162 - THE PROCESS OF EDUCATION FOR CHANGE IN BEHAVIOR: THE SCHOOL BACKPACK AS A RISK FACTOR FOR POSTURAL PROBLEMS IN STUDENTS FROM THE FUNDAMENTAL EDUCATIOIN I OF THE PRIVATE NETWORK, IN THE OSASCO MUNICIPALITY, SÃO PAULO (S. P.), BRAZIL, 2007.

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INTRODUCTION

The use of the school backpack began in Rio de Janeiro when children and pre-adolescents adopted the accessory as a means of transport for the school material in 1986. Its use presents controversies because, although the school backpack is considered an ideal accessory to distribute the weight of school material, when used unduly, it may cause immediate or future osteomuscular dysfunctions to the child (BENATO, B. M., 2001).

The Law of the School Backpack (Law No. 2772/97) establishes that the weight of school backpacks, briefcases and others don't exceed 5% of the pre-school child's weight and 10% of the student's of 1st Degree weight. That is considered suitable by the Worldwide Health Organization (WHO). The public and private schools should be forced to define the school material that the children have to transport daily and the surplus should be kept in closets provided by the schools.

Data from WHO indicate that 85% of the people have/had/will have back pains one day due to postural problems happened in the childhood, since the bones are still in development at this stage (WHO, 2004). Aiming the health of the child and adolescent, some Brazilian deputies have introduced and approved the Law No. 2772/97 or Law of the School Backpack in their respective states. In spite of the relevance and importance to the health of the child and adolescent, this law is in rule only in some Brazilian states: Rio de Janeiro, the pioneer in its approval, Mato Grosso and Rio Grande do Sul (MINC, C., 1997; RIVA, 1998; CUNHA, V., 1998).

To verify the knowledge of the children's parents/guardians concerning the Law of the Backpack, which establishes the weight of school backpacks used for their children that are recommended by the WHO as well as the validation of a folder as an educational material for the prevention of postural problems.

MATERIAL AND METHODS

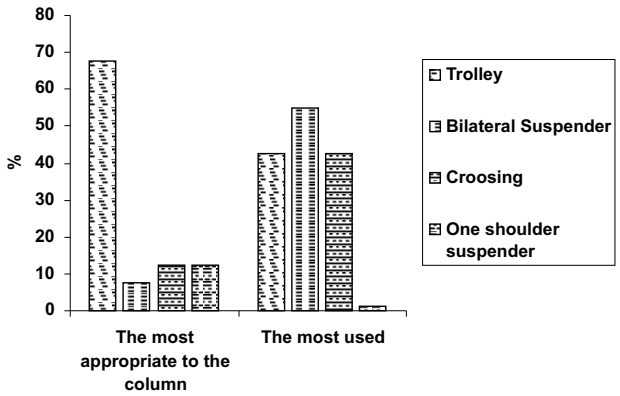
This is a quantitative, transversal, epidemiological study. The sample is composed by forty parents/guardians of students (n=40), who makes a daily use of the backpack and are studying at the first till the fourth series of the Fundamental school I of the private network, in the Osasco municipality (S. P). After being informed about the objectives and the importance of this study, the parents/guardians signed up their authorization after filling out the Term of Free and Informed Consent, based on the Resolution No.196/96 of the National Council of Health from the Ministry of Health. For the data survey, a questionnaire containing objective questions regarding the folder has been used and delivered to the parents/guardians by the children. The folder presents information about the appropriate use of the school backpack as well as suggestions for better disposition of the materials to be transported by the students. The questions were used as variables, whose answers have been compiled and then presented in tables and charts of simple frequency and expressed in figures and percentages. For the statistical treatment it have been used the Parametric Tests (arithmetic mean and standard deviation) and Non-parametric test (Fischer).

OBJECTIVES

To verify the knowledge of the parents/guardians concerning the Law of the Backpacks and validate a folder as educational material for the prevention of future postural problems due to the inadequate use of school backpacks.

