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Changes in body image and dieting among 16–19-year-old Icelandic students from 2000 to 2010

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ABSTRACT

The aim of the study was to evaluate trends in body image and dieting among 16–19-year-old students in Iceland from 2000 to 2010. Data from four cross-sectional surveys conducted among Icelandic students in 26 junior colleges using four time points were compared to examine changes in body image and dieting. In total, 33,801 students with the mean age of 17.3 years participated. Body image became significantly more positive over the 10-year period for both genders. At all time points, females reported more negative body image than males and a higher proportion of dieters were females than males. There was a decrease in the frequency of dieting among females over time but an increase among males, resulting in a narrower gender gap in dieting. Further examination of these trends in body image and dieting may reveal differences in causal mechanisms behind negative body image and dieting between the genders.

Introduction

Eating disturbances and negative body image are considered a significant public health concern. Threshold and subthreshold eating disorders are prevalent among adolescents and associated with multiple comorbidities, such as other psychiatric disorders, role impairment and suicidality (Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011). Prospective studies have found negative body image and dieting to be risk factors for the onset of eating disturbances (Stice, Marti, & Durant, 2011; Stice, Ng, & Shaw, 2010; Stice & Shaw, 2002).

In general, adolescent females report a more negative body image (Storvoll, Strandbu, & Wichstrøm, 2005) and a higher prevalence of dieting (Neumark-Sztainer, Wall, Larson, Eisenberg, & Loth, 2011) than adolescent males. In addition, adolescent females seem to be more likely than adolescent males to be influenced by other risk factors for eating disorders including, but not limited to, negative affect (Stice et al., 2010), emotional eating (e.g., Jacobi, Hayward, Zwaan, Kraemer, & Agras, 2004; Stice, Rohde, Gau, & Shaw, 2012) perceived pressure to be thin and thin-ideal internalization (Ata, Ludden, & Lally, 2007; McCabe & Ricciardelli, 2005; Stice et al., 2010).

Some eating disorder risk factors, such as sociocultural factors, may change over time. Sociocultural models have been used as theoretical frameworks to explain how sociocultural risk factors may affect body image evaluation and body image investment in the development of negative body image and subsequent eating disturbances (Stice, Nemeroff, & Shaw, 1996; Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). The tripartite influence model is one such model that has received support (Keery, Van den Berg, & Thompson, 2004; Shroff & Thompson, 2006) and incorporates components from both sociocultural theory (Morrison, Kalin, & Morrison, 2004) and social comparison theory (Festinger, 1954). According to the model, an individual's body image is influenced directly and indirectly by peers, parents, and media (Thompson et al., 1999). Furthermore, there are indications that the influence from peers and media may be more important than the influence of parents (Shroff & Thompson, 2006). The direct effects include interactions with peers and parents who may promote unrealistic appearance ideals and exposure to media messages regarding the acceptability of certain physical attributes (Thompson et al., 1999). The indirect effects are mediated through internalization of unrealistic societal appearance standards such as the thin ideal (sociocultural theory) as well as excessive appearance comparison

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with others (social comparison theory; Thompson et al., 1999). Negative body image is thought to have direct effects on restrict eating which may lead to eating disturbances (Shroff & Thompson, 2006).

With reference to the tripartite influence model, the trends over time in eating disorders risk factors, such as negative body image and dieting, may give useful information about possible sociocultural changes and have implications for prevention efforts and health promotion. Most studies examining body image trends over time have been conducted among North American college students. When examining results from these U.S. studies, interesting findings emerge, particularly among women. In fact, women' overall body image became increasingly negative from the 1970s until the mid-1990s (Feingold & Mazzella, 1998; Rozin, Trachtenberg, & Cohen, 2001) although little or no changes have been observed in men' body image since the 1970s (Cash, Morrow, Hrabosky, & Perry, 2004; Feingold & Mazzella, 1998; Neighbors, Sobal, Liff, & Amiraian, 2008; Rozin et al., 2001). Since the mid-1990s however, trends indicate that some aspects of women' body image, such as for example preoccupation with being overweight, may have decreased (Cash, Melnyk, & Hrabosky, 2004; Cash, Morrow, et al., 2004; Neighbors et al., 2008). Notably, results from a very recent study involving U.S. adults indicate that the prevalence of negative body image may have plateaued or declined over time as compared to trends observed from 1973 to 1997 (Fallon, Harris, & Johnson, 2014).

As negative body image is a risk factor in the development of eating disorders, it is important to monitor changes in its prevalence rates over time. Two recent Scandinavian cross-sectional population studies have examined changes in body image over time in adolescence (Asgeirsdottir, Ingolfsdottir, & Sigfusdottir, 2012; Storvoll et al., 2005). The first study, which was conducted among 13–19-year-old adolescents in Norway, comparing data from two time points, found a higher proportion of adolescents having either a very positive or a very negative body image in 2002 than in 1992 (Storvoll et al., 2005). The second study conducted among 14- and 15-year-old Icelandic adolescents using five time points between 1997 and 2010 (Asgeirsdottir et al., 2012), found that body image became more positive among both genders over that period, with a more pronounced improvement in females' body image than what was observed among males.

