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Body Dissatisfaction and Concern, Body Checking and Avoidance Behavior in People with Eating Disorders¹

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Abstract: The aim of this study was to investigate aspects of body image in a sample of people with anorexia nervosa, bulimia nervosa and eating disorder not otherwise specified. The sample was composed of 14 volunteers, cared for by the Eating Disorders Outpatients Clinic, from Universidade Estadual de Campinas. The Software for Perceptual Assessment (SPA) assesses body dissatisfaction. The variables 'body concern', 'checking behaviour' and 'avoidance behaviour' were assessed by paper and pencil scales of the Body Shape Questionnaire, Body Checking Questionnaire and Body Image Avoidance Questionnaire, in this order. The descriptive analysis and correlations indicate high levels of dissatisfaction, checking behaviour, avoidance behaviour, and concern over the body, with significant associations. These findings showed the importance of the investigated parameters for the dynamic of the disease. Knowing these body image components could expand the possibilities of understanding how these patients organize their body representations and assist careful planning of interventions during the course of the treatment.

Keywords: body image, anorexia nervosa, bulimia, eating disorders

Preocupação e Insatisfação com o Corpo, Checagem e Evitação Corporal em Pessoas com Transtornos Alimentares

Resumo: Este estudo teve por objetivo avaliar aspectos da imagem corporal em uma amostra de pessoas com anorexia nervosa, bulimia nervosa e transtorno alimentar não-especificado. A amostra foi composta por 14 voluntárias atendidas pelo Ambulatório de Transtornos Alimentares da Universidade Estadual de Campinas. O Software de Avaliação Perceptiva foi utilizado para avaliar a insatisfação com o corpo. A preocupação com o corpo, checagem e evitação corporal foram avaliadas pelo *Body Shape Questionnaire*, *Body Checking Questionnaire* e *Body Image Avoidance Questionnaire*, respectivamente. A análise descritiva e as correlações entre as medidas mostraram elevados níveis de insatisfação, checagem, evitação e preocupação com o corpo, com associações significantes. Estes achados evidenciaram a importância dos parâmetros investigados na dinâmica dos transtornos alimentares. Conhecer esses componentes da imagem corporal favorece a ampliação das possibilidades de melhor compreender como se organiza a representação mental do corpo dessas pacientes e planejar mais cuidadosamente as intervenções no decurso do tratamento.

Palavras-chave: imagem corporal, anorexia nervosa, bulimia, distúrbios do ato de comer

La Insatisfacción y la Preocupación con el Cuerpo, el Control y el Comportamiento de Evitación Corporal en las Personas con Trastornos Alimenticios

Resumen: El objetivo de este estudio fue investigar los aspectos del imagen corporal en una muestra de personas con anorexia nervosa, bulimia nervosa y trastorno alimenticio no especificado. La muestra estuvo compuesta por catorce voluntarios, atendidos por la Clínica de Trastornos Alimenticios de la Universidade Estadual de Campinas, Brasil. Se utilizó el Software de Avaliação Perceptiva para evaluar la insatisfacción corporal. Las variables preocupación con cuerpo, control y conducta de evitación fueron evaluadas con el *Body Shape Questionnaire*, *Body Checking Questionnaire* y *Body Image Avoidance Questionnaire*, en esta orden. El análisis descriptivo y las correlaciones mostraron altos niveles de insatisfacción, conducta de evitación y control, preocupación con el cuerpo, con asociaciones significativas. Estos resultados demuestran la importancia de los parámetros investigados en la dinámica de la enfermedad. Conocer estos componentes del imagen corporal podría aumentar las posibilidades de la comprensión de cómo la representación del cuerpo se organiza para estos pacientes y planificar cuidadosamente las intervenciones en el curso del tratamiento.

Palabras clave: imagen corporal, anorexia nervosa, bulimia, trastorno de la ingestión de alimentos

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Changes in body perception were the themes for the first studies addressing body image. The description of relationships between brain lesions and changes in body image inaugurated research in body image (Campana & Tavares, 2009; Cash & Smolak, 2011; Fisher, 1990). Investigations concerning the body image of people with eating disorders

(EDs) began circa 1950 and were motivated by the reports of patients that considered themselves to be fat while in fact were extremely thin (Probst, 1997).

