CONVERSANDO SOBRE OBESIDADE: UM GUIA PARA A CRIANÇA, ADOLESCENTE E FAMILIA

TALKING ABOUT OBESITY: CHILD, ADOLESCENT AND FAMILY GUIDEBOOK

DOI: <https://doi.org/10.22388/2525-5894.2018.0073>

Júlia Mariotto Sessler - Student of the Graduate Course in Psychology at the Pontifical Catholic University of Campinas, fellowship of Scientific Initiation of PIBIC / CNPq. julia.ms4@puccampinas.edu.br

Anita Colletes Bellodi, Ph.D.- Professor, Psychology Course, Pontifical Catholic University of Campinas; anita.bellodi@puc-campinas.edu.br

Maria Camila Buarraj Gomes - Clinical nutritionist and Preceptor of the Multiprofessional Residency in Women's and Children's Health at Maternidade Hospital "Dr. Celso Pierro," Pontifical Catholic University of Campinas, Master in Health Sciences, PUC-Campinas maria-camila@hmcp.puc-campinas.edu.br

André Luiz Monezi Andrade - Research Professor in Psychology, Pontifical Catholic University of Campinas; Advisor; andre.andrade@puc-campinas.edu.br

Sônia Regina Fiorim Enumo - Professor of the Postgraduate Program in Psychology and the Health Sciences Program of the Pontifical Catholic University of Campinas; Emeritus Professor at the Federal University of Espírito Santo; sonia.enumo@puc-campinas.edu.br

Scientific Initiation Project belongs to the Research Group in Psychology of Health and Development of Children and Adolescents, Pontifical Catholic University of Campinas.

RESUMO

O excesso de peso (EP) na infância e adolescência é um problema global, exigindo orientações para essa população. Este trabalho visou à elaboração de uma cartilha instrucional, denominada “Conversando sobre a obesidade”, para auxiliar pais de crianças/adolescentes com EP sobre como lidar com as características do filho e orientar as próprias crianças/adolescentes, de maneira lúdica, promovendo a adesão ao tratamento. Seu conteúdo foi baseado em resultados de pesquisas sobre obesidade infantojuvenil nas áreas de Psicologia e Nutrição. A primeira versão foi submetida a três juízes, profissionais da área da saúde (dois psicólogos e um nutricionista), que responderam individualmente um questionário avaliando a compreensão da linguagem, conteúdo e imagem de cada página. As sugestões foram incluídas na segunda versão, que ficou com 17 páginas, ilustradas com figuras coloridas. Ficou organizada em três tópicos: Introdução - relacionada à orientações sobre nutrição; Parte II - para cuidadores, com orientações sobre como lidar com as características do filho; e Parte III - para crianças/adolescente, com orientações sobre como lidar com as próprias características. O material pode subsidiar futuros estudos e ser aplicado em serviços de saúde pediátrica.

Palavras-chave: Obesidade; Adolescente; Criança.

ABSTRACT

Overweight in childhood and adolescence is a global problem, requiring guidelines for this population. This work is aimed at the elaboration of an instructional booklet, called "*Talking about obesity*," to help parents of overweight children/adolescents on how to deal with the characteristics of the child and playfully guide the children themselves, promoting treatment adherence. Its content was based on research results on children and adolescent obesity in the areas of Psychology and Nutrition. The first version was submitted to three judges, health professionals (two psychologists and one nutritionist), who individually answered a questionnaire to evaluate the comprehension of the language, content, and image of each page, obtaining good agreement indexes. The suggestions were included in the second version, which was 17 pages long, illustrated with colorful diagrams. It was organized into three topics: Introduction - related to nutrition guidelines; Part II - for caregivers, with guidance on how to deal with the child's characteristics; and Part III - for children/adolescents, with guidelines on how to handle their characteristics. The material can support future studies and be applied in pediatric health services.

Keywords: Obesity; Adolescent; Child.

INTRODUCTION

Overweight (OW), which includes obesity, is defined by the accumulation of abnormal or excessive fat that may impair health. In children and adolescents, it occurs when the weight is above the expected for their age and height, according to the World Health Organization (WHO, 2007) criteria. In the pediatric population, it is a serious Public Health problem in several countries (AFSHIN et al., 2017, BRAZILIAN INSTITUTE OF GEOGRAPHY AND STATISTICS, 2010; WHO, 2014, 2015).

