Journal of Psychiatric Research 103 (2018) 18–25

Contents lists available at ScienceDirect

Journal of Psychiatric Research

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

Contributions of depression and body mass index to body image

Nadine P.G. Paans[a,*], Mariska Bot[a], Ingeborg A. Brouwer[b], Marjolein Visser[c], Brenda W.J.H. Penninx[a]

[a] Department of Psychiatry, Amsterdam Public Health Research Institute, VU University Medical Center, Oldenaller 1, 1081 HJ Amsterdam, The Netherlands
[b] Department of Health Sciences, Faculty of Earth and Life Sciences, and Amsterdam Public Health Research Institute, VU University, de Boelelaan 1085, 1081 HV Amsterdam, The Netherlands
[c] Department of Health Sciences, Faculty of Earth and Life Sciences, and Department of Nutrition and Dietetics, Internal Medicine, VU University Medical Center, and Amsterdam Public Health Research Institute, VU University, de Boelelaan 1085, 1081 HV Amsterdam, The Netherlands

ARTICLE INFO

Keywords:
Depressive disorder
Depressive symptoms
Body mass index
Body image

ABSTRACT

Depression and body mass index (BMI) are known to be associated with body image, however, their independent or joint effects on body image in adults are largely unknown. Therefore, we studied associations of depression diagnosis, severity, and BMI with perceptual body size (PBS) and body image dissatisfaction (BID). Cross-sectional data from 882 remitted depressed patients, 242 currently depressed patients and 325 healthy controls from the Netherlands Study of Depression and Anxiety were used. Depressive disorders (DSM-IV based psychiatric interview), standardized self-reported depressive symptoms (Inventory of Depressive Symptomatology) and BMI were separately and simultaneously related to body image (the Stunkard Figure Rating scale) using linear regression analyses. Thereafter, interaction between depression and BMI was investigated. Analyses were adjusted for demographic and health variables. Higher BMI was associated with larger PBS ($B = 1.13$, $p < .001$) and with more BID ($B = 0.61$, $p < .001$). Independent of this, depression severity contributed to larger PBS ($B = 0.07$, $p < .001$), and both current ($B = 0.21$, $p = .001$) and remitted depression diagnosis ($B = 0.12$, $p = .01$) as well as depression severity ($B = 0.11$, $p < .001$) contributed to BID. There was no interaction effect between BMI and depression in predicting PBS and BID. In general, depression (current, remitted and severity) and higher BMI contribute independently to a larger body size perception as well as higher body image dissatisfaction. Efforts in treatment should be made to reduce body dissatisfaction in those suffering from depression and/or a high BMI, as BID can have long-lasting health consequences, such as development of anorexia and bulimia nervosa and an unhealthy lifestyle.

1. Introduction

Depression and obesity are among the most prevalent and disabling disorders worldwide, both causing major public health problems (Ferrari et al., 2013; World Health Organisation (WHO), 2013). They have also been consistently associated, and this association appears to be bidirectional (De Wit et al., 2010; Faith et al., 2011; Luppino et al., 2010). The negative impact of depression and obesity on social and occupational functioning, somatic health, and a healthy lifestyle is substantial (Field et al., 2004; Lenz et al., 2009; Neovius et al., 2009; Ormel et al., 1999; Penninx et al., 2013; Phelan et al., 2015; Sikorski et al., 2011; Smith and Smith, 2016; Van Gool et al., 2007). In addition, both depression and obesity are associated with distorted perceptual and attitudinal body image (Marsella et al., 1981; Noles et al., 1985; Weinberger et al., 2016). Distorted body image has been associated with a number of unfavorable consequences, such as worse psychosocial functioning (Cash and Fleming, 2001; Davison and McCabe, 2006), poorer health behavior (Grogan, 2006; Schlissel et al., 2017; Stice and Shaw, 2003), and anorexia and bulimia (Cash and Brown, 1987; Gardner and Brown, 2014; Garner and Garfinkel, 1981). However, it is not known whether depression and obesity jointly affect body image, and whether their combined associations might be greater than the separate associations of depression and obesity with body image. Modifying body image could be an important target in depression treatment (Beck, 1976), especially in individuals with a high BMI. However, in adults, associations between depression, obesity and body image have never been properly investigated, and the joint association of depression and obesity remains unknown.

