Available online at www.sciencedirect.com
ScienceDirect
Eating Behaviors 8 (2007) 440–449
EATING BEHAVIORS

Comorbidity between depression and disordered eating in adolescents ☆

Melissa Santos [a,*], C. Steven Richards [b], M. Kathryn Bleckley [b]

[a] Department of Psychology, The Institute of Living, 200 Retreat Avenue, Hartford, CT 06106, USA
[b] Department of Psychology, Texas Tech University, Lubbock, TX 79409-2051, USA

Received 3 November 2006; received in revised form 26 February 2007; accepted 16 March 2007

Abstract

Depression is one of the most common mental health disorders seen in adolescence. Low self-esteem, lack of social support and poor body image have been found to be risk factors for depression. However, these risk factors have not adequately explained why adolescent female rates of depressive episodes rise to almost twice that of males. This study had three purposes. The first is to identify the prevalence and comorbidity of depressive and disordered eating symptoms in a sample of high school students. The second is to examine predictors of depressive and disordered eating symptoms. Finally, a model predicting depressive symptoms is examined. Significant depressive and disordered eating symptomatology and a high level of comorbidity were observed in this sample. Predictors of depressive and disordered eating symptoms were similar for both genders. Finally, a model predicting depressive symptoms, via body image factors, was found to be supported in both boys and girls. The results of this study suggest that males and females are more similar than different, regarding predictors of depressive symptoms and disordered eating symptoms.

Keywords: Adolescence; Depression; Disordered eating; Comorbidity; Gender differences

1. Depressive comorbidity in adolescents

Depressive disorders are viewed as one of the most prevalent psychiatric disorders among children and adolescents (Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993). Studies have found the lifetime prevalence rate of major depression for adolescents varies from 10 to 28% (Birmaher, Ryan, Williamson, Brent, & Kaufman, 1996; Hauenstein, 2003; Lewinsohn et al., 1993). Depression is often associated with various negative outcomes, including disordered eating behavior, increased substance use, binge eating, and body image dissatisfaction (Measelle, Stice, & Hogansen, 2006; Fulkerson, Sherwood, Perry, Neumark-Sztainer, & Story, 2004). In addition, children and adolescents diagnosed with depression have been found to have recurrent depressive symptoms, with approximately 40% of children and adolescents having at least one reoccurrence of depressive symptoms after their initial depressive episode (Birmaher et al., 2004).

☆ Preliminary analysis of a portion of the data of this study was presented at the Psychological Applications to Health and Safety Conference in Lubbock, TX in April of 2004.

* Corresponding author. Tel.: +1 860 545 7554.
E-mail address: msantos@harthosp.org (M. Santos).

1471-0153/$ - see front matter © 2007 Elsevier Ltd. All rights reserved.
doi:10.1016/j.eatbeh.2007.03.005

Depression is also a disorder often seen with other conditions. The term comorbidity can be used to describe circumstances when an individual meets criteria for two or more psychological disorders (Newman, Moffitt, Caspi, & Silva, 1998) or when an individual is experiencing psychopathology with additional chronic difficulties, such as chronic health problems or severely distressed close relationships (Richards & Perri, 2002). Numerous epidemiological studies suggest that comorbidity is very common among children and adolescents (Nottlemann & Jensen, 1995) and is found more frequently in this population than in adulthood (Pataki & Carlson, 1995). Studies have consistently shown that a worse prognosis, less response to treatment and more chronicity are seen in individuals with psychiatric comorbidity (Newman, et al., 1998). In children and adolescents an increased risk for suicide attempts and less frequent utilization of mental health services are also associated with comorbidity (Cicchetti & Toth, 1998).

A comorbid relationship has been found between depressive disorders and disordered eating symptoms (Perez, Joiner, & Lewinsohn, 2004; Leon, Fulkerson, Perry, Keel, & Klump, 1999). Research has also found that these disorders share similar risk factors, such as body image dissatisfaction (Johnson & Wardle, 2005; Stice, Hayward, Cameron, Killen, & Taylor, 2000; Thompson, Heinberg, Altable, & Tantleff-Dunn, 1999), low self-esteem (Muris, Meesters, van de Blom, & Mayer, 2005; Crockett, Randall, Shen, Russell, & Driscoll, 2005; Dori & Overholser, 1999; Shisslak et al., 1998; Fisher, Pastore, Schneider, Pegler, & Napolitano, 1994) and poor social support (Stice, Ragan, & Randall, 2004; Burton, Stice, & Seeley, 2004; Lewinsohn et al., 1994; Windle, 1992; Slavin & Ranier, 1990). However research has been inconsistent in studying male and female samples often using only females.

In addition to a comorbid relationship, disordered eating symptoms have also been implicated as a possible factor in the gender differences seen in depression. An examination of the gender differences in depression finds that depression in children tends to be found equally in boys and girls (Richards & Perri, 2002), and when gender differences have been found, boys have tended to have higher rates of depression (Gotlib & Hammen, 2002). However, a notable gender difference is seen in depression during adolescence. By late adolescence, girls are two times more likely to be diagnosed with depression than boys (Keller, 2003).

Various possible explanations for why girls' rates of depression double to that of boys during adolescence have been suggested. Stice and Bearman (2001) proposed a gender additive model of depression, which suggests that many of the risk factors for depression are shared by both boys and girls. Stice and Bearman hypothesized, however, that there are additional risk factors for depression that are not shared, but rather are specific to girls, such as body mass, pressure to be thin, thin-ideal internalization, body dissatisfaction, dieting and bulimic symptoms. They hypothesize that these factors might help explain the gender differences seen in depression during adolescence (see Stice & Bearman, 2001, for a full discussion of this model). One disadvantage of much of the research in this area, including some of the work by Stice and colleagues, is the lack of a comparison group of boys.

1.1. Aims of the present study

This study had three aims. The first was to examine the prevalence of depressive symptoms in a sample of adolescent boys and girls, and examine its comorbidity with disordered eating symptoms. Second, the role of three constructs – low social support, low self-esteem and low body satisfaction – found in the literature to be correlated with depression and eating disorders, were examined. Of specific interest is whether, when the effects of these three risk factors are statistically controlled, disordered eating contributes above and beyond these risk factors to depressive symptom scores. Finally, a modified version of the gender additive model developed by Stice and colleagues was examined to analyze the effects of a combination of disordered eating and body dissatisfaction variables on depressive symptoms. Throughout the study, a focus was placed on comparing the differences and similarities between males and females.

2. Methods

2.1. Participants

Two hundred and forty one high school students (115 males and 126 females) from a southwestern high school participated in the study. The surveys of thirty-nine students (14 males and 25 females) were not used for reasons including their surveys not being complete or due to their placement in a special education class where the teacher did not believe they understood the survey well enough to answer appropriately. This reduced the sample to two hundred and two high school students (101 males and 101 females). The mean age was 16.40