believed their mother would complete it and again as they believed their friend would complete it. Hierarchical multiple regression analysis was used to assess

the predictive power of internalization of the thin ideal, mothers' and friends' self-reported FT, and mothers' and friends' perceived FT on participants' FT behavior. Analyses showed that internalization of the thin ideal, body mass index, perception of mother's FT, and perception of friend's FT were significant predictors of participant FT. These findings suggest that perception of FT, not self-reported behavior of others, appears to be most influential in determining an individual's own FT. These results have implications for interventions targeting individuals' perceptions of body image imperatives, particularly images portrayed in contemporary media.

Acknowledgments

I would like to start by acknowledging my research mentor, Dr. Denise Martz. She has been such a role model for me over the past two years, both professionally and personally. She is the epitome of why women belong in leadership roles. I would like to also thank my committee members, Drs. Rose Mary Webb and Amy Galloway. Their feedback has been invaluable during this process. Lastly, I would like to recognize the undergraduates and other graduate members of Dr. Martz's research lab for pacifying my incessant search for input to improve this final product. You are all wonderful and what you do matters.

Table of Contents

Abstract.....	iv
Acknowledgements.....	vi
List of Tables.....	viii
Introduction.....	3
Method.....	12
Results.....	15
Discussion.....	18
References.....	27
Appendices.....	40
Vita.....	56

List of Tables

Table 1. Means and Standard Deviations for Study Variables	37
Table 2. Summary of Intercorrelations.....	38
Table 3. Hierarchical Multiple Regression Analyses Predicting Self-Reported Fat Talk as Influenced by Mothers and Friends	39

Everyone Else is Doing It (I Think):

The Power of Perception and Society in Fat Talk

Courtney Bramblett Rogers

Appalachian State University

Abstract

Fat talk (FT) involves critiquing one's own appearance in social conversations and has been associated with negative outcomes such as higher body dissatisfaction, increased depression, and a greater perceived sociocultural pressure to be thin. Although parents, peers, and media have all been established as distinct sociocultural influences on body image and eating behaviors, there has been minimal exploration of the influence of family, friends, and media in extant FT literature. This study addresses this gap in the literature by investigating the relationships between an individual's FT, internalization of thin ideal, and the self-reported and perceived influence of her mother and closest friend's FT. A sample of undergraduate, primarily Caucasian female students ($N = 233$), their mothers, and their friends completed a set of online self-report surveys assessing FT behavior and other related variables. To assess perceptions of friend and mother's habitual FT, participants completed the FT questionnaire twice more: once as they believed their mother would complete it and again as they believed their friend would complete it. Hierarchical multiple regression analysis was used to assess the predictive power of internalization of the thin ideal, mothers' and friends' self-reported FT, and mothers' and friends' perceived FT on participants' FT behavior. Analyses showed that internalization of the thin ideal, body mass index, perception of mother's FT, and perception of friend's FT were significant predictors of participant FT. These findings suggest that perception of FT, not self-reported behavior of others, appears to be most influential in determining an individual's own FT. These results have implications for interventions targeting individuals' perceptions of body image imperatives, particularly images portrayed in contemporary media.

Everyone Else is Doing It (I Think):

The Power of Perception and Society in Fat Talk

The lifetime prevalence estimates of anorexia nervosa, bulimia nervosa, and binge eating disorder are 0.9%, 1.5%, and 3.5%, respectively, among women in the United States (Hudson, Hiripi, Pope, & Kessler, 2007). These disorders are more strongly associated with suicide attempts, inpatient and outpatient treatment, and functional impairment than almost any other psychiatric disorder (Newman et al., 1996). Body dissatisfaction is frequently associated with eating disorders; weight concern can be used in the prediction of the development of an eating disorder and is probably an essential factor in their emergence (Polivy & Herman, 2002). Therefore, in order to have a more complete understanding of the development of eating disorders, it is vital to understand the process by which body dissatisfaction can develop and be expressed. *Fat talk* has been defined as a “communication exchange with the focus on individual’s physical appearance, especially critique pertaining to body fat, weight, shape, style, or fitness” (Martz, Curtin, & Bazzini, 2012, p. 120). Hence, fat talk may be the social extension of body dissatisfaction and may play a role in transmission of the thin ideal between media, family, and social groups to individual women in U.S. culture.

Understanding the dynamics of these relationships is also important given the increasing discrepancy between the cultural thin ideal and rising rates of overweight and obesity. The Center for Disease Control and Prevention (CDC, 2012) suggests that more than one-third of U.S. adults are obese. The discrepancy between the ideal size and the average size may contribute to an environment that stigmatizes individuals who are overweight or

obese. Annis, Cash, and Hrabosky (2004) found women who are overweight tend to have higher body dissatisfaction than their peers who are of normal weight. Those who are obese are also more likely to use negative coping strategies, including negative self-talk that has been associated with body dissatisfaction (Arroyo & Harwood, 2012; Myers & Rosen, 1999). Furthermore, fat talk in women who are overweight or obese may suggest that they have internalized the values of society and accepted the prejudice against them. Fat talk by women of average weight may also reinforce weight stigma and signal that they are in agreement with it (Puhl & Heuer, 2009).

Sociocultural Influences on Body Image

The sources of sociocultural pressure from society on body image and eating behaviors are abundant and encompass hidden as well as obvious messages. Abraczinskas, Fisak, and Barnes (2012) implicated parents, peers, and the media as three common and distinct factors or the triad of influence in the development of body image and eating disturbances. To gain a more extensive understanding of the relationships among these three domains of influence, many studies have focused on the sociocultural factors as independent agents (Levine, Smolak, & Hayden, 1994).

Parental influence. Parental influence, one focus of this study, has been described as existing in two distinct categories: direct influence and modeling (or indirect influence). Direct influence typically comes in the form of verbal communication and may include discussion about a child's weight by a parent or encouragement of dieting, whereas modeling represents behaviors such as parental dieting, expression of body dissatisfaction, and other behaviors that can be observed by the child (Abraczinskas et al., 2012). A myriad of research

supports direct influence as a predictor of body dissatisfaction and eating behaviors. For example, Keel, Heatherton, Harnden, and Hornig (1997) found daughters whose mothers described them as overweight and commented on their weight were more likely to diet. However, this value is not only transmitted verbally; parental body dissatisfaction can also lead a parent to be more likely to restrict their child's food intake (Gray, Janicke, Wistedt, & Driscoll, 2010). Child feeding practices recollected by parents have been linked to the development of emotional eating, as well as weight status in early adulthood for their children (Galloway, Farrow, & Martz, 2010).

Modeling has not had such consistent support as direct influence. Fulkerson et al. (2002) found that mothers' dieting was associated with their daughters' eating behaviors and concerns, but these associations were not statistically significant. However, Benedikt, Wertheim, and Love (1998) found extreme weight loss behaviors in adolescents could be predicted by reports of their mothers' own body dissatisfaction. Cooley, Toray, Wang, and Valdez (2008) echoed this with their finding that a mother's self-reported figure dissatisfaction was significantly related to the figure dissatisfaction of her daughter.

Thin ideal internalization. The so called "thin ideal" is the personal awareness of and internalization of this value glorified by Western culture. A family environment that embraces this thin ideal appears to be related to body image and eating behaviors in daughters (Thompson & Stice, 2001). Leung and Steiger (1996) found that girls who came from families with a heightened concern about weight and appearance internalized this thin ideal to a greater extent, and this was associated with unhealthy weight control behaviors. Blowers, Loxton, Grady-Flessner, Occhipinti, and Dawe (2003) discovered a moderate

correlation between responses on the Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ) and perceived pressure from family to be thin. Likewise using the SATAQ, Stice (1996) discovered a positive correlation between family reinforcement of a thin ideal with bulimic symptoms of daughters. A relationship between a family environment that values the thin ideal and unhealthy weight-reducing practices has also been demonstrated by other studies (e.g., Kluck, 2010).

Media influence. The literature investigating the influence that the media has on the development of body image and disordered eating is mixed. Tucci and Peters (2008) showed that body satisfaction of participants decreased immediately following exposure to the thin-ideal physique. Conversely, Hausenblas et al. (2013) conducted meta-analyses to examine the effects that the exposure to media have on eating disorder symptoms (including body image) and found that increased body dissatisfaction did not necessarily result from viewing idealized images. However, they revealed that those already at risk for developing disordered eating (e.g., participants who were overweight, obese, likely to use social comparison, or internalized the thin ideal to a greater extent) were the most vulnerable to the influence of the media. This supports the tripartite model of body image and eating disturbances which proposes that thin ideal internalization and social comparison play a mediational role between sociocultural influences and the development of body image and eating disturbance (Keery, van den Berg, & Thompson, 2004). A longitudinal study by Rodgers, McLean, and Paxton (2015) found that greater baseline levels of thin ideal internalization in adolescents predicted higher body dissatisfaction at eight months.

