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EASTERN KENTUCKY UNIVERSITY

"What Did You Say to Me?" – Social Feedback, Body Image, & Eating Disorders in Modern Day Society

Honors Thesis

Submitted

in Partial Fulfillment

of the

Requirements of HON 420

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By

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Mentor

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Department of Psychology

"What Did You Say to Me?" – Social Feedback, Body Image, & Eating Disorders in Modern Day Society

Caitlin Mehs

Dr. Richard Osbaldiston, Department of Psychology

Eating disorders are one of the most lethal psychological disorders and need further insight into how they are developed. After an extensive literature review, I am proposing that social feedback influences body image, and body image influences eating disorders. It was predicted that there will be a strong, positive correlation between body image (as measured by body dissatisfaction) and eating disorders. It was also predicted that there will be a strong, positive correlation between social feedback and body image. A metaanalysis was conducted to determine the correlation between body image and eating disorders, yielding a moderately strong, positive correlation ($r_{avg} = 0.42$). This indicates that body image does influence the development of eating disorders. Alternatively, a survey using three different measures, the Body Appreciation Scale, the Eating Disorder Examination Questionnaire, and the Social Feedback Scale, was used to find the correlation between social feedback and body image. Negative social feedback had a strong, positive correlation to body self-image (r = 0.42), whereas positive social feedback had a weak, negative correlation to body self-image (r = -0.07). This indicates that negative social feedback has an impact on body self-image, while positive social feedback does not. Implications of the findings and how they develop treatment plans are discussed below.

Keywords and phrases: positive social feedback, negative social feedback, body image, eating disorders, meta-analysis, survey.

Introduction

Eating Disorders, Body Image, and Social Feedback

Eating disorders are one of the most prevalent and lethal psychological disorders. The lethality of eating disorders is recognized in a study conducted by Crow et al., where the crude mortality rate for the three main types of eating disorders were as follows:

Anorexia Nervosa (AN) = 4.0%, Bulimia Nervosa (BN)= 3.9%, and Eating Disorders

Not Otherwise Specified (EDNOS) = 5.2% (2009). Eating disorders are classified as a range of psychological disorders characterized by abnormal or disturbed eating habits.

This can include anything from binging, restricting food intake, purging the stomach after eating, eating non-food items, etc.

AN is characterized by the restriction of the amount of food eaten. The eating disorder can give a skeletal-like appearance to the persons afflicted, making it easier for others to detect. BN, on the other hand, is characterized by excessive overeating followed by the purging or removal of food through methods such as vomiting, laxatives, or

excessive exercise. Persons with BN typically have an average or overweight body appearance due to the residual caloric intake. Because of their normal to near-normal appearance, BN is more commonly overlooked. EDNOS is, therefore, defined as all other types of eating disorders.

There are many factors that contribute to the development of eating disorders. The three main categories of contributing factors are genetic/biological, emotional/psychological, and interpersonal/social. In this study, the interpersonal/social category is more heavily examined. Throughout the literature search, body image was found to be one of the more frequent predictors of eating disorders (Veisy et al., 2018; Beintner et al., 2019; & Joplin, 2017). It should be noted that within this study, body image and body dissatisfaction are interchangeable terms, and they refer to a person's perception of the aesthetics of their own body (Shulman, 2014; & Menzel et al., 2010). It involves how a person sees themself compared to the standards set by society. A person with high body self-image is less likely to develop an eating disorder compared to someone with a low body self-image (Lee et al., 2018).

Body image contributes to eating disorders, but it raises the question, "What influences body image?" Social feedback is a major contributor to an individual's body self-image (Mu et al, 2019; & Perloff, 2014). Social feedback is feedback given within a social context. In general, social feedback can come in both verbal and nonverbal forms, such as comments or gestures, respectively. There are three main types of social feedback: positive social feedback, negative social feedback, and neutral social feedback.

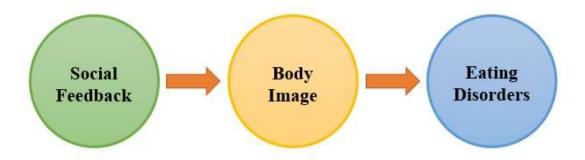
Positive social feedback is affirmation, acceptance, approval, or praise given to an individual for their actions or outward appearance. This can come in the form of

compliments or encouraging words. Negative social feedback, on the other hand, is denial, rejection, judgement, and dismissal given to an individual for their actions or outward appearance. This can come in the form of criticism, bullying, etc. Neutral social feedback acts as a control because it does not have an effect on an individual.

Previous literature shows that there has been more research on negative social feedback than positive social feedback, meaning there is a gap within the research. An overall theme with negative social feedback is that it causes individuals to have a lower body self-image, or self-esteem (Mu et al., 2019; Manago et al., 2015; Schie et al., 2018; & Smink et al., 2018). In other words, when a person receives criticism, is rejected, or dismissed, then they develop a lower outlook of themselves. Meanwhile, according to Martijn et al., healthy, normal weight women who exhibited concern about their weight and body image responded positively to positive social feedback (2010). In other words, their body satisfaction increased with the addition of positive social feedback.

