

Objectified Body Consciousness, Depression, and Eating Disorders: The Importance of Control Beliefs

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Objectification theory posits that our society's focus on the female body negatively impacts women. Women and girls who internalize the idea that appearance should be valued above all other traits and who constantly monitor their bodies to measure them against society's ideal are said to have Objectified Body Consciousness (OBC). One aspect of OBC is appearance-control beliefs, that is, women's beliefs about their ability to control their appearance, body shape, and weight. Individuals can have an internal or external locus of control in this domain. The present study evaluated the relationships between OBC, appearance-control beliefs, depression, and eating disorders in adolescent girls, a relatively under-studied population with respect to these concepts (Morandi & Huang, 2008). Results showed that OBC predicted eating disorder symptoms but not depressive symptoms, revealing a limit to these disorders' comorbidity, and indicating that objectification theory is a useful framework for the study of eating disorders in adolescent girls. External locus of control and belief that appearance cannot be changed were associated with depressive symptoms but not anorexic-type eating disorder symptoms. Eating to cope with emotions was associated with eating disorder symptoms, depressive symptoms, and an external locus of control, suggesting that emotional eating is a risk factor for both eating disorders and depression. Together, these findings provide support for the predictions of objectification theory and highlight the special importance of control beliefs in eating and mood disorders.

More than a decade ago, Fredrickson and Roberts (1997) developed objectification theory as a means of understanding how our culture's sexualized focus on the female body could contribute to the mental health problems that affect women disproportionately, particularly eating disorders and depression. Objectification theory posits that our culture's focus on the female body causes girls and women "to internalize an observer's perspective as a primary view of their physical selves" (Frederickson & Roberts, 1997, p. 173). This internalization leads to what McKinley and Hyde (1996) call Objectified Body Consciousness (OBC), composed of three parts: body surveillance, body shame, and appearance-control beliefs. Body surveillance is the habit of taking an onlooker's perspective of the body; body shame arises from being embarrassed by the body because it does not measure up to internalized cultural standards of beauty, which are often unattainable (Wolf, 1991); and appearance-control beliefs involve accepting the false notion that anyone can reach the cultural ideal with enough effort (McKinley & Hyde, 1996).

A number of negative consequences have been associated with the first two of these components, body surveillance and body shame. They have been linked to decreased performance on cognitive tasks, lowered self esteem, and lack of awareness of bodily states (e.g., Frederickson, Roberts, Noll, Quinn, & Twenge, 1998). There are also strong connections between body surveillance, body shame, eating disorder symptoms, and depressive symptoms (e.g., Hyde, Mezulis, & Abramson, 2008). However, while

depression and eating disorders are often comorbid, they are distinct mental health problems. Whether a woman dissatisfied with her body will experience depressive symptoms, eating disorder symptoms, both types of symptoms, or no such symptoms is not explained by body surveillance and body shame alone. One goal of the present study, therefore, was to determine if appearance-control beliefs, the third component of OBC, had special importance in the development of depression and/or eating disorders in women with OBC. Understanding the impact of control beliefs would allow clinicians to develop successful treatment strategies for women with depression and eating disorders and could be helpful in prevention work with at-risk populations.

The relationships suggested by prior research between an external versus internal locus of control (the latter including appearance-control beliefs) and eating and mood disorders are unclear. While much research has indicated that an external locus of control is associated with depressive symptoms (e.g., Miller, 1988; Nowicki and Strickland, 1971), results of studies assessing the impact of control beliefs (i.e., internal loci) have been mixed. On the one hand, qualitative studies as well as clinicians' anecdotes and opinions have supported the idea that eating disorders stem from a lack of personal control (Watt, Sharp, & Atkins, 2002). However, there has not been much empirical evidence to bolster this assertion. Indeed, several studies (e.g., Watt et al., 2002; Furnham & Atkins, 1997) suggest that individuals whose eating pathology includes restricting and other symptoms

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Table 1
Proposed Relationships
between Control,
Eating Disorders and
Depressive Symptoms

Locus of Control	Proposed Relationship	Symptom Type
External Locus of Control (appearance beliefs)	predicts	Depressive Symptoms, Symptoms of Bulimia, Binge Eating
	does not predict	Symptoms of Anorexia
Internal Locus of Control (appearance beliefs)	predicts	Symptoms of Anorexia
	does not predict	Depressive Symptoms, Symptoms of Bulimia, Binge Eating

of anorexia may have an internal locus of control, while individuals with bingeing and other bulimic symptoms do not.

