Possible Cause of Eating Disorders Among Women: Theory of Competition for Mates and Status

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The present study examined female intrasexual competition (ISC) in relation to perceptions of bulimia nervosa and anorexia nervosa in women. It was hypothesized that ISC for mates would be more prevalent in women displaying greater bulimic thoughts and behaviors, and that ISC for status would be more prevalent in women displaying greater anorexic thoughts and behaviors. Participants included 90 women between the ages of 18–22. The results indicated that ISC for mates was a main motivating factor in bulimic thoughts; however, ISC for status was not found to be a main motivating factor in anorexic thoughts. Self-esteem was also found to be a major contributing factor in the perception of eating disorders.

One of the most basic aspects of survival for both animals and humans involves the consumption of food. From an evolutionary perspective, it is puzzling to consider how eating disorders have managed to persist in the face of this very basic human survival need. One possible suggestion for the evolutionary persistence of eating disorders is that anorexia nervosa evolved as a woman's attempt to suppress her reproductive capabilities when conditions in her community were adverse. One example of a major adverse condition for ancestral women was the occurrence of food shortages (Wasser & Barash, 1983). Evolution helped ensure the survival of a potential mother and her child by preventing her body from being able to conceive if her body weight was too low (Epling & Pierce, 1992). Although this suggestion has biological significance, it does not account for the causation of other eating disorders in our current environment. This introduction attempts to examine the development and aspects of eating disorders in direct connection with female competition for mates and status.

Darwin's theory of sexual selection is a fundamental theory in evolutionary psychology. This theory focuses on the reproductive advantages and adaptations of members of the same gender and species that were consequences of successful mating (Paul, 2002). Darwin suggested that adaptations and advantages of sexual selection came about through two primary processes: intersexual selection and intrasexual competition (ISC). Intersexual selection, which Darwin also referred to as female choice, is the selection of mates of the opposite sex who possess preferred characteristics (Buss, 2004). Women are typically more likely to engage in intersexual selection when choosing a mate because of their increased parental investment in offspring and the need for a reliable supply of resources that are essential to their survival. Conversely, ISC is the competition between same-gender members for access to a member of the opposite sex. ISC typically occurs in the gender with less investment in potential offspring because the goal of such competition is sexual access to a desired mate rather than long-term commitment or resources. Based on this Darwinian theory of sexual selection and on the research findings on mate preferences, the sexual competition hypothesis (SCH) posits that female ISC

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is at the root of anorexia nervosa and bulimia nervosa (Faer, Hendriks, Abed, & Figueredo, 2005).

Some of the most basic support for the SCH is found in the clinical definitions of the two major eating disorders. Anorexia nervosa and bulimia nervosa are both eating disorders which mainly affect women and are typified by a fear of gaining weight (Mitchell & Peterson, 2005). It is this fear of gaining weight, otherwise referred to as the pursuit of thinness (Faer et al., 2005), that researchers are beginning to associate with competition for mates and status. More specifically, bulimia nervosa is characterized by episodes of binge eating, shortly followed by purging behavior such as vomiting, laxative use, or excessive exercising (Schlundt & Johnson, 1990). Women with bulimia nervosa typically maintain an average to above average body weight (Mitchell & Peterson). These women appear fairly healthy and are thus able to participate in ISC for mates. In contrast, anorexia nervosa is defined by self-starvation and perceptual distortions about one's body (Schlundt & Johnson, 1990). Women with anorexia nervosa typically have emaciated bodies, poor health, and decreased sex drives (Mitchell & Peterson). In addition, women with anorexia tend to score higher on scales measuring characteristics such as perfectionism and the need for control (Mitchell & Peterson). For these women, achieving a slender figure is not as much about the attraction of a potential mate, but is more likely about the satisfaction that comes from self-control and food control. Once women with anorexia begin losing weight successfully, diet, exercise, and self-control are quickly realized as areas where they can compete with other women and win (Crowther, Tennenbaum, Hobfoll, & Stephens, 1992). It is unlikely that these women are able to, or even want to, participate in ISC for mates. Rather, it is suggested that these women are indirectly competing for status among themselves (Faer et al., 2005).

