150 - CHILDREN AND ADOLESCENT WITH EXCESS OF CORPORAL WEIGHT: A REVISION IN THE PERSPECTIVE OF ORIENTATION

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INTRODUCTION

The obesity is a theme studied by several professionals in the health area and it has a classica1 definition "disease in which the excess of corporal fat is so accumulated that the health can be affected". The obesity is not a recent phenomenon, however its prevalence had never reached epidemic proportions as nowadays[2-3].

In this sense, it seems to be an ascension tendency in the prevalences of weight excess (overweight and obesity) either in the developed countries, or in those in development. It was observed in Italy, a prevalence of excessive corporal weight among children from 3 to 17,5 years around 13,25%[4], but in Califórnia[5] that prevalence arrives to 22,45% in children with ages between 6 and 13 years.

In Brazil the situation is not very different. Studies accomplished in different Brazilian areas detected the following prevalences of excess of corporal weight: Feira de Santana - BA, 6,85% (five to nine years old)[6]; Rio de Janeiro, 11,72% (four to 18 years old years old)[7]; Brasília - DF 11,05%[8]; Pelotas - RS 19,3%[9] and São Paulo 29,55%[10].

In this matter, the interest in the prevention of the excess of infantile and juvenile corporal weight is justified by a increase its in the prevalence with permanence in the adult life, byr the potentiality while risk factor for the chronic-degenerative diseases and more recently for the emergence of diseases as the diabetes melitus type 2 in adolescents with excess of corporal weight, before predominant in adults. Besides, frequent interventions with children, mainly before of 10 years old or in the adolescence, reduce more the severity of the disease than the same interventions in the adult age. Changes in the diet and in the physical activity they can be influenced by the parents and few modifications in the caloric swinging are necessary to cause substantial alterations in the excess of weight corporal[11-12].

The motivation of young people to adopt a commitment life with a regular program of physic activities is extremely important for the futures costs of the attendance of health and for the of quality life in the years subseqüentes[13].

According to the the exposed above, the goal of this study was to describe the evolution of the epidemic of the obesity, as well as, it will approach recommendations and prescription of physical exercises for children and adolescents with obesity.

METHODS

Research articles were included from more than one knowledge pertinent to the obesity and activity physical activity (risk behaviors to the health, knowledge of the benefits of the physical activity or physical fitness related to the health, prescription of physical exercises to the children and obese adolescents). Systematic revision of the literature was accomplished in bases of electronic data (Medline/PubMed, Lilacs, Ovid, Science Direct), in national newspapers no indexed, by specific search for authors, as well as, in consultations with books published in Brazil and in the World. Revision articles, theories and dissertations were not included.

RESULTS

Didactically, the responsable factors of the obesity are divided in interns and external. Internal: unalterable and inherent to the own child - genetic and metabolic. External: they can be changed, it is from them that the treatment of the obesity begins from psychological, treatment alimentary habits, physical activity and the environment that the child is insert[14].

- Internal factors: it can explain about 25% of the differences of the obesity among the people[15].

- External factors: rich diets in calories and fats and insufficient energy expense (67% of the expense energy diary are current from the rest metabolism, 23% of the physical activity and 10% of the alimentary digestion). The most frequent cause of the excess of corporal weight is really the unbalance among the calories that they are consumed as form of foods and the calories that are spent for the individual to make organism work, in rest, to accomplish the physical activities and to digest the food eaten [15-16].

The obesity is a important factor risk to unchain problems as: diabetes melitus type 2, arterial hypertension, dislipidemias, infarct of the miocárdio, cerebral vascular accident[11], some types câncer of and osteoartrite[15-16], besides they unchain emotional difficulties and premature death [15].

The obesity is defined as an excess of corporal fat related to the thin mass, and the overweight as a relative proportion of larger weight that is desirable for the height. Both are conditions of aetiology multifatorial (of difficult treatment), whose development suffers influence of biological factors, psychological and partner-economic[17-18].

When the child is obese the chance for him/her to become an obese adult is 40%. Already for the obese adolescent the probability increases 75%. It is because the weight earnings above the expected, in the childhood and adolescence, carts an irreversible increase of the number of fat cells[14].

In this sense, the key for the prevention of the excess of corporal weight is to monitor the diet and the energy spent, especially during the adolescence and puberty. That can delay the development of new fat cells and control the growth of the same ones [16].

