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Running Head: DISORDERED EATING AND PHYSICAL APPEARANCE FEEDBACK

Positive Feedback on Appearance, Value Placed on Appearance, and Need for Approval:

Implications for Disordered Eating Behavior among Undergraduate Females

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Abstract

Negative feedback about appearance is often cited as a major contributor to unhealthy eating behavior among women. The present study examined whether positive feedback about appearance may also be associated with disordered eating behavior, particularly among women who place a high value on physical appearance. One hundred and nine female undergraduates at Illinois Wesleyan University completed surveys regarding positive appearance-related feedback received, value placed on physical appearance, need for approval, and eating attitudes. Analyses revealed that amount of positive feedback on physical appearance and value placed on appearance were both significantly positively correlated with disordered eating behavior. Further, body mass index was found to be negatively correlated with positive feedback received; in other words, females with a lower body mass received greater positive feedback. Implications for the relationship between positive appearance-related feedback and disordered eating behavior are discussed. This is particularly important because it contradicts the traditional view that the feedback on appearance associated with disordered eating is negative.

Positive Feedback on Appearance, Value Placed on Appearance, and Need for Approval:**Implications for Disordered Eating Behavior among Undergraduate Females**

A recent wealth of research on eating disorders has shown that overweight females are not alone in their desire and attempts to lose weight. Balthrop (1996) found that actually being overweight does not appear to be a prerequisite for body dissatisfaction. Between 70 and 80 percent of women aged 12 to 27 express a desire to lose weight, and between 61 and 86 percent have been on a diet (Kenny & Adams, 1994). In a study by Rosen and Gross (1987), two-thirds of the females they surveyed who were of normal weight, as defined by the body mass index (BMI), were attempting to lose weight. Raudenbush and Zellner (1997) found that 35 of the 40 females they interviewed who acknowledged that they were of normal weight desired to be thinner. Furthermore, Kenny and Adams (1994) found that females with the lowest BMI scores were on average more dissatisfied with their weight than obese males. BMI scores are calculated as a ratio of kilograms to meters, with specified cutoff points for under-, normal, and overweight scores. See the Methods section for a more detailed description of these scores.

If these women are already normal or even underweight, why are they attempting to slim down even more? Previous research has pointed to a distorted perception of one's body image and sociocultural pressure to obtain an ideal, often exceptionally thin body shape as explanations for a desire to lose weight frequently associated with disordered eating (Stice, 2002; Kenny & Adams, 1994). Dissatisfaction with body image and a preoccupation with weight loss can lead to the development of problematic eating behavior (Lieberman, Gavin, Bukowski, & White, 2001). Studies have also examined

the effects of negative feedback, often in the form of teasing, on a poor body image and disordered eating behaviors (Rieves & Cash, 1996, Lieberman et al., 2001). These explanations seem more appropriate for overweight women who may be dissatisfied with a body shape which is farther from society's ideal and who may receive negative feedback related to their overweight body shape. However, they do not as easily account for normal and especially underweight women who are already close to the ideal body shape and who may not receive as much negative weight-related feedback. Furthermore, examining why normal and underweight women would engage in disordered eating behaviors may provide additional information about the possible causes of this behavior in all women.

While negative feedback has been posited as a precursor to problematic eating behavior, the relationship between positive feedback and disordered eating, especially for normal and underweight populations, has been given little examination. Lieberman et al. (2001) examined the relationship between social reinforcement, dieting, and bulimic activity, and found that high levels of social reinforcement are significantly related to both of these behaviors. However, this study focused primarily on negative feedback, defining reinforcement as any comments that perpetuated a thin ideal, including teasing about weight. Rieves and Cash (1996) state that they found "a relative void in the literature with respect to interpersonal influences on body-image development" (p.64). The relationship between disordered eating and exclusively positive feedback about physical appearance, such as receiving appearance-related compliments, has not been closely examined.

Females who receive positive, appearance-related feedback may become more “schematic” for physical appearance, i.e. place a high value of importance on physical appearance (Cash & Labarge, 1996). Self-schemas are often viewed as central to the development of various psychological disorders. Furthermore, individuals who are schematic for appearance are more invested in their looks as a measure of self-worth (Cash & Labarge, 1996). Receiving positive, or even negative, appearance-related feedback may only be significant if the female is already schematic for appearance. In a society that places such emphasis on the thin body ideal as a measure of attractiveness, physical appearance and weight are closely related. Therefore, placing a high value on physical appearance in general has implications for also placing a high value of importance on weight-related features (Cash & Labarge, 1996).