Although the characterizations of anorexia nervosa and bulimia nervosa provide biological support to the SCH, there is also a large cultural and environmental component to the development of eating disorders in relation to ISC. Problematic eating patterns and body dissatisfaction appear to become increasingly prevalent as girls advance through their adolescent years (Brooks-Gunn, Rock, & Warren, 1989). The changes that occur in a young girl's body during puberty, combined with the increased importance of relationships with the opposite sex and the media's use of thin ideals, all contribute to the body dissatisfaction and possible development of eating disorders in teenage girls. This increase in interest and interaction with the opposite sex includes initial interest in boys, the emergence of dating in high school, and the beginning of sexual relationships (Crowther et al., 1992). Girls are able to perceive the societal connection between physical attractiveness and success in opposite sex relationships very early in adolescence (Crowther et al.). As young girls mature into their late teens, this observed connection tends to form into the firm belief that all men desire women who are thin. This shift in the dynamics of relationships with the opposite sex at the time of puberty heightens young girls' awareness and obsession with the pursuit of thinness. All of these factors lead to an increase in body dissatisfaction and potential development of eating disorders among girls.

The body dissatisfaction that has been identified in adolescent girls progressed into more severe cases for many young women on the brink of adulthood. It has been suggested that this increase in severity was due to an increased need to attract a mate (Crowther et al., 1992). It is on this basis that the SCH finds support in the vast amount of research about the evolutionary significance of mate preferences. Throughout evolutionary history, men and women have made various choices regarding their potential mates and reproductive partners. The majority of research in this area suggests that successful mate choices are based on the reproductive potential and reproductive investment of members of the opposite sex (Geary, Vigil, & Byrd-Craven, 2004). Ancestral men and women who chose mates that were able and willing to invest in offspring were more likely to survive and pass on their genes. Over time, successful mate choices have evolved into a more specific set of mate preferences that share the common goal of reproductive success.

In Western societies, an important aspect of successful mate selection includes ISC. Because the gender ratio of men to women who are sexually active in our society deviates from 1:1, not all men and women will be successful in finding compatible mates (Buss & Barnes, 1986). In this type of mating system, ISC becomes increasingly significant and affects all aspects of life. For men, ISC takes place for women who display certain physical characteristics such as beauty, youth, and health. Because of the vast cultural and ethnic variability in attempts to define female physical attractiveness, research has focused on those female qualities that signal good reproductive value and fertility (Singh). Buss and Barnes suggested that these two qualities were interchangeable with cues of a woman's age and health, such as good muscle tone, clear skin, youthfulness, and physical fitness. In a particular study on the adaptive significance of waist-to-hip ratio (WHR), Singh found that men related a lower WHR with increased reproductive potential in women. Although WHR is an important indicator of

a woman's health and reproductive fitness, Singh also suggested that the best predictors of reproductive potential were features which indicate youthfulness. In Singh's study men tended to associate this important characteristic of youthfulness with the drawing of the thinnest female model. This connection between thinness, youthfulness, and reproductive value in our society could possibly be at the core of the eating disorder problem among young women.

Although women are not often considered as participants in ISC because they are the choosier of the two sexes, they must still compete for the two most important characteristics in prospective male partners: access to resources and long-term commitment (Faer et al., 2005). This competition between women is based on the characteristics that men find desirable in prospective partners, as listed above. In Western societies, these desirable characteristics are exploited and presented in the mass media in alarming numbers. It is also apparent that the average standards of beauty for women that are conveyed in Western societies correspond with the typical age at which there are high fertility levels and the best chance of successful reproduction (Buss & Barnes, 1986). For women, especially in Western societies, constant exposure to this thin ideal causes decreased levels of body satisfaction and self-esteem (Irving, 1990). This difficult requirement of thinness, coupled with the desire for a mate who will commit, may be contributing to the formation of maladaptive and unhealthy eating behaviors among women.