After an extensive literature review, I am proposing that social feedback influences body image, and body image influences eating disorders. This can be shown in a flow chart, as seen in **Figure 1**. This study will look at how both positive and negative social feedback influences body image.

Figure 1. A proposed pathway to the development of eating disorders.



Research Strategy and Hypothesis

The initial research strategy included conducting a meta-analysis for both the relationship between social feedback and body image, as well as the relationship between body image and eating disorders. This would have given statistical, numerical correlations for the relationships between each variable. Then, the meta-analyses were to be followed by an in-person study to further explore the effects of social feedback, specifically positive social feedback and negative social feedback. This would have involved photography and videography, a survey, as well as different surroundings to take the survey in – one to represent positive social feedback, one for neutral social feedback, and another for negative social feedback.

However, the initial plan was not able to be fully executed due to certain unprecedented conditions. First, there was not enough research on social feedback and eating disorders to conduct a meta-analysis. Therefore, plans were changed to only conduct a meta-analysis for the relationship between body image and eating disorders. Then, the COVID-19 pandemic hit North America, inhibiting the collection of any live data due to health risks and indubitably cancelling the planned in-person experiment.

Therefore, another adjustment had to be made to the original plan. Instead of conducting a live experiment, an online survey was created to determine the relationship between social feedback and body image.

Given an extensive literature review and the previously discussed flow chat, I predict that there will be a strong, positive correlation between body image (as measured by body dissatisfaction) and eating disorders. I also predict that there will be a strong, positive correlation between social feedback and body image.

Meta-Analysis: Relationship Between Body Image and Eating Disorders

Meta-Analysis Method

A meta-analysis was performed to answer the research question, "How strong is the correlation between body image and eating disorders?" In order to perform the meta-analysis, a computer-based literature search was conducted for studies examining the relationship between body image and eating disorders. Key terms such as *body dissatisfaction*, *body image*, *eating disorders*, and *disordered eating* were searched in the PsychINFO and MedLine databases. Resulting studies were then sifted through to see if they pertained to the research question.

Studies were included if (1) they contained a correlation table, (2) the correlation table included terms or measures that related to *body dissatisfaction*, *body image*, or *body shape concern*, (3) the correlation table included terms or measures that involved *bulimia nervosa*, *anorexia nervosa*, or *binge eating* (or any other eating disorder), or *disordered eating*, and (4) the study was conducted within the past ten years.

Overall, 12 studies were found to meet all requirements and collected for further use (Chatterton, 2017; Dakanalis, 2014; Doumit, 2016; Duarte, 2017; Hochgraf, 2017; Lee, 2018; Pellizzer, 2018; Rodgers, 2013; Vartanian, 2014; Weinburger-Litman, 2018; Yu, 2020; Zaman, 2016). These studies were coded by number, and the sample sizes and correlations were recorded. Calculations were performed to find the weighted average correlation size, r_{avg} . First, the total number of participants in each study was calculated determined (N_i). Then, the sample size (N_i) was multiplied by the correlation (r_i) for each effect. The products of each effect were then summed together and divided by the total number of participants to find the weighted average correlation size.

Meta-Analysis Results

The meta-analysis examined the correlation between body image and eating disorders. The analysis included 15 effect sizes from 12 different studies ($N_{\text{total}} = 5161$) as shown in **Table 1**. All four requirements of inclusivity are shown within the table, such as the year, the term or scale related to *body dissatisfaction*, the term or scale related to *eating disorder*, and the population and effect size from each correlation table. This resulted in a weighted average correlation size of ($r_{\text{avg}} = 0.42$).

A general guideline within the field of psychology is that, a correlation around 0.00-0.20 represents a weak correlation, around 0.20-0.40 represents a moderate correlation, and above 0.40 represents a strong correlation. The weighted average correlation size ($r_{\rm avg}=0.42$) in this study indicates a moderately strong, positive correlation for the relationship between body image and eating disorders. This indicates

that as a person is more dissatisfied with their body, the more likely they are to engage in disordered eating behaviors.

Table 1. Study characteristics for all meta-analyses and corresponding calculations.											
	First	Year	Body	Body Eating Population Correlation $N_i *r_i$							
	Author		Dissatisfaction	Disorder	(N_i)	(r_i)					
1	Doumit	2016	Body Image	Restrained	894	0.217	194				
				Eating							
2	Dakanalis	2014	Body	Eating	359	0.48	172.32				
			Dissatisfaction	Disorder							
3	Weinberger-	2018	BSQ**	EDI**	120	0.68	81.6				
	Litman			Total							
4	Rodgers	2013	Body Image	Disordered	125	0.29	36.25				
	(Men)		Avoidance	Eating							
4	Rodgers	2013	Body Image	Disordered	266	0.72	191.52				
	(Women)		Avoidance	Eating							
5	Yu (White)	2020	Body	Disordered	484	0.52	251.68				
			Dissatisfaction	Eating							
5	Yu (Latinx)	2020	Body	Disordered	134	0.56	75.04				
			Dissatisfaction	Eating							
5	Yu (Asian-	2020	Body	Disordered	142	0.35	49.7				
	American)		Dissatisfaction	Eating							

