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The Relationship Between Perceived Body Image and Depression: How College Women See Themselves May Affect Depression

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Abstract: The search for the ideal body type is an area of focus for many women, and the inability to reach the ideal for some women is devastating. The relationship between low body image perceptions and depression has been studied numerous times over the past few decades. Past research indicates that as a woman becomes more focused on her appearance, or if her body image perceptions decrease, levels of depression will increase. In the current study, participants completed the MBSRQ and the BDI. The results of a Pearson's Correlation showed that overall there was not a significant relationship between body image and depression. However, there were significant relationships indicated within the subsections of the MBSRQ in regard to depression. Assessing these relationships may help women deal with their lower body images before drastic behaviors, such as eating disorders and/or suicide occur.

In a society that is filled with the "perfect body type" it is no wonder that many women are unhappy with their own body image. Current research has indicated that more women are struggling with their views of their body image, and have found a link between low body esteem and higher incidents of depression (Carpenter, Hasin, Allison, & Faith, 2000). Dislike for their body image has pushed women to the extremes of serious eating disorders and even further into the depths of depression, causing some to attempt and commit suicide (Pompili, Girardi, Tatarelli, Ruberto, & Tatarelli, 2006). Pompili et al. (2006) found that individuals suffering from anorexia nervosa and bulimia nervosa commit suicide more often than those who do not have eating disorders. They also concluded that suicide is a major cause of death among patients with eating disorders.

Depression has been a topic of study among researchers. Research has discussed the prevalence in both men and women, and in younger and elderly people (Allgood-Merten, Lewinsohn, & Hops, 1990). However, a new trend began in the early 1990s to study depression in adolescent girls and boys, and what contributes to depressive symptoms. Allgood-Merten et al. (1990) examined high school students on different factors that may pertain to depressive symptoms and found that adolescent girls tended to express more depressive symptoms than boys. They also found that girls tend to experience more self-consciousness and negative body image

judgments then boys, and concluded these experiences may contribute to the onset of depression.

Body image, and contributions to a person's body image, is often a topic of debate. Research has found that women tend to compare themselves to media images, and this comparison has contributed to the quest for the perfect body type. It was also found that those who failed to live up to the body images they thought were perfect experienced higher levels of depression (Van den Berg, Paxton, Keery, Wall, Guo, & Neumark-Sztainer, 2007). Furthermore, Franzoi and Herzog (1987) began researching what men and women find attractive across the same sex and in the opposite sex. They measured body-esteem in both women and men. Aspects of the female body included weight concern judgments as a predominant factor of female attractiveness, while upper body strength was the most predominant judgment in male attractiveness. The researchers also found that women were more judgmental, and found themselves to be less attractive, compared to men, who were less judgmental of themselves (Franzoi & Herzog, 1987). Culture also plays an important role in how a woman perceives her body image. McCarthy (1990) proposed a model in which the westernized "thin ideal" was causing a decrease in women's body perceptions and increasing their incidence of depression.

The study of the relationship between body image and depression has been in effect for decades. This relationship has been examined in many different populations including adolescents, obese women (Faubel, 1989), Chinese women (Davis & Katzman, 1997) and Swedish women (Ivarsson, Rastam, Wentz, Gillberg, & Gillberg, 2000) people, and women with Polycystic Ovarian Syndrome (Himelein & Thatcher, 2006).

Faubel (1989) compared women of normal weight, women with an early onset of obesity, and women with a later onset of obesity. She found that there was not a significant difference between the groups and their body image perceptions, meaning than one group of women did not have significantly higher or lower body image perceptions than another. She also found that those who have lower body images showed more depressive symptoms across all three groups (Faubel, 1989). However, Carpenter et al. (2000) found that women who were obese had lower body image perceptions, compared to those of normal weight, and suffered from more depressive symptoms. In addition, researchers have indicated that women who suffer from Polycystic Ovarian Syndrome (who tend to be more obese due to an increase of different hormones throughout their bodies due to the syndrome) also show lower body dissatisfaction and higher depression (Himelein & Thatcher, 2006).

The relationship between body image and depression has also been found in people of different ethnicities (Davis & Katzman, 1997). Davis and Katzman examined the relationship between depression and body image on Chinese men and women concluded that women had significantly lower body images and higher depression levels, when compared to men. Women also indicated that they wanted to weigh less, whereas men wanted to have a more muscular build. Their results were similar to those in European American samples (Davis & Katzman, 1997). Similar results were found among Swedish, Australian and American adolescents (Ivarsson, Svalander, Litlere, & Nevonen, 2006; Kostanski & Gullone, 1998; Stice & Bearman, 2001).

As the search and pining for the perfect body type increases, more and more women and girls are beginning to suffer from serious eating disorders. Unfortunately, as the eating disorders worsen, so does the depression (Ivarsson et al., 2000; Pompili et al., 2006). Depression can later worsen to the extent that women with eating disorders attempt to commit suicide (Pompili et al., 2006).