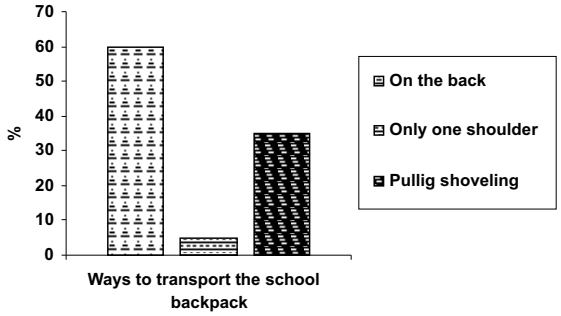
RESULTS

Graphic 1 Distribution in percentage of the opinion of the interviewees (Parents/guardians) on the type of accessory more appropriate for the column of the student, and types of fittings more used by them for the transport of school material of the Fundamental Education I, in the Osasco municipality, SP, 2007.



We have noticed that in the view of the interviewees, the school backpacks of the trolley type is appropriate to the column of students (67.5%) and the less adequate is the type to carry on the back bilaterally with a suspender in each shoulder (7.5%). However we have found that the type of school backpack that is more used by the students is the type to carry bilaterally (55%) and, despite being considered by the interviewees as the most appropriate to the column of students, the shool backpack of trolley type (42.5%) is not so used.

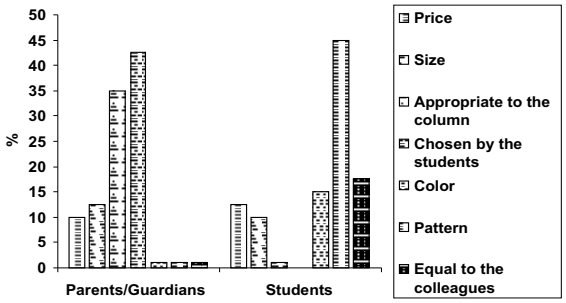
Graphic 2 - Distribution in percentage of the ways to carry the accessories by the interviewed students of the Fundamental Education I, in the Osasco municipality, SP, 2007.



We have found a prevalence of 60% for the way to transport the school backpack carring it on the back, 35% for pulling/shovelling and only 5% for transporting unilaterally (in only one shoulder). These percentages struck respectively with the type of school backpack used by the students.

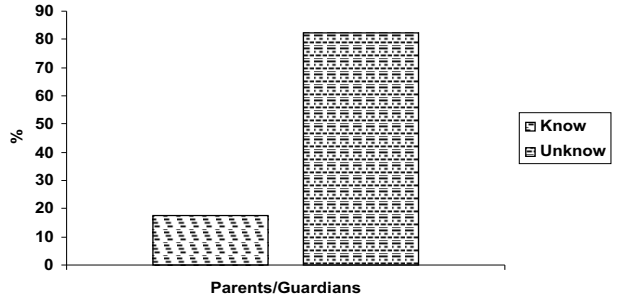
There is a controversy between this study and the VAN G. C et al (2003) study. In the latter, only 12.30% of the students carry the school backpack in an appropriate manner, with a suspender in each shoulder and, in this study, 60% of the students carry the school backpack with a suspender in each shoulder, which say that this is the appropriate way, however they are doubtful. Nevertheless, even when students carry the school backpack with a suspender in each shoulder, it does not mean that the transport on an appropriate manner, because many of them, as we have seen, use the school backpack far below the waist, without the protection on the suspenders, with the suspenders fully extended and even without the tape at the waist to better distribute the weight and with the weight exceeding the limit permitted by law.

Graphic 3 Distribution in percentages regarding the criteria and procedures used in the choice of scholl backpacks/trolleys by the parents and/or guardians and students of the Fundamental Education I, in the Osasco municipality, SP, 2007.



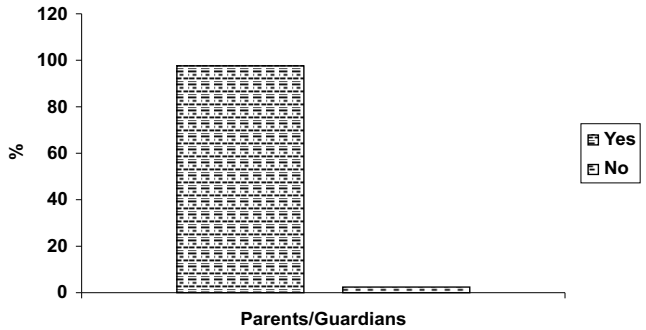
We have found a minimal prevalence of 12.5% of interviewees dealt with the suitability of the school backpack regarding the column of the student. On the other hand, the criterion of acquisition for 42.5% of the interviewees have been in accordance with the choice of students who, in their turn, have chosen the school backpack by the pattern (45%) or by the fact to be equal to the colleagues (17.5%). This shows that the main factor, which is the column of students, at the time of acquisition of school backpack, is not part of the list of worries of the parents/guardians or even of the students.