Obesity is a multifactorial disease, associated with several environmental and economic factors (LOVASI et al., 2013), psychosocial and biological (PULGARÓN, 2013), therefore, focusing only on the energy balance (incorrect eating habits and sedentary lifestyle as causes of positive energy balance) is considered insufficient in treatment. There is also an important genetic component, hormonal control of hunger and satiety and altered basal metabolism (GOMES, 2016). Overweight is a risk factor for chronic diseases and several negative consequences for the health of the individual, such as aggravation of cardiovascular diseases, diabetes, respiratory problems, high blood pressure and psychological problems (WHO, 2015).

Given this situation, it is essential to understand the causes and consequences of overweight, as well as adequately to guide this population. One of the steps is the promotion of effective changes and efficient actions, and the evaluation of the current situation, with the performance of professionals from several areas, such as Medicine, Nutrition, Physical Education, Psychology, Nursing, Statistics, among others, having conducted diagnostic and interventional research (BELLODI, 2018). Supporting this effort, Psychology seeks to investigate what other factors may be related to the origin and continuation of this problem. Such factors are related to the psychosocial variables of the parents/caregivers and the child, as shown by the results of the research group studies, three of which are from Psychology, analyzing the *coping* of the parents' obesity treatment (CUNHA, 2017, CUNHA et al., accepted), the relationship between behavioral problems, coping and children and adolescents temperament with overweight (BELLODI; MACHADO; ENUMO, submitted), motivation for treatment in terms of diet adherence and the practice of physical activity in overweight children and adolescents (SIQUEIRA; ENUMO, submitted) and one of Nutrition, studying the motivation for obesity treatment in children with and without non-alcoholic hepatic steatosis (GOMES, 2017; GOMES et al., submitted). All of these studies verified as well the relationships of these variables to the psychosocial risks of families, using the *Psychosocial Assessment Tool 2.0* (PAT 2.0) (PAI et al., 2008; SANTOS, 2012)

For the present study, we will focus on the aspects that were considered relevant in these studies, the cause and continuation of the problem and which are subject to intervention by multidisciplinary intervention, with emphasis on Psychology. Regarding the parents/caregivers variables, all these studies were highlighted, the caregiver Body Mass Index (BMI), confirming the fact that in a significant portion of children and adolescent overweight cases, the caregiver presents above normal BMI (MOREIRA et al. 2012; PRYOR et al., 2015). Literature data indicate that impaired maternal health, mainly due to diabetes *mellitus* and complications in pregnancy and childbirth, is highly linked to overweight complications in childhood and adolescence (DIAS; NEVES; ZANINI, 2016).

Regarding the overweight child's variables, temperament was highlighted (BELLODI, 2018; BELLODI; MACHADO; ENUMO, submitted). This refers to individual differences in reactivity and self-regulation, in the domains of attention, activity, and feelings, being biologically based and environmentally influenced (experience), by heredity and maturity (ROTHBART, 2004). Reactivity concerns the reactions of individuals to changes in the environment, while self-regulation deals with how the individual controls their emotional and behavioral reactions. According to Rothbart (2004), there are three major temperament factors: negative affect, extroversion, and effortful control. Negative affect is characterized, initially, by more primitive forms of irritation and anguish, and then goes through more organized states of fear and frustration. In the case of overweight children and adolescents, the study by Bellodi (2018) showed the importance of affective states

which tend to negative feeling of temperament, in other words, they are children with more magnificent presentation of feelings of anger, guilt or fear.

Also, temperament characteristics influence coping processes. Such a process is understood by the Motivational Theory of Coping (MTC), which works on this concept from a developmental perspective, as it considers changes throughout the life cycle. Coping is defined as a self-regulatory action, activated by stress, in which the individual adjusts his behavior, emotion, and attention (SKINNER; ZIMMER-GEMBECK, 2016). Thus, as a by-product of overweight in children, children and adolescents present poor adaptive coping of treatment stressors, as well as a tendency to negative affect temperament (BELLODI; MACHADO; ENUMO, submitted).