Peer influence. Peers also contribute significantly to the development of body image (Tantleff & Gokee, 2004) through a variety of pathways. Peers can be directly influential through verbal comments and explicit verbal comparisons, or they can be influential passively by inciting social comparison (Ferguson, Winegard, & Winegard, 2011). Adolescent girls are likely influenced to lose weight via perceived pressure from their same-sex peers (McCabe, Ricciardelli, & Lina, 2005), and this influence extends into the early adult years. Crandall (1988) documented when college-aged women joined a sorority, their eating behaviors were uncorrelated with other members of the group, but become more related to their sorority sisters' behaviors as time passed. Women in Crandall's study who deviated from the normative level of binge eating were associated also with lower levels of popularity. Thus, peer influence is present in college-aged women, and that over time women may become more like their friends. Zalta and Keel (2006) found that behaviors such as binging and purging may be shared amongst peers in a friend group.

Fat Talk

Fat talk, which can be thought of as a specific example of modeling, has generated a growing amount of literature within the past 20 years. Caucasian male and female college students believe that a fat talk response is normative for women in situations where body image is discussed (Britton, Martz, Bazzini, Curtin, & LeaShomb, 2006). Further, fat talk is common among women: Salk and Engeln-Maddox (2012) found that 93% of college women report that they engage in fat talk, with one-third endorsing "frequent" or "very frequent" engagement of fat talk with their friends.

Mimi Nichter and Nancy Vuckovic (1994) were the first researchers to study this phenomenon and coined the term fat talk. Nichter (2000) interviewed young girls about their eating habits, dieting, and appearance. She found Caucasian girls reported high rates of body dissatisfaction as well as frequent statements evaluating their weight and bodies negatively. Although Nichter interviewed daughters about their mothers' fat talk and vice versa, there is limited research of this construct in extant literature over the past 20 years on mothers' influence of fat talk. Continued research has investigated primarily peers' influence of this behavior.

Nichter also proposed fat talk serves several positive functions such as emotional expression of negative states and the invocation of group affiliation and identity; however, research to date has only found more pathological associations with this form of disclosure (Martz et al., 2012). For example, Arroyo and Harwood (2012) showed fat talk predicted higher body dissatisfaction, increased depression, and a perceived sociocultural pressure to be thin. Fat talk appears to be more prevalent among women than men (Martz, Petroff, Curtin, & Bazzini, 2009). Female participants in Payne, Martz, Tompkins, Petroff, and Farrow's (2011) study were more likely to report hearing fat talk and perceived more pressure to participate in it than their male counterparts. For this reason, the study at hand will only include women in its investigation.

Salk and Engeln-Maddox (2012) found an association between reported fat talk in college women, their internalization of the cultural thin-ideal, and body dissatisfaction. However, despite this finding, half of these women reported a belief that fat talk makes them feel better about their bodies and is a way to uplift a friend. Corning and Gondoli (2012)

proposed social comparison processes underlie and motivate fat talk. In their study, women who had higher levels of body dissatisfaction would more frequently consult the environment for information when making self-assessments and were more likely to engage in fat talk. The act of engaging in discourse about the body may be more familiar to these women, leading to their higher likelihood to participate in it. Corning and Gondoli (2012) also suggest that social comparison may be the function of fat talk when women use the conversation to assess where they might stand in relation to others regarding their body image and eating habits. Social comparison can take place in a variety of settings, including with friends, family, and in interactions with the media. Cattarin, Thompson, Thomas, and Williams (2000) found participants who were asked to compare themselves to thin models in commercials were more dissatisfied with their bodies than participants who were shown commercials that did not focus on appearance. Arroyo (2014) found a tendency to engage in upward social comparison (amongst other factors) predicted body dissatisfaction which, in turn, predicted participants' fat talk.

Fat talk may also be related to dietary restraint. Compeau and Ambwani (2013) showed that exposure to fat talk had varying effects on an individuals' level of food consumption, depending upon their level of dietary restraint, as exposure to fat talk resulted in decreased food consumption among those who were already planning to limit their food intake. Kong et al. (2013) showed that body dissatisfaction was positively correlated with dietary restraint, and that self-esteem mediated this relationship. Disordered eating was predicted by prospective dietary restraint in freshmen women (Delinsky & Wilson, 2008). This echoed findings of Cachelin, Striegel-Moore, and Paget's (1997) study that body

dissatisfaction increased as dietary restraint increased. In conclusion, it is important to further explore this relationship in those who intend to restrict their diet and who also engage in fat talk, in order to gain a better understanding of the etiology of eating-related issues.

Research on the mother-daughter fat talk connection has only been briefly explored since Nichter (2000) conducted her interviews in the 1990s. Neumark-Sztainer et al. (2010) investigated the effects of parent weight talk on daughters' weight-control and eating behaviors. They assessed parent weight talk with three items: mom encourages me to diet, mom talks about her weight, and mom diets to lose weight. Two-thirds of the respondents reported hearing their mothers discuss their own weight. Parent weight talk was also found to be associated with disordered eating behaviors as well as weight-control behaviors. In a qualitative study by Loth, Neumark-Sztainer, and Croll (2009), increased levels of negative body talk in families were cited as a potential risk factor for the development of disordered eating. Given the potential implications associated with parent weight talk, further research should be done to investigate this phenomenon.

Fat Talk in Families

The dearth of literature investigating fat talk in families is surprising, given what is known about the implication of families in relaying sociocultural pressure to be thin (Arroyo & Harwood, 2012; Salk & Engeln-Maddox, 2012). Exploring the potential influence of mothers is important as it could be assumed that most mothers are trying to act in the best interest of their children, despite their own individual histories. In terms of intervention, identifying parental behaviors and their consequences is imperative in order to develop and deliver appropriate services (Rodgers & Chabrol, 2009). It could also have implications for

body image, self-esteem, the development of eating disorders, and/or weight gain that could lead to adverse health outcomes.

It is likely that a majority of females in our culture, especially those who identify as Caucasian, have engaged in fat talk at some point in their lives. Those who are obese may feel more pressured to participate in negative self-talk than those who are of normal weight (Martz et al., 2009; Myers & Rosen, 1999). Obesity has not traditionally been associated with eating disorders; however, the recognition of Binge Eating Disorder (BED) as its own category in the Diagnostic and Statistical Manual of Mental Disorders (*DSM-5*; American Psychiatric Association, 2013) links these together for some people. Approximately 65% of those who qualify for a diagnosis of BED are obese. Compared to individuals who are obese and do not qualify for a diagnosis of BED, obese people with BED are characterized by greater weight concerns that influence their self-esteem, overall impairment due to their weight, feeling psychologically distressed, and by having secondary social phobia as a result of their weight (Ramacciotti et al., 2008; Striegel-Moore et al., 2001). A better conceptualization of where fat talk is modeled and learned by women will further our understanding of this association between fat talk, obesity, and eating disorders.

The purpose of this study is to further explore the role played by mothers with regard to fat talk and its effect on daughters as compared to the influence of peers and the media. Perception has been shown to be salient when considering the impact of parents on their children's behaviors. Field et al. (2005) demonstrated that accurate perception by a child that weight status was important to their mother was positively associated with the child's desire to be thin. Further, Kichler and Crowther (2009) found that effects of maternal modeling

were better captured by daughters' perceptions than actual self-reported maternal behavior. (Because of this, the study measures self-reports of fat talk as well as perception of mothers' and friends' fat talk by daughters).

Method

Participants and Procedure

The sample includes 233 female undergraduate students from a large comprehensive university in North Carolina, and researchers collected data during the Fall 2014 semester. The sample ages ranged from 17 to 26 years old ($M = 19.32$, $SD = 1.59$). The ethnic composition of the sample was 92.5% Caucasian, 3.3% Hispanic, 1.7% Asian, 1.7% African American, and 0.8% of other ethnicity. Eighty-two participants lacked either mother ($n = 28$) or friend ($n = 54$) responses. Thirty-one participants had no collateral data (i.e., mother and friend responses).

The Institutional Review Board approved this study (see Appendix A). Researchers recruited participants using the student recruitment system (SONA) and participants received extra credit for their involvement in the study. As a pre-requisite to their own participation, participants nominated their mother (biological or adopted) and a same-sex friend to participate in the study as well. A link to an online questionnaire was sent by e-mail to the initial participants, and the questionnaire was prefaced by informed consent. Participants signaled their agreement to participate by beginning the survey (which stated that they could discontinue at any time; see Appendix B). The demographics questionnaire was presented first and the measure of fat talk was presented last. Following the completion of their own fat talk questionnaire, participants completed two more fat talk questionnaires; once as they

believed their mother would and again as they believed their friend would to gauge their perception of their mothers' and friends' fat talk. Whether participants received instruction to first complete the fat talk measure as they believed their mother or friend would was presented in varying order.

