p-ISSN: 2184-2205 e-ISSN: 2184-3414 ISBN: 978-989-35106-0-5 © 2023
https://doi.org/10.36315/2023inpact103

BODY DISSATISFACTION AND BODY WEIGHT CONTROL STRATEGIES AMONG DEPRESSED AND NON-DEPRESSED ADOLESCENTS

Lucia Barbierik, Maria Bacikova-Sleskova, & Anna Janovska
Department of Educational Psychology and Health Psychology, Pavol Jozef Šafárik University in Košice, Košice (Slovak Republic)

Abstract

Despite substantial evidence that body dissatisfaction explains depression directly or indirectly, there is limited information regarding the specific ways depressed adolescents regulate their body weight and what specific body parts they are dissatisfied with compared to their non-depressed counterparts.
The current study aimed to explore a sample of adolescents under the care of a psychologist with risk of depression as the criterion for body dissatisfaction and weight control strategy differences.
60 adolescents (75% girls) aged between 11 and 18 (mean age = 14.58, SD = 1.75) in the care of a psychologist reported their body weight and height (BMI was calculated), body dissatisfaction (Hibell et al., 2012), perception of actual body figure (Contour Drawing Rating Scale), whether they were on a diet, what weight control strategies they use and depressive symptoms (6-item Kutcher Adolescent Depression Scale) using a paper – pen questionnaire.
61.7% of the adolescents in the sample reported a higher risk of depression. The risk of girls being depressed more than boys was statistically insignificant (66.7% vs. 46.7%). Those at risk of depression are more dissatisfied with their appearance ($U = 183.5$, $z = -3.80$, $p < .001$, $r = .49$) and perceive their body as significantly bigger ($U = 209$, $z = 2.51$, $p < .05$, $r = .34$) in comparison to those who are not at risk. Dietary behavior is more typical for those who are at risk of depression (77.1% vs 22.9%, $\chi 2$ (1, n=60) = 6.98., $p = .01$, phi = .38) with a medium effect size. Regarding weight control strategies, the content analyses showed that non-depressed adolescents use more adaptive strategies (sports, exercising, strolling, not overeating, avoiding sweets, fatty or junk food). More depressed adolescents tended to control their body weight in more extreme or maladaptive ways (fasting, vomiting, daily calorie counting and weighing on personal scale, extreme exercising...). With respect to dissatisfaction with certain appearance components, it seems there were no relevant content differences.
The current results support previous research findings regarding the association between body dissatisfaction and depression and extend them to a more specific subclinical population with more specific and qualitative information. In terms of the implications for psychological practice, it would be worth addressing body concerns even if there are no confirmed diagnoses to prevent depression and unhealthy maladaptive weight controlling behavior.

Keywords: *Body dissatisfaction, depression, body weight control strategies, adolescents.*

1. Introduction

Even though there is a lack of theoretical knowledge explaining the association between depression and body dissatisfaction, there is substantial evidence that body dissatisfaction explains depression directly or indirectly (Brechan & Kvalem, 2015). Controlling body weight could in turn serve as a way of restoring self-worth (Brechan & Kvalem, 2015) which could simultaneously decrease depressive symptoms. However, there is limited information on the more specific ways as to how depressed adolescents regulate their body weight (Moitra et al., 2020) and what specific body parts they are dissatisfied with compared to their non- depressed counterparts.

In terms of controlling body weight, experts tend to distinguish between unhealthy or maladaptive strategies and healthy or adaptive strategies. Unhealthy weight control strategies include behaviour such as fasting, skipping meals, eating very little food, vomiting… (American Psychiatric Association, 2010), smoking more cigarettes (López-Guimerà et al., 2013). Another means of retaining or changing body weight or shape is physical exercise, which can represent both a healthy or unhealthy way (excessive exercising) of weight reduction. Excessive exercisers are considered those who report

"frequent (e.g., daily) hard exercise primarily intended to influence their weight or shape" (Mond & Calogero, 2009, p. 227). With the occurrence of extreme and unhealthy dietary practices, the occurrence of depression or anxiety symptoms increases (Loth et al., 2014).

As adolescence is the period of increased autonomy in making food choices (Moitra et al., 2020), further exploration could bring useful information for psychological practice as to whether it might be necessary to address body concerns among clients with no specific associated diagnoses to prevent the development of depression and unhealthy weight control.

2. Objective

The current study aimed to explore a sample of adolescents under the care of a psychologist for various types of problem behavior with risk of depression being the criterion for body dissatisfaction and weight control strategies differences.

3. Methods

3.1. Sample and procedure

The information about the adolescents in their care was provided by 15 psychologists (all female) working at pedagogical-psychological counselling and prevention center, 12 private psychologists and 3 school psychologists at school. The conditions for being included in the research were (1) being aged between 11 and 18 years old, (2) present manifestations of externalized/internalized problem behavior and (3) willingness of the parent to allow participation in the research. The experience of psychologists varies from one year to 38 years, with an average of 14 years.