It should be stressed that coping treatment is not similar between caregivers and their children (BELLODI; MACHADO; ENUMO, submitted). It was observed that the caregivers presented more adaptive coping responses, while their children presented a prevalence of maladaptive coping. This is because caregivers often guide their children adequately, however, do not provide adequate models of self-care: they do not engage in physical activity, have poor eating habits, and have a BMI above the normal range. The significant stressors of overweight treatment, according to the children, are food control, which they react to with anger and sadness, despite having a more adaptive coping. Therefore, there is a need for specific interventions for this population, classified as medium to high psychosocial risk, according to PAT 2.0 (CUNHA et al., accepted)

Furthermore, on the variables of the child, some behavioral factors related to the treatment of overweight children and adolescents deserve special mention. Generally, these children and adolescents do not practice physical activity (KATZMARZYK et al., 2015), and although they present more autonomous motivation for the practice of physical activity, the level is still shallow compared to the recommendations (SIQUEIRA; ENUMO, submitted), sleeping less than the appropriate time (FATIMA; MAMUN, 2015), as well as screen time being high (BELLODI, 2018).

Finally, about the psychosocial variables, the low socioeconomic level related to the overweight in children and adolescents in the population studied here is highlighted (BELLODI, 2018; CUNHA, 2017; GOMES, 2017). These children and adolescents tend to experience greater emotional instability due to the conditions they live in, as well as being stimulated to a lesser extent at home (ZANHD et al., 2015).

The low motivation for treatment (diet and physical activity) in this population, as identified by Gomes and cols. (GOMES, 2017, GOMES et al., submitted) moreover, by Siqueira and Enumo (submitted), is one of the central conditions for studies aimed at intervention in this area.

Thus, in order to promote treatment adherence, these issues should receive proper attention from the Psychology professional. In this regard, it is relevant to provide guidance materials for health care aimed at this population and for professionals working in this area, in order to assist individuals in their recovery and to better understand the health-disease process. Among the possible actions are the guidelines, which can be supported by specially elaborated materials such as guidebooks. These should have accessible language, provide relevant information, including all intervention participants, such as health professionals and family members, in addition to patients, presenting a scientific rigor (ECHER, 2005).

Under this approach, the present work had the objective of elaborating a guideline booklet on how to deal with the treatment of overweight in children and adolescents, aimed at the general public.

METHOD

For the drafting of the guidebook, the following steps were followed (ECHER, 2005):

- i. Scientific literature reading on the research themes, to find the theoretical and methodological context of the study;

- ii. Wording and structuring the guidebook content;
- iii. Submission of the guidebook to three specialist judges in the area;
- iv. Adaptation to assemble the final model.

For the judge's evaluation, a questionnaire was drawn up, containing each page of the guidebook, where the judge could evaluate the content, language, and images used and answering whether it is appropriate or not. In each of these items, a justification for the response given must be provided, indicating the changes and suggestions. Finally, the questionnaire contains a final page, intended for suggestions and changes.

RESULTS AND DISCUSSION

Thus, the study produced the guidebook titled "Talking about Obesity." The goal is to guide parents and children/adolescents that are overweight. For parents, it helps answer the following question: "How to deal with the characteristics of overweight and obese children?". About the overweight children/adolescents, it aims to guide them in order to provide a better adherence to the treatment.

Version 1 of the guidebook

This guidebook was proposed based on the results found in four types of research developed by the Research Group on Child and Adolescent Health and Development Psychology, from PUC-Campinas, on the subject of child and adolescent obesity. Two are at Master level, in the area of Nutrition, in terms of motivation for treatment (GOMES, 2017), and Psychology (CUNHA, 2017), in relation to the overweight coping treatment by the parents, and mainly, for suggestions regarding temperament aspects, we used the findings of the Bellodi Doctoral research (2018); the study by Siqueira and Enumo (submitted) provided information on the motivation for the practice of physical activities. The population of all these researches has children and adolescents in overweight treatment. Thus, based on these studies, the content of the guidebook was structured, and the first version of the material was elaborated, described below.

This version contains an introductory part (Part I), which addresses general overweight nutrition-related issues, definitions of overweight and obesity, and classifications based on BMI. Therefore, it is possible to verify if the person is within the expected range, according to the age group. The health damage that overweight can cause, such as diabetes *mellitus* are explained, cardiovascular, respiratory, orthopedic and psychological diseases.