After completion of all questionnaires, participants received instruction to e-mail a pre-fabricated message to their mother and friend which contained a link to the Fat Talk Questionnaire as well as the demographics questionnaire. The e-mail template also contained a unique participant identifier. The mother and friend received instruction to provide this unique identifier before beginning their surveys, in order to link the surveys together while still retaining anonymity. Informed consent was also presented and included the information that participants could choose to discontinue at any time (Appendix C). Participants received instruction to not communicate with each other with regard to how they answered the surveys. After the questionnaires were complete, participants submitted the forms electronically.

Hypotheses and Planned Analyses

This study sought to answer several questions pertaining to fat talk of participants, their mothers and their friends and the influences upon those behaviors. The first question concerned the accuracy with which a participant would be able to predict her mother's and friend's fat talk scores. Further, we assessed whether a woman's self-reported fat talk would resemble her mother's and friend's self-reported fat talk. To investigate these questions, correlational analyses were utilized to examine the relationship amongst these variables. We also asked whether it is the mothers' or friends' fat talk that was most predictive of

participant's personal fat talk. Perception of mothers' and friends' fat talk behavior, as well as internalization of the thin ideal as commonly portrayed by the media, were also compared to mothers' and friends' self-reported fat talk for predicting participant's personal fat talk. To examine this question, hierarchical multiple regression was utilized.

Materials

Participants completed the Sociocultural Attitudes Towards Appearance Questionnaire. Then, they completed the fat talk questionnaires (once as their self, once as they believed their mother would complete it and thirdly as they believed their friend would complete it) and a demographics questionnaire. Mothers and friends completed the Fat Talk Questionnaire as well as the demographics questionnaire.

Demographics questionnaire. This self-report measure was used to assess participants' basic demographic and anthropometric information, which was used to calculate the Body Mass Index (BMI) of those taking part in the study.

Fat Talk Questionnaire. The Fat Talk Questionnaire (FTQ; Royal, MacDonald, & Dionne, 2012) was used as a measure of fat talk and is listed in Appendix D. The modified versions used for mothers and friends are listed in Appendices E and F, respectively. The questions provide 14 short scenarios, to which the participant answers how frequently she would respond in a similar fashion, with response options ranging from *Never* to *Always*. Higher scores indicate a greater frequency of fat talk. Sample questions include, "When I'm with one or several close female friend(s), I complain that my stomach is fat," and "When I'm with one or several close female friend(s), I complain that I need to stop eating so much." This scale is reliable and valid in the assessment of the frequency of fat talk in which

an individual participates, as a unidimensional construct. The FTQ has high internal consistency ($\alpha = .94$), high test-retest reliability ($r = .90$) and good split-half reliability ($r = .88$) in women and is significantly correlated with other established measures of fat talk such as the Fat Talk Scale ($r = .74$; Clarke, Murnen, & Smolak, 2010). The internal consistency of the FTQ in this study was high ($\alpha = .95$).

Sociocultural Attitudes Towards Appearance Questionnaire. The extent to which an individual has internalized, or “buys into,” the thin-ideal was measured using the Sociocultural Attitudes Towards Appearance Questionnaire Scale-3, particularly the Internalization subscale (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004). The SATAQ-3 is a 30-item self-report measure that assesses four distinct factors of media influence: internalization-general, internalization-athlete, pressures, and information. It is listed in Appendix G. Sample questions include “TV programs are an important source of information about fashion and being attractive” and “I wish I looked like the models in music videos” and can be answered with Likert response styles. The SATAQ-3 has excellent internal consistency ($\alpha = .94$). The internal consistency of the SATAQ in this study was consistently high ($\alpha = .94$).

Results

Descriptive Statistics

The means and standard deviations for the variables used in the study are included in Table 1. The average BMIs of participants and their friends are considered to be in the average range; however, that of mothers’ falls into the overweight category. All other scores fit established norms.

To investigate the first hypothesis of “Does a woman know accurately how her mother and close friend would self-report their own level of fat talk?” mothers’ perceived fat talk (MPFT) was correlated with mothers’ self-reported fat talk (MFT), and there was a moderate positive relationship (see Table 2). Friends’ perceived fat talk (FPFT) was positively correlated with friends’ self-reported fat talk (FFT), and there was a moderate, positive relationship. This suggests that our participants could predict approximately 25% of the variance of mother’s actual fat talk and approximately 16% of friend’s level of fat talk.

In order to investigate our second research hypothesis, “Does a woman’s fat talk resemble her mother’s and friend’s self-reported fat talk?” FT was correlated with MFT and FFT (see Table 2). There was a small, positive relationship between FT and MFT, and a moderate, positive correlation between FT and FFT. Notably, the correlation between perception of others’ fat talk and participants’ fat talk (FT and FPFT, $r = .554$; FT and MPFT, $r = .518$) was stronger than the correlation between self-reported fat talk of others and participants’ fat talk (FT and FFT, $r = .306$; FT and MFT, $r = .219$).

To assess our third hypothesis, “Whose fat talk scores are more important in predicting a woman’s level of fat talk and is it the perception or actual report? Or is media internalization most influential?” intercorrelations among fat talk variables and thin ideal internalization scores (TII) were explored (see Table 2; all of the measured variables had significant positive relationships except for MFT with TII). This suggests that participants’ perceptions of their mothers’ and friends’ fat talk were related not only to their own levels of fat talk, but also to their mothers’ and friends’ self-reported behavior. Furthermore,

participants may be able to report with some accuracy their mothers' and friends' self-reported fat talk behaviors.

To investigate the question of what variable best predicts our participants' fat talk behavior, a five step hierarchical multiple regression was conducted with FT as the dependent variable (see Table 3). This analysis was conducted twice: once examining the impact of mother-related variables, and again examining friend-related variables. This separation was intended to include as many participants in the analysis as possible, regardless of varying numbers of responding mothers and friends. Body mass index of the mother/friend (MBMI and FMBI, respectively) was entered at step one of the regression and body mass index (BMI) of the participant was entered at step 2 to rule out the influence of anthropometric factors. MFT/FFT was entered at step three and MPFT/FPFT at step 4. Lastly, TII was entered at step 5. The variables were entered in this order due to expected contribution to the variance (based on correlational analyses and extant literature). Intercorrelations between the multiple regression variables were reported in Table 2.

In the examination of mother-related variables, the hierarchical multiple regression revealed that at step one, MBMI did not contribute significantly to the regression model, $F(174, 1) = .51, p = .48$. When considered uniquely, each other independent variable significantly contributed to the variance in the prediction of FT. When all five independent variables were included in step 5 of the regression model, BMI and MFT were not significant predictors of FT. Together, the independent variables significantly accounted for 46.2% of the variance in FT, $F(170, 5) = 29.20, p < .01$. Tests to assess whether data met the assumption of collinearity indicated that multicollinearity was not a concern (MBMI,

Tolerance = .77, VIF = 1.26; BMI, Tolerance = .79, VIF = 1.26; MFT, Tolerance = .76, VIF = 1.32; MPFT, Tolerance = .72, VIF = 1.13; TII, Tolerance = .89, VIF = 1.13).

In the examination of friend-related variables, the hierarchical multiple regression revealed that at step one, FBMI did not contribute significantly to the regression model, $F(143, 1) = 2.78, p = .10$. When considered uniquely, each other independent variable significantly contributed to the variance in the prediction of FT. When all five independent variables were included in step 5 of the regression model, BMI and FFT were not significant predictors of FT. Together, the independent variables significantly accounted for 46.5% of the variance in FT, $F(139, 5) = 23.29, p < .01$. These results suggest that perceived exposure to behavior may be more important as predictors of behavior than actual exposure. Tests to assess whether data met the assumption of collinearity indicated that multicollinearity was not a concern (FBMI, Tolerance = .81, VIF = 1.23; BMI, Tolerance = .86, VIF = 1.16; FFT, Tolerance = .74, VIF = 1.35; FPFT, Tolerance = .72, VIF = 1.38; TII, Tolerance = .86, VIF = 1.16).

Discussion

The purpose of the current study was to investigate several questions pertaining to the effects that mothers, friends, and internalization of values promoted in the media have on young women's fat talk. We surveyed college women to assess their personal reported fat talk, how they perceived their friend's and mother's fat talk, and their internalization of thin ideal media influences. Uniquely, we also assessed these women's, mothers', and friends' fat talk to compare how self-reported and perceived fat talk in these important interpersonal relationships affected participant fat talk. The tripartite influence model of body image and

eating disturbance helps to demonstrate the importance of individual differences with regard to who is affected by sociocultural factors. This model proposes that parents, peers, and the media are three distinct sociocultural influences on body image and eating behaviors.