The research field in body image has expanded beyond neurology and started considering biopsychosocial aspects of body representation. Studies focused on Anorexia Nervosa (AN) boosted the beginning of perceptual studies with apparatus to distort the body, using cameras, mirrors and a caliper (Thompson & Gardner, 2002). In this initial phase, the study of Bruch (1962) proposed that the first symptom of AN would be a “delusional change of proportionality” and no treatment would be efficacious without correcting for this change.

Perceptual studies predominate up to the 1980s when a crisis in perceptual evaluation gave room to the development of studies with attitudinal scales focused on affective and cognitive aspects and dissatisfaction with the body (Campana & Tavares, 2009). Other dimensions of body image that support the denial of low weight, the fear of gaining weight, and references of patients with EDs to seeing themselves as fat when looking in the mirror began to be investigated (Crowther & Williams, 2011; Delinsky, 2011). Currently, rather than one's body perception, body checking and avoidance – which reflect a need to control and a profound depreciation for the body – are considered central elements of the EDs psychopathology (Fairburn, Shafran, & Cooper, 1999).

Avoiding exposing the body to one's own and others' gaze, provoking feelings and fighting the limits of body shape are behaviors that translate a profound depreciation and dissatisfaction with one's own body (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1998). The individual makes use of various strategies when in body avoidance – avoiding social situations and exposing oneself to the public, avoiding using tight or short clothes or maintaining close contact with others – which accommodate and nurture depreciation of or dissatisfaction with the body (Cash, 2002). A self-imposed “lifestyle” is developed specifically to accommodate the individual's negative body image. All situations that may cause in others some concern regarding one's physical appearance are categorically avoided, compromising one's social life (Rosen, Srebnik, Saltzberg, & Wendt, 1991).

Body checking is also a resource adopted to accommodate one's negative body image. The concern with appearance, body measures, in comparison to other people, and/or in keeping the body as stable as possible involves ritualistic and compulsive weighing and measuring, consuming time and energy. This behavior also plays a role in maintaining negative body image as it reinforces dissatisfaction with one's body with new information that reinforces the conclusion that shape and weight have to be more controlled, and more dieting and exercise are needed (Reas, Whisenhunt, Netemeyer, & Williamson, 2002; Shafran, Fairburn, Robinson, & Lask, 2004).

The concept proposed by Bruch (1962), that body image distortion needs to be treated and cured for the treatment of EDs to be successful, survived over time with the inclusion of these

behavioral aspects that manifest into feelings of inadequacy, anxiety, dysphoria, and a distorted view of body shape and appearance. But such a concept was transformed as it added the remaining dimensions of body image – cognitive, affective, and behavioral dimensions – to the perception dimension, which Bruch referred to at the time (Campana & Tavares, 2009).

A reflection of this fact is that changes in the body image of individuals with EDs currently constitute one of the diagnostic criteria both for AN and Bulimia Nervosa (BN), according to the Diagnostic and Statistical Manual of Mental Disorders, 4th version (DSM-IV) (American Psychiatric Association [APA], 1994). One of the diagnostic criteria for AN is the existence of an over-valorization and distorted view of body weight and shape. In addition, there is intense fear of gaining weight and the individual denies her low weight when affected by AN, even when well below the ideal weight for her age and height. The same manual proposes, as one of the diagnostic criteria for BN, the excessive importance given to one's own body weight and shape.

These diagnostic criteria refer to what is conventionally called distorted body image. For Garner (2002), Thompson (1990) and Thompson et al. (1998), distorted body image in EDs is not only a predisposing factor, but it also maintains these clinical conditions. It is characterized not only by a changed way of perceiving the body shape and size, but also by dissatisfaction with body size and a preference for thinness. Added to these is body distortion, a phenomenon that involves an altered perception of the body's real size. In summary, we can also mention mismatched interpretations of external judgments of one's own appearance, the use of perfect “models”, concern over defects, avoidance of exposure, experiencing the body as a stranger (a way of depersonalization) and an extremely negative attitude towards the body and appearance (Probst, 1997).

According to the psychodynamic perspective, body image can be seen as a mental representation of body identity (Krueger, 2002; Tavares, 2003). The organization of body representation becomes “healthy” when there is an integration of body perceptions and the organization of body identity (Krueger, 2002). It is in the existential body that affections, experiences, vulnerabilities, potentialities and limitations are inscribed. The individual who does not have her uniqueness and desires acknowledged, does not establish boundaries between what is within and what is without and is therefore unable to establish exchanges. The body is marked by lack of perception and empathic response, has an incomplete body image, a blurry, and poorly defined body image (Tavares, 2003; Dolto, 2001).

