Stereotypes, Prejudice and Discrimination of Women with Anorexia Nervosa

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Limited research indicates that public attitudes toward individuals with eating disorders are moderately negative. The present study examined specific forms of stigmatisation attributed to individuals with anorexia nervosa (AN). Eighty female participants recruited from an undergraduate institution completed questionnaires assessing stereotypes, prejudice and discrimination of four target individuals: a woman with AN, depression, schizophrenia and mononucleosis. AN was considered to result more from lack of social support and biological factors than poor living habits. Characteristics attributed to targets were less positive for AN than the targets with schizophrenia and mononucleosis; participants reported greater discomfort interacting with the target with AN compared to the targets with depression and mononucleosis. Having actual contact with an individual with AN related to a positive predicted outcome of and comfort in interacting with the target with AN. Findings support the existence of stigma toward individuals with AN. Future research should examine means of reducing stigma. Copyright © 2008 John Wiley & Sons, Ltd and Eating Disorders Association.

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INTRODUCTION

Anorexia nervosa (AN) is an eating disorder (ED) characterised by extreme weight-loss, amenor-
a barrier to treatment seeking, participation and adherence (Corrigan & Rusch, 2002).

Stigmatisation refers to the negative reaction of the general population to individuals grouped by a common characteristic (e.g. a diagnosis of AN). Social-cognitive models identify three cognitive and behavioural structures that comprise stigma (Corrigan, 2000; Corrigan & Rusch, 2002; Corrigan & Watson, 2002, p. 37–38): (1) Stereotypes: knowledge structures, such as beliefs and expectations, about groups of individuals; (2) Prejudice: endorsement of and/or negative emotional reaction to negative stereotypes, conceptualised as a cognitive and affective response to stereotypes (e.g. fear) and (3) Discrimination: a behavioural reaction resulting from prejudice (e.g. avoidance). Thus, stigma must incorporate agreement with and/or negative emotional reaction to a set of negative stereotypes and a resultant behavioural reaction.

Overall, research indicates that stereotypes of AN include the belief that it is a disorder over which individuals have some control (Holliday, Wall, Treasure, & Weinman, 2005), one with physical and emotional manifestations (Lee, 1997), and one whose risk factors include sociocultural, physical, family, behavioural (e.g. dieting) and personality variables (Ghadirian & Leichner, 1990; Holliday et al., 2005; Lee, 1997; Morgan, 1999; Smith, Pruitt, Mann, & Thelen, 1986). In contrast to professional and lay individuals outside the mental health field (Holliday et al., 2005; Morgan, 1999), mental health professionals appear to understand the difficulty in successfully treating AN and have viewed the disorder as having a poor to fair prognosis (Burket & Schramm, 1995).

Although direct examination of prejudice toward individuals with AN has not yet been examined, research has revealed rejection of individuals with AN as potential friends and dating partners among high school and college students, 15–25 years of age (Smith et al., 1986). Extensive research is still needed, however, to decipher whether this discrimination exists across various social contexts.

The present study builds on previous research investigating public perceptions of individuals with AN (Stewart, Keel, & Schiavo, 2006) by specifically examining stereotypes, prejudice and discrimination of women with AN in comparison to individuals with other mental and non-mental illnesses. On the basis of previous research (Stewart et al., 2006; Corrigan, 1998; Corrigan & Rusch, 2002; Corrigan & Watson, 2002), we predicted that: (1) participants would be more likely to endorse stereotypes that attributed the etiology of AN to social and environmental factors, as compared to biological factors; (2) participants would endorse stereotypes that place on an individual with AN responsibility for and control over the development and maintenance of the disorder; (3) prejudice and discrimination would be more associated with individuals with a mental illness compared to individuals with a non-mental illness and (4) previous contact with an individual with AN would decrease prejudice and discrimination toward AN.

**METHODS**

**Participants**

Undergraduate students at an all-female college were solicited over e-mail for survey participation with monetary compensation. Eighty students were tested in groups of 20 in a university setting and were randomly assigned one of four vignettes and respective questionnaire packets that included a consent form and instructions to read the assigned vignette and answer questions regarding the person described in the vignette.