Control beliefs are just one aspect of OBC. For women who are experiencing the other OBC cognitions of body surveillance and body shame, restricted eating and similar symptoms can be seen as an attempt to force the body to adhere to the thin ideal. However, bingeing, purging, and other symptoms of bulimia do not usually result in weight loss (Mitchell, Pomeroy, & Huber, 1988). If these behaviors do not help women who are ashamed of their bodies achieve body states closer to the thin ideal, what purpose could they serve? Heatherton and Baumeister's (1991) escape theory of binge eating provides one possible explanation. They posit that binge eating is motivated by a desire to escape negative feelings about the self. Indeed, binge eaters report a reduction in negative affect after bingeing (Davis & Jamieson, 2005). Corstorphine, Mountford, Tomlinson, Waller, and Meyer (2007) found that binge eaters lack healthy techniques to deal with negative emotions while non-bingers report feeling more in control of their negative emotions because of adaptive emotion regulation techniques. In sum, research has shown that binge eating and other bulimic symptoms can be viewed as maladaptive coping strategies for feelings of lack of control and

thus can serve a purpose for women experiencing OBC.

The present study aims to assess whether the Objectified Body Consciousness model predicts depressive and eating disorder symptoms in young adolescent girls, taking into account the previously under-studied impact of appearance-control beliefs in the development of these disorders. In addition, the use of adolescent samples must be emphasized, as the majority of OBC studies have examined this construct in college students and older women only. This is an unfortunate oversight; adolescence is a time when many girls first become dissatisfied with their bodies and feel pressure to conform to societal standards of beauty (McKinley & Hyde, 1996). Adolescence is also a time of heightened risk for eating disorders and depression (Hyde, Mezulis, & Abramson, 2008), two disorders centrally implicated in the OBC model. Our focus on appearance-control beliefs is also significant. They are an understudied aspect of objectification theory, even though research from other theoretical orientations has suggested that loci of control may contribute to the development path of depression and eating disorders (see Figure 1). We aim to clarify this development path with the current research.

Our model yields the following predictions. First, based on the findings that OBC is connected to depression and eating disorders in women, we predicted that higher levels of objectified body consciousness will be associated with higher levels of depressive symptoms and eating pathology in a diverse sample of young adolescent girls. Second, using the research on control and eating disorders, we predicted that an internal locus of control (for appearance-beliefs as well as more general domains) will be associated with higher levels of eating disorder symptoms. Third, based on research that indicates external locus of control is related to depressed mood, we predicted that an external locus of control (again, for both appearance and more general domains) would be associated with both depressive symptoms and one specific type of eating pathology, eating to cope with negative affect.

METHODS

Participants

Seventy-nine sets of parents (11% of the school's total parent population) agreed to have their children participate. Only girls' responses were used in these analyses. Twenty-nine girls (74% of consenting girls) completed the study. Participants were 12 and 13 years old ($M = 12.3$). The sample was 10% Asian, 3% African American, 7% Hispanic, 70% Caucasian, and 3% Biracial. 7% of participants specified their ethnicity as "other."

Measures

Objectified Body Consciousness

The Objectified Body Consciousness Scale (OBC; McKinley and Hyde, 1996) assesses the extent to which females have internalized cultural standards for the feminine body, feel shame over their bodies, and believe they can make their bodies achieve the cultural standard through hard work. It consists of three subscales with eight items each: Body Surveillance, Body Shame, and Control Beliefs. It uses a 6-point scale that ranges from strongly agree

to strongly disagree. Scores range from 24 to 144. Lower scores indicate higher levels of Objectified Body Consciousness. A low scorer on the Body Surveillance subscale would take an observer's perspective of her body and be more concerned with how her body looks than how it feels (e.g., "I often worry about whether the clothes I'm wearing make me look good"). A low scorer on the Body Shame subscale would feel like a bad person if she could not fulfill cultural expectations for the female body (e.g., "When I can't control my weight, I feel like something must be wrong with me"). A low scorer on the Control Beliefs subscale would believe that she can control her appearance and weight if she tries hard enough (e.g., "I think a person can look pretty much how they want to if they are willing to work at it"). A high scorer on this scale would believe that appearance and weight are controlled by genetics. The body surveillance and body shame subscales have been shown to be valid measures of body esteem (Morandi & Huang, 2008). The appearance control belief scale has been shown to be a valid measure of willingness to engage in restricted eating (McKinley & Hyde, 1996). Cronbach's alpha for this sample was .78 for the Body Surveillance subscale, .63 for the Body Shame subscale, and .67 for the Appearance Control Subscales.