EDRC**

WCB**

DEBS**

EDE-Q

EDE**

BULIT-

EDE-O**

 $\sum N_{\rm i} (N_{\rm total})$

Total

R**

Restraint**

103

699

100

748

73

698

216

5161

0.68

0.23

0.10

0.64

0.75

0.32

0.63

 $\sum (N_i * r_i)$

70.04

160.77

10.0

478.72

54.75

223.36

136.05

2185.8

2018

2017

2016

2014

2017

2017

2018

BI-AAQ**

PSI**

BS**

BSO**

Shape Concern

SatBody**

BIAQ**Total

6

7

8

9

10

11

12

Lee

Hochgraf

Vartanian

Chatterton

Pellizer

Zaman

Duarte

**Note. BSQ, Body Shape Questionnaire; BI-AAQ, Body Image Acceptance and Action Questionnaire; PSI, Perception of Self Image; BS, Body Satisfaction; SatBody, Body Parts Satisfaction Scale for Men for legs and body factors; BIAQT, Body Image Avoidance Questionnaire; EDI, Eating Disorder Inventory; EDRC, Eating Disorders Risk Composite; WCB, Weight Control Behaviors; DEBS, Disordered Eating Behavior Scale; EDE-Q Restraint, Restraint subscale of the Eating Disorder Examination Questionnaire; EDE, Eating Disorder Examination; BULIT-R, Bulimia Test – Revised; EDE-Q, Eating Disorder Examination Questionnaire.

Survey on the Effects of Social Feedback

Survey Method

To test for a relationship between social feedback and body image, an online survey was conducted. Individuals could participant in the online survey if they: 1) were an Eastern Kentucky University student, 2) were eighteen years old or older, and 3) agreed to the terms and conditions of the survey. Gender and ethnicity were not limitations for the survey; however, the statistics were observed in the results. The survey was created and based off of three different measures: the Body Appreciation Scale (BAS), the Eating Disorder Examination Questionnaire (EDE-Q), and the Social Feedback Scale (SFS).

The BAS, as shown in **Appendix A**, is a scale that focuses on the extent individuals adopt a negative orientation towards their body. Researchers Tylka and Wood-Barcalow used the BAS in their research to find that positive body image is distinct from negative body image, multifaceted, holistic, stable and malleable, protective, and shaped by societal influences (2015). One of the key idiosyncrasies revolving around body image is between the attitude one has about their own physical appearance and the way they perceive their own body size (Brown, Cash, & Mikulka, 1990).

The EDE-Q, as shown in **Appendix B**, is a questionnaire that assesses the likelihood that an individual has an eating disorder, or is at risk of developing an eating disorder, within the past month (Fairburn & Beglin, 1994). This questionnaire has been tested to confirm that it yields reliable and valid results. It includes questions revolving

mainly around anorexia nervosa and bulimia nervosa, but other eating disorders could be assessed by using this questionnaire as well. The EDE-Q establishes that an individual may have an eating disorder by asking the participant questions about their eating habits over the past month, the amount of food intake within the past month, their menstrual cycles within the past four months (if applicable), as well as the participants' current weight and height.

The SFS, as shown in **Appendix C**, was created for this study, and it examines the relationship between social feedback and body image. This survey was created by using the Verbal Commentary on Physical Appearance Scale (VCOPAS), Feedback on Physical Appearance Scale (FOPAS), and Sensitivity to Feedback Scale for references (Herbozo & Thompson, 2006; Tantleff-Dunn, Thompson, & Dunn, 1995; Edwards & Pledger, 1990). The VCOPAS scale asks how often comments about the participants appearance occurs; however, it focuses on specific comments and phrases rather than positive and negative comments as a whole. FOPAS, on the other hand, focuses solely on how certain comments make the participant feel. Meanwhile, the Sensitivity to Feedback Scale addresses people's attentiveness to reactive messages, such as comments about their appearance, and the frequency of that attentiveness.

The SFS combines all three major components of the VCOPAS, FOPAS, and Sensitivity to Feedback Scale. It starts out by asking how often certain scenarios occur. This takes the components from VCOPAS and the Sensitivity to Feedback Scale because it gathers information on how often positive and negative comments are made, as well as how attentive a person is to those comments. Then, if the question is applicable to the

participant, a second question asks them how they feel about the outcome of that scenario. Thus, it brings in components from the FOPAS.

Before the survey could be distributed, it had to be approved by the Institutional Review Board (IRB). The survey was processed through the limited review for exemption determination by the IRB, where the scales and survey questions, cover letter, as well as participant guidelines were all approved of. Then, the survey was created using Qualtrics, a software program that helps users create, distribute, and analyze the results of surveys. After the survey was created, it was distributed out to Eastern Kentucky University's campus through the SONA system within the psychology department and by word of mouth.

