

THE ASSOCIATION BETWEEN PARENT AND CHILD
BODY APPRECIATION IN RURAL FAMILIES

by

CHELSEY LENKA BOGUSLAWSKI

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Body appreciation is defined as the acceptance of, and respect toward, one's own body. The presence of body appreciation in an individual is related to positive health-related outcomes, such as flexible thinking and healthy eating behaviors. The aim of the current study was to examine the relationship between parental body appreciation and child body appreciation, and to determine if parental restrictive feeding practices moderated this relationship. A sample of 32 families from rural Oregon comprised of a parental figure and a child 8-10 years of age completed questionnaires about body appreciation and child feeding in one of two study visits. Statistical analysis showed that no significant correlation existed between parental body appreciation and child body appreciation, and that parental restrictive feeding was not a significant moderator. However, a significant inverse relationship existed between parental restrictive feeding and child body appreciation. Although the results of this study only apply to a small sample size, the study highlights the importance of future research in investigating methods of bolstering body appreciation at a young age.

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Chapter 1: Introduction to Body Appreciation

Body dissatisfaction and body appreciation

Body dissatisfaction has been a topic of interest in research due to its influence on mental, physical, and dietary health (Utter et al., 2003; Ferreiro et al., 2011). An individual's negative evaluation of their own body weight and shape as well as a strong importance placed on the appearance of their body defines a negative body image (Joseph & Shiffrar, 2011). This negative outlook stems from the difference between the perception and the dream look; between the actual image and the ideal image (Glashouwer et al., 2018). Extensive information exists regarding the perceived importance of body image in Western society, where appearance is a central evaluative dimension (Stice & Shaw, 2002). Indeed, an average of 69-84% of women have body dissatisfaction concerns (Runfola et al., 2012). Body dissatisfaction has been a focus since it was discovered that it is a risk factor for eating disorders and depression (Stice and Whitenton, 2002). In recent literature, increased attention is being placed on body appreciation as questions arise regarding the health benefits of promoting appreciation for one's body.

Body appreciation can be defined as the acceptance of and respect toward one's own body (Avalos, Tylka, & Wood-Barcalow, 2005; Tylka & Wood-Barcalow, 2014). The importance of studying body appreciation stems from data suggesting that a positive view of one's body image leads to flexible thinking, builds positive health-related behaviors and eating habits, and fights illness (Tylka, 2011; Iannantuono & Tylka, 2012; Tylka & Wood-Barcalow, 2015). Essentially, enhanced body appreciation

can act as a broad protective factor (Tylka, 2011). Past research often presents body dissatisfaction and body appreciation as black and white: where there is one, the other is lacking. However, low body dissatisfaction should not be thought of as equivalent to high body appreciation (Tylka, 2011). Just because a person is not dissatisfied with their body, it does not necessarily follow that they appreciate their body- a middle realm exists with these labels, a level of “somewhat satisfaction” (Sonneville et al., 2012). To promote body appreciation, one cannot completely rid an individual of all their dissatisfactions, but rather teach them to appreciate by embracing both the positive and negative aspects of their bodies (Iannantuono & Tylka, 2012; Pope, Corona, & Belgrave, 2014). Body appreciation is uniquely associated with well-being, even after controlling for negative body image (Tylka, 2011). In fact, among adults, the presence of a positive body image is a stronger protective factor than the absence of an adverse body image (Tylka & Wood-Barcalow, 2015).

Age of body stigma development

Western weight stigmas, defined as negative stereotypes towards those with larger body sizes, develop early in childhood (Paxton & Damiano, 2017). Girls as young as 5 years of age demonstrate bias against those with obesity (Paxton & Damiano, 2017) and approximately 40-50% of preadolescent girls in the United States have expressed the desire to be thinner, over half of whom were in primary school (Slater & Tiggemann, 2016). Research has shown that people begin to develop an idea about their body image in the middle years of childhood, 8-12 years of age, when the influence from social media, peers, and family members becomes more salient (Zimmer-Gembeck & Skinner, 2011; Webb & Haycraft, 2019).