Although there is biological, cultural, and evolutionary support for the SCH, very little research has been done on this topic in relation to the development of eating disorders. The purpose of the present study was to examine the sexual competition hypothesis (SCH) in terms of the origins and factors related to bulimia nervosa and anorexia nervosa in women. When considering the large number of eating disorder cases among young women today, it is obvious that research into the possible causes of eating disorders is important. The information that is yielded from this and other similar studies can be used to aid in the formation of future treatment and assessment programs for women with eating disorders, as well as for educational purposes. The present study is similar to a study conducted by Faer et al. (2005) in which various factors associated with female competition for mates and status were surveyed to determine their effect on the degree to which participants rated themselves as demonstrating behaviors and thoughts associated with either anorexia nervosa or bulimia nervosa. In order to test the SCH, female participants in a nonclinical population were surveyed. It is understood that the thought patterns and behaviors associated with eating disorders existed on a continuum ranging from positive body image, a dieting mentality, all the way to severe clinical cases. Based on this information, it is possible to successfully test the hypotheses with a general population of women (Faer et al., 2005).

The current study used four subscales from the Eating Disorders Inventory (Garner, Olmstead, & Polivy, 1983), including bulimia, perfection, body dissatisfaction, and drive for thinness, as well as an additional scale evaluating anorexia (Faer et al., 2005). To measure ISC, the Female Competition for Mates Scale and the Female Competition for Status Scale (Faer et al.) were used. As an additional part of this study, other variables that may help draw the connection between ISC and anorexia and bulimia were also examined. These other variables include: personal mate value, ideal partner mate value, body dissatisfaction, general competitiveness, and self-esteem (Rosenberg, 1965).

Based on information from the study conducted by Faer et al. (2005), it was hypothesized that the direct process of ISC for mates would be more prevalent in women showing greater tendencies toward bulimic thought patterns and behaviors; whereas the indirect process of ISC, manifesting itself in a competition among women for status, would be more prevalent in women showing greater tendencies toward anorexic thought patterns and behaviors. It was also hypothesized that these findings would be mitigated by the participants' level of self-esteem.

Method

Participants

Data were collected from 90 female undergraduate students attending Creighton University. The participants ranged in ages from 18 to 22 ($M = 19.05$, $SD = 1.04$). The participants' ethnicities included 82.2% White, 1.1% African-American, 8.9% Asian, 4.4% Hispanic, 2.2% Native American, and 1.1% Filipino. The majority of the participants received credit for an introductory psychology class for participating in this study.

Materials

All participants were given identical packets of various questionnaires. The packet of questionnaires was similar to the surveys that were employed in the study conducted by Faer et al. (2005). The questionnaires consisted of the following measures: the Female Competition for Mates Scale (Faer et al., 2005), the Female Competition for Status Scale (Faer et al.), the General Competitiveness Scale (Faer et al.), three forms of the Mate Value Inventory (MVI; Kirsner,

Figueredo, & Jacobs, 2003), and four of the subscales from the Eating Disorder Inventory (EDI; Garner et al., 1983), including an additional subscale that was created to evaluate anorexia (Garner & Garfinkel, 1979). The present study also included the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965).

The General Competitiveness Scale (Faer et al., 2005) was utilized to measure participants' levels of competitiveness. This measure included statements such as, "I love to play competitive sports" (Faer et al.) and asked participants to rank their degree of agreement for each statement on a Likert scale. The Likert scale for this measure was a 6-point scale, ranging from *strongly disagree* to *strongly agree*. The Female Competition for Mates Scale and the Female Competition for Status Scale (Faer et al.) were similar to the General Competitiveness Scale; however, both of the former scales included an additional section of vignettes. The vignettes included scenarios for which the participant was asked to rate the given character's behavior in terms of how appropriate she believed it was. The Likert scale was a 6-point scale ranging from *completely inappropriate* to *completely appropriate*. The packet of surveys also included three forms of the Mate Value Inventory (MVI; Kirsner et al., 2003). The three forms used were Ideal Friend mate value, Self-Mate value, and Ideal Long-Term Partner mate value. With the MVI, participants were asked to rate the importance of a variety of characteristics in terms of their importance for each of the three forms. Ratings for this measure were based on a Likert scale, ranging from -3 *(extremely low on this characteristic)* to +3 *(extremely high on this characteristic)*.