Graphic 4 - Distribution in percentages regarding the knowledge of the parents/guardians about the existence of the School Backpack Law (Law N°2772/97), interviewees of Osasco municipality, SP, 2007.



We have found a prevalence of 82.5% of interviewees that unknown the existence of the School Backpack Law (Law N°2772/97) which can be justified by the fact that such information are not available for all.

Graphic 5 - Distribution in percentages regarding the opinion about considering the folder valid as a educational material, neither for students nor for interviewees of Osasco municipality, SP, 2007.



We have verified a prevalence of 97,5% of the interviewees that they have considered valid the folder as educative

material, since such information do not meet all the population.

CONCLUSION

The results suggest high level of unfamiliarity of the parents/guardian with regard to the adequate use of the various types of existing school backpacks, as well as the problems caused to the student for its inadequate use. The folder have been applied as educative material for acquisition of knowledge and awareness and has been considered valid by its importance, since certain information are not available for the population, what makes the physiotherapist, a competent professional in the promotion and protection of the health. As a consequence, 100% of the parents/guardians have been to the school in order to request closets or alternatives to stock the excess of school material. The school, for its turn, did not allow our entrance and the continuity of the research anymore.

Keywords: School Backpacks; Postural problems; Preventive Physiotherapy.

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FOLDER PARENTS/GUARDIANS AND EDUCATORS: POSTURAL PROBLEMS IN STUDENTS, THE PROBLEM IS OURS!



Tips to reduce the weight of the school backpack

To purchase school backpack, take into account the size of the backs of the child; soft suspenders; prefers the models that do not possess many pockets, therefore how much bigger it will be the space, greater will be the temptation to fill it with unnecessary item for the school day-by-day. Be sure to buy only the necessary item nothing beyond the normal one (too many kits, for example), and that the space of the school backpack is enough to carry all the material, thus preventing the student carrying item in the hands.



Observes all the item that the shild loads inside of the school backpack and certifys that it loads only the necessary material for the scholl day-by-day. Place the biggest and heaviest things next to the back of the child, i.e., in the behind part of the school backpack. Place the books and other materials thus they are not suspended to avoid movements of the same and consequent disequilibria.





The deep of the school backpack must be supported in the curve of the lumbar region; it never must exceed in 10 centimeters the waist of the child. Adjust the suspenders of the back and shoulders in a way that the school backpack adaptes totally to the back of the child, being leaned and without space excess that can allow movements. Therefore a suspended school backpack on the backs can direct the body backwards and forcing the muscles, beyond making the child to bend the shoulders and the back in order to try to recover the balance of the school backpack.



In the school backpacks with wheels, the car suspender must be at an appropriate height: in the height of the waist of the child, allowing it to pull with a correct position, with the back erect.



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THE PHYSIOTHERAPIST IN THE PROCESS OF EDUCATION FOR CHANGE IN BEHAVIOR: THE SCHOOL BACKPACK AS A RISK FACTOR FOR POSTURAL PROBLEMS IN STUDENTS FROM THE FUNDAMENTAL EDUCATIOIN I OF THE PRIVATE NETWORK, IN THE OSASCO MUNICIPALITY, SÃO PAULO (S. P.), BRAZIL, 2007.