Brazilian researchers have described and delineated the characteristics of body image that are important for individuals with EDs. Peres and Santos (2006) concluded, after applying projective tests to people with AN, that feelings of inferiority and an obsessive concern with the body are relevant elements to changing one's own judgment concerning body reality. Giordani (2009) analyzed

the biographical material of eight women with AN and points out the existence of fragile body boundaries, with rigid control of body weight and shape, and the importance of previous relationships (father, mother, friends, teachers and physicians) to establishing the ideal body.

Costa, Machado and Cordás (2010) analyzed a sample of 20 patients with binge eating disorder (BED). The scores obtained in the Body Attitudes Questionnaire (BAQ) indicated that women with BED saw themselves as fat, less attractive, and less physically able, while the Body Shape Questionnaire showed that women with BED obtained lower scores in regard to concern over the body than did women in the control group. Timerman, Scagliusi and Cordás (2010) evaluated body perception and the affective aspect of body image of 14 patients with BN throughout their treatment with a multidisciplinary team. They observed that the factors “feeling fat”, “depreciation”, “salience”, “and lower body fatness” evaluated by BAQ significantly decreased at the end of the treatment. No change, however, was observed in the individuals’ perceptions, as evaluated by the Stunkard Figural Rating Scale.

This study’s objective was to evaluate aspects of body image in a sample of individuals with AN, BN and Eating Disorder Not Otherwise Specified (EDNOS). More specifically, the following aspects of the attitudinal dimension were verified: body satisfaction, body concern, body checking and body avoidance.

Method

Participants and Study’s Setting

The study was conducted in the Eating Disorder Outpatient Clinic at the Hospital das Clinics at the Universidade Estadual de Campinas in the Psychiatric Outpatient Clinic where a multidisciplinary staff composed of psychologists, psychiatrists, endocrinologists, and nutritionists, provide care to patients of both genders through the Brazilian Unified Health System (SUS). The criteria for diagnosing patients are those described by the DSM-IV. Care is provided once a week when patients attend consultations with the nutritionist, endocrinologist and group and/or individual therapy. The patients’ families receive therapeutic support with group therapy scheduled at times different from the therapy times of patients.

All the patients undergoing treatment in this clinic between January and March 2008, diagnosed with AN, BN or EDNOS according to DSM-IV criteria, were invited to participate. Of the 20 female patients cared for at the time, 14 composed the sample: six with EDNOS, five with BN, and three with a diagnosis of AN. The average age was 20.92 (\pm 5.82) years old, Body Mass Index (BMI) of 20.26 (\pm 2.64) kg/m², and a percentage of body fat of 19.51% (\pm 5.21); the average time of treatment was 1.7 (\pm 0.52) years and the time since diagnosis was 4.27 (\pm 0.89) years.

Instruments

The *Software for Perceptual Assessment* (SPA) (Campana et al., 2010) was used. During the application of this instrument, the individual faces her image projected on a screen and receives the instruction to “adjust your image in the screen so that your body stays as you would like it to be”. The measure of dissatisfaction with the body is given by the perceptual difference between the individual’s actual body size/shape and the body size/shape the individual would like to have. A digital camcorder was used to put this instrument into operation. It captured images and transmitted them to a digital projector, which reflected the individual’s real size on a white screen. The instrument’s validation study indicated its temporal stability ($r = 0.76$) and the judges approved its ability to evaluate one’s body dissatisfaction.

Body Checking Questionnaire (BCQ): the Brazilian version of the instrument (Campana & Tavares, 2009) has 12 items. Its confirmatory factor analysis presented an adherent model, $\chi^2/df = 2.8$, RMSEA = .056, CFI = .93, with four factors: checking by observing the body (BO), checking by measuring body parts (ME), checking by means of comparisons between the individual’s body and the bodies of other people (CO), and search for perceptual information (PI). The maximum score on the Brazilian version is 60 points, while the higher the score, the higher the body checking pattern. In this sample, the index of internal reliability was .74.