The recognition that body stereotypes develop at a young age is key to addressing issues related to body dissatisfaction and promoting body appreciation (Yager et al., 2018). By looking at what influences body appreciation and at what age it develops (or fails to develop), researchers can begin to look at how changing an individual's mindset could shift their focus to body acceptance. Also relevant during this time frame are parents' feelings about their own bodies, as well as their feeding practices (Brown & Ogen, 2004).

Parental influence on child body image

Because young children still live at home, parental guidance plays an influential role in their development, namely parental body dissatisfaction (Janicke et al., 2012). A study by Pope, Corona, & Belgrave (2014) examined body images of adolescent females as well as the types of messages they received from their parental figures regarding their bodies. Young girls used their maternal caregiver as a standard by which to measure their own beauty and beauty ideals (Pope, Corona, & Belgrave, 2014). Parents are role models for body image and influence a child's body image; indeed, parental body dissatisfaction is positively associated with their child's body dissatisfaction (Pope, Corona, & Belgrave, 2014). Similarly, parents who reported symptoms of eating disorders were predicted to influence the development of distressed eating in their children, contributing to their children's body dissatisfaction (Blissett & Haycraft, 2011). However, the relationship between parental and child body appreciation has yet to be evaluated. Qualitative data suggest that there is correspondence between parental and child body dissatisfaction, but this association has yet to be evaluated using quantitative methods (Wilsman, 2012).

Appearance fixing is a coping strategy where individuals try to correct parts of their body that they perceive as negative (Glashouwer et al., 2018). Oftentimes, dieting is the common response to these negative body images (Paxton & Damiano, 2017). Body dissatisfaction is thought to increase the prominence of dieting, as this response is seen as a fast-acting, figure-shaping technique (Stice & Shaw, 2002). Depending on how a parent views their child, they may feel the need to put them on a diet to help them lose weight and/or improve their physical appearance, thus implementing restrictive feeding techniques (Webb & Haycraft, 2019). Indeed, there exists a positive association between a mother's concern over her child's weight status and her restrictive feeding practices (Gregory, Paxton, & Brozovic, 2010).

A study of Australian families found that mothers concerned about the extent of their child's food consumption also reported higher levels of food restriction, compared to mothers that did not worry about their child's intake (Haines et al., 2018). Furthermore, when a parent attempts to exert control over their child's eating patterns for the purposes of modifying child appearance, levels of child body dissatisfaction increased (Birch, 1999; Brown & Ogen, 2004). Moreover, if parents are unhappy with their own body, they tend to restrict their child's food access, and if they are unhappy with their child's body, oftentimes the same restriction outcome results (Webb & Haycraft, 2019). In longitudinal studies, higher levels of body dissatisfaction among postpartum mothers and mothers of children in the early years of middle childhood predicted mothers' tendencies to restrict feeding for their children for the purpose of altering their child's weight (Duke et al, 2004; Webb & Haycraft, 2019). Taken together, these findings support the suggestion that parental body dissatisfaction and

controlling child feeding play a role in the “intergenerational transmission of body image and eating pathology” (Webb & Haycraft, 2019). It is currently unclear whether restrictive feeding practices are associated with body appreciation.

Research questions

As presented above, much of the existing literature concludes that if a parent is dissatisfied with their body, their child is likely to be dissatisfied with their body as well. Similarly, if a parent appreciates their body, their child may be more likely to also appreciate their body; importantly, this connection has yet to be directly made in literature. Research has shown that body dissatisfaction predicts the onset of eating disorders (Joseph & Shiffrar, 2011). More empirical attention to body appreciation, including relevant parenting practices, may assist with the development of strategies to bolster protective factors associated with positive physical, mental, and dietary health. Future studies, for example, could develop models to aid and/or encourage parenting techniques that would promote body appreciation among the parental figure and the youth if findings can identify the role that restrictive feeding plays. My research aims to examine the association between parental and child body appreciation and to evaluate whether parental feeding practices moderate this association. This thesis will attempt to answer the following specific questions:

1. Is there a link between parental body appreciation and child body appreciation?

I hypothesize that there exists a positive association between parental body appreciation and child body appreciation.