The current study was designed to examine the relationship between body image and depression in college women at a large urban state college. It is predicted that there will be a correlational relationship between lower body image and depression. In addition, this study seeks to expand the current research to additional populations, especially urban college age students. Hopefully, research in this field will help other women help themselves with their perceived body images before they begin to take drastic measures to reach the "thin ideal."

METHOD

PARTICIPANTS

Participants consisted of 25 women who were current students involved in an introductory psychology course at a large urban state college. The participants completed the study to fulfill a course requirement. Women were the focus of this study because the research indicates that women are suffering from this type of relationship more than men. Twelve participants attended the first session, and 13 participants attended the second session. There was a small sample size due to low volunteer rates.

MATERIALS

The Multidimensional Body-Self Relations Questionnaire (MBSRQ; Cash, 2000) was used to measure perceived body image, and the Beck Depression Inventory (BDI; Beck & Steer, 1993) was used to measure the presence of depressive symptoms among the participants. Both of these questionnaires are self-reported and administered questionnaires that use a Likert type scale (the BDI ranges from 0 to 3, and the MBSRQ ranges from 1 to 5).

The MBSRQ is a self-report questionnaire used for the assessment of a person's attitude toward their body image. This questionnaire uses 10 subscales to evaluate peoples' attitudes about their bodies based on evaluation of themselves, their appearance, their fitness, and how healthy they believe themselves to be (Cash, 2000). These subscales are listed as follows: *appearance evaluation, appearance orientation, fitness evaluation, fitness orientation, health evaluation, health orientation, illness orientation, body area satisfaction, overweight preoccupation,* and *self classified weight.* This questionnaire has been used extensively and successfully in body image research, including basic psychometric studies and clinical research. It has also been used in a national survey for research on college students, obesity, eating disorders, and outcome studies of body image therapy (Cash, 2000). Cash claimed that the use of the subscales supports a "cross-validity" indication when using this questionnaire, meaning that this survey could be applied to people of all types (Cash, 2000). Rusticus and Hubley (2006) studied the invariance of the said subscales, and found that evidence supports Cash's original statement. The values for each of these subsections are found by adding the participant's responses to questions associated with each subsection, adding a constant, and dividing by the number of questions in each subsection. When calculating the participants' total score on the MBSRQ, their scores on each of the subscales

were then averaged to get an overall score.

The BDI (Beck & Steer, 1993) was used to measure an occurrence of depression found in the participants. This inventory is a 21 item self-report survey that assesses the severity of depression in adolescents and adults based on symptoms as described in the BDI Manual (Beck & Steer, 1993). The reliability and validity of this inventory have been studied throughout its use. The BDI Manual (1993) states that, when compared to other depression indicators, the BDI highly correlates with the results produced by the other depression inventories (Beck & Steer, 1993). Similarly, Reynolds and Gould (1981) found that the BDI highly correlated with the Zung Self-Rating Depression Scale and the University of California-Los Angeles Loneliness Scale supporting the reliability and validity of the Beck Depression Inventory. The level of depression a person may be experiencing is found by summing the total responses on the questionnaire. This number is then compared to a scale ranging from 0 to 63. Scores ranging from 0 to 9 indicate a normal occurrence of depression, 10 to 18 indicate mild-moderate depression, 19 to 29 indicate moderate-severe depression, and 30 to 63 indicate extremely severe depression (Beck & Steer, 1993).

DESIGN

This was a correlational study specifically investigating the relationship between depression and perceived body image. Eleven Pearson's correlations were used to determine relationships between participants' depression level and body image. An overall correlation using the total MBSRQ and the BDI was used to determine an overall relationship between body image and depression. Ten additional correlations were also completed to examine the 10 subscales and their individual relationship with depression.

PROCEDURE

Participants were first given a consent form. Once the participants signed their consent form, they were given the MBSRQ and the BDI to complete. On average the sessions lasted between 20 to 30 minutes.

RESULTS

A two-tailed Pearson's correlation was used to analyze the total relationship between perceived body image and depression. Analysis showed that, overall, there was not a significant relationship between the participants' total score on the MBSRQ and their score on the BDI $r(23)=-0.313$, $p=0.128$. The results do not support the initial hypothesis. However, when analyzing the correlations of the subsections identified in the MBSRQ in relation to the BDI, significance in five out of the 10 identified subscales was found.

Table 1. *Means and Standard Deviations for the MBSRQ Subscales*

Subscales	M	SD
Appearance Evaluation	3.36	0.94
Appearance Orientation	3.43	0.65
Body Area Satisfaction	3.74	0.88
Fitness Evaluation	3.92	0.74
Fitness Orientation	3.56	0.74
Health Evaluation	3.76	0.70
Health Orientation	3.43	0.65
Illness Orientation	3.08	0.84
Overweight Preoccupation	2.56	1.28
Self Classified Weight	3.26	0.65

Note. N = 25

Means and standard deviations for each of the questionnaire subscales are listed in Table 1.