So, there is no doubt that the childhood is the most appropriate period for the beginning of healthy and attitudes behaviors. That is a period that the child is in constant process of learning, and, therefore, he/she is open to new concepts. It is relevant that the parents, teachers and pediatricians, that are closest, have healthy food habits and physical activity, because they are essential and positive models during this process[19].

Undoubtedly, the physical exercises assure us that the lost weight, through the increase of the spent calories and of the negative energy swinging, it is consequence of the loss of fat mass and no muscular mass. Ally to diet, the physical exercises are more effective in the reduction of the fat deposits than the diet byitself[16].

Prescription of Physical Exercises for Children and Adolescents

The obesity is a chronic disease and it requests permanent attention in relation to the alimentary habits, to the practice of the habitual physical activity, as well to the programs of physical exercises. The hereditariness and biological factors as gender and age should also be considered. The group of these factors cannot be eliminated, but controlled through the modification of the alimentary habits and of the child's habitual physical activity and parents[20-21].

So the corporal fat is reduced when a there is chronic negative caloric balance. Being through the physical exercise or by the reduction of the caloric ingested. The physical exercise makes increase the caloric expenditure and it turns slower the rhythm of loss of exempt fabric of fat that happens when somebody loses weight for having accentuated caloric restriction[13]. Reference study in the field of the health seems to show that, 95% of the children that wrap up in programs of physical exercise, reduce the body weight[22].

In being like this, they were not still defined with accuracy the amount and the great type of physical exercise recommended to the small children and the adolescents, but it is known that should be individualized with base in the level of maturity, in the medical state, in the expertise level and in the previous experiences with physical exercises[13].

However, children with excess of corporal weight need special attention in the moment the physical exercises prescription, because they are almost invariably insufficiently assets and many had unpleasant experiences with the physical exercises [13]. The participants with excessive corporal weight should be interviewed to determine the past history in relation to the physical exercise, the possible programming difficulties and the places where the physical exercise could be accomplished (club, home, street,...).

In this matter, in the moment of the physical exercises prescription for the age group in subject, it is important to recognize the particularities of the growth, muscle-skeletal development, sexual maturation and the answer termregulation of the child/teenager so that she/he can avoid the potentials risks of lesions, physical training of high intensity and sporting specialization in the athlete children and adolescents[19].

However, from the public health point of view, the children and adolescents seemingly healthy can participate in physical activities of drop and moderate intensity, playful and of leisure, without the compulsory nature of an evaluation formal pré-participation. It is important that some basic conditions of health - as an appropriate nutrition - they are assisted so that the physical activity is implemented[23].

In that way, the main objective of the physical activity prescription of in this age is to create the habit and the interest for the physical activity, and not to train seeking acting. Therefore, the inclusion of physical activity should be prioritized in the daily routine and to value the school physical education that stimulates the practice of habitual physical activity for a lifetime, in a pleasant and pleased way, integrating the individuals and not discriminating the least capable physically[23-28].

However, the children of smaller age be relatively active, they choose the intense physical exercise frequently with short explosions instead of sustained physical activities; so, they should be driven to active games (and not to the physical exercise), to the diversion and the creative physical activities that you/they involve continuous periods of activities[13].

Being this, as they enter in the years of adolescence and of young adults, the levels of physical activity suffer a great decline[13-15]. In this age group, 20 to 30 minutes initially of vigorous physical exercise at least three times a week should be encouraged to obtain larger benefits[13].

In fact, the programs of physical exercises are more effective for the youths when: they emphasize the pleased participation in activities that are easily realizable during a lifetime; they offer a variety of no-competitive and competitive physical activities appropriate for age and different motive abilities; they supply the youths the ability and the necessary trust so that they stay assets physically and they promote the physical activity through a program of school health with connections with the community[15].

According to that, a formal program of physical activity should workout at least three components: aerobics, muscular forces and flexibility, varying the emphasis in each one in agreement with the clinical condition and each child's objectives. When the objective is the aerobic conditioning, the prescription should contemplate the variables: type, duration, intensity and weekly frequency, obeying the general beginnings of training. The muscular training should be accomplished with moderate loads and larger number of repetitions, valuing the motor gesture, once this activity type contributes to the increase of the muscular force and bone mass[23].

For our recognition, the risk of lesions bone/articulation in children that accomplish works of muscular overload is actually smaller than the related with contact sports, since it is accomplished with loads submaximum under supervision professional adequated[13].

In this way either the aerobic exercise or the muscular resistance training can contribute to loss of weight and the fat reservations as well as maximizing the potential of maintaining those changing[13].