Body Image Avoidance Questionnaire (BIAQ): the instrument’s Brazilian version (Campana, Tavares, Silva, & Diogo, 2009) has 13 items and presented in its confirmatory factor analysis an adherent model, $\chi^2/df = 3.4$, RMSEA = .068 CFI = .98, with three factors: strategies to control hunger and body shapes (CE), strategies to refuse (RE) exposing the body and accommodation strategies (AE). The maximum score on the Brazilian version is 65 points and the higher the final score, the more extensive is the body avoidance pattern. The internal reliability in this sample was .86.

Body Shape Questionnaire (BSQ): the Brazilian version (Di Pietro & Silveira, 2009) has 34 items designed to measure concern over body shape. The final score is obtained by totaling the items and can be interpreted in relation to the intensity of body concern. Final scores below 110 points indicate “no concern”; scores between 110 and 138 points indicate “mild concern”; scores above 138 points and below 167 indicate “moderate concern”; scores above 168 points indicate “severe concern”. The index of internal reliability for this sample was 0.92.

Anthropometric measures: a stadiometer, 220 cm in length and with precision of 0.1 cm, and a Fillizola clinical scale with a precision of 0.1 Kg were used to evaluate the participants’ BMI. Three skinfold measures were taken with a Harpenden skinfold caliper in accordance with the protocol established by Pollock and Jackson (1984) to evaluate the participants’ percentage of body fat.

Procedure

Data collection. The voluntary participants attended the Body Image Laboratory of the Physical Education School at the Universidade Estadual de Campinas at previously scheduled individual times. Assessments were initiated after free and informed consent forms were signed. Body dissatisfaction was assessed in a room and then the three questionnaires were answered in another private room. In a third room, the researchers assessed height, weight, and skin fold measurements. All the assessments rigorously followed this order. The assessments were performed by Body Image Laboratory researchers who had previously contacted the participants only at the time of inviting them to participate in the study.

Data analysis. Data were tabulated in a spreadsheet in the Statistical Package for the Social Sciences (SPSS), version 14. The scores obtained on the scales, the result of the body dissatisfaction measure and anthropometric data were stored. Descriptive statistical analyses were performed. We evaluated adherence of the generated data through the Gaussian distribution with the Shapiro-Wilks statistical test to choose the most appropriate statistical inferential test. Spearman's correlation test was used for the non-parametric data (satisfaction, time of treatment, time of diagnosis) and Person's χ^2 test for the parametric data. A confidence interval of 95% was adopted for the results' analysis.

Ethical Considerations

This study was initiated only after the research project was approved by the Ethics Research Committee at the Universidade Estadual de Campinas (protocol No. 737/2007).

Results

Body dissatisfaction observed in the sample was of -21% (± 23.93). The negative sign indicates the search for a

skinnier silhouette. The following values were found among the diagnostic groups: -13.20% (± 28.52) for patients with BN, -30.66 % (± 7.47) for those with EDNOS and -14.66% (± 38.27) for patients with AN. A positive and significant correlation among body dissatisfaction and concern with body and body checking was found (Table 1).

Concern over body appearance was moderate to severe in 11 patients (78.60%). The highest score in the entire group was 202 points and the lowest was 84 points, while the average score in the sample was 154.21 (± 35.43) points. The diagnostic group with the highest average score was that of patients with EDNOS, with 169.16 (± 17.35) points, followed by the group of patients with BN, with an average score of 157.80 (± 42.35) points, and then by the group of patients with AN, with an average score of 118.33 (± 35.50) points.

In regard to body avoidance, the maximum score obtained by the sample on the BIAQ was 55 points and the minimum score was 20 points. The average score for the five patients with BN was 40 (± 12.21) points, while the average score obtained by the six patients with EDNOS was 38.16 (± 6.55) points and the average score obtained by the three patients with AN was 26 (± 5.19) points. The total average score was 36.35 (± 9.95) points. Nine (64.30%) out of the 14 patients presented a high pattern of body avoidance.

In regard to body checking (Table 2), the maximum score obtained on the BCQ was 59 points and the minimum score was 15 points. The overall average score was 40.71 (± 10.93), while the average score obtained by the patients with BN was 47 (± 10.09) points; the patients with EDNOS obtained an average score of 40.33 (± 7.06) points; for the patients with AN, the average score was 31 (± 14.42) points. In total, 12 out of the 14 patients had a high checking pattern.