Body image is defined as a person's body-related self-perceptions and self-attitudes, including body-related thoughts, feelings, and

* Corresponding author. Department of Psychiatry, VU University Medical Center, Postbus 74077, 1070 BB Amsterdam, The Netherlands.
E-mail addresses: n.paans@ggzingeest.nl (N.P.G. Paans), m.bot@ggzingeest.nl (M. Bot), Ingeborg.brouwer@vu.nl (I.A. Brouwer), m.visser@vu.nl (M. Visser), b.penninx@vumc.nl (B.W.J.H. Penninx).

https://doi.org/10.1016/j.jpsychires.2018.05.003
Received 8 February 2018; Received in revised form 30 April 2018; Accepted 3 May 2018
0022-3956/ © 2018 Elsevier Ltd. All rights reserved.

behaviors (Cash, 2004). The concept of body image includes at least two components: perceptual body size (i.e., estimation of one's body size, which can be distorted when different from actual body size) and attitudinal body image (i.e., affective, cognitive, and behavioral concerns with one's body size) (Rucker and Cash, 1992). Attitudinal body image comprises aspects of body image dissatisfaction, shape and weight concerns and overvaluation of body shape and weight (Bulik et al., 2001; Grilo, 2013; Lynch et al., 2009, 2007; Masheb and Grilo, 2003). These attitudinal body image constructs are related, but distinct.

The majority of the research on associations between depression and body image has focused on adolescents, and found associations between both depressive disorder and depressive symptoms and distorted body image (Roberts and Duong, 2013; Stice et al., 2000). Of the few previously published studies on the associations between depression and body image in adults, only one studied patients with major depressive disorder as established by formal diagnostic criteria versus healthy controls (Pimenta et al., 2009), but failed to find significant associations. The other studies operationalized depression by using one overall symptom severity score (Friedman et al., 2002; Goldschmidt et al., 2016; Jackson et al., 2014; Masheb and Grilo, 2003; Richard et al., 2016), all finding significant associations between higher depression severity and greater body image dissatisfaction.

Dissatisfaction with body image seems palpable in those who suffer from obesity and rather unconventional in individuals with a normal body weight (Weinberger et al., 2016). However, findings from some studies are more counterintuitive, as they showed no association between BMI and body image dissatisfaction (Sarwer et al., 2005). It has been suggested that this might be due to differences in stigmatizing experiences (Puhl and Heuer, 2009), or to the fact that in certain individuals, continuation of weight loss or gain beyond a certain threshold does not lead to further changes in dissatisfaction (Sarwer et al., 2005). Another factor possibly influencing the BMI-body image association is depression. As depression and obesity have been consistently and bidirectionally associated (De Wit et al., 2010; Faith et al., 2011; Luppino et al., 2010), and are shown to have overlapping genetic bases (Hyde et al., 2016), it can be expected that they may augment the effect of one other. It might also be expected that associations between depression and body image are most pronounced in normal weight individuals, as in those with obesity, body image dissatisfaction may be already high, thereby reducing the influence of depression on body image in individuals with obesity (Weinberger et al., 2016). One former study in adolescents found depression to be associated with body image dissatisfaction only in normal and overweight groups (Chen et al., 2015), however an adult study found depression to be associated with more body dissatisfaction across all BMI groups (Richard et al., 2016). Another recent study also found associations between depression, BMI, and body image dissatisfaction, in female undergraduates, including these variables in a single model (Stevens et al., 2017). No information was provided on possible interactions between depression and BMI. As both separate and joint associations of depression and BMI with body image remain unclear, the aim of the current study is to examine whether depressive disorder, depressive symptoms, and BMI are associated with both perceptual body size and body image dissatisfaction. As a second aim, the joint associations of depression and obesity on perceptual body size and body image dissatisfaction were investigated.