Locus of Control

The Locus of Control Scale for Children (CHLOC; Nowicki & Strickland, 1973) is a self-report measure that examines locus of control beliefs in children through 40 items with yes or no answers. The measure has been shown to have adequate validity and test-retest reliability (Kliewer & Sandler, 1992). The scale measures locus of control beliefs for reinforcement in areas such as achievement, affiliation, and dependency (e.g., "Do you believe that wishing can make good things happen?"). Scores range from 0 to 40. High scores indicate an external locus of control (i.e., the belief that one does not have control over the areas of reinforcement assessed). Low scores indicate an internal locus of control (i.e., the belief that one does have control over the

areas of reinforcement assessed). Cronbach's alpha for this sample was .59.

Depressive Symptoms

Children's Depression Inventory (CDI; Kovacs, 1992) is a 27-item, self-report measure that is a modified version of the Beck Depression Inventory. It is the most widely used instrument for assessing the behavioral and cognitive symptoms of depression in children. It has been established as internally consistent and valid for both clinical and community samples (Smucker, Craighead, Craighead, & Green, 1986; Kovacs, 1992). Children are instructed to choose one sentence from a group of three that best describes the way they have been feeling during the past two weeks (e.g., "I am sad once in a while", "I am sad many times", or "I am sad all the time"). Scores range from 0 to 54. Higher scores indicate higher symptom levels. Cronbach's alpha coefficient for this sample was .89.

Eating Disorder Symptoms

The Children's Eating Attitude Test (ChEAT; Maloney et al., 1988) is a 26-item, self-report measure that assesses children's dieting behaviors and attitudes about eating. The instrument has been shown to have good internal consistency and concurrent validity for child and adolescent samples (Smolak & Levine, 1994). Participants use a 6-point response format (always, very often, often, sometimes, rarely, never) in answering the frequency to which they demonstrate the given attitude or behavior (e.g., "I stay away from eating when I am hungry"). Scores range from 0 to 78. Higher scores indicate higher levels of eating disorder symptoms. Cronbach's alpha for the sample was .88.

Eating as a Coping Mechanism

The Expectancies and Motives for Eating Scale (Stice et al., 2002) is a 10-item self-report subscale taken from the 34-item Expectancies and Motives for Eating Scale created by Hohlstein, Smith, and Atlas (1998). The ten items used assess eating to decrease negative affect and eating as a reward.

Participants use a 5-point response format (never, seldom, sometimes, often, always) in answering the frequency with which they eat for each reason (e.g., to forget your worries). Scores range from 10 to 50. Higher scores indicate higher levels of using eating as a coping mechanism for negative affect or as a reward. Cronbach's alpha for this sample was .93.

Procedure

We first received IRB and school board approval for the study. Letters explaining the study as an examination of adolescent health behaviors were sent to all parents of students in grades six through eight at the school. After permission slips were received, participants were either sent a packet of questionnaires containing the aforementioned measures in the mail or emailed a link to a secure website where they could answer the questions online. Participants were encouraged to complete the questionnaires without the help of their parents. Once the completed packets were received in the mail or recorded on the website, participants were debriefed and compensated with a \$10 gift certificate.

