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Depression signs, Teasing and Low Self-esteem in Female Obese Adolescents: a clinical evaluation

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Abstract

Objective: the study identifies the presence of the signs of depression, teasing and self-esteem in obese female adolescents compared to a control group.

Methods: the studied group consisted of female subjects (N= 106 obese adolescents and 106 control group) aged from 12 to 18. In the study, the subjects were administered measures of body image, Montgomery Asberg depression rating scale (MADRS), Scale of perceived Teasing, Self-Liking (SL) and Self-competence (SC) to appraise self-esteem.

Results: the comparative assessment highlighted that obese adolescents are significantly depressed. Regarding the teasing, the adolescents were affected from a physical viewpoint. A significant difference also emerged in relation to self-esteem.

Conclusion: the emotional consequences should be carefully weighed in consideration of the possible psychopathologies that may arise, i.e. mood signs. In relation to the signs, the prevention with psychological interventions is important for eating disorders and improve psychosocial health.

Key words: Depression, Teasing, Low self-esteem, Obesity, Adolescents.

Introduction

The influence of obesity on negative body image is reported in literature (Braet et al., 1997; Haines et al., 2008); in obese subjects, and in other whose perception of their body shape and frequent teasing by both family and peers was associated with eating disorders, depression and decreased self-esteem (Davis C 1990; Libbey et al., 2008). A body shape that is pleasing to the eyes of others is something which differs from culture to culture, between the west and the east and over the course of time as the fashion trends seem to show. When too much skin is shown is not accepted by fashion an obese person becomes the target for mockery, especially during adolescence when the need to adhere to a norm is important for the construction of personal identity.

Derision of physical shape therefore becomes a source of shame for own body image and thus is a probable risk element for psychopathologies, particularly distress (Budderberg-Fisher et al., 1999; Eisenberg et al., 2003). The body image of obese adolescents is a predictive factor for both weight preoccupation and as a consequence of low physical self-esteem as well as diminished emotional well-being (Muhlig et al., 2017). In the same way distorted weight perception in obese subjects is considered a potential mediator of the relation between depression, anxiety, and negative physical perception. Also teasing about body weight was in literature associated with low body satisfaction and self-esteem, high depressive

symptoms and thinking about attempting suicide (Braet et al., 1997; Dixon JB., et al., 2003; Speranza M et al., 2003; Isnard P. Et al., 2003). In contrast, other authors have sustained that obese subjects whose ideal body image is based on a normal weight, activate defence mechanisms, such as denial of negative body perception and continue to perceive themselves as being a normal weight (Rinderknecht K et al., 2002; Nishizawa Y et al. 2003; Sands ER et al., 2002; Paeratakul S et al., 2002; Gutierrez-Fisac JL. et al., 2002). In females, accounting for age and lifestyle factors, depression symptoms were positively associated with body weight (Zhu et al., 2017). Body-image dissatisfaction and weight-control behaviour are issues particularly in girls (Baskova et al., 2017). The adult clinical literature has also linked obesity with psychopathology in general, and depression in particular. In contrast, data on obesity and psychological disturbance in population-based sample of children or adolescents are limited. So the results of a study indicating relationships between teasing and low levels of psychological well-being (Goldsmith SJ., et al. 1992; Greenleaf et al., 2014). In a sample, although no significant differences were noted for sociodemographic variables, overweight and obese female students were found to report lower academic self-efficacy and higher depressive symptoms, compared with their normal-weight (Aimé et al., 2017). The work aims to identify the presence of risk elements for psychopathology towards depression, self-perception and levels of self-esteem in obese female adolescents compared to control group.

Method

1218 female subjects, aged from 12 to 18 (means=15.55, s.d.=2.22) were recruited in the educational school of Messina city (Italy). Anthropometric measures of height, weight and body mass index (BMI) defined as weight in kilograms divided by the square of height in meters and measurement of skinfold thickness at specific sites) were used to measure body fat and to define and track obesity in adolescents. BMI percentiles were computed using the 2000 Centre for Disease Control and Prevention growth charts. Obesity was defined as BMI> or=95th percentile; overweight as BMI > or =85th percentile and <95th

percentile; normal weight as BMI <85th percentile. Estabishing a standard definition for child overweight and obesity worldwide: international survey (Cole TJ et al., 2000). The presence of obesity in the group was 8.7% similar to 106 subjects (mean BMI=31.8). The control group (N=106) were randomized among non obese subjects (mean BMI =23). The inclusion criteria were: 1) obese subjects whose diagnosis was distinct from that of bulimia nervosa in that the criteria of the Diagnostic and Statistical Manual of Mental Disorders. The exclusion criteria were: 1) a diagnosis in comorbidity with a psychiatric pathology; 2) subjects took over medicine.