Survey Results

In total, the survey was distributed to 110 individuals. Out of the 110 individuals, 2 persons decided to opt out of the survey, while 108 gave consent and participated in the survey. As shown in **Figure 2**, 22 individuals identified themselves as male, 80 individuals as female, 3 individuals as other, and 3 individuals opted to not specify their gender. As shown in **Figure 3**, when asked about their ethnic origins, 92 identified their ethnicity as White, 4 as Black or African American, 4 as Asian, 5 as Other, 0 as American Indian or Alaskan Native, 0 as Native Hawaiian or Pacific Islander, and 3 participants chose not to give their ethnicity. As shown in **Figure 4**, only 104 participants chose to give their age. The minimum age was 18 years old, the maximum was 36 years old, and the mean age of participants was 20.30.

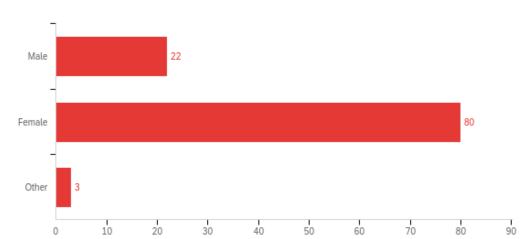
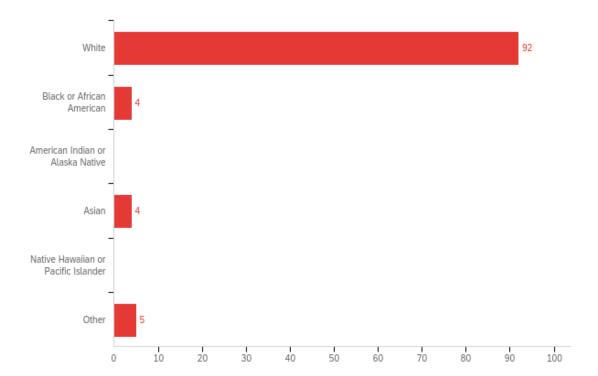


Figure 2. Resulting distribution of gender from survey.

Figure 3. Resulting distributions of ethnic origin from survey.



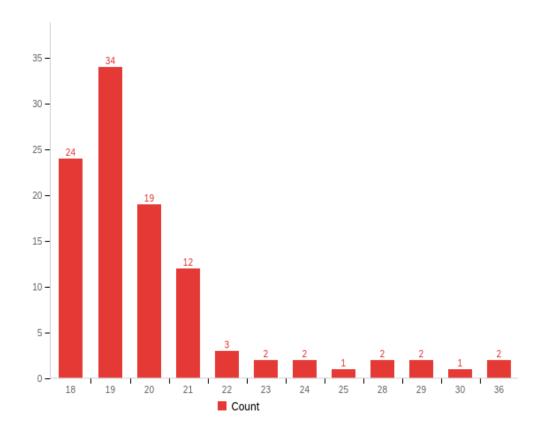


Figure 4. Resulting distribution of age from survey.

After participants answered the survey questions based from BAS, EDE-Q, and SFS, a correlation table, **Table 2**, was created to show the relationships between social feedback, body image, and eating disorders. The results reinforced that there is a positive, moderately strong to strong correlation between body image and eating disorders (Anorexia: r = 0.76; Bulimia: r = 0.49). This implies that as a person is more dissatisfied with their body, the more likely they are to engage in disordered eating behaviors.

The correlation table also highlights the how important it is for an individual to respect their own body. There is a strong, negative correlation between "RespectMyBody" and anorexia (r = -0.54); indicating that the more individuals respect their body, the less likely they will have or develop anorexia. There is also a strong,

negative correlation between "RespectMyBody" and self-image (r = -0.63); indicating that then more an individual respects their body, the less likely they will have a low self-image of themselves.

Furthermore, there are implications that negative social feedback is more impactful than positive social feedback. There is a moderately strong, positive correlation between negative social feedback and anorexia (r = 0.40), and a strong, positive correlation between negative social feedback and bulimia (r = 0.57). This signifies that the more exposure to negative social feedback an individual has, the more likely they are to have or develop an eating disorder. However, there are very weak correlations between positive social feedback and anorexia (r = 0.09), as well as bulimia (r = -0.24). This indicates that positive social feedback does not have a lot of impact on whether an individual will be less likely to develop an eating disorder.

Additionally, positive and negative social feedback have different impacts on an individual's body self-image. Negative social feedback has a stronger, positive correlation to body self-image (r = 0.42), whereas positive social feedback has a weak, negative correlation to body self-image (r = -0.07). In general, negative comments are far more harmful than positive comments are helpful. Criticism is exaggerated in the human mind, and taken more heavily. Compliments are taken very lightly, or even brushed off as unmeaningful.

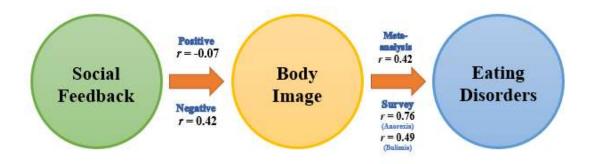
Table 2. Correlation matrix for social feedback, body image, and eating disorders.