McVey, Pepler, Davis, Flett, and Abdolell (2002) found that being schematic for physical appearance is a significant predictor for the development of an eating disorder. Thus, if a positive correlation exists between receiving positive feedback and being schematic for physical appearance, then receiving this positive feedback may also be related to developing problematic eating behavior. That is, if the direction of the relationship is that receiving positive feedback causes one to be more schematic for appearance, then this feedback may indirectly predispose some women to developing disordered eating behaviors. Hutchinson, et al. (as cited in Balthrop, 1996) further clarifies this relationship by saying a message inherent in U.S. culture is that in order to be accepted and successful, a female must be attractive, and to be attractive she must be thin. Furthermore, all one must do in order to obtain an attractive body is make the effort; therefore if a woman is not thin she has only herself to blame. From this line of

reasoning it is clear how a female who values physical appearance may engage in disordered eating in an attempt to achieve an ideal weight.

If women who receive positive appearance-related feedback become more schematic for physical appearance and value the feedback they receive, they may be at risk for engaging in disordered eating behaviors in an attempt to maintain or increase this positive feedback. This may be especially true if they have a high need for approval from others. Heinberg and Thompson (1992) found that being schematic for physical appearance may exacerbate an individual's response to both positive and negative feedback. Regardless, it is likely that some women who receive this positive feedback will simply develop greater self-esteem or reaffirm an existing positive self-image. In fact, Wertheim, et al. (1997) found that women who did not desire to lose weight were characterized as being more accepting of their physical appearance and less concerned about feedback from others. However, given that many normal weight and underweight women do develop problematic eating behaviors, the relationship between the positive feedback they receive and the level of importance they place on this feedback and on their appearance may be worth examining. Of course, this relationship may exist for females of all BMI scores, but it could be particularly important in understanding why women who are already close to society's ideal would engage in disordered eating behaviors in an attempt to lose weight.

Moulton, Moulton and Roach (1998) found that many theories of eating disorders have found a strong relationship between disordered eating behaviors and a need to gain approval. An interaction between physical appearance and positive feedback which creates a unique environment for some females, especially those who are schematic for

physical appearance, may be important to examine. In developmental contextualism, an individual's appearance determines the socialization they receive from others (Lerner & Jovanovic, 1990). Social-developmental perspectives emphasize the idea that physical appearance exists as a reciprocal, dynamic relationship for an individual within their environment which both influences and is influenced by interpersonal relations (Cash, 1990). If receiving positive feedback and approval related to physical appearance and especially to body image has become normal for underweight and normal weight women, it is possible that they may feel a strong need to maintain or even increase this feedback by any means necessary, including engaging in unhealthy, problematic eating behavior, in some cases even leading to clinically diagnosable eating disorders.

Stice (1996) proposed a dual pathway model for eating disorders where “the adverse effects of sociocultural pressure for a thin body are mediated by ideal-body internalization, body dissatisfaction, restrained eating, and negative affect. Perceived pressure to be thin is thought to promote an internalization of the thin ideal and body dissatisfaction” (p.342). The present study seeks to create a variation on this model, whereby the effects of sociocultural pressure for a thin body are exerted through positive, appearance-related feedback, causing a greater importance to be placed on physical appearance especially if there exists a high need for approval, and resulting in disordered eating behaviors in an attempt to increase or maintain this positive feedback. In this model (see Appendix E), perceived pressure to be thin would come from the positive feedback received by a female who is already close to the thin ideal that society sets forth. It is clear that in this proposed pathway, body dissatisfaction and distorted body image

are neither necessary nor sufficient to explain disordered eating, especially in normal and underweight populations.

The present study will examine the strength of the relationship between receiving positive, appearance-related feedback, placing a high value on appearance, the need for approval, and disordered eating behavior across varying BMI's for female university students. Reports have shown that extreme dieting and bulimic behavior occur relatively frequently in this population (Garner, et al., 1982). The primary hypothesis is that the importance placed on physical appearance is the mediator in a relationship between positive feedback and disordered eating behavior, where positive feedback is an indirect predictor for the development of disordered eating behavior. The relationship between these factors and perceived body image or body dissatisfaction will not be examined, since this has been studied extensively in the past. In fact, Gorham and Hundleby (1988) cited evidence that size overestimation and distorted body image are not related to recent weight loss. Therefore it may not be a distorted body image so much as an emphasis on physical appearance which contributes to attempts at weight loss. A study done by Timko, et al. (1987) offers further support for this idea. They found that importance of appearance is not related to body dissatisfaction, suggesting that the value placed on physical appearance is actually a separate construct from the evaluation of body image. Furthermore, this study suggests a pathway to the development of disordered eating behavior which does not require a distorted body image or body dissatisfaction as most explanations do.