Measures

The subjects were interviewed and, having obtained their consent, were given the following scales:

1. A tool to assess depression, namely Montgomery Asberg Depression Rating Scale (MADRS) by Montgomery and Asberg 1979, which investigates the following depressed appearance, depressed mood, state of tension, insomnia, lack of appetite, difficulty concentrating, asthenia, anhedonia, pessimistic thoughts and suicidal thoughts.

2. A tool to evaluate the level of teasing, the Perception of Teasing Scale (1995). This scale contains 11 items divided into two parts: the first (item 1-6) assesses how much the person has been the object of mockery by others and the second (items 7-11) explores derison provoked by behaviours perceived as foolish or stupid.

3. An instrument to assess self-esteem, the Self-Liking (SL) and Self-Competence (SC) by Swann and Tafarodi 1995), is composed by 32 items that explore self-esteem. In particular the scale comprises two areas: a) SC competence, exploring self-esteem originating from social recognition and b) SL Liking, investigating the subject's own awareness of self-esteem. Normally these two aspects of self-esteem are indistinguishable in adults.

Data Analysis

Descriptive statistic were generated with the SPSS software. The mean, standard deviation and univariate ANOVA test to assess the differences within and between groups were calculated for each of the scales used. The homogeneity of variances was verified using the Levene test. We correlated depression mood and teasing about body appearance (pearson r=0.50). The homogeneity of the sample was confirmed by the Kaiser Meyer Olkin Test (KMO=0.883) in addition Bartlett's test was also applied and the statistical significance was calculated (Sig.=0.000).

Figure captions

Table 1 shows all the variables of the MADRS calculated: mean (M), standard deviation (SD) the F value and the significance of each variables.

A factorial analysis of the composition of the MADRS of obese subjects was performed since a better understanding of the depression may be gained by looking at the specific clusters belonging to this group.

Table 1

Variables	**Obese**		**Control**		**F.**	**Sig.**
	M.	**SD.**	**M.**	**SD.**		
Depressed appearance	1.09.	1.36	0.48	0.78	15.06	.001
Depressed mood	1.82	1.52	1.31	1.28	6.65	.001
Tension	3.13.	1.72	0.17	0.53	271.54	.001
Insomnia	1.13	1.51	0.22	0.63	31.50	.001
Lack of appetite	1.06	1.52	0.19	0.54	28.84.	.001
Difficulty of concentrating	1.55	1.54	0.00		0.00	

Variables	Obese M.	SD.	Control M.	SD.	F.	Sig.
Apathy	2.24	1.40	0.00		0.00	
Anhedonia	0.69	1.19	0.00	0.00	33.34	.001
Pessimistic thoughts	2.19.	1.69	0.00.	0.00	167.30	.001
Suicidal thoughts	0.70	1.35	0.00	0.00	27.20	.001
Total	**15.52**	**9.67**	**2.36**	**9.66**	**177.28**	**.001**

Two factors were highlighted and their respective weights, of non rotated factors, were 5.079 (variance= 50.79%); 1.158 (variance =11.57%). By means of principal components analysis and subsequent quartimax rotation, the following components were extracted: component A encompassing depressed appearance, depressed mood, state of tension, insomnia, lack of appetite, anhedonia, apathy, pessimistic thoughts, was labelled “core depression” being the expression of depression.

Component B mainly consisted in pessimistic thought and difficulty concentrating was labelled “cognitive coat of depression” due to the characteristics (see table 2).

Table 2. Rotation method Quartimax with Kaiser normalization.

Variables	A	B
Insomnia	814	
Depressed appearance	741	
Depressed Mood	707	
Suicidal thoughts	634	
State of tension	460	731
Lack of appetite	424	
Pessimistic thoughts		854
Difficulty concentrating		851
Apathy		846
Anhedonia		603

Table 3.

Variables	Obese M. s.d.	Control M s.d.	F. Sig.
Teasing bodyweight	21.20. 11.05	14.85. 5.48	26.753 0.001

Variables	Obese M.	s.d.	Control M	s.d.	F.	Sig.
Teasing ideas and feelings expressedx	16.16	7.58	16.92	6.72	0.572	NS
Self competence	29.57	4.75	27.98	5.63	7.797	0.030
Self liking	29.98	5.82	27.62	6.99	6.933	0.009

Table 3 presents all two subscales (teasing about bodyweight and teasing about the content of thought expressed) of the Scale of perceived teasing and the two subscales (SC and SL) of the self-esteem scale. The mean (M) and standard deviation (SD) were calculated for all items plus the ANOVA test between the two group. The homogeneity of the two group was verified by the Levene Test. The F values and the significance of each item in the four subscales were also calculated.