Furthermore, this influence is likely impacted by at least two factors: thin ideal internalization and social comparison (Keery et al., 2004). Fitting with the tripartite model, we used statistical analyses to investigate the power of mothers' fat talk, friends' fat talk, and internalization of ideals promoted by the media in predicting how much a young woman fat talked. Results of this study suggest that these various sociocultural factors likely play an important role in impacting fat talk behavior. This has implications for further exploration of the fit of the tripartite model to this construct (i.e., research that investigates how social comparison and thin ideal internalization might impact this relationship).

Perception of Mothers and Friends

One of the largest conclusions which can be drawn from these results is that, although the environment likely plays a role in prompting fat talk, it is the individual's *interpretation* of her surroundings which holds the most influence. While the fat talk reported by mothers and friends did significantly predict participants' own fat talk, the participants' perceptions of their mothers' and friends' fat talk played a larger part in accounting for participants' fat talk. This was particularly true of the perception of mothers' behavior, which had the most statistical power in this study, of the FT variables, in predicting participant fat talk. This maps onto previous research (e.g., Rieves & Cash, 1996; Wasyliw & Williamson, 2012) suggesting the body image of individuals, and now their tendency to fat talk, is significantly related to their perception of these same behaviors in their mothers and friends. The results of

this study did not support the theory that behavior reported by mothers and friends directly influences fat talk in the way that they may influence body image and eating behaviors but, instead, it is perception of these behaviors that is important.

If fat talk is conceptualized as modeling of body dissatisfaction, the results of this study also support prior literature that suggests self-reported parental behaviors impact an individual's own beliefs and behaviors (e.g., Loth et al., 2009; Neumark-Sztainer et al., 2010). Research has suggested that women from families promoting a value of thinness are more likely to have increased levels of body dissatisfaction (Leung & Steiger, 1996). The results of this study appear to support this, so long as the individual is aware of this value and has taken personal ownership of it. Wasylikiw and Williamson (2012) suggested perception may be more important as an influence on behavior than actual behavior, in part, due to the projection of participants' views regarding their own self onto the behavior of others.

Internalization of Societal Values

Media is well established as an influence on body image and weight-related behaviors (Grabe, Ward, & Hyde, 2008). This is largely due to its role in modeling and reinforcing the popularity of certain body types, especially a thin, female figure. A content analysis by Fouts and Burggraf (1999) demonstrated this phenomenon by illustrating that thin female characters on television were given significantly more positive feedback by their male co-stars regarding their bodies than average and above-weight female characters. The message to viewers is that one needs to be lean in order to receive positive male attention. In addition to increasing the desirability of this body type, its frequent portrayal in television, movies, advertisements, etc. can lead viewers to believe that this body type is normative, despite the

difficulty that most women have in attaining it (Brownell, 1991). Furthermore, different individuals will be exposed to various types of media and some (such as fashion magazines) may be more influential.

Exposure to a thin figure is particularly harmful when a woman has internalized the value of thinness (Ferguson, 2013). This discrepancy between what is idealized versus one's actual body drives body dissatisfaction and, in turn, maladaptive behaviors such as food restriction or over-exercising (Thompson & Stice, 2001). Research suggests that there is a relationship between valuing the thin ideal and frequency of self-degradation, a link that the results of the present study support (i.e., fat talk; Becker, Diedrichs, Jankowski, & Werchan, 2013; Salk & Engeln-Maddox, 2011).

Wasyliw and Williamson's (2012) theory that individuals project their own views onto the behaviors of others also offers explanation for why thin ideal internalization is a strong predictor of participant reported fat talk. By definition, thin ideal internalization is a personal belief (Thompson & Stice, 2001). Women who embrace the thin ideal may be more likely to participate in fat talk and, furthermore, may believe that others are also participating in this behavior as well. Although our participants' perceptions of their friends and mothers appeared to be somewhat accurate (i.e., very small but significant correlations), their perceptions were likely driven by their own beliefs and values.

Fat Talk Maintenance

The importance of internalization of the thin ideal for the prediction of fat talk may add to the current literature regarding the maintenance of fat talk. Fat talk can be conceptualized as another method, similar to food restriction or over-exercising, utilized by

women to cope with any discrepancy between their actual and desired body type. In this theory, fat talk can be considered a mechanism by which women alleviate guilt over not having an ideal body type. Thus, fat talk may help some women feel better about feeling bad about their bodies in the short term. Unfortunately, research suggests that instead of feeling better, women may feel worse following participation in fat talk. Salk and Engeln-Maddox (2012) exposed women to fat talk to examine the effects of hearing it on their body satisfaction and guilt. After hearing fat talk by confederates, participants reported that their current level of body dissatisfaction, likelihood to fat talk, and feelings of guilt increased.

This cycle is particularly relevant when the context in which it takes place is considered (i.e., a culture with a discrepancy between the ideal and average body types). Even if a woman's attempt to improve her feelings by participating in fat talk fails, she may continue to engage in this behavior due to a desire to maintain group membership. Katrevich, Register, and Aruguete (2014) found social cohesion was one of the reasons that women reported engaging in fat talk. Dohnt and Tiggeman (2006) suggested that conversations regarding physical appearance amongst peers reinforce societal expectations previously disseminated by the media. If a woman believes that people she is close to express their value of thinness by engaging in fat talk, she may feel pressure to participate in these conversations to show others that she values the same things as them. This perceived pressure may contribute to increased levels of thin ideal internalization for women who are involved in these conversations. This propagates in women, especially those who have internalized the thin ideal as their own value, a vicious cycle where fat talk is intended to alleviate distress but, instead, increases it in the long-term. Thus, fat talk may communicate and reinforce the

thin ideal amongst women. If an individual perceives that her peers or mother values thinness, this may incite social comparison (of appearance and values). Furthermore, individuals who fat talk more frequently also tend to engage in upward social comparison, a known contributor to body dissatisfaction (Arroyo, 2014; Corning & Gondoli, 2012).

Clinical Implications

Fat talk has been correlated with various negative outcomes and is likely a causal risk factor for body dissatisfaction (Arroyo & Harwood, 2011; Sharpe, Naumann, Treasure, & Schmidt, 2013). Therefore, it may be an important target for intervention to aid in the prevention of the development of more clinical issues (e.g., eating disorders). Our findings have implications for intervention on multiple levels. On an individual level, these results have implications for cognitive, behavioral, and interpersonal therapies. Given the importance of perceptions and personal values in predicting fat talk, it may be beneficial to target cognitive factors such as perception to reduce the frequency of fat talk. This may include assumptions-testing and correction of cognitive distortions through behavioral experiments and other traditionally cognitive interventions (e.g., Beck, 2011). It may also be valuable to implement techniques such as behavioral experiments to raise awareness of the impact of fat talk on mood. Therapists may wish to encourage their clients to replace fat talk with healthier coping mechanisms, if the clients are using it to alleviate distress regarding a discrepancy between their actual and ideal body type.

At a societal level, critique of the media should also be promoted as it plays a large part in the reinforcement of the thin ideal; furthermore, some support has been shown for the use of this technique in the prevention of eating disorders (Stice, Shaw, Becker, & Rohde,

2008). Additionally, advocacy groups like the Critical Media Project monitor popular media and attempt to promote healthier media modeling for women. Ideally, we will see initiatives that restrict normative modeling of fat talk in media consumed by girls and women (e.g., Critical Media Project Resources and Links, n.d.). It may also be beneficial to have more individuals who are aware of women's issues (e.g., Geena Davis Institute on Gender in Media, 2016) involved in producing and directing media.

Limitations and Future Directions

The results of this study contribute to the fat talk literature; however, there are some limitations which should be taken into consideration when interpreting the results.

Concerning methodology, the results of the present study are limited by the measurement of fat talk. It should be noted that only self-reported fat talk was measured, as is consistent with the majority of the research on this construct, and that it is unclear whether this reflects the actual fat talk levels of participants. BMI was also self-reported by participants. The measures utilized to measure fat talk also have not been tested with regards to capturing perception. Additionally, although it may be assumed that the majority of participants spend more time with their friends than their mothers due to their stage in life (i.e., university students), the amount of time spent and the frequency of fat talk with each of these parties was not assessed. Perhaps longevity of exposure to mother's values across these college women's development influenced their perceptions of mother's values as more important than friend's perceived fat talk. Furthermore, it is not clear how much the participants in this study valued the attitudes of their mothers and friends. Finally, actual media consumption was not measured; instead, we used a common measure that captures how much the cultural

thin ideal is internalized into one's values. With regards to the sample utilized in this study, there are some limitations on generalizability. The sample was primarily educated, young, Caucasian women and it is unclear if these results would translate to other groups. Furthermore, there was no examination of differences between different racial and socioeconomic groups.

The present study provides a rationale for further exploration of the comparative influence of mothers, peers, and media on fat talk behavior. Further investigation is warranted to examine these various sources of fat talk and how fat talk behavior is learned and maintained over time. The use of a fat talk measure designed specifically for families, such as the Family Fat Talk Questionnaire in development by Macdonald, Dimitropoulos, Royal, Polanco, and Dionne (2015), could be particularly useful in investigating these areas. This study also supports the importance of individuals' interpretation of the environment as a powerful influence on their fat talk behavior. The results of this study suggest that fat talk should be further explored as operating within a similar framework to the Tripartite Influence model of body image and eating disturbance.