Hypotheses

It was predicted that the degree of positive feedback received would be positively related to both placing a high value on physical appearance and to disordered eating behavior. Further, it was predicted that placing a high value on physical appearance and need for approval would also be positively related to disordered eating behavior. Finally, it was posited that taken together, the need for approval, degree of positive feedback, and value placed on physical appearance would be able to predict the level of an individual's disordered eating behavior.

Method

Participants

One hundred and nine female undergraduates, average age 19.81 (SD = 1.15) were recruited from the general psychology subject pool as well as from the four social sororities on campus at Illinois Wesleyan University.

Participants reported their height and weight in order to determine a Body Mass Index (BMI) score for each participant. The BMI was chosen to obtain a score for each participant that took into account both height and weight and the relationship between the two, rather than solely examining the participants' weight. The BMI is a standard measure commonly used in health screenings, where $BMI = kg/m^2$ (Garrow & Webster, 1985). A BMI of less than 18.5 is considered underweight and a BMI of 25 or higher is considered overweight. Any BMI falling between these two measures is considered normal weight. While self-report measures of height and weight may not always be accurate, given that the present study examined attitudes about eating, physical appearance, and perceived feedback, it is equally or perhaps more valuable to obtain

information on the participants' perception of their current weight and height as it would be to actually weigh and measure the participants at the time of the survey. Furthermore, self-report is less invasive than actually measuring and weighing the participants. The mean BMI was 22.49. Seven participants were classified as underweight ($M = 17.86$), 82 were classified as normal weight ($M = 21.92$), and 20 were classified as overweight ($M = 26.46$).

Measures

Disordered eating was measured using the *Eating Attitudes Test* (EAT; Garner, Olmstead, Bahr, & Garfinkel, 1982; see Appendix A). This is a well-known, objective, self-report measure of anorexic and bulimic behaviors and attitudes, and it is useful in identifying a group of women exhibiting abnormal concerns about weight and eating, especially in non-clinical samples. In this study, disordered eating behavior referred to any unhealthy behaviors or attitudes related to attempted weight loss, including but not limited to: restrictive dieting, a preoccupation with food and eating, and the use of compensatory behavior after eating a small amount of food. Scores for the EAT (Garner, et al., 1982) are independent of the participant's actual weight and are only related to the emotional disturbance involved in these behaviors. Therefore to score high for anorexic behaviors, one does not actually have to be underweight. Anyone scoring of 20 or above on the EAT is encouraged to seek the help of a qualified mental health professional. Cronbach's alpha for anorexia nervosa patients on this test is .90 (Garner, et al., 1982).

Receiving positive, appearance-related feedback was measured using the *Feedback on Physical Appearance Scale* (FOPAS) created by Tantleff-Dunn, Dunn, and Thompson (1995; see Appendix B) which was designed to assess physical appearance-

related verbal and nonverbal feedback. Participants answered how often they feel they have been the recipient of certain comments. The scale can be used to assess positive or negative feedback, or both. For the present study it was used to assess positive feedback, or items which make the participant feel good about her body. Cronbach's alpha for the positive FOPAS scale is .91. The negative scale of this measure has previously shown good convergence with measures of eating disorders but the positive scale has not been examined in this context (Tantleff-Dunn, Dunn, & Thompson, 1995).

Need for approval was measured using the *Revised Martin-Larsen Approval Motivation Scale* (MLAM; Martin, 1984; see Appendix C). This scale assessed participants' desire to obtain social approval and positive social reinforcement and to avoid social punishment through rejection or criticism by measuring their responsiveness to social approval and dependence upon this in social environments (Martin, 1984). This scale is a more valid assessment of a need for approval than the widely used Marlowe-Crowne Social Desirability Scale which may measure defensiveness rather than approval-seeking, and was not initially intended to be used as an approval measure (Crowne & Marlowe, 1964; Martin, 1984). Cronbach's alpha for the MLAM (Martin, 1984) is .75.