INTRODUCTION: With the beginning of the school year, the concerns of the parents/guardians on the purchase of materials and school backpack began. They satisfy the wishes of the child regarding the color and the pattern that are on fashion and do not know that the most important aspect is not part of their list of concerns, i.e, the vertebral column. **OBJECTIVE:** To verify the level of knowledge of the parents/guardians with regard to the recommended weight of the school backpack used by their children, as well as the validation of an educative material for the prevention of postural problems due to the school backpack. **MATERIALS AND METHOD:** The study is of the descriptive and transversal type and was carried out in an educational institution of the private network in the Osasco municipality (S.P.). The sample is composed by forty (n=40) parents/guardians of students from the 1st to the 4th series. They had replyed to a questionnaire with objective questions, which have been taken as variables. After compiled, the data have been presented in graphics and tables of simple frequency and expressed in numbers and percentages. The ethical and legal aspects have been observed. **RESULTS:** It has been observed that 42.50% of the parents/guardians tell that the children choose themselves the school backpack and the criterion adopted by 45,00% is the patern; 67.50% believe that the trolley school backpack is the most suitable type but 55.00% tell that their children use the school backpack with two suspenders on the back; 82.50% are unaware of the existence of the "recommended weight" or the Law of school backpack (Law Nº 2772/97) and 97.50% consider the information in the educative material (folder) very important. **CONCLUSION:** The results suggest high level of unfamiliarity of the parents/guardians with regard to the types of school backpack as well as the problems caused by them. The educative folder was considered valid as material for acquisition of knowledge and awareness and by its importance, since certain information are not available to the population, what makes the physiotherapist a competent professional in the promotion and protection of the health.

Keywords: School Backpack; Postural Problems; Preventive Physiotherapy.

LE POIDS DES SACS D' ÉCOLE ET SES EFFETS SUR LA POSTURE DES ENFANTS

INTRODUCTION: On sait que les sacs d'école ont un effet très negative quand leur poids c'est au dessus de la force des enfants. Pourtant, l' objectif de ce travail c'est de savoir si les parents des enfants ont la connaissance de ce problem, et qu'est-ce qu' ils ont fait pour éviter que les enfants portent des sacs pésants. Dans ce cas, il faut disposer un livret avec des plus importantes reseignements que les parents doivent savoir sur ce sujet. **MÉTHODOLOGIE**: On fait la recherche d'une façon épidémiologique, descritive, transversalle et quantitative. On fait part de cette recherche les parents des élèves (40) qui étudient dans une École privée de la ville de Osasco(ce sont des élèves de l'enseignement fondemental). Ces parents ont répondu a des questions objectives , qui seront employées depuis avec des variables, pour obtenir les résultats. Les aspects plus importants de cette recherche ce sont presentés par des tableaux et des graphiques, exposés ensuite. **RÉSULTATS:** 42,50% des parents ont dIt que leurs fils ont choisi les sacs par des couleur et par des gravures; 67,50% des parents ont dit que les enfants préfèrent les sacs à roues; ces sacs sont considérés une bonne choix , parce qu'ils ne forcent pas la colonne vertébrale des enfants; 35 % des parents ont dit que leurs fils portent des sacs à roues; 60% des parents ont dit que leurs fils portent des sacs pésants aux épaules; 82,50% des parents ont dit qu'ils ne connaissent pas la Législation qui établit le poids des sacs (Loi des sacs nº 2772/92); 97,50% des parents ont dit que ce livret c'est très important et très éducatif, parce qu' il contient des informations indispensables sur ce sujet. **CONCLUSION:** Les résultats obtenus ont prouvés que les parents des enfants n'ont pas la connaisance nécessaire pour éviter que leurs fils portent des sacs pésants, quand ils vont à l' école. Le livret a été consideré important à cause de ses

récomendations très éducatives; et, ont sait que cette recherche a prouvée aussi que le profissionnel de Phisyotérapie c'est indispensable à la societé, une fois qu'il est le profissionnel qui se dispose a aider toutes les personnes à préserver leur santé et leur bonheur.

Mots-Clefs: sacs d'école, problems de posture; phisytérapie préventive.

MOCHILA DE ESCUELA: LA FISIOTERAPIA EN LA PROMOCIÓN DE LA SALUD DE LAS FUTURAS DIFICULTADES EN LA COLUMNA VERTEBRAL DE ESTUDIANTES DE ENSEÑANZA BÁSICA I, DE LA RED PRIVADA DE LA MUNICIPALIDAD DE OSASCO, SAN PABLO, 2007