Conclusion

This study sought to investigate the influence that mothers, friends, and internalization of values promoted in the media have on the behavior of fat talk; furthermore, the results extend our knowledge regarding where fat talk is modeled and learned by women. The importance of sociocultural influences on fat talk was supported, and it was demonstrated that individual differences such as perception and values help to determine whether a person will be influenced by these factors. Moreover, these results increase our

understanding regarding the maintenance of fat talk. This holds relevance for clinical interventions which may need to target both internalized values and perception of the behavior of others through cognitive and behavioral techniques. Fat talk may be a key element to target in breaking the vicious cycle discussed above. Research should be conducted to determine whether or not these approaches to reduce fat talk frequency and impact would be effective. Future studies are also warranted to investigate the relationships amongst thin ideal internalization, perceptions of others, and an individual's fat talk behavior.

References

- Abraczinskas, M., Fisak, B., & Barnes, R. D. (2012). The relation between parental influence, body image, and eating behaviors in a nonclinical female sample. *Body Image, 9*, 93-100. doi: 10.1016/j.bodyim.2011.10.005
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Annis, N. M., Cash, T. F., & Hrabosky, J. I. (2004). Body image and psychosocial differences among stable average weight, currently overweight, and formerly overweight women: The role of stigmatizing experiences. *Body Image: An International Journal of Research, 1*, 155-167. doi: 10.1016/j.bodyim.2003.12.001
- Arroyo, A. (2014). Connecting theory to fat talk: Body dissatisfaction mediates the relationships between weight discrepancy, upward comparison, body surveillance, and fat talk. *Body Image, 11*, 303-306. doi: 10.1016/j.bodyim.2014.04.006
- Arroyo, A., & Harwood, J. (2012). Exploring the causes and consequences of engaging in fat talk. *Journal of Applied Communication Research, 40*, 167-187. doi: 10.1080/00909882.2012.654500
- Beck, J. S. (2011). *Cognitive behavior therapy: Basics and beyond* (2nd ed.). New York: Guilford.
- Becker, C. B., Diedrichs, P. C., Jankowski, G., & Werchan, C. (2013). I'm not just fat, I'm old. Has the study of body image overlooked "old talk"? *Journal of Eating Disorders, 1*, 6. doi: 10.1186/2050-2974-1-6

- Benedikt, R., Wertheim, E. H., & Love, A. (1998). Eating attitudes and weight-loss attempts in female adolescents and their mothers. *Journal of Youth and Adolescence*, 27, 43-57. doi: 10.1023/A:1022876715005
- Britton, L., Martz, D., Bazzini, D., Curtin, L., & LeaShomb, A. (2006). Fat talk and self-presentation of body image: Is there a social norm for women to self-degrade? *Body Image: An International Journal of Research*, 3, 244-250. doi: 10.1016/j.bodyim.2006.05.006
- Blowers, L. C., Loxton, N. J., Grady-Flessner, M., Occhipinti, S., & Dawe, S. (2003). The relationship between sociocultural pressure to be thin and body dissatisfaction in preadolescent girls. *Eating Behaviors*, 4, 229-244.
- Brownell, K. D. (1991). Dieting and the search for the perfect body: Where physiology and culture collide. *Behavior Therapy*, 22, 1-12. doi: 10.1016/S0005-7894(05)80239-4
- Cachelin, F. M., Striegel-Moore, R., & Paget, W. B. (1997). Comparison of women with various levels of dietary restraint on body image, personality, and family environment. *Eating Disorders*, 5, 205-215. doi: 10.1080/10640269708249226
- Cattarin, J. A., Thompson, J. K., Thomas, C., & Williams, R. (2000). Body image, mood, and televised images of attractiveness: The role of social comparison. *Journal of Social and Clinical Psychology*, 19, 220-239. doi: 10.1521/jscp.2000.19.2.220
- Centers for Disease Control and Prevention. (2012). *Adult Overweight and Obesity*. Retrieved from <http://www.cdc.gov/obesity/adult/index.html>

- Clark, P. M., Murnen, S. K., & Smolak, L. (2010). Development and psychometric evaluation of a quantitative measure of fat talk. *Body Image: An International Journal of Research*, 7, 1-7. doi: 10.1016/j.bodyim.2009.09.006
- Compeau, A., & Ambwani, S. (2013). The effects of fat talk on body dissatisfaction and eating behavior: The moderating role of dietary restraint. *Body Image: An International Journal of Research*, 10, 451-461. doi: 10.1016/j.bodyim.2013.04.006
- Cooley, E., Toray, T., Wang, M. C., & Valdez, N. N. (2008). Maternal effects on daughters' eating pathology and body image. *Eating Behaviors*, 9, 52-61.
doi:10.1016/j.eatbeh.2007.03.001
- Corning, A. F., & Gondoli, D. M. (2012). Who is most likely to fat talk? A social comparison perspective. *Body Image: An International Journal of Research*, 9, 528-531. doi: 10.1016/j.bodyim.2012.05.004
- Crandall, C. S. (1988). Social contagion of binge eating. *Journal of Personality and Social Psychology*, 55, 588-598. doi: 10.1037/0022-3514.55.4.588
- Critical Media Project Resources and Links. (n.d.). Retrieved from <http://www.criticalmediaproject.org/resources/useful-links/>
- Delinsky, S. S., & Wilson, G. T. (2008). Weight gain, dietary restraint, and disordered eating in the freshman year of college. *Eating Behaviors*, 9, 82-90. doi: 10.1016/j.eatbeh.2007.06.001
- Dohnt, H., & Tigemann, M. (2006). The contribution of peer and media influences to the development of body satisfaction and self-esteem in young girls: A prospective study.

- Developmental Psychology*, 42, 929-936. doi: <http://dx.doi.org/10.1037/0012-1649.42.5.929>
- Ferguson, C. J. (2013). In the eye of the beholder: Thin-ideal media affects some, but not most, viewers in a meta-analytic review of body dissatisfaction in women and men. *Psychology Of Popular Media Culture*, 2, 20-37. doi:10.1037/a0030766
- Ferguson, C. J., Winegard, B., & Winegard, B. M. (2011). Who is the fairest one of all? How evolution guides peer and media influences on female body dissatisfaction. *Review of General Psychology*, 15, 11-28. doi: 10.1037/a0022607
- Field, A. E., Austin, B., Striegel-Moore, R., Taylor, B., Camargo, C. A., Laird, N., & Colditz, G. (2005). Weight concerns and weight control behaviors of adolescents and their mothers. *Arch Pediatric Adolescent Medicine*, 159, 1121-1126. doi: 10.1001/archpedi.159.12.1121
- Fouts, G., & Burggraf, K. (1999). Television situation comedies: Female body images and verbal reinforcements. *Sex Roles*, 40, 473-481. doi: 10.1023/A:1018875711082
- Galloway, A. T., Farrow, C. V., & Martz, D. M. (2010). Retrospective reports of child feeding practices, current eating behaviors, and BMI in college students. *Obesity*, 18, 1330-1335. doi: 10.1037/oby.2009.393
- Geena Davis Institute on Gender in Media. (2016). Retrieved from <http://seejane.org>
- Grabe, S., Ward, L. M., & Hyde, J. S. (2008). The role of the media in body image concerns among women: A meta-analysis of experimental and correlational studies. *Psychological Bulletin*, 134, 460-476. doi: 10.1037/0033-2909.134.3.460

- Gray, W. N., Janicke, D. M., Wistedt, K. M., & Dumont-Driscoll, M. C. (2012). Factors associated with parental use of restrictive feeding practices to control their children's food intake. *Appetite, 55*, 332-337. doi: 10.1016/j.appet.2010.07.005
- Hausenblas, H. A., Campbell, A., Menzel, J. E., Doughty, J., Levine, M., & Thompson, J. K. (2013). Media effects of experimental presentation of the ideal physique on eating disorder symptoms: A meta-analysis of laboratory studies. *Clinical Psychology Review, 33*, 168-181. doi:10.1016/j.cpr.2012.10.011
- Hudson, J. I., Hiripi, E., Pope, H. G., & Kessler, R. C. (2007). The prevalence and correlates of eating disorders in the national comorbidity survey replication. *Biological Psychiatry, 61*, 348-358. doi: 10.1016/j.biopsych.2006.03.040
- Katrevich, A. V., Register, J. D., & Aruguete, M. S. (2014). The effects of negative body talk in an ethnically diverse sample of college students. *North American Journal of Psychology, 16*, 43-52.
- Keel, P. K., Heatherton, T. F., Harnden, J. L., & Hornig, C. D. (1997). Mothers, fathers, and daughters: Dieting and disordered eating. *Eating Disorders: The Journal of Treatment and Prevention, 5*, 216-228. doi: 10.1080/10640269708249227
- Keery, H., van den Berg, P., & Thompson, J. K. (2004). An evaluation of the tripartite influence model of body dissatisfaction and eating disturbance with adolescent girls. *Body Image: An International Journal of Research, 1*, 237-251. doi: 10.1016/j.bodyim.2004.03.001
- Kichler, J. C., & Crowther, J. H. (2001). The effects of maternal modeling and negative familial communication on women's eating attitudes and body image. *Behavior*