The sample consisted of 60 adolescents (75% girls) aged between 11 and 18 (mean age= 14.58, SD = 1.75). The adolescents had been under the care of a psychologist from one month to eight years (most of them for one year) as a result of various types of problem behavior such as ADD/ADHD (5%), autistic spectrum disorders (6.7%), specific learning disorders (10%), disordered behavior (3.3%), other diagnoses (13.3%). 61.7% had no specific diagnoses, because of which they are in psychological care. 36.7% of the adolescents are also under the care of another professional (psychiatrist, clinical psychologist, special teacher). According to the psychologists, 68.3% of the adolescents reported feelings of anxiety and 45% had some depressive symptoms, even though only three of them were officially diagnosed as depressed. From the psychologist reports, 26.7% of the adolescents were reported as having eating problems.

3.2. Measures

The respondents filled in a paper-pen questionnaire under the presence of a psychologist. They reported their body weight and height from which their body mass index (BMI) was calculated.

Body dissatisfaction was addressed by a single question "How are you usually satisfied with your appearance" on a response scale from very satisfied (1) to very dissatisfied (5) (Hibell et al., 2012).

Perception of actual body figure was measured by one question from the Contour Drawing Rating Scale (CDRS, Thompson & Grey, 1995). The CDRS consists of nine drawings of a female figure (for female participants) or a male figure (for male participants). Each drawing increases in size from extremely thin (1) to very obese (9). Participants were asked to rate their perceived figure.

Dietary behavior was addressed by a question as to whether they are currently on a diet and what weight control strategies they use.

Depressive symptoms were measured by an abbreviated 6-item Kutcher Adolescent Depression Scale (KADS-6, LeBlanc et al., 2002). It assesses the severity of adolescent depression over the past week and addresses specific symptoms of depression such as anhedonia and affect (e.g.: "Over the last week, how often have felt a low mood, sadness, feeling blah or down, depressed, just can't be bothered."). A 4-point response scale from never or almost never (0) to regularly (3) was used. The total score of the instrument is the sum of all the items. A total score of 0 to 5 indicate those who are probably not depressed, while a total score of 6 and above indicates possible depression. However, a more thorough assessment is needed to provide a clinical diagnosis. The internal consistency of the scale reached an acceptable value of Cronbach´s alpha (.87).

3.3. Statistical analyses

Descriptive statistics, a Chi square test for independence (with Yates Continuity Correction), Mann-Whitney U Test and brief content analysis focused on manifest content and using an inductive procedure – explorational orientation (Gavora, 2015; Guest et al., 2012) were used to analyze the data.

4. Results

61.7% of the adolescents were identified as having a higher risk of depression (according to KADS-6), while (not statistically significantly) more girls were at risk than boys (66.7% vs. 46.7%). Those who are at risk of depression are more dissatisfied with their appearance ($U = 183.5$, $z = -3.80$, $p < .001$, $r = .49$) and perceive their body as significantly bigger in comparison to those who are not at risk ($U = 209$, $z = 2.51$, $p < .05$, $r = .34$) with a medium effect. They also reported higher BMI than those who are not depressed ($U = 234$, $z = -2.20$, $p < .05$, $r = .29$). Dietary behavior is more typical for those who are at risk of depression (77.1% vs 22.9%). This was statistically confirmed by the Chi square test $\chi 2$ (1, n=60) = 6.98., p = .01, phi = .38, with a medium effect.

A brief content analysis was processed separately for both the adolescent groups with respect to their risk of depression. 11 out of the 23 non-depressed adolescents (47.83%) reported 17 ways of controlling their weight (some of them used more than one strategy). Others stated that they did not control their weight (whether explicitly or by omitting the answer) or that they do not need to control their weight as they are satisfied with it. These ways of controlling body weight were categorized into 9 separate categories – weight control strategies out of which 7 were interpreted as adaptive and relatively healthy and 2 (22.22%) as unhealthy and maladaptive (Thøgersen-Ntoumani et al, 2010). Moreover, the maladaptive strategies were only reported 2 times in this group (one adolescent in particular used them both) while the adaptive ones occurred 15 times.

With respect to the depressed adolescents, 23 out of 37 (62.16%) reported 38 ways of controlling their weight, (some of them used more than one strategy). Others stated that they did not control they weight (by omitting the answer). 15 separate weight control strategies were identified in this group, out of which 5 were considered adaptive and 10 (66.67%) as maladaptive (Thøgersen-Ntoumani et al, 2010). The adaptive strategies were reported 17 times while the maladaptive categories were represented by 21 assertions.

Table 1. Overview of categories and examples of content analysis among non-depressed adolescents.