OBJETIVOS: Verificar los conocimientos de los padres / responsables sobre la legislación que establece el peso de las mochilas escolares utilizadas por sus hijos, así como la validación de uma carpeta como material educativo para la prevención de problemas posturales en el futuro por su uso. **METODOLOGIA:** El estúdio realizado es del tipo epidemiológico, descriptivo, transversal, cuantitativo; la muestra fue compuesta por cuarenta padres / responsables (n=40) de alumnos que hacen uso diario de la mochila escolar, de la 1ª a la 4ª series de la Educación Fundamental I, de la red privada de la municipalidad de Osasco (S.P.). Después de ser informados de los objetivos y de la importancia del estúdio, los padres/responsables respondieran a un cuestionario con preguntas objetivas, que fueran utilizadas como variables.Los datos, depués de compilados, fueran presentados em cuadros y gráficos de frecuencia simple, expresados em cifras y porcentajes. Los aspectos éticos y legales han sido observados. **RESULTADOS:** Se observó que 42,50% de los padres /responsables relatan que los hijos elijen la mochila escolar, donde el critério es el estampado, 67,50% creen que la mochila de ruedas sea la más apropriada para la columna de los estudiantes, pero sólo 35,00% de los mismos la utilizan, mientras 60,00%, la uzan con las correas en la espalda; 82,50% desconocen la Ley de la Mochila Nº 2772/92, y la existência del peso recomendado por la OMS; y 97,50% de los entrevistados consideran las informaciones contenidas en el material didático (carpeta) muy importantes. **CONCLUSIONES:** Los resultados obtenidos sugieren alto nivel de ignorancia de los padres/responsables respecto al uso apropriado de diversos tipos de mochilas existentes, así como sobre los problemas causados al estudiante por su uso inapropriado. La carpeta aplicada como material didático para la adquisición de conocimiento y conciencia, se consideró válida por su importância, ya que ciertas informaciones no están disponibles para la población, haciendo del fisioterapeuta un profesional competente en la promoción y proteción de la salud.

Palabras-Clave: Mochilas de escuela; Problemas posturales; Fisioterapia Preventiva.

A FISIOTERAPIA NO PROCESSO DE EDUCAÇÃO PARA MUDANÇAS DE COMPORTAMENTO: A MOCHILA ESCOLAR COMO FATOR DE RISCO PARA PROBLEMAS POSTURAIS EM ESTUDANTES DO ENSINO FUNDAMENTAL I, DA REDE PRIVADA, NO MUNICÍPIO DE OSASCO, SÃO PAULO (S.P.), 2007.

INTRODUÇÃO: Com o início do ano letivo; iniciam se as preocupações por parte dos pais/responsáveis pela compra de matérias e mochilas escolares, que para satisfazer o gosto da criança quanto à cor e a estampa da moda, não sabem que o fator mais importante não faz parte deste “kit de preocupações” que é a coluna vertebral dos estudantes. **OBJETIVO:** Verificar o nível de conhecimento dos pais/responsáveis com relação ao peso recomendado da mochila escolar utilizada por seus filhos, bem como a validação de um material educativo, para a prevenção de futuros problemas posturais pelo uso das mochilas. **MATERIAIS E MÉTODOS:** O estudo realizado é do tipo descritivo, transversal, realizado em uma Instituição de ensino da rede privada, no Município de Osasco (S.P.), cuja amostra composta por quarenta (n=40) pais/responsáveis por estudantes da 1ª a 4ª séries, responderam a um questionário com questões objetivas, que posteriormente foram utilizadas como variáveis. Os dados, após compilados, foram apresentados em tabelas e gráficos de freqüência simples, expressos em números e percentagens. Os aspectos éticos e legais foram observados. **RESULTADOS:** Observou se que 42,50% dos pais/responsáveis relatam que os filhos escolhem a mochila escolar, cujo critério adotado por 45,00% é a estampa; 67,50% acreditam que a mochila de carrinho seja a mais adequada mas, 55,00% relatam que seus filhos utilizam a mochila com as duas alças nas costas; 82,50% desconhecem a existência do “peso recomendado” ou Lei da Mochila N°2772/97 e, 97,50% acharam as informações contidas no material educativo (folder) muito importantes. **CONCLUSÃO:** Os resultados obtidos sugerem elevado nível de desconhecimento dos pais/responsáveis com relação aos tipos de mochilas bem como aos problemas causados por seu uso; o folder como material educativo para aquisição de conhecimento e conscientização foi considerado válido pela sua importância, já que determinadas informações não estão disponíveis para a população, tornando o fisioterapeuta um profissional competente na promoção e proteção da saúde.

Palavras Chave: Mochilas escolares; Problemas posturais; Fisioterapia Preventiva.