Finally, this first part discusses how the treatment is done, which should be multidisciplinary, including healthy eating and physical exercise, and emphasizing family involvement. This was highlighted in the subsequent sections of the guidebook: Part II - aimed at the guidance of parents and family caregivers, and Part III - aimed at children and adolescents.

The most severe psychosocial risks, according to the Bellodi study (2018), were addressed in the guidebook, such as the issue of the caregiver's BMI, which is generally above normal; the maladaptive coping of the child / adolescent; the child's negative affectivity pattern, with emotions associated to fear, anger and sadness; and the lack of communication between caregivers and the child / adolescent. The guidebook aims to inform about these risks in a way that is understandable for both parents and children, including suggestions for actions to be taken. These actions, in general, are: the importance of knowing the child's temperament, perceiving and asking about the child's / adolescent's feelings, increasing the expression of positive affect, increasing the proximity between parents and children, as well as highlighting how relevant is the health of these caregivers, as they directly influence the child's health. This content was illustrated with colored diagrams, specially illustrated, and arranged in each of the 15 pages that composed the first version of the guidebook.

The final version of the guidebook

The version described above was submitted to three judges, health professionals, which were a psychologist responsible for the Psychology Service in a hospital, a psychologist who works in a Psychology School Clinic and a nutritionist who works in a hospital, focusing on Child and Women's Health. They individually answered, after signing the consent form to participate in the study, a questionnaire that evaluated the comprehension of the language, content, and image of each page. The overall mean concordance index was 89.60%, being higher for content (95.54%) and lower for images (84.41%) (Table 1).

Table 1. *Concordance index among judges on content, language and images of the guidebook on obesity in children and adolescents (N = 3)*

Page	Concordance among judges (%)			
	Content	Language	Image	Avg.
1	100	100	66.6	88.86
2	100	66.6	100	88.86
3	100	66.6	100	88.86
4	100	66.6	100	88.86
5	100	66.6	100	88.86
6	66.6	66.6	66.6	66.66
7	100	100	66.6	88.86
8	100	100	66.6	88.86
9	100	100	100	100
10	100	100	66.6	88.86
11	100	100	100	100
12	100	100	66.6	88.86
13	100	100	100	100
14	66.6	100	66.6	77.73
15	100	100	100	100
Avg.	95.54	88.86	84.41	89.60

The evaluation of the judges was accompanied by qualitative suggestions, which were taken into account for the change and drafting of the final version of the guidebook. The judges first suggested changes in the content of nutrition information. In Part I, one of the topics addressed were the possible causes of obesity, in which the judges pointed out the need to broaden the form that had been addressed. Obesity is a multifactorial disease, so a view that focuses only on energy balance (incorrect eating habits and sedentary lifestyle as causes of positive energy balance) is considered insufficient. There is also a significant genetic

component, hormone control of hunger and satiety and altered basal metabolism. Therefore, these factors were added as causes. Also, in Part III, the judges suggested including information on healthy foods (fruits, vegetables, lean meats), not just the intake of less caloric foods.

About language, the main suggestions were in the sense of making it more accessible and easier to understand for the majority of health service users. In Part I, regarding the content of the BMI, although the judges rated it as quite explanatory, they pointed out that the formula and tables should be maintained, but to include the suggestion for users to seek health professionals to assist in the calculation of BMI, and in understanding the result. In addition, the judges suggested altering the nomenclature used in the consequences of overweight, which could be more straightforward and less technical. Thus, some terms have been replaced, such as "cardiovascular diseases" for "heart attack"; "Respiratory diseases" for "difficulty breathing"; "Orthopedic complications" for "knee pain," for example. As for Part II, intended for caregivers, nomenclature changes were also indicated, where "Stressors, how to deal with it" was changed to "How to help them deal with stress."