RESULTS

The means and standard deviations for participants' total scores on the Objectified Body Consciousness Scale, the Children's Depression Inventory, the Children's Eating Attitude Test, the Expectancies and Motives for Eating Scale, the Locus of Control Scale for Children, and the Appearance Control Belief subscale of the OBC are shown in Table 1. Table 2 shows the correlations between the Objectified Body Consciousness Scale, the Children's Eating Attitude Test, the Children's Depression Inventory, and the Expectancies and Motives for Eating Scale. Table 3 shows the correlations between the Locus of Control Scale for Children, the Appearance Control Beliefs Subscale of the OBC scale, the Children's Eating Attitude Test, the Children's Depression Inventory, and

Table 1
Descriptive Statistics for
OBC, CDI, ChEAT, EE,
ChLOC, and OBC
Appearance-Control
Subscale

	M	SD
OBC	80.4	11.40
CDI	9.79	7.34
ChEAT	6.82	7.48
EE	16.6	6.82
ChLOC	14.8	4.33
AC	20.1	5.45

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OBC	ChEAT	CDI	EE
OBC	-.405*	-.108*	-.085
ChEAT		.450*	.498**
CDI			.530**

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Table 2
Correlations between
Objectified Body
Consciousness, Eating
Disorder Symptoms, and
Depressive Symptoms

	CDI	ChEAT	EE	ChLOC	AC
CDI		.450*	.530**	.398*	.627**
ChEAT			.498**	-.027	.248
EE				.391*	.269
ChLOC					.146
AC					

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Table 3
Correlations Between
Locus of Control, Appearance
Control Beliefs, Depressive
Symptoms, Eating Disorder
Symptoms, and Emotional
Eating

Note: CDI = Children's Depression Inventory
ChEAT = Children's Eating Attitude Test
EE = Expectancies and Motives for Eating Scale
ChLOC = Locus of Control Scale for Children
AC = Appearance Control Subscale of the OBC scale
Correlations marked with an asterisk (*) were significant at $p < .05$
and correlations marked with two asterisks (**) were significant at $p < .01$.

the Expectancies and Motives for Eating Scale. To examine the research question of whether control beliefs could explain the variation between levels of depressive symptoms and eating disorder symptoms, two separate regression analyses were performed. Table 4 shows the results with eating disorder symptoms as the dependent variable and Table 5 shows the results with depressive symptoms as the dependent variable. The results indicate that 43% of the variance in eating disorder symptoms was accounted for by Objectified Body Consciousness. Neither locus of control nor the interaction between OBC and locus of control predicted a significant portion of the variance in eating disorder symptoms. However, the variation

in eating disorder symptoms accounted for by OBC alone was still 43% and significant after the interaction was entered into the equation. The portion of the variance in depressive symptoms predicted by locus of control was 39% and significant. When the interaction between locus of control and objectified body consciousness was entered into the equation, it did not predict a significant portion of the variance in depressive symptoms. However, locus of control alone still contributed to 37% of the variance and was marginally significant.

Table 4
Coefficients for Multiple Regression of OBC and Locus of Control on Eating Disorder Symptoms

Variable	<i>b</i>	<i>Se b</i>	β	significance
Model 1				
Step 1 Zscore (OBC Total)	-3.23	1.36	-.430	.026*
Step 2 Zscore (ChLOC Total)	-.875	1.36	-.117	.526
Model 2				
Step 1 Zscore (OBC Total)	-3.19	1.39	-.427	.030*
Step 2 Zscore (ChLOC Total)	-.793	1.45	-.106	.589
Step 3 Interaction	.316	1.60	.037	.845

Table 5
Coefficients for Multiple Regression of Objectified Body Consciousness and Locus of Control on Depressive Symptoms

Variable	<i>b</i>	<i>Se b</i>	β	significance
Model 1				
Step 1 Zscore (OBC Total)	-.193	1.35	-.026	.887
Step 2 Zscore (ChLOC Total)	-2.88	1.35	.393	.042*
Model 2				
Step 1 Zscore (OBC Total)	-.240	1.38	-.033	.863
Step 2 Zscore (ChLOC Total)	2.71	1.43	.369	.070
Step 3 Interaction	-.661	1.58	-.080	.680

Note:

OBC = Objectified Body Consciousness Scale

ChLOC = Locus of Control Scale for Children

Correlations marked with an asterisk (*) were significant at $p < .05$.