Concern over body presented a positive and significant correlation with BMI, body checking, body avoidance, and body dissatisfaction. Body avoidance in turn was positively and significantly correlated with body checking. Besides the already mentioned correlations, the last variable also, had a significant association with body dissatisfaction (Table 1).

Table 1

Correlations between the Results Obtained Through the BSQ, BIAQ, BCQ, SPA and the Sample's Variables (n = 14)

	BSQ	BIAQ	BCQ	SPA	Age	BMI (kg/m ²)	Body fat (%)	Δt D (years)	Δt T (years)
BSQ	1	0.73**	0.73**	-0.59**	0.16	0.66**	0.39	0.22	-0.15
BIAQ	0.73**	1	0.62**	-0.51	0.24	0.41	0.23	0	0.05
BCQ	0.73**	0.62**	1	0.58*	-0.07	0.52	0.42	-0.07	0.22
SAP	-0.59**	-0.51	0.58*	1	-0.16	0.34	-0.11	-0.33	-0.50
Age	0.16	0.24	-0.07	-0.16	1	-0.23	-0.08	0.46	0.04
BMI	0.66**	0.41	0.52	0.34	-0.23	1	0.75**	0.46	-0.06
Body fat (%)	0.39	0.23	0.42	-0.11	-0.08	0.75**	1	-0.40	0.07
Δt D	0.22	0	-0.07	-0.33	0.46	0.46	-0.40	1	0.08
Δt T	-0.15	0.05	0.22	-0.50	0.04	-0.06	0.07	0.08	1

Note. BSQ = Body Shape Questionnaire; BIAQ = Body Image Avoidance Questionnaire; BCQ = Body Checking Questionnaire; SPA = Software for Perceptual Assessment; BMI = Body Mass Index; Δt D = time of diagnosis; Δt T = time of treatment. * $p < 0.05$. ** $p < 0.01$.

Table 2

Overall View of the Cases with the Results Concerning BMI, Body Fat and BSQ, BIAQ and BCQ

Diagnosis	BMI (kg/m ²)	Body fat (%)	BSQ (categories)	BIAQ (categories)	BCQ (categories)
BN 1	22.54	19.70	Severe body concern	High body avoidance	High body checking pattern
BN 2	20.50	18.50	Severe body concern	High body avoidance	High body checking pattern
BN 3	18.04	19.00	No body concern	High body avoidance	High body checking pattern
BN 4	22.00	26.00	Moderate body concern	High body avoidance	High body checking pattern
BN 5	20.47	22.90	Moderate body concern	Low body avoidance	High body checking pattern
EDNOS 1	22.88	27.40	Moderate body concern	High body avoidance	High body checking pattern
EDNOS 2	23.21	27.80	Severe body concern	Low body avoidance	High body checking pattern
EDNOS 3	21.11	22.40	Severe body concern	High body avoidance	High body checking pattern
EDNOS 4	17.80	11.70	Moderate body concern	High body avoidance	High body checking pattern
EDNOS 5	19.30	16.50	Moderate body concern	High body avoidance	Low body checking pattern
EDNOS 6	24.87	18.90	Severe body concern	High body avoidance	High body checking pattern
AN 1	17.85	14.50	Mild body concern	Low body avoidance	High body checking pattern
AN 2	16.74	14.90	No body concern	Low body avoidance	Low body checking pattern
AN 3	16.39	13.00	Moderate body concern	Low body avoidance	High body checking pattern

Note. BMI = Body Mass Index; BSQ = Body Shape Questionnaire; BIAQ = Body Image Avoidance Questionnaire; BCQ = Body Checking Questionnaire; BN = bulimia nervosa; EDNOS = eating disorder not otherwise specified; AN = anorexia nervosa.

Discussion

This study's objective was to continue the delineation of aspects of body image in EDs, investigating aspects of the attitudinal dimension (body dissatisfaction, body concern, body checking and body avoidance) in a sample of individuals with AN, BN, and EDNOS. The average value (-21%) found for dissatisfaction with body shape was above that reported in a previous study (Campana et al., 2010) conducted with a non-clinical population. The authors used the same instrument and observed a level of dissatisfaction of -11.85% (± 2.57). We cannot, however, based on current data, verify whether the difference between the studied clinical group and the non-clinical group is significant. Hence, further studies should conduct this type of analysis and investigate the significance of differences in body dissatisfaction – and other body image aspects – between clinical and non-clinical groups.