Correlation Matrix

		RespectMyBody	FreqNegComm	FreqPosComm	Anorexia	Bulimia
RespectMyBody	Pearson's r p-value	_				
FreqNegComm	Pearson's r p-value	-0.017 0.903	_			
FreqPosComm	Pearson's r p-value	-0.185 0.254	-0.312 0.047	_		
Anorexia	Pearson's r p-value	-0.536 < .001	0.398 0.003	0.092 0.573	_	
Bulimia	Pearson's r p-value	-0.091 0.365	0.566 < .001	-0.243 0.126	0.565	_
Self-Image	Pearson's r p-value	-0.633 < .001	0.419 0.001	-0.070 0.664	0.764 < .001	0.489 < .001

Given the data from both the meta-analysis and the survey, the hypothesized pathway can now be completed. As shown in **Figure 5**, social feedback does influence body image, but only significantly through negative social feedback (r = 0.42). Positive social feedback has the opposite effect than what was expected; its influence is weak, and is even slightly negative (r = -0.07). This means that positive social feedback can sometimes be detrimental to body self-image. Meanwhile, body image has a moderately strong to strong influence on eating disorders (r = 0.42, r = 0.76, r = 0.49). Body image can and will influence eating disorders, whether it be the risk of developing an eating disorder or contributing to an already preexisting eating disorder.

Figure 5. The resulting proposed pathway to the development of eating disorders; social feedback influences body image, and body image influences eating disorders.



Discussion, Implications, Conclusions

In this study, the meta-analysis determined that there was a moderately strong correlation of 0.42 between body image and eating disorders. The survey further provided evidence that there is a correlation between body image and eating disorders. It established that there is a strong correlation of 0.76 between body image and anorexia and a relatively strong correlation of 0.49 between body image and bulimia. The survey also determined that there is a moderately strong correlation between negative social feedback and body image (r = 0.42). However, there was a very weak, negative correlation between positive social feedback and body image (r = -0.07).

These results imply that positive social feedback is not an effective clinical psychology treatment for eating disorders due to the weak, negative correlation between positive social feedback and body image. In other words, positive social feedback, such as words of encouragement, do not have a big influence on a person's body image, meaning that their level of body self-image does not change. If their body self-image does not change, then there will be no change in the development or treatment of an eating disorder.

Perhaps, a better approach for clinical psychologists to consider, is developing treatment plans that don't simply emphasize positive feedback, but rather focus on helping people understand, reframe, and cope with negative social feedback. As previously stated, negative social feedback has a big impact on a person's body self-image. If a treatment could be developed that focuses on reframing and coping with negative social feedback, it could possibly reduce the magnitude and hurtfulness that negative social feedback has on body self-image.

Many limitations were found to exist within this study. As previously mentioned, there is a huge gap in current research involving social feedback. Specifically, there is a limited amount of research that has been performed on positive social feedback. During this study, it was found that positive social feedback does not have any major affects on an individual's body self-image. However, the participants in the study were random college students. Would there be a difference in the results if the participants were solely individuals who already had an existing clinical eating disorder? Or if the participants were solely individuals who did not have an existing eating disorder, nor did they have a low sense of body self-image? Would positive social feedback have a greater correlation to body image in these circumstances, or would there be no change? In general, more research needs to be conducted on how social feedback affects the varying levels of eating disorders and body image. The levels should range from no risk of developing an eating disorder and an extremely high sense of body self-image to developing a severe eating disorder and an extremely low sense of body self-image, respectively.

Furthermore, while the attentiveness to comments and other types of social feedback was considered in the survey, the difference in attentiveness to positive

social feedback versus negative social feedback was not considered. This raises the question, "How attentive are individuals to positive social feedback compared to negative social feedback?" The results from this study suggest that it is possible people pay closer attention to negative commentary and social feedback compared to positive social feedback, swaying the findings as a result. However, more studies would need to be conducted to have a more conclusive answer.

Next, the participants within the survey were very homogenous. Even though the survey was randomly distributed out to the Eastern Kentucky University population, 76.19% of the participants were female, and 87.62% of the participants were white. It was also found within the literature review that many studies revolving around eating disorders were conducted on only white, females. This highlights another gap within current research. Would there be a difference in results between males and female, or even between persons who identify as another gender? Does ethnicity change the likelihood that an individual is at a higher risk for developing eating disorders? Overall, the participant pool for research involving eating disorder, body image, and social feedback needs to be more inclusive and diverse.

Additionally, only one of the three primary factors of eating disorders was researched in this study – the interpersonal/social category. There is an extensive amount of research that can be further explored within the emotional/psychological and genetic/biological categories as well. These categories may be fruitful avenues to develop preventative measures and treatments to inoculate against eating disorders. For instance, if there is a specific gene that increases the likelihood of developing an eating disorder, then a screening process could be developed. Then, emotional/psychological preventative

measures could follow the screening process to try and prevent the development of eating disorders in those individuals.