DISCUSSION

The aim of this study was to determine the usefulness of the OBC model in accounting for eating disorder and depressive symptoms in adolescent girls as well as to determine if control beliefs could explain why some girls develop eating disorder symptoms and others develop depressive symptoms. High Objectified Body Consciousness was associated with greater endorsement of eating disorder symptoms, providing support for Frederickson and Roberts' (1997) assertion that high OBC is a significant risk factor for eating disorders. Number of eating disorder symptoms endorsed by girls in this study was positively associated with number of depressive symptoms endorsed, supporting prior

research findings that depression and eating disorders are often comorbid (e.g. Hudson, Hiripi, Pope, & Kessler, 2007; Jordan et al., 2008). Contrary to the hypothesis, there was no significant association between Objectified Body Consciousness and depressive symptoms. While unexpected, this finding may suggest that some of the constructs that make up OBC (e.g. maintaining control over one's weight) are not applicable to the development of depressive symptoms in this age group.

Although external locus of control predicted higher levels of depressive symptoms, contrary to the hypothesis, an internal locus of control was not associated with eating disorder symptoms. There are many possible explanations for this finding.

It is possible that believing one has control over body weight and shape would cause adolescent girls to engage in healthy behaviors such as exercise and eating a balanced diet instead of causing them to engage in disordered eating. The fact that an internal locus of control as assessed by Nowicki and Strickland's (1973) Locus of Control Scale for Children was not associated with negative outcomes may not be surprising given the nature of the scale items. Most deal with areas where being in control would be positive (e.g., "Are you the kind of person who thinks planning ahead makes things turn out better?"). In addition, Nowicki and Strickland (1973) found that having an internal locus of control on their scale was associated with a variety of positive outcomes, such as popularity. Furthermore, some researchers have begun to look beyond internal attributions as a risk factor. For example, Abramson et al. (1989) deemphasized causal attributions in their theory of hopelessness depression, partly because they felt that the impact of assumed negative consequences and negative feelings about the self on the development of feelings of hopelessness were more important than causal beliefs.

Girls who endorsed eating to cope with emotion were also likely to endorse an external locus of control, depressive symptoms, and eating disorder symptoms. These findings suggest that using food as an emotion regulation strategy could be a risk factor for the development of eating disorder symptoms in adolescent girls with depression. Indeed, researchers have found ample evidence for the relationship between depression and binge eating as well as the connection between eating to cope with emotion and binge eating (e.g., Stice et al., 2002). Girls who are depressed may eat to deal with their depressive symptoms and the out-of-control feelings that result from possessing an external locus of control. This could put them at risk for the development of eating disorder symptoms. Longitudinal studies should be conducted to assess whether girls who endorse an external locus of control, depressive symptoms, and eating to cope with emotions eventually develop eating disorders.

One of the limitations of this study is that its findings are correlational; therefore causal inferences cannot be made. It may be, for instance, that an external locus of control in the appearance domain does not increase depressive symptoms, but rather that depression may increase girls' tendency to believe that they are unable to change their bodies. Future research should use longitudinal studies in order to look for causal relationships between appearance control, emotional eating, and depressive symptoms and provide further support for the connections found here. Experimental studies that manipulate mood and body image and then assess control beliefs could also be used.

Another limitation of this study is the small sample size. It is possible that with a larger adolescent sample, there would have been greater variance in depressive symptoms. It could also be the case that high Objectified Body Consciousness is more strongly associated with depression in girls experiencing more severe symptoms. Furthermore, it is possible that there would have been more symptoms in an older adolescent sample. Girls' increased risk for depression develops throughout adolescence (Hyde et al., 2008) but the participants in the present sample were only beginning adolescence. Future studies might use larger sample sizes and a wider range of ages to further examine the relationships between OBC, eating disorders, depression, and control beliefs.

By the end of adolescence, girls are twice as likely to be depressed as boys, a gender difference that will last throughout the lifespan (Hyde et al. 2008). Clinical eating disorders, subclinical disordered eating symptoms, and body dissatisfaction also disproportionately affect adolescent girls. Understanding the risk factors for these disorders is crucial for prevention and treatment. In order to decrease the rates of adolescent girls suffering from these problems, OBC should be dealt with through interventions that help girls to resist internalizing our society's objectification of the female body. These interventions should also address locus of control and emotional eating by helping girls to

increase their feelings of self-efficacy and learn functional emotion regulation skills. These interventions could greatly increase quality of life for adolescent girls, allowing them to mature without the burden of damaging and long lasting mental health problems. ■

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