Based on self-report, 57.5% of participants were white, 18.8% were Asian/Pacific Islander/Asian-American, 8.8% were multi-ethnic, 6.3% were Hispanic and 5% were African-American/Black. No differences in ethnicity were found across conditions (F[5,73] = 0.5; p = 0.77). Ages ranged from 18 to 26 with a mean age of 19.9 (SD = 1.6) years. APA ethical guidelines were followed and the Institutional Review Board at Wellesley College approved this study.

**Materials**

**Independent variable**

Participants were randomly assigned one of four previously validated vignettes adapted from Penn, Guynan, Daily, Spaulding, Garbin, and Sullivan (1994). Vignettes were identical except for the label of the target woman’s designated illness: AN, depression, schizophrenia and infectious mononucleosis. Mononucleosis was selected because of its high incidence on college campuses.

The vignette described a 22-year-old woman, Sally Price, as follows:

About 2 years ago, Sally was diagnosed with [Anorexia Nervosa]. After receiving treatment, she now appears to have recovered and is doing fairly
well. Sally is clean and well groomed. She now has a part-time secretarial job, which pays $20,000 a year before taxes. She gets along well with her co-workers, takes the usual coffee and lunch breaks, and tends to her job the remainder of the workday. Sally checks her work carefully and completes each task before moving on to another. This might slow Sally down a little, but she is never criticised for the quality of her work. Socially, Sally is interested in meeting and dating people in the community, and she is considering joining a local organisation to become acquainted with them. Sally also has an ambition to get a more responsible and better paying job.

Dependent variables
Participants completed identical questionnaires regarding the target presented in the vignette, though the specific illness was substituted to match the diagnosis in the vignette.

Stereotypes
(1) Stereotypes regarding the target’s amenability to treatment were examined with two items of the Opinions Scale (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000; Royal College of Psychiatrists, 2003). Items were presented on a 5-point Likert scale, from very true to very false, and analysed individually, where scores could range from 1 to 5. For both analyses, higher scores indicated disagreement with the statement.

(2) Severity: Perceived severity of the illness was measured with one question presented on a 7-point Likert scale (not very serious–very serious), where 4 was labelled neutral and higher numbers reflected greater severity.

(3) Commonality: Perceived commonality of each illness was measured with one question presented on a 7-point Likert scale (not very common–very common), where 4 was labelled neutral and higher numbers reflected greater commonality.

(4) Causal Attributions: Five items were created to examine the extent to which five factors (poor living habits, parenting, biological factors, lack of social support, and self-discipline) were perceived to contribute to the development of the target illness. Items were presented on a 7-point Likert scale (did not contribute at all—was the main causing factor), where 4 was labelled neutral and higher numbers reflected greater contribution. Items were analysed independently.

Prejudice
(5) Prejudice was examined with six items of the Opinions Scale (Crisp et al., 2000; Royal College of Psychiatrists, 2003) that identified the degree to which participants endorsed negative stereotypes about the target individual (e.g. ‘[the target] has only herself to blame for her condition.’) One item that was included by the original researchers ([the target] is unpredictable) was excluded from the present study and substituted with an item that was deemed to be more pertinent to individuals with AN: ‘she is acting this way because she wants attention’. Items were presented on a 5-point Likert scale, from very true to very false. All six items were analysed individually, where scores could range from 1 to 5. For all analyses, higher scores indicated disagreement with the statement and thus less prejudice.

(6) Perceptions of the target’s personal characteristics were measured with a 20-item Characteristics Scale (Penn et al., 1994). Items were presented on a 7-point Likert scale, where 4 was labelled neutral and the highest and lowest scores were labelled with opposite characteristics (e.g. ‘cold’ vs. ‘warm’). This scale had high internal reliability ($\alpha = 0.90$) and examined prejudice by identifying the degree to which participants endorsed negative stereotypes.