2. How does parental restriction of child's diet influence the relationship between parental body appreciation and child body appreciation?

I hypothesize that parental restrictive feeding practices moderate the association between parental body appreciation and child body appreciation. Specifically, the link between the two would be reduced among parents with higher restrictive practices.

Methods

Participants

Participants included children aged 8-10 years predicted to be at high risk for excess weight gain due to their rural location, as well as either one or both of their parental guardians. Children in rural communities are at a higher risk for obesity and health-related concerns. This is because they have a limited access to weight management specialists when compared to urban communities. These children often have access to a smaller variety of healthy foods, requiring them to exert more executive control over their meal choices. Caring about obesity risk in youthful populations is critical as obese youth lead to obese adults, and obesity increases the chances for early mortality and chronic health concerns. Participants were recruited via mass mailing and flyers found in community centers and schools in rural cities near Eugene, Oregon. "Rural" was defined as more than 10 miles out of, but less than 90 miles away from, the city of Eugene.

Child participants were excluded from the study if they had a body mass index (BMI) below the 5th percentile, a major medical condition, a full-threshold psychiatric diagnosis, had a plan or intent of suicide, a current use or use within the past 3 months of medication affecting body weight, recent brain injury, an intelligence quotient score below 70, or a history of pregnancy.

Procedures

Participants were given a unique University of Oregon Prevention Science Institute (PSI) study identification number and their names were removed from any and

all study materials. Data were collected by researchers pre-approved by the International Review Board and have since been de-identified. All identifiable survey information remained anonymous to me for the purposes of this thesis.

Prior to study enrollment, participants were screened on the phone to determine eligibility. Upon arrival to the first study visit, the purpose and procedures of the study were explained to the family and they were informed of the ability to discontinue participation at any point in time. Interested parents filled out the parental consent form and the prospective child participant filled out the child assent form. To further ensure study eligibility, children completed interviews lasting 30-60 minutes that assessed psychiatric history. During the study itself, parents and children alike filled out a battery of surveys outlined below in “Measures”. All participants attended two separate study visits and completed the surveys reported in this study in one of those two visits, exemplifying a randomized crossover design.

Measures

Parents were asked to fill out surveys regarding body appreciation and their child feeding practices:

1. *Body Appreciation Scale-2 (BAS-2)*: The BAS-2 is a 10-item measure assessing the acceptance of, opinions of, and respect toward an individual’s own body on a scale from 1 (never) to 5 (always), for example “I feel that my body has at least some good qualities,” “I appreciate the different and unique characteristics of my body,” “My behavior reveals my positive attitude toward my body; for example, I

hold my head high and smile.” The scale has high levels of estimated internal consistency ($\alpha = .93-.96$) over a three-week period for both men and women, a unidimensional factor structure, and high test-retest reliability (Tylka & Wood-Barcalow, 2015). It has convergent, incremental, and discriminant validity across male and female adult populations as well as different racial cultures. Validity of this measure has been demonstrated in a sample of 1,587 individuals, and it was correlated with “body-related variables and psychological well-being indices” for both genders (Tylka & Wood-Barcalow, 2015).

2. *Child Feeding Questionnaire (CFQ)*: The CFQ is a 31-item questionnaire assessing seven factors of parental feeding practices, including restrictive feeding habits. Answers were obtained using a five-item Likert-type scale from 1 (disagree) to 5 (agree). Eight items fall under the restriction category and these responses were used to assess the extent to which a parent restricts their child’s access to certain foods (e.g. “I have to be sure that my child does not eat too many sweets”, “I intentionally keep some food out of my child’s reach”). The questionnaire has demonstrated adequate estimated internal consistency ($\alpha > .70$) among mothers and fathers and across at least two ethnicities (Birch et al., 2001). It holds validity for parents with children aged 2-11 years (Birch et al., 2001). Validity of this measure has also been demonstrated in a sample of 668 families, and it was correlated with

aspects of child-feeding practices and the relationship to a child's patterns of food acceptance (Birch et al., 2001).