Finally, as for the images, the judges pointed out, in both Part I and Part III, the exchange of illustrations of industrialized and ultra-processed foods (soda, hamburger, sweets) for healthy foods (vegetables, fruits, lean meats) what the child should eat, rather than using pictures of what they should not include in the diet. Furthermore, in the three parts of the guidebook, the suggestions were about the addition of illustrative images of the theme that was approached, so that images of family, children, and adolescents were added, an illustrative figure about the emotions that the child feels in the face of the overweight and an illustrative figure of the caregiver and child interaction. On the cover, the image was also altered, so that it was more related to overweight, adding the figure of an overweight child, evidenced by the waist circumference.

As for the overall guidebook *layout*, the judges suggested some changes in the background and font colors for easier reading and better aesthetic engagement.

After this evaluation, the second version of the guidebook included the changes and adjustments suggested by the judges, totaling 17 pages. It is organized into three topics, namely: Introduction- related to nutrition and guidelines of that form; Part II - intended for caregivers, with guidelines on how to deal with the characteristics of the child; and Part III intended for children / adolescents on how to handle the characteristics (Appendix A, in Portuguese)

CONCLUSIONS

It was possible to propose supporting material in the format of a guidebook, based on research results on the target population, which may assist in the treatment of obese and overweight children and adolescents and their parents/caregivers, giving guidance on how to deal with the problem. This guidebook, therefore, is a product derived from interdisciplinary knowledge produced by the Research Group. To generate knowledge that can be translated into a methodologically and theoretically based product and useful for professional practice that shows the type of work possible in the area of Pediatric Psychology. It is expected that this product will serve as a basis for future studies and as a material for use in pediatric health services.

Acknowledgments

To CNPq, for the Scientific Initiation Grant (IC) and research productivity at level 1B for the advisor; to the graduate student of Psychology, Gabriela Manali Bortoletto, for her graphic work.

REFERENCES BIBLIOGRAPHIC

AFSHIN, A. et al. **Health effects of overweight and obesity in 195 countries over 25 years**. The New England Journal of Medicine, v. 377, n. 1, p. 13-27, 2017.

BELLODI, A. C. **Obesidade e sobrepeso em crianças e adolescentes: temperamento, enfrentamento, comportamento dos pais e risco psicossocial** [Obesity in children and adolescents: temperament, stress, coping, and Family psychosocial risk]. 2018. Doctoral Thesis, Programa de Pós-Graduação em Psicologia, Pontifícia Universidade Católica de Campinas, Campinas, SP, 2018.

BELLODI, A. C.; MACHADO, W. L.; ENUMO, S. R. F. **Excesso de peso infantojuvenil: temperamento, coping, saúde materna e risco psicossocial familiar** [Overweight in children and adolescents: temperament, coping, maternal health and family psychosocial risk]. Submitted.

BRASIL. INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). **Pesquisa de Orçamentos Familiares (POF) 2008-2009: antropometria e estado nutricional de crianças, adolescentes e adultos no Brasil** [Family Budget Survey (POF 2008-09)]. Rio de Janeiro: IBGE, 2010. Retrieved from: <http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/pof/2008_2009_aquisicao/pof20082009_aquisicao.pdf>. Acesso em 04 de agosto de 2018.

CUNHA, K. S. **Relações entre risco psicossocial familiar, coping do tratamento da obesidade infantil e controle parental da alimentação** [Relations between family, psychosocial risk obesity treatment coping and parental feeding control]. 2017. Dissertação de Mestrado, Programa de Pós-Graduação em Ciências da Saúde- Pontifícia Universidade Católica de Campinas, Campinas, SP, 2017.

CUNHA, K. S.; MACHADO, W. L.; ANDRADE, A. L. M.; ENUMO, S. R. F. **Family psychosocial risk, coping with child obesity treatment and parental feeding control**. Accepted.

DIAS, D. O. P., NEVES, S. M. M., ZANINI, D. S. **Body Mass Index, social competence and behavioral problems of children and caregivers**. Psicologia: Teoria e Pesquisa, Brasília, v. 32, n. 2, e32225, 2016.

ECHER, I. C. **The development of handbooks of health care guidelines**. Revista Latino-Americana de Enfermagem, Ribeirão Preto, v.13, n. 5, p. 754-757, 2005.

FATIMA, Y.; MAMUN, A. A. **Longitudinal impact of sleep on overweight and obesity in children and adolescents: a systematic review and bias-adjusted meta-analysis**. Obesity Reviews, v. 16, n. 2, p. 137-149, 2015.