(7) The emotional response of participants to the target was examined with a 10-item Affective Reaction Scale (Penn et al., 1994) that had high internal reliability ($\alpha = 0.91$). Items were presented on a 7-point Likert scale, where 4 was labelled neutral and the highest and lowest scores were labelled with opposite emotional responses (e.g. ‘comfortable’ vs. ‘apprehensive’ or ‘sympathetic’ vs. ‘disgusted’). Higher numbers reflected negative reactions and thus greater prejudice.

Discrimination
(8) The degree to which participants thought they would be willing to interact with the target in a variety of roles (e.g. rent a room to, hire as a babysitter, have as a neighbour) was examined in a 7-item Social Distance Scale (Penn et al., 1994), which had high internal reliability ($\alpha = 0.85$). Items were presented on a 4-point Likert scale, from definitely willing to definitely unwilling, where higher numbers reflected social distance and thus discrimination.
Perception of Community Norms. Within the AN condition, paired $t$-tests were used to examine mean differences among participants who had and had not had intimate contact with an individual with AN. Except where a Bonferroni correction was used with multiple paired $t$-test analyses, all comparisons were made using a .05 significance level. Effect size for comparison of means was calculated using partial eta squared ($\eta^2_p$).

RESULTS

Differences Involving Anorexia Nervosa

Stereotypes

Opinions. Stereotypes regarding amenability to treatment did not differ among groups.

Severity. A univariate ANOVA indicated that participants thought that AN was more serious ($M \pm SD = 6.6 \pm 0.71$) compared to participants in the schizophrenia ($5.90 \pm 0.97$) and mononucleosis ($4.95 \pm 1.43$) conditions ($F[3, 76] = 7.9; \ p < .001$).

Commonality. Participants in the schizophrenia condition thought the target illness was less common ($M \pm SD = 3.6 \pm 1.1$) compared to individuals in the AN ($5.8 \pm 1.0$), depression ($5.9 \pm 0.9$), and mononucleosis ($5.4 \pm 1.1$) conditions ($F[3, 76] = 21.7; \ p < .001$).

Causal attributions. Table 1 provides results for a one-way ANOVA examining participants’ causal attributions regarding the development of the target illnesses. Participants reported that lack of social support, parenting, and self-discipline contributed more to the development of AN than to the development of either schizophrenia or mononucleosis. Participants made no distinction between AN and the other target illnesses with regard to the contribution of biological factors and poor living habits. They also did not distinguish between AN and depression on any of the causal attributions.

Within the AN condition, individual items of causal attributions were compared pairwise using a paired $t$-test with a Bonferroni correction (10 pairwise comparisons). Participants thought that lack of social support ($M \pm SD = 4.6 \pm 1.4$) contributed more to the development of AN compared to poor living habits ($3.4 \pm 1.2; \ p < .005$; unadjusted $p = 0.000$). Participants also thought that biological factors ($4.2 \pm 1.1$) contributed more than poor living habits ($p = .005$) to the development of AN.


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Prejudice

Opinions. No significant differences were found among group means on the six individual items that examined prejudice in the Opinions Scale.

Characteristics. Participants attributed positive traits and behaviours to all four targets, where the means on the Characteristics Scale fell within the positive range (i.e. <4). Participants attributed less positive characteristics to the target with AN (M [SD] = 3.7 [0.6]) and depression (3.7 [0.7]) compared to the targets with schizophrenia (3.2 [0.5]) and mononucleosis (3.1 [0.8], F[3,76] = 4.2; p < .05; \( \eta_p^2 = 0.1 \)).

Affective reaction. Participants’ emotional response to all four targets fell within the positive range (i.e. <4). Although no significant differences were found among the responses to each target, the least positive reactions were toward the target with AN.

Discrimination

Social distance. Examining the degree to which participants were willing to interact in a variety of roles with the targets, the means for all the targets fell within the positive range (i.e. <2). F-tests indicate no overall significant difference among groups (F[3,76] = 2.0; p < 0.116; Power = 0.5).

Anticipated interpersonal discomfort. Overall, participants assumed they would be moderately comfortable interacting with all four targets, as indicated by the means on the Interpersonal Discomfort Scale. However, participants reported greater anticipated interpersonal discomfort with the target with AN (M [SD] = 3.3 [1.0]) compared to the targets with depression (2.6 [1.1] and mononucleosis (2.4 [0.8], F (3, 76) = 3.0; p < .05; \( \eta_p^2 = 0.1 \)). No differences were found between the target with schizophrenia (2.8 [1.0]) and the other three targets.