In order to measure participants' degrees of eating-disordered behaviors and maladaptive ideologies about their bodies, four subscales from the Eating Disorder Inventory (EDI; Garner et al., 1983) were utilized. The four subscales that were used include the Body Dissatisfaction, Perfectionism, Drive for Thinness, and Bulimia scale. These scales included phrases such as "I think my thighs are too large" and "I have the thought of trying to vomit in order to lose weight" (Garner et al., 1983) and asked participants to rate their degree of agreement with each statement. The ratings for these subscales ranged from *always* to *never* and are based on a 5-point Likert scale. A fifth subscale was added to this part of the questionnaire which measures anorexia and abnormal eating behaviors. This subscale was taken from the Eating Attitudes Test (EAT; Garner & Garfinkel, 1979) and was similar to the other subscales in terms of format and rating scale. Lastly, the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), which was the most widely used measure of self-esteem, was included. With this scale, participants are asked to rate the degree to which they agree or disagree with statements such as "At times, I think I am no good at all" and "I am able to do things as well as most other people" (Rosenberg, 1965). Specific questions from the various scales were reversed scored when appropriate.

All of the scales were tested for internal validity using Cronbach's alpha. They were all found to have acceptable internal reliability. The alphas for the scales were as follows: (a) Female ISC for Mates, .89; (b) Female ISC for Status, .80; (c) General Competition, .82; (d) Perfectionism, .77; (e) Body Dissatisfaction, .87; (f) Bulimia, .65; (g) Anorexia, .62; (h) Drive for Thinness, .84; (i) Self-Mate Value Inventory, .93; (j) Ideal Partner Mate Value Inventory, .98.

Procedure

Approximately 34 participants were surveyed at a time in a typical classroom setting, taking roughly 30 minutes to complete the packet of surveys. Due to the personal and confidential nature of the questionnaires, participants sat at tables which provided them with enough space to create a sense of privacy. All participants were given identical paper-and-pencil packets of the various questionnaires, and they were asked to complete them as honestly and completely as possible.

Results

The present study examined the hypothesis that the direct process of female ISC for mates would be more prevalent in women showing greater tendencies toward bulimic thought patterns and behaviors, whereas the indirect process of ISC, manifesting itself in a competition among women for status, would be more prevalent in women showing greater tendencies toward anorexic thought patterns and behaviors. After correlating the participants' scores for the various factors, there was some support for this hypothesis, although not all of the hypothesized relationships were found to be significant.

The 5-point Likert scale used for the five subscales of the EDI (Garner et al., 1983) was reversed in order, with a score of 5 indicating *never* and a score of 1 indicating *always*. Based on this rating scale, higher scores on the scales of Body Dissatisfaction, Drive for Thinness, Bulimia, Anorexia, and Perfection actually indicated a lower tendency toward those given characteristics. Therefore, a negative correlation involving any of these five scales could actually be interpreted as a positive correlation.

ISC for mates was negatively correlated with Body Dissatisfaction, $r(90) = -.22$, $p = .03$, and Drive for Thinness, $r(90) = -.49$, $p < .01$. In this study, higher

degrees of ISC for mates indicate greater body dissatisfaction and a higher drive for thinness. There was also a significant positive correlation between ISC for mates and ISC for status, $r(90) = .57$, $p < .01$. There was not, however, a significant correlation between ISC for mates and scores for General Competitiveness, $r(90) = .04$, *ns*, or between ISC for mates and scores for Perfectionism, $r(90) = -.11$, *ns*. ISC for Status was also not found to be significantly correlated with scores for either General Competitiveness, $r(90) = .01$, *ns* or Perfectionism, $r(90) = -.01$, *ns*. Perfectionism was not significantly correlated with scores on the Anorexia scale, $r(90) = .01$, *ns*.

Drive for Thinness was positively correlated with scores on the Bulimia scale, $r(90) = .55$, $p < .01$, but was not significantly correlated with scores on the scale for Anorexia, $r(90) = .07$, *ns*. A higher drive for thinness may have indicated higher levels of bulimic thoughts and behaviors, but is not necessarily an indicator for anorexic thoughts and behaviors. Scores for Body Dissatisfaction were positively correlated with scores for Drive for Thinness, $r(90) = .57$, $p < .01$, indicating that the more dissatisfied a person is with her body, the higher her drive for thinness.