	Weight control strategies	Example	Frequency
Adaptive	Sports	I do sports; Sometimes I go for a run	4
	Exercising	Sometimes I exercise, mainly at school; I exercise at the gym and I do my trainings; I exercise regularly	3
	Eating	I eat when I am hungry	1
	Strolling	I go for a walk	2
	Not overeating	I don’t overeat; I try not to eat too much too many times a day	2
	Avoiding sweets	Sometimes I avoid sweets	1
	Avoiding fatty or junk food	I try to avoid fatty food; I don´t eat too many meals from which I gain weight	2
Maladaptive	Daily exercising	I exercise daily	1
	Controlling weight every day	I write down my weight every day	1

Table 2. Overview of categories and examples of content analysis among depressed adolescents.

	Weight control strategies	Example	Frequency
Adaptive	Sports	Sometimes I go for a run; I do sport at home	6
	Exercising	Sometimes I exercise at home; I try to exercise regularly	5
	Eating regularly	I try to eat regularly	1
	Eating less unhealthy food	I eat less sugar; I try to eat fewer sweats; I limit fast food; I try to eat less badly	4
	Calories counting	I try to count calories	1
Maladaptive	Less eating	I eat less; I try to limit big portions of food; I try not to eat much; If I eat, it is a small portion	4
	Not eating regularly	I don´t eat regularly because my body is not used to eating that often; I skip meals	2
	Not eating (fasting)	I don´t eat (because I don´t have time) I eat almost nothing, or very little; I usually eat only the amount I need in order not to collapse	5
	Avoiding meals by other activities	I spend less time at home; I brush my teeth early and I go to sleep	2
	Avoiding meals by drinking more water	I drink more water in order to skip meals; I drink more lemon water to keep my stomach full	2
	Vomiting	I vomit	1
	Daily calories counting	I count calories daily	1
	Daily weighting on personal weight	I weight myself daily on personal scale	1
	Daily checking in the mirror	I check my body in the mirror daily	1
	Extreme exercising	I try to exercise a lot; I exercise at night secretly	2

We can conclude that non-depressed adolescents use more adaptive strategies (sports, exercising, strolling, not overeating, avoiding sweets, fat or junk food) while more of the depressed adolescents tended to control (reduce) their body weight in more extreme or maladaptive manners (such as fasting, vomiting, drinking more lemon water to avoid eating or in order to keep the stomach full, daily calorie counting, daily weighing on personal scale (extreme exercising….). These are considered as risky to health. With respect to dissatisfaction with particular body parts or appearance components, it seems there were no content differences.

5. Discussion

The present results regarding the difference in body dissatisfaction according to depression rate are in line with previous research findings. The current study provides evidence of greater body dissatisfaction among those who are identified as depressed which supports studies indicating the association between depression and body dissatisfaction (Brechan & Kvalem, 2015). The current study also shows that depressed adolescents perceive their body as bigger when compared to non-depressed adolescents. Darimont et al. (2020) found that perception of higher weight and measured higher weight were associated with depression although only for female participants. However, further content analysis in the present study did not reveal any relevant differences in specific body parts they are dissatisfied with. It seems that their body dissatisfaction focus is not different for both groups although the extent of dissatisfaction is higher for those who are depressed.

Furthermore, the current study showed that depressed adolescents reported a higher frequency of dietary behavior in order to reduce their weight. Eating habits have previously been found to be important predictors of mental health and are also inversely associated with the risk of depression among adolescents (Moitra et al, 2020). Similarly, an association has been found between depression and restricted eating (Serin & Koç, 2020). In the current study, maladaptive unhealthy weight control strategies were more often used by depressed adolescents when compared to their non-depressed counterparts. This supports and develops previous research findings that adolescents with depression often engage in unhealthy eating habits (Moitra et al, 2020) and that regardless of a special type of diet, depression was associated with a greater number of foods excluded from the diet (Ljungberg et al, 2020). Healthier eating habits can also serve as a means of reducing depressive symptoms (Parletta et al, 2019).

In terms of the limitations of the current study, the self-report character of the data (height and weight, depressive symptoms), impossibility to generalize the findings to the population (clinical or non-clinical) and the lack of methods to indicate causality should be considered. Further research could

focus on the deductive form of content analyses and quantitative statistical processing of the obtained data.

6. Conclusions

The current results support previous research findings and extend them to a more specific subclinical population with more qualitative information. In terms of implications for psychological practice, it is of importance to address body concerns and dietary behavior even if there are no particular diagnoses confirmed to prevent depression. Moreover, among those who already control or reduce their body weight, the degree of depression should be considered to prevent or reduce maladaptive unhealthy weight controlling behavior.

Acknowledgements

This work was supported by the scientific grant agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and of Slovak Academy of Sciences under contract no. VEGA 1/0523/20 and by the Slovak Research and Development Agency under the contract no. APVV-15-0662.

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