Taken as a whole, there are still many gaps within the research involving social feedback, body image, and eating disorders. Given that eating disorders are one of the most prevalent and lethal psychological disorders, more effective treatments and preventative measures need to be developed. It is within these gaps in the research that more effective treatments for can be formed, and potentially lower the mortality rates for eating disorders.

Appendix A

For each of the following statements, please indicate your level of agreement.

1) I respect my body.
O Strongly Disagree (1)
O Disagree (2)
O Neutral or No Opinion (3)
O Agree (4)
O Strongly Agree (5)
2) I feel good about my body.
O Strongly Disagree (1)
O Disagree (2)
O Neutral or No Opinion (3)
O Agree (4)
O Strongly Agree (5)
3) I feel that my body has at least some good qualities.
O Strongly Disagree (1)
O Disagree (2)
O Neutral or No Opinion (3)
O Agree (4)
O Strongly Agree (5)

4)	I take a positive attitude towards my body.
\bigcirc	Strongly Disagree (1)
\bigcirc	Disagree (2)
\bigcirc	Neutral or No Opinion (3)
\bigcirc	Agree (4)
\bigcirc	Strongly Agree (5)
5)	I am attentive to my body's needs.
\bigcirc	Strongly Disagree (1)
\bigcirc	Disagree (2)
\bigcirc	Neutral or No Opinion (3)
\bigcirc	Agree (4)
\bigcirc	Strongly Agree (5)
6)	I feel love for my body.
\bigcirc	Strongly Disagree (1)
\bigcirc	Disagree (2)
\bigcirc	Neutral or No Opinion (3)
\bigcirc	Agree (4)
\bigcirc	Strongly Agree (5)

7)	I appreciate the different and unique characteristics of my body.
0	Strongly Disagree (1)
0	Disagree (2)
0	Neutral or No Opinion (3)
\bigcirc	Agree (4)
0	Strongly Agree (5)
8)	My behavior reveals my positive attitude towards my body; for example, I walk holding my head high and smiling.
\bigcirc	Strongly Disagree (1)
0	Disagree (2)
0	Neutral or No Opinion (3)
0	Agree (4)
0	Strongly Agree (5)
9)	I am comfortable in my body.
\bigcirc	Strongly Disagree (1)
\bigcirc	Disagree (2)
\bigcirc	Neutral or No Opinion (3)
\bigcirc	Agree (4)
\bigcirc	Strongly Agree (5)

10) I feel like I am beautiful even if I am different from media images of attractive people (e.g., models, actresses/actors).
O Strongly Disagree (1)
O Disagree (2)
O Neutral or No Opinion (3)
O Agree (4)
O Strongly Agree (5)

Appendix B

The following questions are concerned with the past four weeks (28 days) only. Please read each question carefully. Please answer all the questions. Thank you.
Questions 1 to 6: Please select the appropriate number below each question. Remember that the questions only refer to the past four weeks (28 days) only.
1. Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?
O No days (1)
1-5 days (2)
○ 6-12 days (3)
13-15 days (4)
16-22 days (5)
23-27 days (6)
Every day (7)
2. Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?
O No days (1)
1-5 days (2)
○ 6-12 days (3)
13-15 days (4)
16-22 days (5)
23-27 days (6)
O Every day (7)

3. Have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?
O No days (1)
1-5 days (2)
O 6-12 days (3)
13-15 days (4)
16-22 days (5)
23-27 days (6)
O Every day (7)
4. Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?
O No days (1)
1-5 days (2)
O 6-12 days (3)
13-15 days (4)
16-22 days (5)
23-27 days (6)
O Every day (7)

5.	Have you felt fat?
	O No days (1)
	1-5 days (2)
	O 6-12 days (3)
	O 13-15 days (4)
	O 16-22 days (5)
	O 23-27 days (6)
	O Every day (7)
6.	Have you had a strong desire to lose weight?
	O No days (1)
	1-5 days (2)
	O 6-12 days (3)
	O 13-15 days (4)
	O 16-22 days (5)
	O 23-27 days (6)
	O Every day (7)

Questions 7-11: Please select the appropriate number below each question. Remember that the questions only refer to the past four weeks (28 days). Over the past four weeks (28 days) ...

	No Days (1)	1-5 Days (2)	6-12 Days (3)	13-15 Days (4)	16-22 Days (5)	23-27 Days (6)	Every Day (7)
7how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)? (1)	0	0	0	0	0	0	0
8on how many days have such episodes of overeating occurred (i.e., you have eaten an unusually large amount of food and have had a sense of loss of control at the time)? (2)	0	0	0	0	0	0	0
9how many times have you made yourself sick (vomit) as a means of controlling your shape/weight? (3)	0	0	0	0	0	0	0
10how many times have you taken laxatives as a means of controlling your shape or weight? (4)	0	0	0	0	0	0	0
11how many times have you exercised in a "driven" or "compulsive" way as a means of controlling your weight, shape or amount of fat, or to burn off calories? (5)	0	0	0	0	0	0	0

Questions 12 to 15: Please select the appropriate answer on the right. Remember that the questions only refer to the past four weeks (28 days).