Community norms. On the Perception of Community Norms Scale, participants’ anticipated that people in American society would behave less positively toward the target with schizophrenia (M [SD] = 4.0 [0.5]) compared to the targets with AN (3.49 [0.73]) and mononucleosis (2.3 [0.7], F[3,76] = 25.2; N = 80; p < 0.001; \( \eta_p^2 = 0.5 \)).

Contact

Many participants with AN (45%), depression (100%), and mononucleosis (60%) conditions reported they had intimate contact with the target illness or with an individual with the target illness. Only 25% of participants in the schizophrenia condition reported having intimate contact with...
an individual with the illness ($\chi^2 = 24.8$, df = 3, $p < .001$). As indicated by the Interpersonal Discomfort Scale, participants who had intimate contact with an individual with AN reported less discomfort interacting with the target with AN ($M [SD] = 3.7 [0.7]$) compared to respondents who had not had intimate contact ($3.7 [1.0]$, $p < .05$).

Differences Involving Mental Illnesses Versus a Non-Mental Illness

Examining the differences in perceptions of the targets with either a mental illness (AN, depression, schizophrenia) or non-mental illness (mononucleosis), participants assumed American society as a whole would behave less positively toward the targets with a mental illness ($M [SD] = 3.7 [0.7]$) compared to the target with a non-mental illness ($2.3 [0.7]$, $F [1, 78] = 65.9; p < .001; \eta^2_p = 0.5$). Similarly, participants attributed less positive characteristics to the targets with a mental illness ($3.6 [0.7]$) compared to the target with a non-mental illness ($3.1 [0.8]$, $F (1, 78) = 5.6; p < .05$; $\eta^2_p = 0.1$).

DISCUSSION

The goal of this research was to examine stigmatisation of AN compared to schizophrenia, depression, and mononucleosis. Overall, participants held specific stereotypes about all four illnesses. The findings demonstrated increased prejudice and discrimination toward the AN target, suggesting that individuals with AN may be stigmatised. They consistently demonstrated less prejudice and discrimination toward the target with mononucleosis, the non-mental illness comparison.

Participants endorsed stereotypes emphasising the severity and commonality of AN. Specifically, AN was perceived as more severe than schizophrenia or mononucleosis, suggesting that participants were aware of the substantial morbidity, mortality and medical complications associated with the disorder (Agras et al., 2004). Participants also viewed AN as more common than schizophrenia. This stereotype is not supported by empirical data [the prevalence rate for AN is approximately 0.7% (Agras et al., 2004) and for schizophrenia it ranges from 0.12 to 1.6% (Goldner, Hsu, Waraich, & Somers, 2002)] and may be explained by participants’ increased contact with individuals with AN and limited contact with individuals with schizophrenia. This finding might also be accounted for by the context in which the research was conducted (i.e. college campus), where there are likely to be more individuals with EDs than with schizophrenia.

Participants endorsed lack of social support and biological factors as causal factors of AN and did not distinguish among disorders when reporting the contribution of biological factors. These findings are contrary to our hypotheses and previous reports in which lay individuals emphasised non-physical variables in the etiology of AN (Holliday et al., 2005; Lee, 1997; Smith et al., 1986). Participants’ awareness of the important roles of both biology and environment in the etiology of AN may be due to the all-female composition of the sample, the educated nature of the sample, and increased knowledge or concern about AN compared to co-ed or non-student samples.

Prejudice against the target with AN was demonstrated through cognitive, though not affective, responses to negative stereotypes. Although participants endorsed the fewest positive characteristics to the target with AN, they did not distinguish between illnesses when reporting their resulting emotional reaction toward the target individuals. Contrary to our hypotheses and previous reports relating to individuals with EDs (Crisp et al., 2000), participants also did not report more agreement with stereotypes reflecting the AN target as responsible for and in control of her disorder. This finding may be due to low power, the unique composition of our sample, or high social desirability. Overall, these findings support the existence of a cognitive form of prejudice toward the AN target.