The connections between ISC for Mates and scores on the Bulimia scale, and ISC for Status and scores on the Anorexia scale were not supported as directly as was hypothesized. Scores on the scale for Bulimia were significantly correlated with scores for both ISC for Mates, $r(90) = -.44$, $p = .01$, and ISC for Status, $r(90) = -.30$, $p = .01$, indicating that higher levels of ISC for both mates and status correlated with levels of bulimia. However, scores on the Anorexia scale were not significantly correlated with either ISC for Mates, $r(90) = -.16$, *ns*, or with ISC for Status, $r(90) = -.14$, *ns*. Although the causal relationships did not directly follow our hypothesis, the results provided some support in terms of the overall hypothesized relationships.

The present study also examined the relationships between self-esteem and the various factors associated with ISC and eating disorders. Self-esteem scores were significantly correlated with scores on the scales for Bulimia, $r(90) = .41$, $p < .01$, Body Dissatisfaction, $r(90) = .44$, $p < .01$, Drive for Thinness, $r(90) = .55$, $p < .01$, ISC for Mates, $r(90) = -.49$, $p < .01$, and ISC for Status, $r(90) = -.26$, $p = .01$. These results indicate that higher levels of self-esteem are associated with lower levels of bulimia, body dissatisfaction, drive for thinness, ISC for mates, and ISC for status. Self-esteem was not, however, significantly correlated with scores on the Anorexia scale, $r(90) = .06$, *ns*.

Table 1 is a table of the descriptive data for the dependent variables. Table 2 is a correlation table that depicts the correlations between all of the variables. Figure 1 maps out the correlational relationships between the variables listed above. This path diagram was derived from the structural equations model used in the original study by Faer et al. (2005). All of the depicted relationships in the path diagram were statistically significant on a .05 or .01 level.

Discussion

The present study examined the sexual competition hypothesis (SCH) in relation to the origins and motivations for bulimia nervosa and anorexia nervosa in women. Various factors associated with female competition for mates and status were surveyed to determine their effect on the degree to which participants rated themselves as demonstrating behaviors and thoughts associated with either anorexia or bulimia. It was hypothesized that ISC for mates would be more prevalent in women displaying higher bulimic thought patterns and behaviors, and that ISC for status, as manifested in various factors associated with competition for status, would be more prevalent in women displaying greater anorexic thought patterns and behaviors. It was also hypothesized that participants' levels of self-esteem would have an effect on the results. Consistent with this hypothesis, it was suggested that women are motivated by one of two paths: (a) ISC for status, which caused women to engage in competitive behaviors and seek perfection (Faer et al., 2005) and manifested in behaviors and thoughts associated with anorexia; or (b) ISC for mates, which caused women to become concerned with their appearance which lead to body dissatisfaction and a drive for thinness in an attempt to attract a desired mate. This dissatisfaction and drive for thinness was manifested in thoughts and behaviors associated with bulimia (Faer et al., 2005). As the results indicate, these two paths were not as clear-cut as was hypothesized.

The sexual competition hypothesis (SCH) proposed that eating disorders were the result of women's concern with their physical appearance for the purpose of attracting a mate. The results seemingly lend support to this hypothesis, finding ISC for mates as a main motivating factor in bulimic thoughts. ISC for mates was found to be directly correlated with both body dissatisfaction and drive for thinness, indicating that as a woman's level of competition for a mate increases, so does her body dissatisfaction and drive for thinness. Body dissatisfaction, drive for thinness, and ISC for mates were all directly correlated with bulimia, which further supported the hypothesis that female ISC for mates was a strong motivating factor in bulimia nervosa cases among women. The results suggest that a woman's desire to attract and keep a mate may be at the root of her body dissatisfaction, drive for thin-

ness, and ultimately, bulimia. These results were consistent with the results found by Wiederman, Pryor, and Morgan (1996), which suggested that women with bulimia tend to report their initial motivations for dieting as attempts to attract men and be physically desirable.