	Not at all (1)	A little bit (2)	Somewhat (3)	Very much (4)	Extremely (5)
12. Has your weight influenced how you think about (judge) yourself as a person? (1)	(0	0	0	0
13. Has your shape influenced how you think about (judge) yourself as a person? (2)	(0	\circ	0
14. How uncomfortable have you felt seeing your body (for example, seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)? (3)	(
15. How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)? (4)	(

Appendix C

O Not Applicable (6)

Sometimes people make comments or statements that affect how we feel and think about our physical appearance. The following is a series of questions asking how frequent these kinds of comments or statements are made. Please read each question and rate how often you think you have been the recipient of such behavior. If applicable, please tell us how those kinds of comments or statements make you feel.

Please note: Physical appearance can be related to any of the following: body weight, body shape/build, height, complexion, hair, eyes, smile, etc.	
1. How frequently does your boy/girlfriend, partner, or spouse make negative comment or tease you about your physical appearance?	ts
O Never (1)	
O Rarely (2)	
O Sometimes (3)	
Often (4)	
O Very Often (5)	

1.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
O Good (4)
O Terrific (5)
2. How frequently does your boy/girlfriend, partner, or spouse make positive comments or compliment you about your physical appearance?
O Never (1)
Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
2.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
O Good (4)
O Terrific (5)

3. When you were growing up, how frequently did people make negative comments or tease you about your physical appearance?
O Never (1)
O Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
3.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
O Good (4)
O Terrific (5)
4. When you were growing up, how frequently did people make positive comments or compliment you about your physical appearance?
O Never (1)
O Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)

4.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)
5. How frequently do your current friends make negative comments or tease you about your physical appearance?
O Never (1)
O Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
5.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)

about your physical appearance?
O Never (1)
Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
6.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
O Good (4)
O Terrific (5)
7. How frequently do your coworkers make negative comments or tease you about your physical appearance?
O Never (1)
Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)

7.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)
8. How frequently do your coworkers make positive comments or compliment you about your physical appearance?
O Never (1)
Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
8.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)

9. When you are out in public, how frequently do strangers make negative comments or tease you about your physical appearance?
O Never (1)
Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
9.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)

compliment you about your physical appearance?
O Never (1)
O Rarely (2)
O Sometimes (3)
Often (4)
O Very Often (5)
O Not Applicable (6)
10.a. If the previous question is applicable, how does this make you feel?
O Terrible (1)
O Bad (2)
O Neutral/No Effect (3)
○ Good (4)
O Terrific (5)

Works Cited

- Beintner, I., Emmerich, O. L. M., Vollert, B., Taylor, C. B., & Jacobi, C. (2019).

 Promoting positive body image and intuitive eating in women with overweight and obesity via an online intervention: Results from a pilot feasibility study. *Eating Behaviors*, 34.
- Brown, T. A., Cash, T. F. & Mikulka, P. J. (1990). Attitudinal body-image assessment: Factor analysis of the body-self relations questionnaire. *Journal of Personality Assessment*, 55(1&2), 135–144.
- Chatterton, J., Petrie, T. A., Schuler, K. L., & Ruggero, C. (2017). Bulimic symptomatology among male collegiate athletes: A test of an etiological model. *Journal of Sport & Exercise Psychology*, *39*(5), 313–326.
- Crow, S. J., Peterson, C. B., Swanson, S. A., Raymond, N. C., Specker, S., Eckert, E. D., & Mitchell, J. E. (2009). Increased mortality in bulimia nervosa and other eating disorders. *The American Journal of Psychiatry*, 166(12), 1342–1346.
- Dakanalis, A., Timko, C. A., Favagrossa, L., Riva, G., Zanetti, M. A., & Clerici, M. (2014). Why do only a minority of men report severe levels of eating disorder symptomatology, when so many report substantial body dissatisfaction? Examination of exacerbating factors. *Eating Disorders: The Journal of Treatment & Prevention*, 22(4), 292–305.
- Doumit, R., Zeeni, N., Sanchez-Ruiz, M.J., & Khazen, G. (2016). Anxiety as a moderator of the relationship between body image and restrained eating. *Perspectives in Psychiatric Care*, 52(4), 254–264.
- Duarte, C., Pinto-Gouveia, J., & Ferreira, C. (2017). Ashamed and fused with body