Importance of physical appearance was examined using the *Appearance Schemas Inventory-Revised* (ASI-R) developed by Cash (2003; see Appendix D) as a revision of the original ASI (Cash & Labarge, 1996). This scale is designed to assess core beliefs or assumptions about the importance of appearance and the effects it has on one's life. It has been previously tested on college females. It does not assess perceived body image or attractiveness, but rather perceived importance of these factors. High scores on this

test have been shown to be related to greater public self-consciousness and greater eating disturbance. Cronbach's alpha for the ASI-R is .88 for women (Cash, 2003).

Procedure

Participants completed the FOPAS (Tantleff-Dunn, Dunn, & Thompson, 1995), the ASI-R (Cash & Labarge, 1996), the revised MLAM Scale (Martin, 1984), and the EAT (Garner, et al., 1982) in random order, using paper and pencil. As an additional, more concrete measure of positive feedback, participants also reported an estimated number of the compliments they receive in a week and rated what percentage of these comments are related to physical appearance. Participants also reported their weight, height, age, and year in school.

Results

EAT Results

The average score on the EAT was 10.13. Nineteen participants (17%) scored at or above the cutoff of 20 that is considered problematic on this test and 90 (83%) scored below this cutoff point. EAT scores were compared for underweight ($n=7$) and overweight ($n=20$) females as classified by the BMI. Mean EAT scores were 14.57 for underweight females, 9.84 for normal weight females, and 9.80 for overweight females.

Tests of Hypotheses

Correlations among BMI, ASI-R, EAT, FOPAS, and MLAM are shown in Table 1. Consistent with the prediction, a one-tailed Pearson's correlation of .203 ($r = .203, p < .05$) showed a significant positive association between the FOPAS and the EAT. Among participants classified as normal weight, the correlation between the FOPAS and the EAT was found to be significant at the .01 ($r = .296$) level, but was not found to be

significant ($r = .002$) among participants classified as overweight. Also consistent with prediction, a Pearson's correlation of .378 ($r = .378, p < .01$) revealed a positive association between the EAT and the ASI-R. A one-tailed Pearson's correlation of -.235 ($p < .01$) showed a significant negative association between the FOPAS and the BMI scores, which was consistent with prediction. A correlation of .212 ($p < .05$) indicated a significant positive relationship between the BMI scores and the ASI-R, in contrast to what was predicted. A one-tailed Pearson's correlation did not show a significant relationship between the FOPAS and the ASI-R ($r = .043$), in contrast to what was predicted.

A stepwise multiple regression analysis (see Table 2) revealed that the ASI-R predicts to the EAT score at a significance level of .001 ($F = 16.91$). The FOPAS and the MLAM do not significantly add to the ASI-R's ability to predict the EAT score.

Secondary Analyses

Correlations were run between the MLAM and the EAT as well as between the MLAM and the BMI scores and the BMI and EAT to see if a relationship existed between these measures. A one-tailed Pearson's correlation did not show a significant relationship between the MLAM and the EAT or the BMI scores. A one-tailed Pearson's correlation of .228 ($p < .01$) showed a significant positive association between the ASI and the MLAM (Martin, 1984). Among participants classified as normal weight, a one-tailed Pearson's correlation of .188 ($p < .05$) revealed a significant positive association between the EAT and the BMI scores. See Tables 3 and 4 for a summary of correlations run for separate BMI classifications.

Discussion

Support for Model

While no significant relationship was found in the present study between the amount of positive, appearance-related feedback received and value placed on appearance, the amount of feedback received was significantly positively related to disordered eating behavior. This is important because a main question addressed in the present study was whether not only negative but also positive feedback might be related to disordered eating behavior; the results suggest that this may be the case. Furthermore, value placed on physical appearance was very strongly positively associated with disordered eating behavior and was the best predictor for this type of behavior. While the results did not support a significant relationship between feedback and value placed on appearance, they did suggest that both factors are positively associated with disordered eating behavior and therefore may warrant consideration when examining disordered eating from a clinical standpoint.

Positive, appearance-related feedback was significantly negatively related to body mass as predicted. Need for approval was not significantly related to body mass. Further, value placed on appearance was positively related to body mass; this is contrary to what was predicted.

While the value placed on appearance was able to significantly predict disordered eating behavior, positive, appearance-related feedback and need for approval actually detracted from the ASI-R's ability to predict this behavior. In the pathway proposed earlier in this paper, value placed on physical appearance acts as a mediator for positive, appearance-related feedback in the development of disordered eating behavior and need

for approval acts as a moderator on value placed on appearance; therefore it is not surprising that feedback and need for approval cannot predict an individual's disordered eating behavior since they have an indirect effect on this behavior. Their main effects occur on value placed on appearance, which directly affects disordered eating behavior and also predicts it.

