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Shorter communication

Biological or psychological? Effects of eating disorder psychoeducation on self-blame and recovery expectations among symptomatic individuals

Nicholas R. Farrell [a, *], Aaron A. Lee [b], Brett J. Deacon [c]

[a] Rogers Memorial Hospital, 34700 Valley Road, Oconomowoc, WI 53066, USA
[b] University of Wyoming, Department of Psychology, 1000 E. University Avenue, Laramie, WY 82071, USA
[c] University of Wollongong, School of Psychology, Northfields Avenue, Wollongong NSW 2522, Australia

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ABSTRACT

Recent years have witnessed increasing popularity and promotion of biological influences (e.g., genetics) in eating disorder (ED) development. Although research suggests biological models of EDs reduce blame-oriented stigma in the general public, their effect on symptomatic individuals' attitudes toward themselves, treatment, and their prognosis has not been studied. Additionally, little is known about how other credible forms of conceptualizing ED development (e.g., cognitive-behavioral) affect individuals with disordered eating. Accordingly, the present study assessed the effects of three different forms of psychoeducation about ED development (biology-only, malleability of biology, cognitive-behavioral) among a sample high in ED symptoms. Participants ($N = 216$) viewed an audiovisual presentation describing ED development from one of the three perspectives before completing measures of self-blame for symptoms, prognostic expectations, self-efficacy in recovering, and attitudes toward a description of cognitive-behavioral therapy. There were no significant differences between conditions in self-blame. Relative to biology-only, the psychoeducational messages emphasizing malleable biology and cognitive-behavioral factors produced more prognostic optimism and self-efficacy in recovering. Perceived credibility of cognitive-behavioral therapy and expectations for its efficacy were highest in the cognitive-behavioral psychoeducation condition. Implications for efforts to educate the public and treatment-seeking individuals about the nature of EDs are discussed.

Individuals with eating disorders (EDs) are subject to high levels of volitional stigma (i.e., blame) from both the general public and themselves (Easter, 2012). Research shows that people with EDs are blamed more for their condition than people with other mental disorders (e.g., Crisp, 2005). Commonly endorsed beliefs about people with EDs include that they could simply "pull themselves together" if desired and are at fault for their problem due to vanity and attention-seeking (Crisp, 2005). Importantly, ED sufferers likely hold *self*-blaming attitudes, as public stigma is often internalized by individuals with mental disorders (Corrigan, Watson, & Barr, 2006). Indeed, individuals with EDs endorse a relatively high degree of personal control over the development of their disorder (Holliday, Wall, Treasure, & Weinman, 2005), suggesting that they often blame themselves for having an ED.

Experiencing high levels of blame from themselves and others is a significant barrier to ED sufferers accessing treatment. To illustrate, previous work has shown that endorsement of self-blaming attitudes, coupled with expectations of blame from others, discourages ED sufferers from pursuing treatment (Hepworth & Paxton, 2007). Further, people with EDs are often unable to obtain insurance coverage for treatment (Becker, Arrindell, Perloe, Fay, & Striegel-Moore, 2010), which may be due in part to blame-related attitudes among policymakers (Klump, Bulik, Kaye, Treasure, & Tyson, 2009).

Aiming in part to address ED sufferers' difficulties with obtaining insurance coverage for treatment, experts have attempted to underscore the severity of EDs by highlighting their biological underpinnings and calling for their promotion as "biologically-based mental illnesses" (e.g., Klump et al., 2009), a position that has been adopted by several ED advocacy groups. For example, the

* Corresponding author.
E-mail address: nicholas.farrell@rogershospital.org (N.R. Farrell).

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website of Families Empowered and Supporting Treatment of Eating Disorders (FEAST) claims that EDs are an "inherited illness" in which "brain chemistry, function, and structure are altered" (FEAST, 2012). Although some research suggests that biologically-based conceptions of EDs reduce blame assigned to sufferers by the general public (e.g., Crisafulli, Von Holle, & Bulik, 2008), little is known about how these conceptions affect self-blame among individuals with disordered eating. One qualitative study suggested that although biologically-based conceptions of EDs may reduce blame among sufferers, they may also reduce prognostic optimism and self-efficacy in recovery (Easter, 2012). However, the effect of biologically-based conceptions on ED sufferers' self-blame and recovery-related expectations has yet to be empirically assessed.

Findings from research assessing how biologically-based explanations influence self-blame among other mental disorders are mixed. To illustrate, whereas Lebowitz, Pyun, and Ahn (2014) found that biologically-based psychoeducation reduced self-blame relative to no psychoeducation among anxious individuals, this finding was not replicated among depressed individuals (Kemp, Lickel, & Deacon, 2014). Although the influence of biological explanations on self-blame is unclear, a growing body of literature has demonstrated that biological accounts of mental disorders are associated with important disadvantages among symptomatic individuals (Lebowitz, 2014). For example, biological attributions of psychopathology have been shown to cause prognostic pessimism, low perceived control over symptoms, diminished self-efficacy in recovery, and reduced perceived efficacy of psychological treatments (Kemp et al., 2014; Lebowitz, Ahn, & Nolen-Hoeksema, 2013; Lebowitz et al., 2014). Based on the consistency of research findings among anxious and depressed individuals (Lebowitz, 2014), it is possible the detrimental effects of biological models on improvement-related expectancies apply to individuals with ED symptoms. If evident, such lowered expectancies would be particularly problematic given the efficacy of psychological treatments for EDs (Hay, Bacaltchuk, Stefano, & Kashyap, 2009) and the established relationship between expectancies and treatment outcome (e.g., Rutherford, Wager, & Roose, 2010). Thus, it is important to explore alternative, credible ways of educating ED sufferers on the development of their symptoms.