2. Materials and methods

2.1. Study sample

Data from the Netherlands Study of Depression and Anxiety (NESDA), an ongoing cohort study of persons with depressive and anxiety disorders and healthy controls were used. In order to represent diverse settings and developmental stages of psychopathology, 2981 adults (18–65 year) from the community (19%), general practice (54%) and specialized mental health care (27%) were included at baseline. Exclusion criteria were a primary clinical diagnosis of psychotic disorder, obsessive-compulsive disorder, bipolar disorder, or severe substance abuse disorder, and insufficient command of the Dutch language. The research protocol was approved by the Ethical Committees of the contributing universities and all participants provided written informed consent. A detailed description of the NESDA study design can be found elsewhere (Penninx et al., 2008). Between September 2004 and February 2007, all participants underwent a baseline assessment containing an extended face-to-face interview conducted by a trained research assistant, which included a standardized diagnostic psychiatric interview (Composite International Diagnostic Interview (CIDI) version 2.1 (Wittchen, 1994),), blood sampling and self-report questionnaires. Approximately every 2 years after the baseline assessment, face-to-face follow-up assessments were conducted. Follow-up assessments had a response of 87.1% (N = 2596) at 2-year follow-up, 80.6% (N = 2402) at 4-year follow-up, 75.7% (N = 2256) at 6-year follow-up, and 69.4% (N = 2069) at 9-year follow-up. This paper is based on data of the 9-year follow-up wave in which body image was measured. Data of earlier waves were used to create psychiatric status groups. We excluded participants with pure current or pure remitted anxiety disorders without depression diagnosis (n = 195), those on whom data on psychiatric disorders was inconclusive due to too many missing CIDI follow-up data (n = 13), and participants with missing data on the body image questionnaire (n = 378). Finally, we also excluded those with underweight (BMI < 18.5), due to a small sample (n = 31), and because it can be expected that underweight participants represent a specific group that differs from those with normal BMI or overweight. Thus, our final sample contained 1452 participants. Those with missing data on the body image variable were at the 9-year follow-up significantly younger ($p < .001$), more often male ($p = .03$), had a lower education ($p = .01$), experienced more severe depressive symptoms ($p = .01$) and had more often a diagnosis of current ($p < .001$) or remitted ($p = .02$) depression. No differences in BMI were found.

2.2. Depression measurements

During each assessment, presence of a DSM-IV depressive (MDD, dysthymia) or anxiety disorder (panic disorder with or without agoraphobia, generalized anxiety disorder, social phobia, agoraphobia) was established using the CIDI (Wittchen, 1994). At the 9-year follow up, all participants were classified as either 1) a control subject, 2) having a remitted disorder, or 3) having a current diagnosis based on information from baseline to 9-year follow up. Control subjects were defined as having no lifetime history of depressive or anxiety disorders at all. Persons in the remitted group had a lifetime history of depression disorder but no diagnosis in the past 6 months as diagnosed with the CIDI, and current patients had diagnosed depressive disorder (major depressive disorder, dysthymia) in the past 6 months.

At 9-year follow-up, severity of depressive symptoms in the past week was assessed with the 30-item Inventory of Depressive Symptomatology - Self Report (IDS-SR, range 0–84 (Rush et al., 1996);). Items were scored from 0 ('no problems') to 3 ('severe problems') and a sum score was computed and standardized. In order to further improve clinical interpretability, the sum score was categorized into 5 standard categories: none (score 0–13), mild (score 14–25), moderate (score 26–38), severe (score 39–48) and very severe (≥ 49) (Rush et al., 1996).

2.3. Body image measurements

Figure ratings to compose body image categories were obtained at the 9-year follow-up using the Stunkard Adult Figure Rating Scale, which consists of nine adult female/male silhouettes increasing in size from very thin (one) to very heavy (nine). Subjects were asked to "circle the silhouette that looks most like you" (item 1) and "circle the silhouette that best shows how you would like to look" (item 2) (Stunkard et al., 1983). From these responses, we obtained the variables

Download English Version:

https://daneshyari.com/en/article/6799434

Download Persian Version:

https://daneshyari.com/article/6799434

Daneshyari.com