The pathway proposed earlier in this paper for the development of disordered eating behavior suggests that an individual who receives positive, appearance-related feedback and values that feedback places a high value on appearance and is therefore more vulnerable to developing disordered eating behaviors. The finding that positive, appearance-related feedback is related to disordered eating behavior supports this model, as does the finding that value placed on appearance is also related to disordered eating behavior. Another finding that was not discussed earlier but that also supports this idea is that value placed on appearance was found to be positively, significantly related to an individual's need for approval. While not all expected relationships were found to support the proposed pathway, those that were found all occurred in the expected direction, thereby lending more strength to this model.

Limitations

Primary analyses examined the results of the measures across all BMI classifications. However, an extension of the present study is that these relationships may be stronger for underweight and normal weight females. Few differences were found among BMI classifications, however, which may have been due to the overwhelmingly large portion of normal weight females ($n = 82$) compared to the underrepresented categories of overweight females ($n = 20$) and especially of

underweight females ($n = 7$). The results did show, however, that a stronger relationship between disordered eating and positive, appearance-related feedback did exist for normal weight females than for overweight females. Furthermore, disordered eating is positively, significantly related to BMI for normal weight females but not for under- or overweight females. Underweight females exhibited the most disordered eating behaviors while overweight females exhibited the least, but again, the small sample sizes in these BMI classifications make it difficult to interpret these results accurately.

In addition to small sample sizes, another limitation of the present study was the fact that the majority of the participants were recruited from social sororities on campus due to the convenience of having access to a large group of women at once. It is possible that those women who are members of social sororities may be living in an environment where a greater value is placed on physical appearance than for women who do not belong to a social sorority. If this is indeed the case, it is possible that scores on the ASI-R were generally elevated due to the large proportion of sorority women who participated in the study. This could make the interpretation of these scores difficult since most scores may have been high and therefore the variation on this particular measure may have been much smaller than that on the other measures, making it difficult to differentiate between relatively high and low scores.

A third limitation was mentioned earlier. Participants reported their height and weight in order to be able to compute a BMI score for each participant. It is possible that participants may have reported these measures inaccurately, perhaps because they were not aware of their exact height or weight at the time of the study, or because they were reluctant to admit their true height and weight on a form they were to hand in to the

researcher. Furthermore, if participants did have a poor or distorted body image, they may have inaccurately reported their weight simply because their perception of their weight may be distorted. However, as previously stated, given that the present study examined attitudes about eating, physical appearance, and perceived feedback, it is equally or perhaps more valuable to obtain information on the participants' perception of their current weight and height as it would be to actually weigh and measure the participants at the time of the survey.

Finally, while a significant correlation was found between the FOPAS and the EAT, this relationship was relatively weak, ($r^2 = .041$) for all participants, and was only slightly stronger ($r^2 = .087$) for normal weight participants. It is important that this relationship not be overemphasized; instead, it should be viewed as a starting point from which to further examine the way in which these two variables interact. Future research should include a qualitative analysis of the relationship between positive feedback and eating behavior in order to better assess how these variables should be measured quantitatively.

Theoretical Implications

The proposed pathway for the development of disordered eating behavior in the present study was derived from a suggested relationship between positive, appearance-related feedback and women who are close to the thin ideal that society sets forth. However, this does not mean that the application of the ideas proposed in this pathway would be in any way limited to under- or normal weight populations. While it may be easier to see how this relationship between feedback, value, and behavior may play out in those women who are under- or normal weight, the theory itself translates well to women

of all BMI classifications. This may be especially true for members of social sororities as previously discussed. The results showed little difference among BMI classifications, and value placed on appearance was actually shown to be positively correlated with BMI, indicating that women with higher BMI classifications are more likely to place a high value on their appearance. It is still worth noting, however, that positive, appearance-related feedback was negatively associated with BMI scores, indicating that on average, women with lower BMI scores are receiving more positive feedback. This supports the suggestion that women who are closer to society's ideal may receive greater positive feedback for their appearance.