When it comes to appearance there was a significant relationship between participants' scores on the BDI and

their score on the Appearance Evaluation $r(23)=-0.450$, $p=0.024$ and $r^2=0.202$, meaning that 20.2% of the variation found in participants' scores on the BDI can be explained by their appearance evaluation. Scores the BDI and the Appearance Orientation also produced a significant relationship $r(23)=0.423$, $p=0.035$, and $r^2=0.179$, meaning that 17.9% of the variation found in participants' scores of the BDI can be explained by their appearance orientation subscales of the MBSRQ. These relationships indicate that as a person's appearance evaluation and/or orientation decreases, her level of depression increases. When it comes to a person's self-perception of body mass there are significant relationships between a person's score on the BDI and scores on the Body Area Satisfaction $r(23)=-0.605$, $p=0.001$, and $r^2=0.365$ and Overweight Preoccupation $r(23)=0.567$, $p=0.003$, and $r^2=0.322$ subscales of the MBSRQ. These relationships indicate that as a person's body area satisfaction decreases or overweight preoccupation increases, her level of depression increases. Finally, there was a significant relationship found between Health Evaluation scores and scores on the BDI $r=-0.586$, $p=0.002$ and $r^2=0.343$. This relationship indicates that as a person's health evaluation decreases, her depression increases. The results indicated partially support the initial hypothesis. A correlation matrix showing the relationships of all 11 correlational relationships in relation to scores on the BDI can be found on Table 2.

DISCUSSION

The results of this study partially supported the initial hypothesis, meaning that there are some factors related to body image that correlate with levels of depression. The negative correlations associated with appearance and body area satisfaction show that, as perception within these areas decrease, depression increases. A positive correlation in overweight preoccupation indicates a relationship that as one becomes more preoccupied with how much she weighs her level of depression increases. However, it could also indicate that as a woman becomes more depressed, her weight can also increase causing a preoccupation on it. An interesting finding of the study was an indicated relationship between a person's health evaluation and depression, but there was no indicated relationship between depression and illness orientation. Results from the study did not entirely support the initial hypothesis in that there was not an overall relationship between body image and depression as indicated by existing research. However, subscales that are most correlated with a person's self-esteem, as indicated by Franzoi and Herzog (1987), were correlated with depression.

The current study supports existing research in finding that there is a relationship between certain areas associated with body image and depression (Davis & Katzman, 1997; Ivarsson et al., 2006; Stice & Bearman, 2001). This study was consistent with the findings that women and adolescent girls across many different nationalities including, Chinese women, Australian adolescents, and Swedish women who are more critical and judging about their body image show higher levels of depression (Davis & Katzman, 1997; Ivarsson et al., 2006; Kostanski & Gullone, 1998). Further research in this topic should begin to show the trends supported by studies conducted by Carpenter et al. (2000) and Ivarsson et al. (2000) on anorexia or other severe eating disorders and the incidence of

Table 2. *Correlational Matrix*

	BDI	MBRSQ	AE	AO	BAS	FE	FO	HE	HO	IO	OWP	SCW
BDI	-	-.313	-.450*	.423*	-.605**	-.107	-.353	-.586**	-.342	-.104	.567**	.312
MBRSQ		-	.576**	.323	.757**	.740**	.760**	.539**	.650**	.566**	-.035	-.151
AE			-	-.187	.796**	.436*	.246	.689**	.252	.476*	-.535**	-.785**
AO				-	-.184	-.013	-.001	-.368	.184	.181	.563**	.431*
BAS					-	.619**	.576**	.701**	.341	.502*	-.478*	-.489*
FE						-	.768**	.412*	.373	.258	-.061	-.130
FO							-	.458*	.388	.203	-.045	-.011
HE								-	.293	.217	-.502*	-.496*
HO									-	.524**	-.074	.077
IO										-	-.381	-.201
OWP											-	.453*
SCW												-

Note. (*) denotes $p < .05$, (**) denotes $p < .01$. AE = Appearance Evaluation, AO = Appearance Orientation, BAS = Body Area Satisfaction, FE = Fitness Evaluation, FO = Fitness Orientation, HE = Health Evaluation, HO = Health Orientation, IO = Illness Orientation, OWP = Over Weight Preoccupation, and SCW = Self-Classified Weight.

severe depression that may lead to suicidal behavior. These studies were further confirmed and the trend of suicide or attempted suicide in women with eating disorders was strengthened by Pompili et al. (2006).

The current study also expanded the use of the current research by introducing this pattern into a new population of students at a large metropolitan college. The current study also used a different questionnaire that measured body image that was not used in the previous research. While the MBSRQ has been used to determine people's thoughts and judgments of their own bodies, it was not used in any of the mentioned studies (Rusticus & Hubley, 2006).

LIMITATION AND FUTURE RESEARCH

Limitations of the current study include the fact that a convenience sample was used. In addition a small sample size was used due to the fact that some participants did not attend the sessions during the times they volunteered. This small sample may affect the validity of the study, and may not accurately represent the population of college women as a whole. It would be recommended to use a more randomized, sample in future research. It would also be recommended to extend the research and include college age men in comparison to women.

Even though this study has its limitations, it is important to further research in this area of study. Too many women and young girls are harming themselves because they do not feel they compare with the media standard perception of women. While there are clinical programs that effectively treat anorexia, bulimia, and depression, it makes more sense to stop the problem before behavior gets to these extremes.

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