- Therapy*, 32, 443–457. doi: 10.1016/S0005-7894(01)80030-7
- Kluck, A. S. (2010). Family influence on disordered eating: The role of body image dissatisfaction. *Body Image*, 7, 8-14.
- Kong, F., Zhang, Y., You, Z., Fan, C., Tian, Y., & Zhou, Z. (2013). Body dissatisfaction and restrained eating: Mediating effects of self-esteem. *Social Behavior and Personality*, 41, 1165-1170. doi: 10.2224/sbp.2013.41.7.1165
- Leung, F. S., & Steiger, A. (1996). Testing a dual-process family model in understanding the development of eating pathology: A structural equation modeling analysis. *International Journal of Eating Disorders*, 20, 367-375.
- Levine, M. P., & Smolak, L., & Hayden, H. (1994). The relation of sociocultural factors to eating attitudes and behaviors among middle school girls. *Journal of Early Adolescence*, 14, 472-491. doi: 10.1177/0272431694014004004
- Loth, K. A., Neumark-Sztainer, D., & Croll, J. K. (2009). Informing family approaches to eating disorder prevention: Perspectives of those who have been there. *International Journal of Eating Disorders*, 42, 146-152. doi: 10.1002/eat.20586
- MacDonald, D. E., Dimitropoulos, G., Royal, S., Polanco, A., & Dionne, M. M. (2015). The Family Fat Talk Questionnaire: Development and psychometric properties of a measure of fat talk behaviors within the family context. *Body Image*, 12, 44-52. doi: 10.1016/j.bodyim.2014.10.001
- Martz, D. M., Curtin, L., & Bazzini, D. G. (2012). Body image and “fat talk.” In T. F. Cash (Ed.), *Encyclopedia of Body Image and Human Appearance* (pp. 120-127). San Diego, CA: Academic Press.

- Martz, D. M., Petroff, A. B., Curtin, L., & Bazzini, D. G. (2009). Gender differences in fat talk among American adults: Results from the psychology of size survey. *Sex Roles, 61*, 34-41. doi: 10.1007/s11199-009-9587-7
- McCabe, M. P., Ricciardelli, M., & Lina, A. (2005). A prospective study of pressures from parents, peers, and the media on extreme weight change behaviors among adolescent boys and girls. *Behaviour Research and Therapy, 43*, 653-668. doi: 10.1016/j.brat.2004.05.004
- Myers, A., & Rosen, J. C. (1999). Obesity stigmatization and coping: Relation to mental health symptoms, body image, and self-esteem. *International Journal of Obesity, 23*, 221-230. doi: 10.1038/sj.ijo.0800765
- Neumark-Sztainer, D., Bauer, K. W., Friend, S., Hannan, P. J., Story, M., & Berge, J. M. (2010). Family weight talk and dieting: How much do they matter for body dissatisfaction and disordered eating behaviors in adolescent girls? *Journal of Adolescent Health, 47*, 270-276. doi: 10.1016/j.jadohealth.2010.02.001
- Newman, D. L., Moffitt, T. E., Caspi, A., Magdol, L., Silva, P. A., & Stanton, W. R. (1996). Psychiatric disorder in a birth cohort of young adults: Prevalence, comorbidity, clinical significance, and new case incidences from ages 11 to 21. *Journal of Consulting and Clinical Psychology, 64*, 552-562. doi: 10.1037/0022-006X.64.3.552
- Nichter, M. (2000). *Fat talk*. Cambridge, MS: Harvard University Press.
- Nichter, M., & Vuckovic, N. (1994). Fat talk: Body image among adolescent girls. In N. Sault (Ed.), *Many Mirrors* (pp. 109-131). New Brunswick, NJ: Rutgers University Press.

- Payne, L., Martz, D., Tomkins, K.B., Petroff, A.B., & Farrow, C.V. (2011). Gender comparisons of fat talk in the United Kingdom and the United States. *Sex Roles: A Journal of Research, 65*, 557-565. doi: 10.1007/s11199-010-9881-4
- Polivy, J., & Herman, P. C. (2002). Causes of eating disorders. *Annual Review of Psychology, 53*, 187-213. doi: 10.1146/annurev.psych.53.100901.135103
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: A review and update. *Obesity, 17*, 941-964. doi: 10.1038/oby.2008.636
- Ramacciotti, C. E., Coli, E., Bondi, E., Burgalassi, A., Massimetti, G., & Dell'Osso, L. (2008). Shared psychopathology in obese subjects with and without binge-eating disorder. *International Journal of Eating Disorders, 41*, 643-649. doi: 10.1002/eat.20544
- Rieves, L., & Cash, T. F. (1996). Social developmental factors and women's body-image attitudes. *Journal of Social Behavior and Personality, 11*, 63-78.
- Rodgers, R., & Chabrol, H. (2009). Parental attitudes, body image disturbance, and disordered eating amongst adolescents and young adults: A review. *European Eating Disorders Review, 17*, 137-151. doi: 10.1002/erv.907
- Rodgers, R. F., McLean, S. A., & Paxton, S. (2015). Longitudinal relationships among internalization of the media ideal, peer social comparison, and body dissatisfaction: Implications for the tripartite influence model. *Developmental Psychology, 51*, 706-713. doi: 10.1037/dev0000013
- Royal, S., MacDonald, D. E., & Dionne, M. M. (2012). Development and validation of the Fat Talk Questionnaire. *Body Image: An International Journal of Research, 10*, 62-69. doi: 10.1016/j.bodyim.2012.10.003

- Salk, R. H., & Engeln-Maddox, R. (2011). "If you're fat, then I'm humongous!" Frequency, content, and impact of fat talk among college women. *Psychology of Women Quarterly, 35*, 18-28. doi: 10.1177/0361684310384107
- Salk, R. H., & Engeln-Maddox, R. (2012). Fat talk among college women is both contagious and harmful. *Sex Roles, 66*, 636-645. doi: 10.1007/s11199-011-0050-1
- Sharpe, H., Naumann, U., Treasure, J., & Schmidt, U. (2013). Is fat talking a causal risk factor for body dissatisfaction? A systematic review and meta-analysis. *International Journal of Eating Disorders, 46*, 643-652. doi: 10.1002/eat.22151
- Stice, E. (1996). Modeling of eating pathology and social reinforcement of the thin-ideal predict onset of bulimic symptoms. *Behaviour Research and Therapy, 36*, 931-944.
- Stice, E., Shaw, H., Becker, C. B., & Rohde, P. (2008). Dissonance-based interventions for the prevention of eating disorders: Using persuasion principles to promote health. *Prevention Science, 2*, 114-128. doi: 10.1007/s11121-008-0093-x
- Striegel-Moore, R. H., Cachelin, F. H., Dohm, F. A., Pike, K.M., Wilfley, D. E., & Fairburn, C. G. (2001). Comparison of binge eating disorder and bulimia nervosa in a community sample. *International Journal of Eating Disorders, 29*, 157-165.
- Tantleff, S. D., & Gokee, J. L. (2004). Interpersonal influences on body image development. In T. F. Cash (Ed.), *Body Image: A Handbook of Theory, Research, & Clinical Practice* (pp. 108-116). New York, NY: The Guilford Press.
- Thompson, J. K., & Stice, E. (2001). Thin-ideal internalization: Mounting evidence for a new risk factor for body-image disturbance and eating pathology. *Current Directions in Psychological Science, 10*, 181-183. doi: 10.1111/1467-8721.00144

Thompson, J. K., van den Berg, P., Roehrig, M., Guarda, A. S., & Heinberg, L. J. (2004).

The Sociocultural Attitudes Towards Appearance Scale-3 (SATAQ-3): Development and validation. *International Journal of Eating Disorders*, *35*, 293-304. doi: 10.1002/eat.10257

Tucci, S., & Peters, J. (2008). Media influences on body satisfaction in female students.

Psicothema, *20*, 521-524.

Wasyliw, L., & Williamson, M. (2012). Actual reports and perceptions of body image concerns in young women and their friends. *Sex Roles*, *68*, 239-251.

Zalta, A. K., & Keel, P. K. (2006). Peer influence on bulimic symptoms in college students.