One alternative to traditional biological conceptions of psychopathology is to emphasize the malleability of biological factors. Lebowitz et al. (2013) compared a psychoeducation intervention emphasizing only biological variables (e.g., genetic, biochemical) to psychoeducation stressing the *malleability* of biological factors (e.g., epigenetic effects) among depressed participants. Relative to the biology-only explanation, the malleable biological explanation produced significantly higher prognostic expectations and self-efficacy in overcoming depression. A follow-up study (Lebowitz & Ahn, 2015) found that malleability-focused psychoeducation reduced prognostic pessimism and increased self-efficacy among individuals who believed biological factors played a major role in their levels of depression. These benefits were maintained at six-week follow-up.

An additional alternative to traditional biological models is to emphasize empirically supported psychological factors, such as cognitive (e.g., body image concerns) and behavioral (e.g., dietary restriction) factors emphasized in cognitive-behavioral transdiagnostic ED models (e.g., Fairburn, Cooper, & Shafran, 2003). The effect of cognitive-behavioral conceptions of EDs on self-blame and prognostic expectations warrants examination for several reasons. First, individuals with EDs tend to strongly endorse cognitive-behavioral factors as being responsible for their ED development (Holliday et al., 2005). Second, research has demonstrated a high level of empirical support for cognitive-behavioral models of ED development that emphasize maladaptive beliefs concerning the importance of weight and subsequent efforts to control weight (Fairburn et al., 2003). Third, cognitive-behavioral therapy (CBT) has demonstrated efficacy as a transdiagnostic intervention for ED-related pathology (e.g., Fairburn et al., 2009) and is a recommended first-line intervention for eating disorders in clinical practice guidelines (National Institute for Clinical Excellence [NICE], 2004). It is conceivable that cognitive-behavioral conceptions of EDs may facilitate especially favorable attitudes toward CBT among sufferers.

The present study was conducted to compare the effects of biological, malleable biology, and cognitive-behavioral models of EDs on individuals with disordered eating. A community sample of highly ED-symptomatic individuals were randomly assigned to view one of the three psychoeducational messages before completing measures of self-blame, prognostic expectations, self-efficacy in overcoming symptoms, and attitudes toward a description of CBT for EDs. We hypothesized that the two psychoeducation conditions stressing the role of biology in EDs would produce lower self-blame than cognitive-behavioral psychoeducation. Additionally, we predicted that compared to psychoeducation emphasizing only biology, the two alternative forms of psychoeducation would produce more favorable prognostic expectations and self-efficacy in overcoming symptoms. Finally, we predicted that the cognitive-behavioral psychoeducation would yield greater perceived credibility and expected efficacy of CBT.

1. Method

1.1. Participants

Participants ($N = 216$) were U.S. residents recruited via Amazon.com's Mechanical Turk (MTurk, http://www.mturk.com), an online labor market where individuals complete tasks for small monetary compensation. Compared to university-based samples, MTurk offers researchers better sampling diversity, better representation of the U.S. population, and at least equivalent reliability and validity of data (Buhrmester, Kwang, & Gosling, 2011; Paolacci, Chandler, & Ipeirotis, 2010). Additionally, MTurk has shown to be a useful recruitment source for studying individuals with psychiatric symptoms (Shapiro, Chandler, & Mueller, 2013).

Respondents who endorsed any history of treatment for an ED were excluded. Given the empirical support for transdiagnostic conceptualizations of ED pathology (Fairburn, 2008), we screened individuals using the Eating Disorder Examination-Questionnaire (EDE-Q; Fairburn & Beglin, 2008), a measure that assesses global ED symptoms as opposed to disorder-specific features. Following the recommendations of Mond, Hay, Rodgers, Owen, and Beumont (2004) for screening for EDs in community samples, respondents who scored above 2.3 on the EDE-Q global scale and reported an occurrence in the past four weeks of either: (a) an objective bulimia episode (i.e., binge eating followed by compensatory strategies) or (b) driven/compulsive exercising as a means of controlling weight/shape (though not specifically related to binge eating) were invited to participate. Of the 1127 individuals screened, 239 met criteria and initiated the study. Fifteen of these cases were removed due to incomplete data and eight were removed after incorrectly answering a basic multiple-choice question about the information presented during psychoeducation. The final sample consisted of 216 participants ($M_{age} = 33.9$ years, 76.9% female, 74.5% Caucasian). Most reported either completing some college (37.0%) or earning their baccalaureate degree (31.0%). All participants received $1.50 upon completion of study procedures.

1.2. Measures

1.2.1. Eating disorder examination questionnaire – version 6.0 (EDE-Q)

The EDE-Q (Fairburn & Beglin, 2008) is a widely used and well-