Journal of Adolescence 37 (2014) 73–84

Contents lists available at ScienceDirect

Journal of Adolescence

journal homepage: www.elsevier.com/locate/jado

Toward understanding the role of body dissatisfaction in the gender differences in depressive symptoms and disordered eating: A longitudinal study during adolescence

Fátima Ferreiro [a], Gloria Seoane [b], Carmen Senra [a,*]

[a] Department of Clinical Psychology and Psychobiology, Faculty of Psychology, University of Santiago de Compostela, 15782 Santiago de Compostela, A Coruña, Spain
[b] Department of Methodology, Faculty of Psychology, University of Santiago de Compostela, 15782 Santiago de Compostela, A Coruña, Spain

Keywords:
Gender differences
Depressive symptoms
Disordered eating
Body dissatisfaction

A B S T R A C T

This study was aimed at examining whether body dissatisfaction in early adolescence contributes to the development of gender differences in depressive symptoms and disordered eating across early to mid-adolescence, testing both a mediation hypothesis (higher levels of body dissatisfaction in girls, provided body dissatisfaction is a predictor of psychopathology beyond the effect of gender) and a moderation hypothesis (more detrimental effect of body dissatisfaction in girls). A community-based sample initially comprising 882 (49.55% female) adolescents ($M_{age} = 12.85$) was followed-up after 2 and 4 years. Multilevel models were used to analyze the data. Results supported the mediation hypothesis for depressive symptoms and disordered eating, and the moderation hypothesis for disordered eating. Whereas gender differences in depressive symptoms may be simply linked to dissimilar levels of body dissatisfaction in girls and boys, gender differences in disordered eating may arise from both dissimilar levels and effects of body dissatisfaction for each gender.

It is well-known that the prevalence of internalizing symptoms and disorders (i.e., those predominantly inner-directed; Achenbach, 1966) escalate disproportionately in girls relative to boys starting in adolescence (e.g., Crick & Zahn-Waxler, 2003). This is the case for depressive symptoms and disordered eating. Across early to mid-adolescence, girls are at greater risk for developing both depressive symptoms (Ge, Conger, & Elder, 2001; Twenge & Nolen-Hoeksema, 2002) and eating problems (Adams, Katz, Beauchamp, Cohen, & Zavis, 1993; Sancho, Arija, Asorey, & Canals, 2007) as they grow older, whereas there is no consistent age effect in boys. Consequently, by the age of 15 years, girls are about twice as likely as boys to suffer from depressive symptoms (Ferreiro, Seoane, & Senra, 2012; Rushton, Forcier, & Schectman, 2002) and outnumber boys with disordered eating by a ratio of 3:1 or 3:2 (Ferreiro et al., 2012; Hautala et al., 2008). It is worth noting that the presence of affective or disordered eating symptoms at a subthreshold level is not a minor problem but a detrimental condition, particularly among adolescents, many of whom exhibit subclinical psychopathology and nonetheless experience the same level of psychosocial dysfunction as those diagnosed with clinical disorders (Chamay-Weber, Narring, & Michaud, 2005; Gotlib, Lewinsohn, & Seeley, 1995). Moreover, symptom-based outcomes are able to capture the full range of severity

* Corresponding author. Tel.: +34881813767; fax: +34981566160.
E-mail addresses: fatima.ferreiro@usc.es (F. Ferreiro), mgloria.seoane@usc.es (G. Seoane), carmen.senra@usc.es (C. Senra).

0140-1971/$ – see front matter
http://dx.doi.org/10.1016/j.adolescence.2013.10.013

(from none to high) because they are dimensional measures. Therefore, this study examined gender differences at the symptomatic level of depressive and eating disturbances.

Gender issues in either depression or eating problems have received considerable attention in past research. However, there is paucity of literature addressing the common factors that may underlie the gender differences in both phenomena during adolescence. As noted decades ago by McCarthy (1990), the parallels in the gender features of depression and eating disorders are probably not coincidental. Interestingly, affective and eating disorders are highly comorbid (Zaider, Johnson, & Cockell, 2002), at least in females (Blinder, Cumella, & Sanathara, 2006). In this regard, depression and eating problems may share a number of risk factors (e.g., Green et al., 2009), some of which have been proposed as hypothetical mechanisms contributing to the emergence of the gender imbalance in both outcomes (Ferreiro, Seoane, & Senra, 2011). Although the unequal gender distribution of depression and eating problems likely arises from a complex interplay among biological, psychological, and sociocultural determinants (Hautala et al., 2008; Hyde, Mezulis, & Abramson, 2008), certain variables appear to be relevant enough to merit individual attention. Besides, understanding the role of specific factors in the gender disparity in both types of maladjustment during adolescence may also be the first step toward the design of integrative models of adolescent psychopathology. In particular, the present study focused on the role of body dissatisfaction as an explanatory variable for the gender differences in both depressive symptoms and disordered eating across adolescence on the basis of some previous evidence.