Journal of Abnormal Psychology, *115*, 185-189. doi: 10.1037/0021-843X.115.1.185

Table 1

Mean and Standard Deviation for Study Variables

	<i>M</i>	<i>SD</i>
Participant BMI	23.30	4.96
Mother BMI	27.21	5.74
Friend BMI	24.50	5.37
Self-reported fat talk	31.39	12.85
Mom self-reported fat talk	30.08	10.25
Friend self-reported fat talk	32.76	12.21
Mother perceived fat talk	31.17	12.76
Friend perceived fat talk	31.29	13.19
Internalization	24.12	5.69
Participant Age	19.32	1.59
Mother age	48.55	5.10
Friend age	20.96	7.85

Table 2

Summary of Intercorrelations

Measure	1	2	3	4	5	6	7	8
1. FT	1							
2. FFT	.305**	1						
3. FPFT	.554**	.417**	1					
4. MFT	.219*	.259**	.259**	1				
5. MPFT	.518**	.185*	.530**	.521**	1			
6. TII	.481**	.181*	.343**	.105	.281**	1		
7. BMI	.194**	.041	.079	.082	.047	-.014	1	
8. FBMI	.137	.239**	.086	.158	.023	-.013	.333**	1
9. MBMI	-.054	.030	-.056	.180*	.060	-.145	.438**	.289**

$p < .05^*$, $p < .01^{**}$

Note: FT = self-reported fat talk; FFT = friend's self-reported fat talk; FPFT = friend's perceived fat talk; MFT = mother's self-reported fat talk; MPFT = mother's perceived fat talk; TII = thin ideal internalization score; BMI = body mass index; FBMI = friend's body mass index; MBMI = mother's body mass index

Table 3

*Hierarchical Multiple Regression Analyses
Predicting Self-Reported Fat Talk as Influenced by
Mothers and Friends*

Predictor	Source of influence			
	Mother		Friend	
	ΔR^2	β	ΔR^2	β
Step 1	.003		.019	
Other BMI		-.054		.138
Step 2	.029*		.028*	
Self BMI		.190*		.178*
Step 3	.075**		.110**	
Other FT		.279**		.342**
Step 4	.183**		.168**	
Other PFT		.485**		.464**
Step 5	.172**		.130**	
TII		.440**		.389**
Total R^2	.462**		.456**	
n	175		145	

Note: $p < .05^*$, $p < .01^{**}$

FT = fat talk; PFT = perceived fat talk; TII = internalization score

Appendix A



INSTITUTIONAL REVIEW BOARD

Office of Research Protections

ASU Box 32068

Boone, NC 28608

828.262.2130

Web site:

<http://www.orsp.appstate.edu/protections/irb>

Email: irb@appstate.edu

Federalwide Assurance (FWA)

#00001076

To: Courtney Rogers
EMAIL

From: Dr. Stan Aeschleman, Institutional Review Board Chairperson

Date: 7/07/2014

RE: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)

Study #: 14-0258

Study Title: Fat Talk of Mothers, Daughters, and Friends

Submission Type: Initial

Expedited Category: (7) Research on Group Characteristics or Behavior, or Surveys, Interviews, etc.

Approval Date: 7/07/2014

Expiration Date of Approval: 7/06/2015

The Institutional Review Board (IRB) approved this study for the period indicated above. The IRB found that the research procedures meet the expedited category cited above. IRB approval is limited to the activities described in the IRB approved materials, and extends to the performance of the described activities in the sites identified in the IRB application. In accordance with this approval, IRB findings and approval conditions for the conduct of this research are listed below.

Regulatory and other findings:

The IRB waived the requirement to obtain a signed consent form for some or all subjects because the research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context.

Approval Conditions:

Appalachian State University Policies: All individuals engaged in research with human participants are responsible for compliance with the University policies and procedures, and IRB determinations.

Principal Investigator Responsibilities: The PI should review the IRB's list of PI responsibilities. The Principal Investigator (PI), or Faculty Advisor if the PI is a student, is ultimately responsible for ensuring the protection of research participants; conducting sound ethical research that complies with federal regulations, University policy and procedures; and maintaining study records.

Modifications and Addendums: IRB approval must be sought and obtained for any proposed modification or addendum (e.g., a change in procedure, personnel, study location, study instruments) to the IRB approved protocol, and informed consent form before changes may be implemented, unless changes are necessary to eliminate apparent immediate hazards to participants. Changes to eliminate apparent immediate hazards must be reported promptly to the IRB.

Approval Expiration and Continuing Review: The PI is responsible for requesting continuing review in a timely manner and receiving continuing approval for the duration of the research with human participants. Lapses in approval should be avoided to protect the welfare of enrolled participants. If approval expires, all research activities with human participants must cease.

Prompt Reporting of Events: Unanticipated Problems involving risks to participants or others; serious or continuing noncompliance with IRB requirements and determinations; and suspension or termination of IRB approval by an external entity, must be promptly reported to the IRB.

Closing a study: When research procedures with human subjects are completed, please complete the Request for Closure of IRB review form and send it to irb@appstate.edu.

Websites:

1. PI responsibilities:

<http://researchprotections.appstate.edu/sites/researchprotections.appstate.edu/files/PI%20Responsibilities.pdf>

2. IRB forms: <http://researchprotections.appstate.edu/human-subjects/irb-forms>

Appendix B

Primary Participant Consent Form
Consent to Participate in Research
Information to Consider About this Research

What is the purpose of this research?

You are invited to participate in a research study investigating variables related to body image. The findings will be shared in a master's thesis, and ideally in a conference presentation as well as published in a peer-reviewed journal of psychology.

Why am I being invited to take part in this research?

You are invited to participate because you are a female student at Appalachian State University that is willing to nominate her biological or adopted mother and a close same-sex friend to also participate in taking a briefer version of the same questionnaires. If you volunteer to take part in this study, you will be one of about 150 people to do so.

What will I be asked to do?

If you agree to participate in this research, you will be asked to complete a battery of online questionnaires which will not take longer than 30 minutes. Then you will be asked to email a questionnaire to your mother as well as a close same-sex friend to complete as well.

What are possible harms or discomforts that I might experience during the research?

To the best of our knowledge, the risk of harm and discomfort from participating in this research study is no more than you would experience in everyday life.

However, you may find some of the questions we ask to be upsetting or stressful. If so, we can tell you about some people who may be able to help you with these feelings.

Are there any reasons you might remove me from the research?

There may be reasons we will need to remove you from the study, even if you want to stay in. For example, if your mother or friend decides to refuse participation, your responses will not be used. However, your extra credit (ELCs) will be given to you for your participation, regardless of if we collect the surveys from your mother and from your friend.

What are possible benefits of this research?

There may be no personal benefit from your participation, other than the receipt of extra-credit, but the information gained by doing this research may help others in the future.

How will you keep my private information confidential?

Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about the combined information. Your identifying information (e.g., name) will not be collected in this research nor shared in any published or presented materials.

To ensure that your information is kept confidential, identification numbers but not names, will be used on all documents after retrieval from Qualtrics. Hence, anonymity will be protected to the full extent of the law. The information you provide to us will be stored indefinitely.

Whom can I contact if I have a question?

If you have questions about this research project, you can email Courtney Rogers at brambletc@email.appstate.edu, Dr. Denise Martz at martzdm@appstate.edu, or contact the Appalachian Institutional Review Board Administrator at 828-262-2130 (days), through email at irb@appstate.edu or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

Do I have to participate?

Your participation in this research is completely voluntary. If you choose not to volunteer, there is no penalty or consequence. If you decide to take part in the study, you can still decide at any time that you no longer want to participate. Further, your mother and friend will be invited to participate in brief surveys, but they do not have to participate fully in order for you to be given your extra credit. You will not lose any benefits or rights you would normally have if you do not participate in the study. This research project has been approved on 7/7/2014 by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on 7/6/2015 unless the IRB renews the approval of this research.

Will I be paid for taking part in this research?

You will not be paid for your participation in this study. However, you can earn 1 ELC credits for your participation. There are other research options and non-research options for obtaining extra credit or ELC's. One non-research option to receive 1 ELC is to read an article and write a 1-2 page paper summarizing the article and your reaction to the article. More information about this option can be found

at: psych.appstate.edu/research. You may also wish to consult your professor to see if other non-research options are available.

I have decided I want to take part in this research. What should I do now?

If you have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate, click to begin the survey.

Appendix C

Mother/Friend Consent Form
Consent to Participate in Research
Information to Consider About this Research

What is the purpose of this research?

You are invited to participate in a research study investigating variables related to body image. The findings will be shared in a master's thesis, and ideally in a conference presentation as well as published in a peer-reviewed journal of psychology.

Why am I being invited to take part in this research?

You are invited to participate because you are the mother or a close friend of a female student at Appalachian State University that is willing to nominate her biological or adopted mother and a close same-sex friend to also participate in taking a briefer version of the same questionnaires.

What will I be asked to do?

If you agree to participate in this research, you will be asked to complete a battery of online questionnaires which will not take longer than 15 minutes.