Despite the fact that positive, appearance-related feedback and value placed on appearance were not found to be related, both were found to be significantly associated with disordered eating behavior. Since the results from this study are correlational, it is not possible to determine if there is a causal relationship among these variables. However, knowing that positive feedback and value placed on appearance are associated with disordered eating could have clinical implications for those who are in treatment for disordered eating behaviors. Since much of the literature posits negative feedback as a precursor to developing an eating disorder (e.g., Rieves & Cash, 1996, Lieberman et al., 2001), the finding that positive feedback is also significantly related to disordered eating behavior is one that should not be overlooked.

Implications for Future Research

For women who score high on the EAT and whose environment may be one where physical appearance is highly valued, it may be important to focus on the role that positive feedback plays in the development or maintenance of their disordered eating

behavior. It is possible that a female may not have a distorted body image or have received negative, appearance-related feedback, yet still exhibit disordered eating behaviors. If this is the case, it is important to examine other explanations for her behavior, and an environment that is high in positive feedback and value placed on physical appearance may provide this explanation.

This study was one of the first to examine positive, appearance-related feedback as it relates to disordered eating behavior as well as to body mass, value placed on appearance, and need for approval. Further research is necessary to determine what role positive feedback and value placed on appearance actually play in the lives of women who exhibit disordered eating behaviors. For example, it might be useful to sample clinical and non-clinical populations and to assess them on both positive and negative feedback to see if perhaps the relationship between feedback and disordered eating is simply that females who are sensitive to feedback of any type are also, perhaps for a different reason, more vulnerable to developing an eating disorder. It is possible, of course, that the women in the present study did receive negative feedback and did have a poor or distorted body image. It was beyond the scope of this study to examine these factors. Therefore, it would be helpful to assess body image, all types of feedback received on appearance, body mass, and value placed on appearance to see if it is the case that a female who receives positive, appearance-related feedback and places a high value on appearance but does not have a poor or distorted body image and does not receive a great deal of negative feedback might still be at risk for developing an eating disorder.

However, since value placed on appearance – and to a lesser extent positive feedback – were associated with disordered eating behaviors and were able to predict the

EAT score, it seems unlikely that these same women who scored high on the EAT, the ASI-R, and the FOPAS would somehow happen to also have a poor body image and be simultaneously receiving negative feedback. In order to assess this accurately, it may be helpful to examine the relationship between positive and negative appearance-related feedback, body image, and value placed on physical appearance for this population.

Clinical Implications

The results of this study have clinical implications for the population examined, regardless of their association with those factors previously cited as precursors to disordered eating. Since a number of women with disordered eating behavior are from this demographic group (Garner, et al., 1982), it is important for clinicians to be aware that positive feedback and value placed on appearance may be associated with the behavior of these clients. It may be helpful to attempt to refocus the attention of these women to non-appearance-related positive feedback and to strengthen their perceived value of non-appearance-related features such as personality and intelligence.

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Table 1

Correlations between measures for all participants (n=109)

Measure	FOPAS	ASI	EAT	MLAM
BMI	-.285**	.212*	.030	.073
FOPAS		.043	.203*	-.072
ASI			.378**	.228**
EAT				.153

* $p < .05$ ** $p < .01$

Table 2

Multiple Regression Analysis of ASI-R as a predictor of EAT score

	r	r ²	Sum of Squares	df	Mean Square	F	Sig.
Regression	.369	.136	1523.426	1	1523.426	16.911	.000
Residual			9638.895	107	90.083		
Total			11162.321	108			

Table 3

Correlations between measures for participants classified as normal weight (n=82)

Measure	FOPAS	ASI	EAT	MLAM
BMI	-.081	.229*	.188*	.209*
FOPAS		.150	.296**	-.037
ASI			.378**	.209*
EAT				.120

* $p < .05$ ** $p < .01$

Table 4

Correlations between measures for participants classified as overweight (n=20)