Discrimination was evidenced by greater reported discomfort interacting on a personal basis with the AN target compared to the targets with depression and mononucleosis. Significantly, participants did not distinguish between the targets with AN and depression on any other measure; thus, although their stereotypes and cognitive and affective responses to these stereotypes did not differ between AN and depression targets, participants’ interpersonal behavioural reactions to the target with AN were more negative compared to the target with depression. Participants’ discomfort in engaging in the specified activities (e.g. going to dinner with, rooming with) may be a response to personal insecurities about their self-image that may arise when interacting interpersonally (or in certain situations) with an individual with severely low weight and serious body weight and shape issues.
Discrimination was not, however, demonstrated in social contexts for any of the four illness groups. These findings resemble previous research demonstrating discrimination toward individuals with AN in the context of interpersonal relationships (e.g. friendship and dating; Smith et al., 1986) and suggest that participants were more willing to interact with an individual with AN in a socially prescribed way that is more distant and role-based than interpersonal, perhaps in part because of the physical manifestations inherent in a diagnosis of AN.

Participants thought American society as a whole would behave more positively toward the target with AN compared to the target with schizophrenia; however, they did not make this distinction when reporting their own interpersonal discomfort. This discrepancy may be associated with their increased contact with individuals with AN (compared to their contact with individuals with schizophrenia) and related increased familiarity with the disorder. It may also relate in part to the physical manifestations of AN as opposed to schizophrenia and depression, which are mental illnesses that are not readily visible (Corrigan & Rusch, 2002; Penn et al., 1994).

This study offers evidence of specific types of prejudice and discrimination toward descriptions of individuals with AN, thereby suggesting that college students may attach stigma to individuals with AN. Strengths include original examination of the two specific types of prejudice and discrimination in relation to the stereotypes ascribed to these individuals. However, caution should be taken in generalising these findings, as the sample size was relatively small and participants were recruited from an all-female, highly competitive college on the East Coast of the United States and were unrepresentative of the general population in the United States in terms of gender, socio-economic background, ethnicity and education level. The sample demographics are associated with an increased risk of developing AN, which may have further influenced results. Additionally, findings may reflect external factors, such as participant or setting biases, rather than actual differences in perceptions, and responses may have been influenced by social desirability. Finally, findings may have differed had the target been described in more detail, such as being in treatment or not doing well in her social and occupational functioning.

Prejudice and discrimination toward individuals with AN may lead to decreased self-esteem and increased shame (Corrigan, 1998) and thereby prolong the recovery process and increase the chance for relapse (Scheff, 1966). Research has demonstrated that individuals with severe mental illness report their experiences of stigmatisation as responsible for feelings of discouragement, hurt and anger (Couture & Penn, 2003) and the development of these feelings may depend on the extent to which the individual perceives the negative cognitive, affective and behavioural reactions to be legitimate and due to internal variables such as personality characteristics and self-worth. In this way, individuals with AN may have a worse prognosis if they believe and internalise perceived stigmatisation. Attributing negative reactions to external factors, making in-group comparisons and having values that protect against self-stigma, on the other hand, can mediate this perceived legitimacy (Corrigan & Watson, 2002) and serve as protective factors against the deleterious effects of prejudice and discrimination.

Future research should aim to develop a target-specific stigma change model that is aimed at decreasing stigma among key groups of individuals who are important in the lives of individuals with AN (Corrigan, 2004). These individuals could include families who may feel angry and/or ashamed and may blame the individual with AN for having the illness (Treasure, Gavan, Todd, & Schmidt, 2003). Peers may be another key group, especially among adolescent females, and may influence maintaining or discontinuing weight loss behaviours (Paxton, Schutz, Wertheim, & Muir, 1999).

The presence of stigma toward individuals with AN may act as a barrier to treatment seeking. It is important that future research examine the degree to which stigma is perceived among individuals with AN, and if so, the degree to which it may play a role in initiating clinical services. A decrease in stigma or an increase in protective factors against perceived stigma may diminish resistance to seeking treatment.

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