GOMES, M. C. B. **Excesso de peso e esteatose hepática em crianças e adolescentes: variáveis clínicas e dietéticas, motivação para o tratamento e risco psicossocial familiar** [Overweight and fatty liver disease in children and adolescents: clinical and dietary variables, motivation for treatment and family psychosocial risk]. 2017. Master Dissertation - Pontifícia Universidade Católica de Campinas, Campinas, SP, 2017.

GOMES, M. C. B.; MACHADO, W. L.; ANDRADE, A. L. M.; ENUMO, S. R. F. **Obesidade e esteatose hepática infantojuvenil: variáveis antropométricas e motivacionais, alimentação e risco psicossocial** [Obesity and liver disease in children and adolescents: anthropometric and motivational variables, feeding and psychosocial risk]. Submitted.

KATZMARZYK, P. T.; BARREIRA, T. V.; BROYLES, S. T.; CHAMPAGNE, C. M.; CHAPUT, J. P.; FOGELHOLM, et al. **Physical activity, sedentary time, and obesity in an international sample of children**. Medicine & Science in Sports & Exercise, v. 47, n. 10, p. 2062-2069, 2015.

- LOVASI, G. S., et al. **Neighborhood safety and green space as predictors of obesity among preschool children from low-income families in New York City.** Preventive Medicine, v. 57, n. 3, p. 189-193, 2013.
- MOREIRA, M. A.; CABRAL, P. C.; FERREIRA, H. S.; LIRA, P. I. C. **Overweight and associated factors in children from North-East Brazil.** Jornal de Pediatria, São Paulo, v.88, n. 4, p. 347-352, 2012.
- PAI, A. L.; PATIÑO-FERNÁNDEZ, A. M.; MCSHERRY, M.; BEELE, D.; ALDERFER, M. A.; REILLY, A. T; KAZAK, A. E. **The Psychosocial Assessment Tool (PAT 2.0): Psychometric properties of a screener for psychosocial distress in families of children newly diagnosed with cancer.** Journal Pediatric Psychology, v.1, n. 33, p. 50-62, 2008.
- PRYOR, L. E.; BRENDGEN, M.; TREMBLAY, R. E.; PINGAULT, J.; LIU, X.; DUBOIS, L.; TOUCHETTE, E.; FALISSARD, B.; BOIVIN, M.; CÔTÉ, S. M. **Early risk factors of overweight developmental trajectories during middle childhood.** Plos One, v. 10, n. 6, 1-17, 2015.
- PULGARÓN, E. R. **Childhood obesity: a review of increased risk for physical and psychological comorbidities.** Clinical Therapeutics, v. 35, n. 1, p. A18-A32, 2013.
- ROTHBART, M. K. **Commentary: Differentiated measures of temperament and multiple pathways to childhood disorders.** Journal of Clinical Child and Adolescence Psychology, v. 33, n. 1, p. 82-87, 2004.
- SANTOS, S. S. **Adaptação transcultural e validação do "Psychosocial Assessment Tool (PAT 2.0):** Instrumento de avaliação psicossocial de famílias de pacientes pediátricos recém- diagnosticados com câncer. [Cross-cultural adaptation and validation of the Psychosocial Assessment Tool (PAT 2.0): An instrument for the psychosocial evaluation of families of pediatric patients newly diagnosed with cancer]. 2012. Master Thesis, Fundação Antônio Prudente, São Paulo, SP, Brazil, 2012.
- SIQUEIRA, N. F.; ENUMO, S. R. F. **Atividade física e motivação em crianças e adolescentes com excesso de peso** [Physical activity and motivation in overweight children and adolescents]. Submitted.
- SKINNER, E. A.; ZIMMER-GEMBECK, M. J. **The development of coping: stress, Neurophysiology, Social Relationships and Resilience during childhood and adolescence.** Switzerland: Springer International Publishing, 2016.
- WORLD HEALTH ORGANIZATION (WHO). **Growth reference 5-19 years.** 2007. Retrieved from: <<http://www.who.int/growthref/en/>> Acesso em: 04 de agosto de 2018.
- WORLD HEALTH ORGANIZATION (WHO). **Commission to end childhood obesity.** 2014. Retrieved from: <<http://www.who.int/end-childhood-obesity/es/>> Acesso em: 04 de agosto de 2018.
- WORLD HEALTH ORGANIZATION (WHO). **Health issues, Obesity.** 2015. Retrieved from: <<http://www.who.int/topics/obesity/es/>> Acesso em: 04 de agosto de 2018.
- ZAHND, W. E.; ROGERS, V.; SMITH, T.; RYHERD, S. J.; BOTCHWAY, S. D. E. **Gender-specific relationships between socioeconomic disadvantage and obesity in elementary school students.** Preventive Medicine, v. 81, p. 138-141, 2015.