Measure	FOPAS	ASI	EAT	MLAM
BMI	.382*	-.034	-.099	-.081
FOPAS		-.124	.002	-.031
ASI			.662**	.289
EAT				.339

* $p < .05$ ** $p < .01$

Appendix A

Eating Attitudes Test – 26

PLEASE CIRCLE A RESPONSE FOR EACH OF THE FOLLOWING STATEMENTS

-
- | | | | | | | | |
|-----|---|---------------|----------------|--------------|------------------|---------------|--------------|
| 1. | I am terrified about being overweight. | Always | Usually | Often | Sometimes | Rarely | Never |
| 2. | I avoid eating when I am hungry. | Always | Usually | Often | Sometimes | Rarely | Never |
| 3. | I find myself preoccupied with food. | Always | Usually | Often | Sometimes | Rarely | Never |
| 4. | I have gone on eating binges where
I feel I may not be able to stop. | Always | Usually | Often | Sometimes | Rarely | Never |
| 5. | I cut my food into small pieces. | Always | Usually | Often | Sometimes | Rarely | Never |
| 6. | I am aware of the calorie content
of foods I eat. | Always | Usually | Often | Sometimes | Rarely | Never |
| 7. | I particularly avoid food with a high
carbohydrate content. | Always | Usually | Often | Sometimes | Rarely | Never |
| 8. | I feel others would prefer if I ate more. | Always | Usually | Often | Sometimes | Rarely | Never |
| 9. | I vomit after I have eaten. | Always | Usually | Often | Sometimes | Rarely | Never |
| 10. | I feel extremely guilty after eating. | Always | Usually | Often | Sometimes | Rarely | Never |
| 11. | I am preoccupied with a desire to
be thinner. | Always | Usually | Often | Sometimes | Rarely | Never |
| 12. | I think about burning up calories
when I exercise. | Always | Usually | Often | Sometimes | Rarely | Never |
| 13. | Other people think I am too thin. | Always | Usually | Often | Sometimes | Rarely | Never |
| 14. | I am preoccupied with the thought of
having fat on my body | Always | Usually | Often | Sometimes | Rarely | Never |
| 15. | I take longer than others to eat my
meals. | Always | Usually | Often | Sometimes | Rarely | Never |
| 16. | I avoid food with sugar in them. | Always | Usually | Often | Sometimes | Rarely | Never |

17.	I eat diet foods.	Always	Usually	Often	Sometimes	Rarely	Never
18.	I feel that food controls my life.	Always	Usually	Often	Sometimes	Rarely	Never
19.	I display self-control around food.	Always	Usually	Often	Sometimes	Rarely	Never
20.	I feel that others pressure me to eat.	Always	Usually	Often	Sometimes	Rarely	Never
21.	I give too much time and thought to food.	Always	Usually	Often	Sometimes	Rarely	Never
22.	I feel uncomfortable after eating sweets.	Always	Usually	Often	Sometimes	Rarely	Never
23.	I engage in dieting behavior.	Always	Usually	Often	Sometimes	Rarely	Never
24.	I like my stomach to be empty.	Always	Usually	Often	Sometimes	Rarely	Never
25.	I have the impulse to vomit after meals.	Always	Usually	Often	Sometimes	Rarely	Never
26.	I enjoy trying new rich foods.	Always	Usually	Often	Sometimes	Rarely	Never

Appendix B

Feedback on Physical Appearance

Please estimate the average number of *compliments* you receive in a week: _____

Of these compliments, please estimate what **percentage** are related to your physical appearance:
_____ %

**THE FOLLOWING ITEMS REFER TO EXPERIENCES THAT MAKE YOU FEEL
GOOD ABOUT YOUR BODY**

Please use the following scale for your response. Draw a circle around the number that is closest to the amount that the behavior occurs:

- 0 = Never
- 1 = Rarely
- 2 = Sometimes
- 3 = Often
- 4 = Always

**PLEASE READ EACH ITEM AND RATE HOW OFTEN YOU THINK YOU HAVE
BEEN THE RECIPIENT OF SUCH BEHAVIOR**

	Never	Rarely	Sometimes	Often	Always
1. Someone said "you look like you've lost weight."	0	1	2	3	4
2. Someone whistled at you.	0	1	2	3	4
3. Someone commented on your outfit.	0	1	2	3	4
4. Someone grabbed your rear end.	0	1	2	3	4
5. Someone said, "Something about you looks different, but I can't figure out what it is."	0	1	2	3	4
6. Someone asked if you've been dieting.	0	1	2	3	4
7. Someone suggested in a clothing store that you were a smaller size than you were.	0	1	2	3	4
8. Someone grabbed your waist.	0	1	2	3	4
9. Someone gave you the "once-over glance."	0	1	2	3	4
10. Someone asked if you've been exercising lately.	0	1	2	3	4
11. Someone suggested that you should eat more.	0	1	2	3	4
12. Someone called you "bones" or "slim" or something similar.	0	1	2	3	4
13. Someone asked you how much you weigh.	0	1	2	3	4
14. Someone focused comments on non-weight-related areas (i.e. hair, eyes)	0	1	2	3	4

