

**CHANGES IN BODY IMAGE SATISFACTION THRU COGNITIVE-
BEHAVIORAL INTERVENTION IN A MULTIDISCIPLINARY
PROGRAM OF NUTRITIONAL EDUCATION**

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Obesity has been considered, according to World Health Organization as one of the major contemporary problems, and can be evaluated as a global epidemic because of the several cases diagnosed at different ages and social classes in different locations around the world (WHO, 1998). It is called obesity the overweight body characterized by the presence of a body mass index (BMI) over 30 kg / m², and this index is obtained by the ratio of the individual's body weight and the square of their height. However, despite the definition of obesity is based only on anthropometric criteria, psychological factors, socio-cultural, genetic and physiological characteristics should also be considered when evaluating both the etiology and the maintenance of the phenomenon of obesity. Thus, depending on the varied etiology and the range of maintenance factors and the consequences, it requires a multidisciplinary approach to the phenomenon of obesity, which allows both prevention and treatment success, as well as this maintenance of the long term. The multidisciplinary approach also allows factors as satisfaction with body image which is observed during the treatment process, allowing this and other important psychological variables are also considered and evaluated in the processes of diagnosis, treatment, prognosis and maintenance. After all, apart from the risks to physical health which should be considered in the obese individual, for example, coronary and heart disease risk, obesity is responsible for significant changes in how the individual perceives. These changes are often related to distorted thoughts, influencing self-esteem and satisfaction with body image in obese individuals.

The Cognitive-Behavioral Therapy (CBT) works the intrinsic relationship between thoughts, behaviors and emotions, whereas cognition acts as a mediator in the relation of the subject with the outside world, being the determinant factor in the expression of behaviors and emotions (Beck, 2009). It focuses also on how the subject perceives the reality, since this perception causes the subject to structure a system of beliefs and schemas, which, as a feedback loop, alters his perception in certain situations. So, considers the existence of distorted thinking on the self-esteem, body image and self-control capacity as a constituent of the obesity problem, since that modulates how the obese individual perceives the social reality around them, express their emotions and behave towards meals (Vasques, Martins & Azevedo, 2004). As the distorted thoughts arise when the individual receives certain incentives, if they are identified by the individual, he can minimize his exposure to those or change the way he deal with them (Beck, 2009). The cognitive-behavioral intervention focused on these distorted thoughts allows both maintaining factors of the phenomenon of obesity as issues surrounding the phenomenon, such as satisfaction with body image, to acquire a more adaptive configuration that permits the subject to alleviate their psychological suffering. Still, there is an expansion of the contexts of intervention from this approach, in jobs that carry the concepts used in individual CBT to group phenomena (Bieling, McCabe & Antony, 2008), allowing a greater number of people being served at a time. The literature review of the área conducted by Pimenta, Leal, Branco e Maroco (2009) points to the effectiveness of brief cognitive-behavioral interventions in reducing weight, either overweight or obese individuals. According to Duchesne et al. (2007), CBT programs result in significant improvements in psychopathological symptoms of Binge Eating Disorder (BED), despite significant decreases in lower body weight. Remember that about 30% of obese individuals seeking treatment for obesity have this disorder, being reported a positive association between the presence of binge eating and increased adiposity. Yet, obese patients with BED as compared to obese people without this disorder showed more dysfunctional behaviors related to food and weight, plus a high concern and dissatisfaction with body image. This paper presents the implementation of a weight loss program in Cognitive-Behavioral Therapy combined with nutritional guidance for Nutritional Education Program, University