Children were asked to fill out a survey regarding body appreciation:

1. *Body Appreciation Scale-2 for Children (BAS-2C)*: The BAS-2C mirrors the BAS-2 in that it is a 10-item measure assessing the acceptance of, opinions of, and respect toward an individual's own body on a Likert scale from 1 (never) to 5 (always). The BAS-2C has been adapted to be fit for children: "I feel good about my body", "You can tell I feel good about my body by the way I behave", "I feel like I am beautiful even if I am different from pictures and videos of attractive people". The scale has been validated with children ages 9-11 and demonstrates a moderate two-week test-retest reliability with children as young as eight (Halliwell, Jarman, Tylka, & Slater, 2017). Correlation coefficients and paired sample t-tests showed that there was adequate test-retest reliability over a six-week period of .81 ($p < .001$) for both boys and girls (Halliwell, Jarman, Tylka, & Slater, 2017). Validity of this measure has been demonstrated in a sample of 498 children, and it was associated with other measures of body image, body esteem, and dieting (Halliwell, Jarman, Tylka, & Slater, 2017).

Analytic Approach

For the first hypothesis, a simple bivariate Pearson correlation model was conducted on the data collected from the BAS-2 and BAS-2C surveys completed by

parent and child, respectively, to determine the association between the two variables: parental body appreciation and child body appreciation.

For the second hypothesis, a multiple linear regression model was conducted. The independent variable in this model was parental body appreciation. The dependent variable was child body appreciation. An interaction term was created between parent body appreciation and parental restriction to evaluate whether restrictive feeding practices functioned as a moderator. Both the independent and moderator variables were centered based on the grand mean to avoid concerns with multi-collinearity. For all analyses, significance was determined using the cut-off of $p < .05$. All analyses were conducted in the SPSS program.

Results

Participants

The current study included parents and children from a larger study conducted by Dr. Nichole Kelly focused on the health and health-behaviors of preadolescent children (8-10 years old) living in rural Oregon. Out of the 32 families that participated, 31 families identified as white (non-Hispanic) and one classified themselves as multi-racial (Native American, British, German).

The average parent age was 37.08 years ($SD = 4.58$). Parental gender breakdown was 81.25% female and 18.75% male. 60% of the parents fell in the overweight or obese category. Overweight is defined as 25.0 kg/m² to 29.9 kg/m², with obese defined as above the 95th percentile (“About Adult BMI,” cdc.gov, 2017).

The average child age was 8.70 years ($SD = 0.77$); 51.5% identified as female and 48.5% as male. 25.7% of the children fell in the overweight or obese category. In children, overweight is defined as falling in the 85th-95th percentile and obese is defined as above the 95th percentile (“About Child & Teen BMI,” cdc.gov, 2018). BMI is calculated based on age, height, and weight, however the values provided as measures to compare are standardized values (“About Child & Teen BMI,” cdc.gov, 2018).

It is important to note however, that basing obesity ratings off BMI is problematic. BMI provides a baseline understanding of a typical body’s mass distribution to assist in determining weight categories and has been used for decades. However, BMI cannot and should not ever be used solely as the only indicator of obesity. It is used here to not overcomplicate the relationships in the study.

Relationship between PBAS and CBAS

My primary hypothesis that there existed a positive association between parental body appreciation and child body appreciation was not supported. Parental body appreciation was not significantly correlated with child body appreciation ($r(32) = -.032, p = .862$).

Parental feeding restriction as a moderator

My second hypothesis that the parental restrictive feeding practices would moderate, and specifically reduce, the association between parental body appreciation and child body appreciation, was not supported. The interaction between parental body appreciation and parental restrictive feeding practices was not significant, ($B = -.14, t(31) = -.60, p = .56$). However, the association between restrictive feeding practices and child body appreciation was significant ($B = -.46, t(31) = -2.25, p = .032$). As parents reported restricting their child's feeding more, the child's self-reported body appreciation was lower.