The main benefits of the training programs with children are related to the improvement of the physical conditioning (increase of the force and muscular resistance), the performance in the sport and in the reduction of probability lesions during sporting and recreational activities[24]. There are not evidences to act directly in the reduction of the fat body mass, because in pré-pubescent it is difficult to the occurrence of the muscle hipertrofy (increase of the mass thin)[24], what could aid in the energy expense of rest. Even so, this training type is interesting (if well guided) of being prescribed the children and adolescents with excess of body weight, because it can be a attractive physical exercise program for many individuals, developing in those an active lifestyle.

However, in the moment of the prescription exercises force for children and adolescents it is necessary that the same is appropriately drifted, competently supervised and the techniques of corporal execution should be taught correctly[13-24].

According to that, influences were observed, either in the aerobic or anaerobic activity (in ergometric cycle) in the male body composition of 28 adolescents (15 to 19 years) that presented higer obesity[25]. They verified that, the work either aerobic or anaerobic to the nutritional orientation, they promoted larger reduction ponderal, when compared with the nutritional orientation only, and that, the anaerobic exercise went more efficient to promote the decrease of the corporal fat and of the fat percentage; already the aerobic exercise was more effective in the sense of preserving and/or to increase the thin mass and the mass free from fat.

In relation to the flexibility, the training should involve the main articulate movements and to be accomplished from a slow way to the point of quick pain discomfort and then maintained for about 10 to 20 seconds[13-23].

Besides, typically the children don't need a prescription of the heart frequency to regulate the intensity, because they present a low heart risk and, in general, they possess a good capacity for us to adjust to the physical exercises of conformity with the tolerance or the effort realized[13].

However, in agreement with the discoveries in the literature[13-26], the initial prescription of the physical exercise, for individuals with excess of corporal weight, should base on a low intensity and durations of the activity progressively longer. With base in the answer of each step to the initial program of physical exercise, it should be worked eventually in the sense of increasing the form intensity to drive the person a variation of the frequency heart objective adapted for the conditioning heart breathing. Higher intensities will turn possible durations smaller of the sessions, or smaller number of sessions a week.

CONCLUSIONS

Although the studies related to the excess of body weight in children and adolescents, be increasing quantitatively,

there is a lack in the literature as for the prescription of the physical exercises, mainly in function to the relationship of the low motivation that the same ones present in function of his/her physical appearance[27].

However, before the presented studies, it is evident that it is not so simple to prescribe a program of desirable physical exercise for loss of body weight. The motivation and the encouragement for changes in the healthy lifestyle is from the extreme importance for the success of the positive results as for the control and permanence in physical exercises programs.

Therefore, healthy habits and habitual physical activity can be preserved for a lifetime in order to maintain the lower weight body[13-28-29]. Like this, they should be prescribed to children and adolescents, especially fo those excess of body weight, interesting and pleasure physical exercises[30] in order to with adopt this program for the whole life.

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CHILDREN AND ADOLESCENT WITH EXCESS OF CORPORAL WEIGHT: A REVISION IN THE PERSPECTIVE OF ORIENTATION

ABSTRACT

INTRODUCTION: The obesity is defined, according to OMS (1995), as: “a disease in which the excess of corporal fat is so accumulated that the health can be affected”.

OBJECTIVE: To describe the evolution of the epidemic of the obesity in children and adolescents and the prescription of physical exercises with safety and efficiency.

METHODS: Systematic revision of the literature, accomplished by bases of electronic data (Medline/PubMed, Lilacs, Ovid, Science Direct), in national newspapers no indexed, by specific search for authors, as well as, in consultations with books published in Brazil and in the World.

RESULTS: 30 studies were included. Being 14 national articles, eight international articles, five national books, three international books, observing a tendency of the publications an increase in starting from 2000. Regional dissimilarity was observed in the publications with emphasis in the South and Southeast areas.

CONCLUSIONS: Although the studies related to the children and adolelescents with excess of weight corporal are increasing quantitatively in Brazil and in the World, there is a lack of literature in the prescription of physical exercises for that specific group.

KEYWORDS: excess of corporal weight, prescription of physical exercises, children and adolescents.

ENFANTS ET DES ADOLESCENT AVEC EXCÈS DE POIDS CORPOREL: UNE RÉVISION DANS LES PERSPECTIVE D'ORIENTATION

RÉSUMÉ

INTRODUCTION: L'obésité est définie, d'après OMS (1995), comme: "la maladie dans le lequel l'excès de graisse corporelle a accumulé le tel point que la santé peut être affectée."