Evidence for the role of body dissatisfaction as a major influence on adolescent development

Body dissatisfaction involves a negative subjective evaluation of one's physical body (Stice & Shaw, 2002). Such a negative evaluation compromises wellbeing throughout the lifespan (Robert-McComb, 2008). However, the domain of physical appearance may become particularly salient during the adolescent transition, as suggested by Hankin and Abramson (2001). Adolescence is a challenging period in which youth undergo a myriad of biological, cognitive, and social changes that affect body image (e.g., Frois, Moreira, & Stengel, 2011). Thus, a series of hallmarks of adolescence such as pubertal maturation, the development of social comparison processes, and the onset of dating may trigger a heightened awareness of one's physical attractiveness. It is, therefore, not surprising that physical appearance is a frequent concern during the teenage years. According to a large community-based survey in the U.S.A., one out of three adolescent girls and almost one out of four adolescent boys report low body satisfaction (Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006). High rates of adolescent body dissatisfaction have also been obtained in other Western countries (Finne, Bucksch, Lampert, & Kolip, 2011; Ramos, Rivera, & Moreno, 2010), which dovetails with the standardization of unrealistic beauty ideals due to globalization. It is also worth noting that although body dissatisfaction may begin in childhood, it tends to increase after puberty (O'Dea & Caputi, 2001), which indicates early adolescence as a critical period for the emergence or intensification of body-image concerns.

Evidence for the role of body dissatisfaction as a risk factor for depression and disordered eating

The presence of high rates of body dissatisfaction in the adolescent population is a major public health issue because elevated body dissatisfaction appears to predict a variety of adverse outcomes, including negative affect and eating pathology (e.g., see the review by Stice & Shaw, 2002). In this regard, a number of longitudinal studies have found that body dissatisfaction in adolescence is associated with a heightened risk for subsequent depressive symptoms (Johnson & Wardle, 2005; Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006) and unhealthy weight-control behaviors (Johnson & Wardle, 2005; Neumark-Sztainer et al., 2006). Indeed, Salafia and Gondoli (2011) have recently documented that body dissatisfaction in early adolescence may predispose girls to later depressive symptoms as well as bulimic symptoms and dieting behaviors. Interestingly, there is also evidence that self-objectification, body surveillance, and negative feelings about one's appearance account for the bulk of the relationship between depressed mood and disordered eating in undergraduates (Tiggemann & Kuring, 2004). Nevertheless, because much of the literature on body dissatisfaction refers to females, there remain substantial gaps concerning males.

Evidence for the role of body dissatisfaction as a contributor to the gender differences in depression and disordered eating: the mediation and the moderation hypotheses

Body dissatisfaction not only poses a risk to adolescent wellbeing but is also a gendered preoccupation, given that body-image concerns appear to be both more frequent (Lawler & Nixon, 2011; Luevorasirikul, Boardman, & Anderson, 2012) and motivationally significant (Hankin & Abramson, 2001; Mast & Hall, 2006) in females than in males. As a result, body dissatisfaction can be expected to be involved in the gender imbalance in depressive symptoms and disordered eating. More specifically, the role of body dissatisfaction in the female overrepresentation in depressive symptoms and disordered eating may take two different forms, depending on whether we assume that this female overrepresentation partly arises from gender differences in the *level* of body dissatisfaction (provided body dissatisfaction is a risk factor for psychopathology beyond the effect of gender) or from gender differences in the *effect* of body dissatisfaction. These two possibilities correspond to the mediation and moderation hypotheses, respectively (e.g., see Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004; Hayes, 2009; Holmbeck, 1997; MacKinnon, Fairchild, & Fritz, 2007; Zhao, Lynch, & Chen, 2010).