APPENDIX A - "Talking About Obesity" Guidebook

O QUE SÃO SOBREPESO E OBESIDADE ?

São um excesso de gordura prejudicial para a saúde. Tratam-se de um peso acima do esperado para sua altura e idade.

A obesidade é uma doença com tratamento longo, que exige dedicação!

CALCULE AQUI SEU ÍNDICE DE MASSA CORPORAL

$$IMC = \frac{\text{Peso (Kg)}}{\text{Altura(m)} \times \text{Altura (m)}^*}$$

Busque ajuda dos profissionais de saúde para auxiliar no cálculo do IMC.

*Kg = Kilograma
M = Metros

COMO ESTÁ SEU IMC?

ADULTOS:

Resultado	Situação
Abaixo de 17	Muito abaixo do peso
Entre 17 e 18,49	Abaixo do peso
Entre 18,5 e 24,99	Peso normal
Entre 25 e 29,99	Acima do peso
Entre 30 e 34,99	Obesidade I
Entre 35 e 39,99	Obesidade II (severa)
Acima de 40	Obesidade III (mórbida)

REFERÊNCIA
CÁLCULO IMC: Tabela de IMC infantil. Disponível em:
<<http://www.calculoimc.com.br/imc-infantil/>>

PEÇA AUXÍLIO PARA UM PROFISSIONAL DA SAÚDE AJUDA-LO A AVALIAR O RESULTADO DO IMC.

Pais e cuidadores, isso vocês já sabem! Mas, o que mais podem fazer?

A saúde e o excesso de peso estão relacionados a vários aspectos da vida do seu filho, inclusive os emocionais! Todos os ambientes que seu filho frequenta são importantes para o tratamento. Inclusive a sua casa.

TEMPERAMENTO

Observe características de temperamento do seu filho. Nem sempre as crianças conseguem expressar o que estão sentindo sobre o excesso de peso.

Fique atento se seu filho está muito calado ou chora, expressa raiva ou medo.

COMO LIDAR

É importante que em casa ele se sinta bem e tenha um ambiente de acolhimento.

Tente sempre se comunicar com seu filho, ver o que ele realmente está se sentindo.

Conhecer melhor seu filho, e aumentar a proximidade entre vocês é muito importante.

Adultos costumam enfrentar melhor algumas situações que a criança não consegue enfrentar!

ESTRESSORES PARA A CRIANÇA E ADOLESCENTE

- Bullying *
- Brigas em casa
- Dieta
- Insatisfação com o corpo

* prática de atos violentos, intencionais e repetidos, contra uma pessoa indefesa, que podem causar danos físicos e psicológicos às vítimas

COMO AJUDÁ-LOS A ENFRENTAR O ESTRESSE

- Conversar com a criança
- Conversar com médicos, psicólogos, nutricionistas
- Pedir ajuda da família e da escola
- Repensar sua lista de supermercado

Como você está se sentindo?

A SUA SAÚDE TAMBÉM É MUITO IMPORTANTE!

A sua saúde serve como exemplo para a do seu filho! Ele imita seus comportamentos!

Como está seu peso?
Está se alimentando bem?
Tem ido a consultas médicas?
Tem doenças como diabetes?
Tem feito exercício físico?

CUIDE BEM DA SUA SAÚDE

Procure médicos, nutricionistas, busque se alimentar bem, pratique atividade física

3
LEMBRANDO QUE É MUITO IMPORTANTE DESCANSAR
Dorma cedo e descanse bem

4
COMA MENOS ALIMENTOS CALÓRICOS E DE BAIXO VALOR NUTRICIONAL, como refrigerante, salgadinhos e bolachas recheadas.
COMER MAIS FRUTAS, LEGUMES, VERDURAS E CARNES MAGRAS.