Discussion

Summary of results

The present study aimed to determine if there existed a positive correlation between parental body appreciation and child body appreciation, and if parental restrictive feeding was a moderator of this relationship. Body appreciation appears to function differently from body dissatisfaction in that it is uniquely associated with positive health-related behaviors and eating habits, as well as flexible thinking (Tylka, 2011, Iannantuono & Tylka, 2012). Yet, much less is known about how the appreciation of one's body corresponds in parent-child relationships and whether this association is negatively influenced by restrictive feeding practices. Contrary to the hypotheses, parental body appreciation was not significantly associated with child body appreciation. Parental restrictive feeding practices did not function as a moderator of this association but was found to have a significant inverse relationship with child body appreciation.

Influences on child body appreciation

The lack of a significant relationship between parent and child body appreciation suggests that other variables may be more relevant to influencing child body appreciation than a parent's body appreciation. Past research has found that environmental factors, education levels, maternal BMI, and even acculturation can influence a mother's perception of her child's weight (Chavoor, 2013). If these factors can influence how a mother views her child's body, then we can imagine that these factors plus other social factors such as the media, influence how the child formulates

positive perceptions of their own body image. Additionally, adolescents who are exposed to magazines about dieting and weight loss experience more “psychosocial distress and unhealthy dieting” (Utter et al., 2003). It is unclear whether media, or the means by which youth engage in media, has a role in the degree to which they appreciate their body. Young adults classified as having high levels of body satisfaction provided qualitative data on how filtering information from media sources in a realistic and positive manner allowed them to better appreciate their bodies (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). Likewise, existing research suggests that peer influence, opinions, and teasing are significant predictors of body image dissatisfaction in elementary age children, specifically those in early middle childhood (Vander Wal & Thelen, 2000). In a separate study, appearance norms and appearance conversations held with peers of girls 9-12 years old were related to internalization of body ideals and body dissatisfaction (Clark & Tiggemann, 2006). The information from the aforementioned studies suggest that perhaps positive experiences with peers regarding body image, such as comments related to appreciating the function rather than the appearance of the body, could be associated with greater body appreciation in children. Clearly, additional research is needed to better understand environmental and social factors associated with youth body appreciation. If these appearance conversations can change in their nature to be rewarding, then peer relations may prove influential in supporting body appreciation.

Feeding restriction and body appreciation

The present study found that parental feeding restriction did not moderate the relationship between parental body appreciation and child body appreciation. This lack

of significant moderation is likely due to the small sample size of this study. Perhaps parental restrictive feeding does not moderate the relationship between parental body appreciation and child body appreciation because parents who have a greater appreciation for their bodies do not restrict their child's feeding to the same extent as those whom have a lesser appreciation for their bodies.

Although the moderation models were non-significant, the main effect of parental restrictive feeding practices on body appreciation was significant and negative. The more a parent restrict their child's food, the less their child appreciates their body. Likewise, the less a parent restricts their child's food intake, the more their child appreciates their body. This is consistent with past research which has demonstrated a link between parental food restriction and children's body dissatisfaction. Specifically, a mother's concern over her child's weight status has been positively associated with increased restrictive feeding practices, and when a parent attempts to exert control over their child's eating habits for the purposes of modifying child appearance, levels of body dissatisfaction increased (Birch, 1999; Brown & Ogen, 2004; Gregory, Paxton, & Brozovic, 2010). While a low body appreciation is not indicative of body dissatisfaction, the similarity of the current study's findings with past research on body dissatisfaction suggests the notion that restrictive feeding habits may be detrimental to children's body image. Simultaneously, these data suggest that helping parents improve their feeding habits may have benefits on their children's body appreciation.