What are possible harms or discomforts that I might experience during the research?

To the best of our knowledge, the risk of harm and discomfort from participating in this research study is no more than you would experience in everyday life. However, you may find some of the questions we ask to be upsetting or stressful. If so, we can tell you about some people who may be able to help you with these feelings.

What are possible benefits of this research?

There may be no personal benefit from your participation but the information gained by doing this research may help others in the future.

How will you keep my private information confidential?

Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about the combined information. Your identifying information (e.g., name) will not be collected in this research nor shared in any published or presented materials.

To ensure that your information is kept confidential, identification numbers but not names, will be used on all documents after retrieval from Qualtrics. Hence, anonymity will be protected to the full extent of the law. The information you provide to us will be stored indefinitely.

Whom can I contact if I have a question?

If you have questions about this research project, you can email Courtney Rogers at bramblettc@email.appstate.edu, Dr. Denise Martz at martzdm@appstate.edu, or contact the Appalachian Institutional Review Board Administrator at 828-262-2130 (days), through email at irb@appstate.edu or at Appalachian State University, Office of Research and Sponsored Programs, IRB Administrator, Boone, NC 28608.

Do I have to participate?

Your participation in this research is completely voluntary. If you choose not to volunteer, there is no penalty or consequence. If you decide to take part in the study you can still decide at any time that you no longer want to participate. You will not lose any benefits or rights you would normally have if you do not participate in the study.

This research project has been approved on 7/7/2014 by the Institutional Review Board (IRB) at Appalachian State University. This approval will expire on 7/6/2015 unless the IRB renews the approval of this research.

I have decided I want to take part in this research. What should I do now?

If you have read this form, had the opportunity to ask questions about the research and received satisfactory answers, and want to participate, click the arrows below to begin the survey.

Appendix D

Fat Talk Questionnaire (Self)

We are interested in the **comments you say out loud** when you are with **one or several close female friend(s)** who is/are of **similar weight to yourself**. Please answer honestly.

1. When I'm with one or several close female friend(s), I complain that my arms are too flabby.

Never Rarely Sometimes Often Always

2. When I'm with one or several close female friend(s), I complain that my stomach is fat.

Never Rarely Sometimes Often Always

3. When I'm with one or several close female friend(s), I criticize my body compared to thin models in magazines.

Never Rarely Sometimes Often Always

4. When I'm with one or several close female friend(s), I complain that my body is out of proportion.

Never Rarely Sometimes Often Always

5. When I'm with one or several close female friend(s), I complain that I hate my whole body.

Never Rarely Sometimes Often Always

6. When I'm with one or several close female friend(s), I complain that I am fat.

Never Rarely Sometimes Often Always

7. When I'm with one or several close female friend(s), I complain that I should not be eating fattening foods.

Never Rarely Sometimes Often Always

8. When I'm with one or several close female friend(s), I complain that I've gained weight.

Never Rarely Sometimes Often Always

9. When I'm with one or several close female friend(s), I complain that my clothes are too tight.

Never Rarely Sometimes Often Always

10. When I'm with one or several close female friend(s), I complain that I need to stop eating so much.

Never Rarely Sometimes Often Always

11. When I'm with one or several close female friend(s), I criticize my body compared to my friends' bodies.

Never Rarely Sometimes Often Always

12. When I'm with one or several close female friend(s), I complain that I feel pressure to be thin.

Never Rarely Sometimes Often Always

13. When I'm with one or several close female friend(s), I complain that my body is disgusting.

Never Rarely Sometimes Often Always

14. When I'm with one or several close female friend(s), I complain that I'm not in shape.

Never Rarely Sometimes Often Always

Appendix E

Fat Talk Questionnaire (Friend)

We are interested in the **comments you believe your closest female friend would say out loud** when she is with **one or several close female friend(s)** who is/are of **similar weight to herself**. Please answer honestly.

1. When I'm with one or several close female friend(s), I complain that my arms are too flabby.

Never Rarely Sometimes Often Always

2. When I'm with one or several close female friend(s), I complain that my stomach is fat.

Never Rarely Sometimes Often Always

3. When I'm with one or several close female friend(s), I criticize my body compared to thin models in magazines.

Never Rarely Sometimes Often Always

4. When I'm with one or several close female friend(s), I complain that my body is out of proportion.

Never Rarely Sometimes Often Always

5. When I'm with one or several close female friend(s), I complain that I hate my whole body.

Never Rarely Sometimes Often Always

6. When I'm with one or several close female friend(s), I complain that I am fat.

Never Rarely Sometimes Often Always

7. When I'm with one or several close female friend(s), I complain that I should not be eating fattening foods.

Never Rarely Sometimes Often Always

8. When I'm with one or several close female friend(s), I complain that I've gained weight.

Never Rarely Sometimes Often Always

9. When I'm with one or several close female friend(s), I complain that my clothes are too tight.

Never Rarely Sometimes Often Always

10. When I'm with one or several close female friend(s), I complain that I need to stop eating so much.

Never Rarely Sometimes Often Always

11. When I'm with one or several close female friend(s), I criticize my body compared to my friends' bodies.

Never Rarely Sometimes Often Always

12. When I'm with one or several close female friend(s), I complain that I feel pressure to be thin.

Never Rarely Sometimes Often Always

13. When I'm with one or several close female friend(s), I complain that my body is disgusting.

Never Rarely Sometimes Often Always

14. When I'm with one or several close female friend(s), I complain that I'm not in shape.

Never Rarely Sometimes Often Always

Appendix F

Fat Talk Questionnaire (Mother)

We are interested in the **comments you believe your mother would say out loud** when you she is with **one or several close female friend(s)** who is/are of **similar weight to herself**. Please answer honestly.

1. When I'm with one or several close female friend(s), I complain that my arms are too flabby.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
2. When I'm with one or several close female friend(s), I complain that my stomach is fat.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
3. When I'm with one or several close female friend(s), I criticize my body compared to thin models in magazines.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
4. When I'm with one or several close female friend(s), I complain that my body is out of proportion.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
5. When I'm with one or several close female friend(s), I complain that I hate my whole body.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
6. When I'm with one or several close female friend(s), I complain that I am fat.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
7. When I'm with one or several close female friend(s), I complain that I should not be eating fattening foods.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
8. When I'm with one or several close female friend(s), I complain that I've gained weight.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
9. When I'm with one or several close female friend(s), I complain that my clothes are too tight.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------
10. When I'm with one or several close female friend(s), I complain that I need to stop eating so much.

Never	Rarely	Sometimes	Often	Always
-------	--------	-----------	-------	--------

11. When I'm with one or several close female friend(s), I criticize my body compared to my friends' bodies.

Never Rarely Sometimes Often Always

12. When I'm with one or several close female friend(s), I complain that I feel pressure to be thin.

Never Rarely Sometimes Often Always

13. When I'm with one or several close female friend(s), I complain that my body is disgusting.

Never Rarely Sometimes Often Always

14. When I'm with one or several close female friend(s), I complain that I'm not in shape.

Never Rarely Sometimes Often Always

Appendix G

Sociocultural Attitudes Towards Appearance Questionnaire

This survey measures how aware you are of media influences about physical appearance and how much you have internalized these standards within yourself. Please read each of the following items and **circle** the number which best reflects your agreement with the statement.

1. Women who appear in TV shows and movies project the type of appearance that I see as ideal.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

2. I believe that clothes look better on thin models.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

3. Music videos that show thin women make me wish that I were thin.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

4. I do not wish to look like the models in magazines.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

5. I tend to compare my body to people in magazines and on TV.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

6. In our society, fat people are not regarded as unattractive.

1-----2-----3-----4-----5

completely
disagree

neither agree nor
disagree

completely
agree

7. Photographs of thin women make me wish I were thin.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

8. Attractiveness is very important if you want to get ahead in our culture.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

9. It's important for people to work hard on their figures/physiques if they want to succeed in today's culture.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

10. Most people do not believe that the thinner you are, the better you look.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

11. People think that the thinner you are, the better you look in clothes.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

12. In today's society, it's not important to always look attractive.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

13. I wish I looked like a swimsuit model.

1-----2-----3-----4-----5
 completely neither agree nor completely
 disagree disagree agree

14. I often read magazines like Cosmopolitan, Vogue and Glamour and compare my appearance to the models.

1-----2-----3-----4-----5
completely neither agree nor completely
disagree disagree agree

Vita

Courtney Bramblett Rogers was born in Athens, Tennessee to Issac and Frances Bramblett. She graduated from Polk County High School in 2009 and attended Lee University from 2009 to 2012. She graduated with a Bachelor of Arts degree in Psychology with a minor in Religion. In fall 2013, she began working towards a Master of Arts degree in Clinical Health Psychology at Appalachian State University. After graduating from Appalachian State in the spring of 2016, she plans to pursue a doctoral degree in Clinical Health Psychology at the University of North Carolina at Charlotte.