SUAS EMOÇÕES E O QUE VOCÊ SENTE
em relação ao excesso de peso

É importante que você tente ser sincero e dizer como realmente se sente em relação ao excesso de peso para seus pais!

Nem sempre eles sabem muito bem o que está acontecendo!

Uma boa comunicação entre vocês vai permitir que eles te entendam e te ajudem com o que precisar!

Eu estou triste

CRIANÇAS:

Meninos			
Idade	Normal	Sobrepeso	Obesidade
6	14,5	mais de 16,6	mais de 18,0
7	15	mais de 17,3	mais de 19,1
8	15,6	mais de 16,7	mais de 20,3
9	16,1	mais de 18,8	mais de 21,4
10	16,7	mais de 19,6	mais de 22,5
11	17,2	mais de 20,3	mais de 23,7
12	17,8	mais de 21,1	mais de 24,8
13	18,5	mais de 21,9	mais de 25,9
14	19,2	mais de 22,7	mais de 26,9
15	19,9	mais de 23,6	mais de 27,7

Meninas			
Idade	Normal	Sobrepeso	Obesidade
6	14,3	mais de 16,1	mais de 17,4
7	14,9	mais de 17,1	mais de 18,9
8	15,6	mais de 18,1	mais de 20,3
9	16,3	mais de 19,1	mais de 21,7
10	17	mais de 20,1	mais de 23,2
11	17,6	mais de 21,1	mais de 24,5
12	18,3	mais de 22,1	mais de 25,9
13	18,9	mais de 23	mais de 27,7
14	19,3	mais de 23,8	mais de 27,9
15	19,6	mais de 24,2	mais de 28,8

REFERÊNCIA: CÁLCULO IMC. Tabela de IMC infantil. Disponível em: <http://www.cnpq.org.br/obesidade/infantil/>

PEÇA AUXÍLIO PARA UM PROFISSIONAL DA SAÚDE AJUDAR-LO A AVALIAR O RESULTADO DO IMC.

SÃO DIVERSAS AS CONSEQUÊNCIAS DA OBESIDADE E DO SOBREPESO

Dores e dificuldades de realizar atividades físicas

Doenças Cardiovasculares

Diabetes

Dificuldade em Respirar

Hipertensão Arterial

Problemas Psicológicos

O QUE LEVA AO SOBREPESO E OBESIDADE?

O seu peso é como uma balança entre o que você come e o que você gasta

- +** Alimentação
Gasto pela atividade física
= **AUMENTO DE PESO**
- Alimentação
Gasto pela atividade física
= **DIMINUIÇÃO DE PESO**
- =** Alimentação
Gasto pela atividade física
= **MANUTENÇÃO DO PESO**

PORÉM, ESSE BALANÇO ENTRE O QUE VOCÊ COME E O QUE VOCÊ GASTA É APENAS UMA DAS CAUSAS!

VALE LEMBRAR QUE A GENÉTICA, O CONTROLE HORMONAL DE FOME-SACIEDADE, ENTRE OUTRAS CAUSAS TAMBÉM INFLUENCIAM.

SOBRE A ALIMENTAÇÃO

Não apenas a quantidade, mas a **QUALIDADE** do que você come é muito importante!

COMO TRATAR A OBESIDADE E O SOBREPESO?
É importante ter um estilo de vida mais saudável!

Alimentação saudável
Atividade física
Envolvimento da família na prevenção/ tratamento
O que mais?

Orientadores Responsáveis
Profa. Dra. Anita Colletes Bellodi
Prof. Dr. André Luiz Monezi Andrade
Profa. Dra. Sônia Regina Florim Enumo

Design Gráfico
Gabriela Manali Bortoletto

Bolsista IC/CNPq
Júlia Mariotto Sessler

Apoio:

Sessler, J., Bellodi, A. C., Andrade, A. L. M., & Enumo, S. R. F. (2018). Conversando sobre a obesidade. Campinas, SP: PROPEQ/PUC-Campinas.