Results concerning the factors associated with female ISC for status and anorexia were more difficult to establish in the current study. As the results indicated, ISC for status was directly correlated with ISC for mates, drive for thinness and bulimia. It did not, however, have any direct correlation to anorexia. The only connection between ISC for status and anorexia existed between the correlations of drive for thinness and body dissatisfaction. This indirect relationship suggested that as a woman's level of competition for status increased, so did her drive for thinness. Drive for thinness was then correlated with body dissatisfaction, which was then correlated with anorexic thought patterns. This weak relationship between ISC for status and anorexia was not enough to provide support for the hypothesis in this area.

As was stated above, ISC for status and ISC for mates were also directly correlated. This correlation, paired with the lack of support for the relationship between ISC for status and anorexia, suggested that

TABLE 1

Descriptive Data for the Dependent Variables

	N	*M*	*SD*
Self-esteem	90	20.09	4.30
Competition for mates	90	18.72	6.32
Vignettes for mate comp	90	8.37	5.12
Competition for status	90	10.21	3.00
Vignettes for status comp	90	7.98	4.57
General competitiveness measure	90	13.27	4.65
Bulimia	90	25.63	5.84
Perfection	90	12.78	18.88
Dissatisfaction	90	19.22	6.47
Thinness	90	17.20	8.72
Anorexia	90	25.31	4.35
MVI – Self	90	33.89	10.24
MVI – Friend	90	30.50	8.61
MVI – Long-term partner	90	40.61	6.79

TABLE 2

Correlation Table Depicting the Correlations Between the Variables

	ISC Mates	ISC Status	Body Dissat	Thinness	Bulimia	Anorexia	Gen Comp	Perfection	Self-Esteem
ISC Mates	1.0								
ISC Status	.57**	1.0							
Body Dissat	-.23*	-.13	1.0						
Thinness	-.49**	-.33**	.58**	1.0					
Bulimia	-.44**	-.30**	.37**	.55**	1.0				
Anorexia	-.16	-.14	-.26*	.07	-.02	1.0			
Gen Comp	.05	.01	-.17	-.12	-.01	-.04	1.0		
Perfection	-.11	-.01	-.03	.12	.09	.01	-.11	1.0	
Self-Esteem	-.49**	-.26*	.44**	.55**	.41**	.06	-.14	.10	1.0

Note: $^{*}p < .05$, $^{**}p < .01$

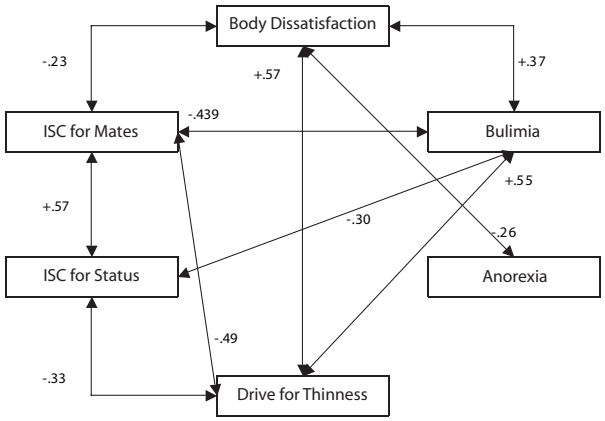
ISC for status was merely another way that women competed for mates. Based on this information and the previous results, the SCH was seemingly supported by the results of this study. The part of the hypothesis that suggested that ISC for status was directly related to anorexia, however, was not supported.

The lack of significant results related to anorexic thoughts may be, in part, due to the limited population of participants that was utilized. However, it may also be an indication that commonly held theories about the causes and motivations behind anorexia may not be as accurate as is currently believed. This possibility opens the door to further research about other causes specific to anorexia nervosa. This study also did not produce any informative results about the effects of perfection or general competition in relation to bulimia or anorexia. In other similar studies (Franco-Paredes, Mancilla-Díaz, Vázquez-Arévalo, López-Aguilar, & Álvarez-Rayón, 2005; Pieters, Hulstijn, Vandereycken, Maas, Probst, Peuskens, & Sabbe, 2004), perfection has often been cited as a causal factor for eating disorders, specifically anorexia. The lack of correlational relationships with these two factors may also be due, in part, to the population of participants that was utilized. Further research is necessary to find the true magnitude of their effects.