These recent findings indicate a trend toward a more positive body image among adolescents, especially among females (Asgeirsdottir et al., 2012; Cash, Melnyk, et al., 2004; Cash, Morrow, et al., 2004; Neighbors et al., 2008) that may potentially be a result of changes in sociocultural factors taking place during this time frame. Paired with results from longitudinal studies indicating that negative body image puts adolescents at risk for unhealthy weight management (such as dieting and less physical activity; Neumark-Sztainer, Paxton, Hannan, Haines, & Story, 2006; Neumark-Sztainer, Wall, Haines, Story, & Eisenberg, 2007) dieting frequency may have decreased during the same period. Few studies, however, have been published on this topic. Results from a cross-sectional study conducted among North American college students indicated significant reductions in dieting and eating disorder symptoms among both genders from 1982 to 1992 (Heatherton & Nichols, 1995). In contrast, a cross-sectional study examining high school students in South Carolina using five time points between 1991 and 1999 indicated an increase in dieting among both genders (Rafiroiu, Sargent, Parra-Medina, Valois, & Drane, 2007).

Limited information is available about potential changes from the beginning of this century to the present day in trends in body image and dieting. Specifically, little is known about recent trends in mid-and late adolescence. During this period there have been rapid sociocultural changes in Western societies that might have affected these trends. The most obvious changes are increased use of and access to social media among adolescents (Lenhart, Purcell, Smith, & Zickuhr, 2010) and exposure to more diversity of body shapes and sizes among the general public as overweight and obesity have increased among adolescents (e.g., Eidsdottir, Kristjansson, Sigfusdottir, Garber, & Allegrante, 2010). Also, there has been increased awareness in the society of unrealistic beauty standards represented in the media and the adverse consequences of eating disturbances and negative body image. This increased awareness is reflected in the fact that these issues have specifically been targeted in recent health promotion campaigns and eating disorder prevention programs in schools and social media with an emphasis on improving media literacy (Neiger et al., 2012; Stice, Rohde, Durant, & Shaw, 2012; Stice, Rohde, Gau, et al., 2012; Stice, Shaw, & Marti, 2007; Yager, Diedrichs, Ricciardelli, & Halliwell, 2013; Yager & O'Dea, 2008). It might, therefore, be expected that body image is becoming more positive and dieting less prevalent among adolescents and across both genders.

Iceland is an ideal location to reflect on body image trends. Icelanders are a small and quite homogeneous westernized population. Systematic cross-sectional surveys have been conducted among cohorts of Icelandic adolescents. These surveys provide a unique opportunity to examine trends in body image in times of change in overweight and obesity. A progressive increase has been observed in the rates of overweight and obesity among adolescents and adults in Iceland (Eidsdottir et al., 2010). According to OECD indicators, the proportion of obesity and overweight among adolescents and children (5–17 years) in Iceland is considerably higher than in Scandinavia but lower than in the U.S. (OECD, 2013). To examine recent trends in body image and dieting among older adolescents, this study was carried out among a nationally representative sample of the Icelandic adolescent population. The same methodology and survey instruments were used with four cohorts of students in 26 high schools/junior colleges over a period of 10 years (2000–2010). In line with the aforementioned study examining 14–15 year olds in Iceland (Asgeirsdottir et al., 2012), it was hypothesized that body image among 16–19-year-old adolescent females and males had become more positive from 2000 to 2010. Also, it was hypothesized that dieting frequency would decrease during this same period. Furthermore, it was hypothesized that being female and being older would independently predict a more negative body image (Asgeirsdottir et al., 2012) and consequently more frequent dieting (Neumark-Sztainer et al., 2011). Finally, it was hypothesized that more negative body image would predict dieting during the last year among both genders but be a stronger predictor for females than males (McCabe & Ricciardelli, 2005).

Method

Participants

This study analyzed data from four cross-sectional national surveys of Icelandic adolescents. Twenty-six junior colleges were included in the study. These junior colleges were selected to participate in the study because they participated in all four surveys (2000, 2004, 2007, and 2010) and jointly represented approximately 90% of the junior college population in Iceland.

Data were collected among all students who were present in class during the administration of the surveys but in the current study answers from students aged 16–19 year old were only used, since this age group includes the vast majority of junior college students in Iceland (Statistics Iceland, 2012). Less than 3% of students declined to participate in the study. The data collected in these four surveys represented 70–75% of all fulltime students in this age-group who, according to school registrations, should have been present in school at the day of administration. The number of participants and percentage of the total student population in Iceland of 16–19-year olds were as follows (by year): 7130 (55.6%) in 2000,