Results

The statistics have shown that obese subjects are significantly depressed, in terms of the individual items that characterise this dimension. In particular, in the composition of the MADRS the slight differences relating to anedhonia and pessimistic thoughts were considered important while it was interesting to note that the last variables regarding suicidal thinking was totally absent in the control group.

Factor analysis yielded two components enabling the aspects of depression:

1. Component A, made up mainly of insomnia, suicidal thoughts, anhedonia, apathy, difficulty concentrating

2. Component B, depressive, where the depression is principally made up items that emphasise the role of a depressed mood.

As far as teasing is concerned subjects are teased exlusively about their physical appearance, whereas they are not affected by teasing regarding their thoughts and feelings.

Regarding the correlations found, factor analysis uploads the idea that only component of depression (factor A) is positively correlated with teasing. Clearly, the direction of the correlation only indicates the phenomenon found and does not imply a causality of relations. A significant correlation (r=0.157; sig. =0.005) emerged between the totals for depression and teasing about body appearance; but it should be stressed that factor B (regarding the cognitive variables of depression) is the one showing the clearest positive correlation (r=0.240; sig. 0.001).

Discussions

Obesity is the most common health problem in adolescents (Schieri et al., 1995; Georgiades et al., 2003) and has risen in the last decade (Barnow et al. 2003; Strass et al., 2003). In literature it has been shown how excessive preoccupation with bodily appearance is frequent in obese adolescents and the prevalence of eating disorders and markers of psychosocial well-being among overweight girls and boys remained the same from 1999 to 2010 (Fonseca et al., 1998; Loth et al., 2015). Regarding the SL component of self-esteem a significant difference emerged in line with other studies despite differences deriving from method and age of subjects (Isnard-Mugneier et al., 1993; Young-Hyman et al., 2003; Zhu et al., 2017).

Form an emotional viewpoint, adlescent obesity is closely linked to common negative emotional responses (Tseng et al., 2002) including depression (Pinaquy et al., 2003; Riva et al., 1998; Jirik-Babb et al., 2003). Other authors have further shown that obese adolescents currently not only high levels of depression but also low self-esteem probably induced by a sense of guilt relating to their dissatisfaction with themselves therefore being considered an important symptom

of adolescent obesity causing negative personal effects (Pumariega et al., 1993; James et al., 1995; Pirke et al., 1998) including bodily dissatisfaction. Accordingly, the psychopathological dimensions that characterise negative body image are: anxiety due to being overweight, unstable self-perception and teasing. Also given the overlap among depressive symptoms, disordered eating, and overweight, identifying shared risk factors for these condictions (Goldschmidt et al., 2008; Goldschmidt et al., 2016). This study aimed to examine cross-sectional and prospective relationships among these 3 conditions, and identify potential shared eating-related and psychosocial variable risk factors (i.e., body dissatisfaction, dieting, teasing experiences). Cash et al., 1991; Also weight-related teasing has been found to be associated with low self-esteem, depressive symptoms and body dissatisfaction in adolescents (Wichstrom L., 1999; Lampard et al., 2014).

Conclusions

Our study, like other authors (Jackson et al., 2000) shows that teasing obese adolescents about physical image explains the severity of adolescent psychopathology. Indeed, teasing about general bodily appearance seems to be associated with certain aspects relating to obesity and especially to depression and body dissatisfaction.

As a result of this, obese subjects are marginalized, or it would be more correct to say that they feel in this way and therefore are excluded, particularly in terms of friendships or participation in sporting activities, because they are the targets of teasing and evaluated negatively by adolescents of normal weight.

For this reason social isolation reinforces not only emotional state and body dissatisfaction, but also the emotional consequences of obesity such as demoralization and impulsive behaviour to the point even of suicide attempts in extreme cases (Eisenberg et al., 2003; MgGrath-Hanna et al., 2003, Liotta et al., 2015; Mento et al., 2016), althought this was only a remote possibility in our group. In relation to nature of obesity the prevention interventions is important for

eating disordered and psychosocial health. In addiction prevention programming should address for risk factors i.e. body satisfaction and weight-related teasing and mood states.

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