An absence of correlation between BMI and body dissatisfaction – verified in this case by the distance between the real and ideal body – is an interesting finding. Correlation between BMI and dissatisfaction has been exhaustively reported in the literature when silhouette scales are used, in which dissatisfaction is given by the distance between the real and the ideal (Gardner & Brown, 2010; Scagliusi et al., 2006). The indication in this sample that these two variables are not necessarily

correlated reveals the need to monitor BMI as well as body dissatisfaction during treatment, assuming these are independent variables in the treatment process. Given the limitation of our sample size and the impossibility of generalizing results, it seems opportune that these two variables be investigated in other Brazilian clinical and non-clinical samples.

Concern over the body and body checking and avoidance seem to be the most important traits in the dynamics of EDs given the high values obtained, its recurrence in high patterns and mutual associations. Behaviors such as pinching the body, squeezing it, stuffing it and then emptying it, hiding it and manipulating it to reach perfection, may be interpreted as an attempt to establish body boundaries (Giordani, 2009). The discovery of a positive and significant correlation between concern with the body and BMI indicates that the reestablishment of BMI moves in the same direction as the highest indexes of concern over body in the studied sample. Note that correlational tests do not indicate cause and effect and that increases in the correlated variables are not proportional. Still, since there is a positive association, multidisciplinary teams providing care for these individuals should pay attention to this fact, monitoring the patients' levels of concern over body in the process of recovering/establishing the ideal body weight over the course of treatment. Therefore, multidisciplinary teams could enable patients to deal

with the transformations that occur in the body when gaining weight and facilitate patient recovery.

Another positive and significant correlation was found between concern with the body and body checking and avoidance. These results indicate that distorted behavior and thoughts concerning the body feed back each other and an approach focusing on the three aspects together is required during treatment. Future research with other samples and with longitudinal and cross-sectional designs should investigate these variables described by Fairburn et al. (1999) as the expression of the core of the psychopathology of EDs, which is the distorted experience of body weight and shape.

We have to consider this study's limitations. First, a small sample was obtained. Even though the sample is representative of patients from the Eating Disorders Outpatient Clinic of the Hospital das Clínicas at the Universidade Estadual de Campinas, the results we report here cannot be generalized. A second limitation is the impossibility of creating a group with each diagnosis to distinguish the differences among them. Despite its limitations, this study's results can contribute to the growth of research on body image in EDs that has been witnessed in Brazil in recent years concerning planning the treatment of this segment of the public.

Conclusion

Body image is dynamic and singular and is influenced by social, physiological and emotional factors (Schilder, 1980; Tavares, 2003). We assume that the results obtained through the scales and software are the most striking and most stable traits of body identity (Campana & Tavares, 2009). The body image of a thin person who perceives herself as being fat is not a delusion. It is the revelation of an identity, of an individual in the history of her concrete relationships, formed by memories and unique information (Tavares, 2003).

Identifying attitudinal aspects of the body image of individuals with EDs enables a broader understanding of the meaning of a thin body, of purging, fasting, and the dynamic of the disease. To identify the associations among these aspects means to have a possibility of better understanding how these patients organize their mental representations of body.

This study presents data that sought to show the importance of evaluating body image and its use in care models. Especially in regard to the last aspect, it is known that the abandonment of EDs treatment is very high (Busse & Silva, 2004). Discovering associations among the aspects of body image and, specifically, the association between concern over body and BMI, can provide more information to aid understanding this issue. The body altered by treatment (whether through weight gain or the side effects of medications) leads patients to attempt to reestablish control over their body, maintaining a cycle of concern, checking and avoidance triggered by dissatisfaction with their body. The approach of the physician, psychologist, or the multidisciplinary team involved in the treatment of these patients should establish

a safe space for new bodily experiences, accompanying the reestablishment of body boundaries.

Considering this last reflection, we understand that caring for "body image disturbance" described by the DSM-IV (APA, 1994) means to enable the development of body image with experiences that promote the recognition of oneself and others, that enables the individual to feel validated and meaningful in this world, to have the experience of asserting oneself, of being accepted by another and causing an impact (Tavares, 2003). In this process, other bodily experiences will be mentally represented and changes in body image will be added to the most stable core of the representation of body identity.

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