Appendix C

Revised Martin-Larsen Approval Motivation Scale

PLEASE INDICATE THE EXTENT TO WHICH YOU AGREE OR DISAGREE WITH THE FOLLOWING STATEMENTS BY CIRCLING THE CORRESPONDING NUMBER

Use the following scale:

1 = STRONGLY DISAGREE

2 = MOSTLY DISAGREE

3 = NEITHER AGREE NOR DISAGREE

4 = MOSTLY AGREE

5 = STRONGLY AGREE

	SD	MD	N	MA	SA
1. Depending upon the people involved, I react to the same situation in different ways.	1	2	3	4	5
2. I would rather be myself than be well thought of.	1	2	3	4	5
3. Many times I feel like just flipping a coin in order to decide what I should do.	1	2	3	4	5
4. I change my opinion (or the way I do things) in order to please someone else.	1	2	3	4	5
5. In order to get along and be liked, I tend to be what people expect me to be.	1	2	3	4	5
6. I find it difficult to talk about my ideas if they are contrary to group opinion.	1	2	3	4	5
7. One should avoid doing things in public which appear to be wrong to others, even though one knows that she is right.	1	2	3	4	5
8. Sometimes I feel that I don't have enough control over the direction my life is taking.	1	2	3	4	5
9. It is better to be humble than assertive when dealing with people.	1	2	3	4	5
10. I am willing to argue only if I know that my friends will back me up.	1	2	3	4	5

- | | | | | | |
|---|---|---|---|---|---|
| 11. If I hear that someone expresses a poor opinion of me, I do my best the next time that I see this person to make a good impression. | 1 | 2 | 3 | 4 | 5 |
| 12. I seldom feel the need to make excuses or apologize for my behavior. | 1 | 2 | 3 | 4 | 5 |
| 13. It is not important to me that I behave "properly" in social situations. | 1 | 2 | 3 | 4 | 5 |
| 14. The best way to handle people is to agree with them and tell them what they want to hear. | 1 | 2 | 3 | 4 | 5 |
| 15. It is hard for me to go on with my work if I am not encouraged to do so. | 1 | 2 | 3 | 4 | 5 |
| 16. If there is any criticism or anyone says anything about me, I can take it. | 1 | 2 | 3 | 4 | 5 |
| 17. It is wise to flatter people. | 1 | 2 | 3 | 4 | 5 |
| 18. I am careful at parties and social gatherings for fear that I will do or say things that others won't like. | 1 | 2 | 3 | 4 | 5 |
| 19. I usually do not change my position when people disagree with me. | 1 | 2 | 3 | 4 | 5 |
| 20. How many friends you have depends on how nice a person you are. | 1 | 2 | 3 | 4 | 5 |

Appendix D

**The Beliefs about Appearance Questionnaire
(ASI-R Short Form)**

The statements below are beliefs that people may or may not have about their physical appearance and its influence on life. Decide on the extent to which you personally **disagree or agree** with each statement and enter a number from 1 to 5 in the space on the left. There are no right or wrong answers. Just be truthful about your personal beliefs.

	1	2	3	4	5
	Strongly Disagree	Mostly Disagree	Neither Agree nor Disagree	Mostly Agree	Strongly Agree
_____	1. I spend little time on my physical appearance				
_____	2. When I see good-looking people, I wonder how my own looks measure up				
_____	3. I try to be as physically attractive as I can be				
_____	4. I have never paid much attention to what I look like				
_____	5. I seldom compare my appearance to that of other people I see				
_____	6. I often check my appearance in a mirror just to make sure I look okay				
_____	7. When something makes me feel good or bad about my looks, I tend to dwell on it				
_____	8. If I like how I look on a given day, it is easy to feel happy about other things				
_____	9. If somebody had a negative reaction to what I look like, it wouldn't bother me				
_____	10. When it comes to my physical appearance, I have high standards				

- _____ 11. My physical appearance has had little influence on my life
- _____ 12. Dressing well is not a priority for me
- _____ 13. When I meet people for the first time, I wonder what they think about
how I look
- _____ 14. In my everyday life, lots of things happen that make me think about
what I look like
- _____ 15. If I dislike how I look on a given day, it's hard to feel happy about other
things
- _____ 16. I fantasize about what it would be like to be better looking than I am
- _____ 17. Before going out, I make sure that I look as good as I possibly can
- _____ 18. What I look like is an important part of who I am
- _____ 19. By controlling my appearance, I can control many of the social and
emotional events in my life
- _____ 20. My appearance is responsible for much of what's happened to me in my
life

Appendix E