OBJECTIF: Décrire l'évolution de l'épidémie de l'obésité des enfants et des adolescents et la préscription d'exercices physiques/activité physique avec sécurité et efficacité.

MÉTHODES: Révision systématique de la littérature, accompli dans les bases de données électroniques (Medline/PubMed, Lilas, Ovid, Science Direct), dans les journaux nationaux non indexés, dans la recherche spécifique des auteurs, aussi bien que, dans les consultations avec des livres publiés au Brésil et dans le Monde.

RÉSULTATS: 30 études ont été incluses. Étant 14 marchandises nationales, huit marchandises internationals, cinq livres nationaux, trois livres internationaux, en observer une tendance d'augmentation de publications qui commencent à partir de 2000. La dissemblance régionale a été observée dans les publications avec accentuation dans le Sud de régions et vers le Sud-est.

CONCLUSIONS: Bien que les études ayant été en rapport avec l'excès de poids infanto/juvenil corporel, augmente quantitativement au Brésil et dans le Monde, il y a surtout un manque dans la littérature comme pour la préscription des exercices physiques à ce groupe.

MOTS-CLÉ: excès de poids corporel, prescription des exercices physiques, les enfants et les adolescents.

LOS NIÑOS Y ADOLESCENTE CON EL EXCESO DE PESO CORPÓREO: LA REVISIÓN EN LA PERSPECTIVA DE ORIENTACIÓN

RESUMEN

LA INTRODUCCIÓN: La obesidad se define, según OMS (1995), como: "la enfermedad en el qué el exceso de grasa corpórea aumentó el tal punto que la salud puede afectarse."

EL OBJETIVO: Describir la evolución de la epidemia de la obesidad en los niños y adolescentes y la prescripción de ejercicios físicos/actividades físicas con la seguridad y eficacia.

LOS MÉTODOS: La revisión sistemática de la literatura, realizada en las bases de datos electrónicos (Medline/PubMed, Lilas, Ovidio, la Ciencia Directo), en los periódicos nacionales ningún puso en un índice, para la búsqueda específica para los autores, así como, en las consultaciones con libros publicados en Brasil y en el Mundo.

LOS RESULTADOS: 30 estudios eran incluido. Siendo 14 géneros nacionales, ocho géneros internacionales, cinco libros nacionales, tres libros internacionales, observando una tendencia de aumento de publicaciones que aumentaron desde 2000. Se observó la desigualdad regional en las publicaciones con énfasis en las áreas Sur y Sudeste.

LAS CONCLUSIONES: Aunque los estudios relacionaron al exceso de peso corpóreo infanto/juvenil, estea aumentando cuantitativamente en Brasil, hay una falta sobre todo en la literatura en cuanto a la prescripción de los ejercicios físicos a ese grupo en el Mundo.

PALABRAS CLAVES: el exceso de peso corpóreo, la prescripción de ejercicios físicos, niños y adolescentes.

CRIANÇAS E ADOLESCENTES COM EXCESSO DE PESO CORPORAL: UMA REVISÃO NA PERSPECTIVA DE ORIENTAÇÃO

RESUMO

INTRODUÇÃO: A obesidade é definida, segundo a OMS (1995), como: “a doença na qual o excesso de gordura corporal se acumulou a tal ponto que a saúde pode ser afetada”.

OBJETIVO: Descrever a evolução da epidemia da obesidade em crianças e adolescentes e a prescrição de exercícios físicos/atividade física com segurança e eficiência.

MÉTODOS: Revisão sistemática da literatura, realizada em bases de dados eletrônicos (Medline/PubMed, Lilacs, Ovid, Science Direct), em periódicos nacionais não indexados, por busca específica por autores, bem como, em consultas com livros publicados no Brasil e no Mundo.

RESULTADOS: Foram incluídos 30 estudos. Sendo 14 artigos nacionais, oito artigos internacionais, cinco livros nacionais, três livros internacionais, observando uma tendência de aumento de publicações a partir de 2000. Foi observada dessemelhança regional nas publicações com ênfase nas regiões Sul e Sudeste.

CONCLUSÕES: Embora os estudos relacionados ao excesso de peso corporal infanto/juvenil, venham aumentando quantitativamente no Brasil e no Mundo, há uma carência na literatura quanto à prescrição dos exercícios físicos a esse grupo em especial.

PALAVRAS-CHAVE: excesso de peso corporal, prescrição de exercícios físicos, crianças e adolescentes.