- image and eating: Binge eating as an avoidance strategy. *Clinical Psychology & Psychotherapy*, 24(1), 195–202.
- Edwards, R., & Pledger, L. (1990). Development and construct validation of the sensitivity to feedback scale. *Communication Research Reports*, 7(2), 83–89.
- Fairburn, C. G., & Beglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders*, 16(4), 363–370.
- Herbozo, S., & Thompson, J. K. (2006). Appearance-related commentary, body image, and self-esteem: Does the distress associated with the commentary matter? *Body Image*, *3*(3), 255–262.
- Hochgraf, A. K., Kahn, R. E., & Kim-Spoon, J. (2017). The moderating role of emotional reactivity in the link between parental hostility and eating disorder symptoms in early adolescence. *Eating Disorders: The Journal of Treatment & Prevention*, 25(5), 420–435.
- Joplin, M. (2017). Evaluating "The Body Positive," a body image curriculum focused on body appreciation, intuitive eating, and self-compassion. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 77(9–B).
- Lee, E. B., Ong, C. W., Twohig, M. P., Lensegrav-Benson, T., & Quakenbush-Roberts,
 B. (2018). Increasing body image flexibility in a residential eating disorder
 facility: Correlates with symptom improvement. *Eating Disorders: The Journal*of Treatment & Prevention, 26(2), 185–199.
- Manago, A., Ward, L., Lemm, K., Reed, L., & Seabrook, R. (2015). Facebook involvement, objectified body consciousness, body shame, and sexual

- assertiveness in college women and men. Sex Roles, 72(1–2), 1–14.
- Martijn, C., Vanderlinden, M., Roefs, A., Huijding, J., & Jansen, A. (2010). Increasing body satisfaction of body concerned women through evaluative conditioning using social stimuli. *Health Psychology*, 29(5), 514–520.
- Menzel, J. E., Schaefer, L. M., Burke, N. L., Mayhew, L. L., Brannick, M. T., &
 Thompson, J. K. (2010). Appearance-related teasing, body dissatisfaction, and disordered eating: A meta-analysis. *Body Image*, 7(4), 261–270.
- Mu, W., Schoenleber, M., Leon, A. C., & Berenbaum, H. (2019). Body image distortion following social rejection or acceptance cues. *Journal of Social & Clinical Psychology*, 38(5), 395–408.
- Pellizzer, M. L., Tiggemann, M., Waller, G., & Wade, T. D. (2018). Measures of body image: Confirmatory factor analysis and association with disordered eating.

 Psychological Assessment, 30(2), 143–153.
- Perloff, R. M. (2014). Social media effects on young women's body image concerns:

 Theoretical perspectives and an agenda for research. *Sex Roles: A Journal of Research*, 71(11–12), 363–377.
- Rodgers, R. F., Melioli, T., Laconi, S., Bui, E., & Chabrol, H. (2013). Internet addiction symptoms, disordered eating, and body image avoidance. *Cyberpsychology*, *Behavior, and Social Networking*, *16*(1), 56–60.
- Schie, C. C. van, Chiu, C.-D., Rombouts, S. A. R. B., Heiser, W. J., & Elzinga, B. M. (2018). When compliments do not hit but critiques do: An fMRI study into self-esteem and self-knowledge in processing social feedback. *Social Cognitive* & *Affective Neuroscience*, *13*(4), 404–417.

- Shulman, J. R. (2014). The relationships between self-esteem, sense of belonging, and body dissatisfaction in a sample of college women. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 75(5–B), 1–136.
- Smink, F. R. E., van Hoeken, D., Dijkstra, J. K., Deen, M., Oldehinkel, A. J., & Hoek, H.
 W. (2018). Self-esteem and peer-perceived social status in early adolescence and prediction of eating pathology in young adulthood. *International Journal of Eating Disorders*, 51(8), 852–862.
- Tantleff-Dunn, S., Thompson, J. K., & Dunn, M. E. (1995). The feedback on physical appearance scale (FOPAS): Questionnaire development and psychometric evaluation. *Eating Disorders: The Journal of Treatment & Prevention*, *3*(4), 332–341.
- Tylka, T. L., & Wood-Barcalow, N. L. (2015). What is and what is not positive body image? Conceptual foundations and construct definition. *Body Image*, *14*, 118–129.
- Vartanian, L. R., Smyth, J. M., Zawadzki, M. J., Heron, K. E., & Coleman, S. R. M. (2014). Early adversity, personal resources, body dissatisfaction, and disordered eating. *International Journal of Eating Disorders*, 47(6), 620–629.
- Veisy, F., Ahmadi, S. M., Sadeghi, K., & Rezaee, M. (2018). The psychometric properties of Body Shape Questionnaire 8C in women with eating disorders. *Iranian Journal of Psychiatry and Clinical Psychology*, 23(4), 480–493.
- Weinberger-Litman, S. L., Latzer, Y., Litman, L., & Ozick, R. (2018). Extrinsic religious orientation and disordered eating pathology among modern orthodox

- Israeli adolescents: The mediating role of adherence to the superwoman ideal and body dissatisfaction. *Journal of Religion and Health*, *57*(1), 209–222.
- Yu, K., & Perez, M. (2020). The association between maternal criticism and body dissatisfaction on disorder eating pathology. *Cultural Diversity and Ethnic Minority Psychology*, 26(1), 61–70.
- Zaman, K., & Jami, H. (2016). Body image dissatisfaction and disordered eating behaviors in mothers during lactation period. *Pakistan Journal of Psychological Research*, 31(2), 609–634.