The present study also examined the effect of self-esteem on the various factors associated with female ISC and eating disorders. In a related area of research, Corning, Krumm, and Smitham (2006) compiled the results of multiple studies about the effects of self-esteem and eating disorders in women and found widespread support for the suggestion that low levels of self-esteem are clearly related to the presence of eating disorders. The present study found similar results, which indicated that as levels of self-esteem increased, body dissatisfaction, drive for thinness, ISC for mates, ISC for status, and levels of bulimic thoughts decreased. These results signify a powerful connection between a woman's self-esteem and the likelihood of her developing an eating disorder. This information offers support to programs that are being developed to help women prevent, treat, and overcome eating disorders by focusing on raising their levels of self-esteem.

FIGURE 1

Path diagram of the statistically significant correlational relationships on a .05 or .01 level.



The results of this study are fairly consistent with the results found in the study by Faer et al. (2005). The information from both studies provides support for the SCH and helps make some headway in the debate about the possible origins of eating disorders. It is important to note that ISC is extremely pervasive in young girls. This competition increases as young girls age into early adulthood because of the increased pressure to find a mate (Crowther et al., 1992). This knowledge about the relationship between the effects of ISC for mates and body dissatisfaction, drive for thinness, and eating disorders may help clinicians, patients, and loved ones of women with eating disorders approach the issue in new, innovative ways.

In order to effectively combat the rising numbers of eating disorder cases among women, the information garnered from this study must be used in conjunction with information gathered from studies about the effects of other cultural and environmental components that are related to ISC. These components include things such as the strong societal connection that is made between physical attractiveness and success in relationships with the opposite sex (Crowther et al., 1992), as well as the media's tremendous emphasis on unrealistic beauty ideals. The study by Corning et al. (2006) suggests that the low levels of self-esteem typically associated with the presence of eating disorders are often the result of social comparisons to things or people who are considered better, such as comparisons to the thin-ideal images used in magazines (Hawkins, Richards, Granley, & Stein, 2004). As Sypeck, Gray, and Ahrens (2004) have found, internalization of the thin-ideal that penetrates through popular culture produces higher levels of body dissatisfaction and is linked to an increase in eating disorder cases. All of these factors must be considered when developing new approaches to combat and treat eating disorder cases.

The present study contained a few possible limitations that may have had an impact on the results. The most important limitation of this study arises from the nonclinical population of participants that was

used. Although it is generally understood that the thought patterns and behaviors associated with eating disorders exist on a continuum for all women (Faer et al., 2005), the results of this study would likely be more telling if it was conducted with populations of women who have been clinically diagnosed with anorexia nervosa and bulimia nervosa. Future replications of this study may want to explore these populations of women. A second limitation of this study includes the homogenous nature of the population of participants. In the present study, all of the participants were between the ages of 18 and 22, attended the same Midwestern university, and were mostly White. Although the age range and race of the participants in this study is fairly consistent with the population of people who develop eating disorders, a more diverse sample of participants may produce more extensive results. Other similar studies may attempt to utilize women with a broader range of ages, ethnicities, socioeconomic statuses, and geographic locations. The third limitation of this study is the small number of overall participants. A larger population of women may make it easier to see more defined patterns among the results.

Future research in the area of eating disorders is extremely important due to the rising numbers of cases in women today. Very little research in this area has been done from the standpoint of evolutionary psychology. From this perspective, it would be helpful to have more solid support for the SCH and female ISC as it relates to eating disorders. Replications of this study, as well as innovative studies about other causal factors, will help provide clinicians and patients with a better understanding of the questions that surround eating disorders.

Although the results of this study do not follow the clearly defined pathways that were originally hypothesized, they do lend support to the SCH and to the overall notion that female ISC for mates is directly related to thoughts and behaviors associated with eating disorders in young women. This information is extremely useful in the development of interventions and programs designed to prevent and treat eating disorders. Future studies in this area only prove to increase the amount of knowledge and help better the programs that are currently being used for women with eating disorders.

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