of São Paulo, developed as a treatment proposal for obesity, as well as psychological factors maintainers and adjacent to this phenomenon, such as body image. The sample consisted of 15 participants, mostly women (86.7%). The average age of participants was 50.5 years (± 1.94) and 60% of them had at least a high school education. The group was composed mostly of obese (86.7%), and the remainder had overweight, and average BMI at the beginning of the group, was 33.76 kg / m^2 (± 1.15). The program focused on cognitive restructuring of the participants, working with the beliefs of incapacity, self-control and permissiveness that contribute to the maintenance of obesity and dysfunctional habits of health food. Therefore, in addition to cognitive and behavioral techniques aimed directly to the restructuring, techniques such as Socratic questioning, evidence search, testing cognitive and behavioral experiments were used to work relevant factors such as anxiety, depression, desperation, binge eating and body image satisfaction. The results were evaluated by the analysis of the relaxation of dysfunctional beliefs of the participants and from clinical questionnaires and self-assessment scales that make it possible to obtain quantitative data and comparisons of the relevant variables mentioned above. In the specific case of satisfaction with body image, we used the Figure Rating Scale (Kakeshita, Silva, Zanatta & Almeida, 2009). This consists of 15 images of silhouettes for each gender presented on individual cards, with progressive variations in the range of measures, from leaner (BMI = 12.5 kg / m^2) the widest (BMI = 47.5 kg / m^2), considering even the waist-hip ratio. In the situation of evaluation is requested from the participant point of the figures which is close to his body and what the current figure is close to the body structure that would like to have. The satisfaction with body image of the participant can then be measured by comparing their actual BMI and BMI represented by the figure chosen. The cognitive-behavioral program of nutritional education, as a whole, consists of 12 sessions. Of these, 10 sessions are therapeutic intervention, reserved for the work with the distorted thoughts above. The other two sessions are reserved for the application of the instruments in pre and post-test. The qualitative results evaluated from the relaxation of dysfunctional core beliefs of the participants showed that the program is effective when evaluating the cognitive restructuring of the participants with regard to them. Quantitative analysis suggests that the

program also has effective performance on variables such as anxiety, depression, desperation, binge eating and body image satisfaction. Particularly when it comes to body image, we used the Komolgorov-Smirnov, who certified the normality of distribution. Data from Figure Rating Scale show that participants at the beginning of the group would like to be on average approximately 10 kg / m² (± 1.09) lower, while at the end of the program, this wish was 5.83 kg / m² (± 0.75). This difference was considered statistically significant (p <0.05), evaluated by Student t test. Remember that the BMI reducing of participants was also considered statistically significant (p <0.05), mean initial BMI equal to 33.76 kg / m² (± 1.15) and the average final BMI, 32.77 kg / m² (± 1.13). Thus, one can conclude that the program is effective for the treatment of obesity, just by the changes observed in adjacent and maintenance factors for obesity, in addition to reducing the BMI have actually occurred. Particularly with regard to satisfaction with body image, the program also proves to be effective for two main reasons. The first one because it allows participants to the effective reduction of BMI, approaching the current configuration of their BMI on the configuration desired by them. The second one to work the evidence and the participant's expectations about their body image, reducing the requirement of the same about your BMI and increasing their satisfaction with the current configuration of your body. More research is needed to confirm the effectiveness of the program developed using other population samples.

References

Beck, J. S. (2009). *Pense Magro: a dieta definitiva de Beck*. Porto Alegre: Artmed.

Bieling, P. J., McCabe, R. E., & Antony M. M. (2008). *Terapia Cognitivo-Comportamental em Grupos*. Porto Alegre: Artmed.

Duchesne, M., Appolinário, J. C., Rangé, B. P., Freitas, S., Papelbaum, M., & Coutinho, W. (2007). Evidências sobre a terapia cognitivo-comportamental no tratamento de obesos com transtorno da compulsão alimentar periódica. *Revista de Psiquiatria do Rio Grande do Sul*, 29 (1), 80-92.

Kakeshita, I. S., Silva, A. I. P., Zanatta, D. P., & Almeida, S.S. (2009). Construção e Fidedignidade Teste-Retestes de Escalas de Silhuetas Brasileiras para Adultos e Crianças. *Psicologia: Teoria e Pesquisa*, 5(2), pag.

Pimenta, F., Leal, I., Branco, J., & Maroco J. (2009). O peso da mente – Uma revisão de literatura sobre fatores associados ao excesso de peso e obesidade e intervenção cognitivo-comportamental. *Análise Psicológica*, 27 (2), 175-187.

Vasques, F., Martins, F. C., & Azevedo, A. P. De. (2004). Aspectos psiquiátricos do tratamento da obesidade. *Revista de psiquiatria clínica*, 31 (4), 195-8.

World Health Organization (WHO). *Obesity: preventing and managing the global epidemic. Report on WHO Consultation on Obesity*. Geneve, 1997.