Further research

The importance of learning that parental body appreciation does not significantly influence child body appreciation is that we now know where to shift the

focus of further of interventions for bolstering body satisfaction. This suggests that factors aside from a parent's own body appreciation have a greater influence on a child's development of body appreciation. Building a strong body satisfaction at a young age proves critical as it may protect against excessive weight gain and improper dietary control (Sonneville et al., 2012). Body appreciation is "uniquely associated with well-being," even after taking into consideration a negative body image (Pope, Corona, & Belgrave, 2014). A more positive outlook enhances abstract thought, interpersonal relationships, and builds resilience against criticism as well as illness (Pope, Corona, & Belgrave, 2014). Further research can now focus efforts on determining what factors hold more influence over the formation of a child's body satisfaction, such as media or peer influence. The key to promoting positive body image may not necessarily be to rid individuals of their negative thoughts or the messages from external factors but encouraging them to embrace the positive and negative perceived aspects of their bodies (Pope, Corona, & Belgrave, 2014). This is known as mindfulness, which is a technique that focuses on self-acceptance and psychological well-being (Halliwell, 2013). Mindfulness, while not fully researched, has shown correlations to reduced negative body image and improved eating behaviors (Alberts, Thewissen, & Raes, 2012). Although the sample size for the study at hand was limited, results can still guide researchers to ask the question of what the primary influencer on child body appreciation is in Western society and what age is most critical in influencing child body appreciation.

Learning that reduced restrictive feeding practices are associated with increased child body appreciation can help spread awareness that food control is not beneficial to

the development of the mind and body. Body dissatisfaction is a known risk factor for eating disorders and depression (Stice and Whitenton, 2002). Children experiencing more positive relationships with their parents are more satisfied with their bodies cross-sectionally, and a parent enforcing restrictive feeding habits may make that relationship less positive (Holsen, Jones, & Birkeland, 2012). The inverse relationship found can guide future studies to develop models to aid and/or encourage parenting techniques that would promote a youth's body appreciation. New research questions that can be investigated include: what else, besides food restriction, can be changed in most families to improve child body appreciation? Does studying parental feeding restrictions of children indicate more about a parent's struggles with body satisfaction or does it indicate more about a child's struggles with body satisfaction? What are the primary influencers of child body appreciation and at what age should practices be enforced to control for a decline of body appreciation? Lastly, if we define culture as "the customary beliefs, social forms, and material traits of a racial group" ("Culture," Merriam-Webster Dictionary), then we can ask: how does culture affect how a child develops their body satisfaction?

Limitations

The findings of this study need to be considered with several limitations in mind. First, the small sample size ($N=32$) used in data analysis does not allow findings from this study to be generalizable for a larger population. Perhaps with a larger data set, the hypotheses presented at the start of this study would have resulted in significant data. The ethnic composition of the sample was highly homogenous (97.2% of participating families were non-Hispanic white), thus the statistical findings cannot be

applied to other racial/ethnic groups. Important to note is that parental feeding control as well as definitions of beauty may differ between sociocultural groups, affecting at what point an individual would find themselves satisfied and appreciative of their body. Although the BAS-2 has been verified and validated across Western cultures, its applicability to those residing in communities not categorized as such could lead to different results if research about body appreciation were to extend globally (Tylka & Wood-Barcalow, 2015).

The data collected for parental food restriction was a limitation of the study because parents self-reported their responses. Self-report bias, where an individual provides a skewed assessment of themselves with the intent of making a better impression, may exist here because no direct observations of parental control were made. Questions about restriction all focused on sweets and high-fat foods and failed to specify if the purpose of this restriction was for health benefits or body image drives; intent may demonstrate differential associations with children's body image (Webb & Haycraft, 2019).

In summary, the present research contributes to the understanding that parental body appreciation does not play a significant role in child body appreciation, but that decreased parental food restriction is positively associated with child body appreciation. The findings are not generalizable and may not apply to younger people or older people. However, the results still suggest that future research should evaluate culturally diverse populations as well as a larger sample sizes to analyze the interaction effects and potential moderator variables of parental feeding restriction, parental body appreciation, and child body appreciation.

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