

64 - VALUATION OF PHYSICAL ACTIVITY IN SCHOOL TEENAGERS, BETWEEN 10 AND 18 YEARS OLD, IN EDUCATIONAL ESTABLISHMENTS OF THREE CITIES IN THE REGION OF MAULE, CHILE

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INTRODUCTION

In Chile the physical condition of children, adolescents and young people, has become a case study of researchers and the establishment of public policies from the Government, with bases in your search results and the results of evaluations carried out in educational institutions. News has been submitted on the subject by placing the level of Chilean adolescents' physical condition at critical levels, considering the results, compared with results from other countries. (Ponson, 2010; OMS, 2013, A; OMS, 2013, B; OMS, 2012; OMS, 2011) there is a significant increase in the risk factors of non-communicable chronic diseases and obesity. Changes in the diet of Chileans, with high levels of sugar, fat and salt, have produced a significant increase in obesity rates. (Zavala, Leraç, Vio, 2010). And this phenomenon is being identified for intensive way among young schoolchildren. (Reyes J., Díaz B., Lera M., Burrows A., 2011)

The increasing prevalence of overweight and obesity in adolescents Chileans has increased among both men and women and has been identified between the lower ages. Zavala, Leraç y Vio (2010), also Reyes, (et. al., 2010) indicate that the large supply of high energy density foods and the important reduction of physical activity, favor this situation.

There are several ways to evaluate the physical condition of young people and adolescents, both with direct methods, such as indirect. (Ruiz, España Romero, Castro Piñero, Artero, Ortega, Cuenca García, Jiménez Pavón, Chillón, Girela Rejón, Mora, Gutiérrez, Suni, Sjöstrom, Castillo, 2011; Guillén García, Ramírez Gómez, 2011; Cuenca-García, Jiménez-Pavón, España-Romero, Artero, Castro-Piñero, Ortega, Ruiz, Castillo, 2011; Gomez Campos, Vilcazán, Arruda, Hespañol e Cossío-Bolaños, 2012) But is complex and subjective to evaluate what physical activity represents.

The objective of this study was to verify that deliver value to physical activity, school, teens between 10 and 18 years, in educational establishments of cities that belong to the Región del Maule, VII Región, in Chile.

METHODOLOGY

Positivist study (Briones, 1996), transversal, descriptive (Hernández Sampieri, R., Fernández Collado, C., Baptista Lucio, M. 2010), quantitative. The data-gathering instrument used was the Valuation of Physical Activity Questionnaire for teenagers, used and validated by Gomez et al. .2012.

The sample consisted of students between 10 and 18 years old of four educational establishments (A, B, C, D), the Región del Maule (VII Región, Chile), the cities of Talca, San Javier de Loncomilla and Linares, representing the three administrative dependencies for the chilean education: private pay (D, urban), subsidized private (A, Linares; and B, Talca; urban), municipal (C, outside the urban centre, San Javier). The total number of students at the sample was 1245 (A = 605; B = 361; C = 186; D = 93). Data analysis was made through statistical analysis, using the program Windows Microsoft, IBM SPSS 20.0, through which descriptive statistics was used of the arithmetic average (\bar{x}), standard deviation (SD), variance (S2) and statistical significance ("p").

For the data record the procedures were as follows:

1. Take each questionnaire and record the values corresponding to each response.
2. Record the value of each questionnaire.
3. Share universe of shows according to the questionnaires:
 - 3.1-by educational establishment
 - 3.2 -by age
 - 3.3- by genre
 - 3.4 -by genre in every age

RESULTS

The high score of the questionnaire is 43 points. The results of applying the instrument in shows for validation of the instrument was between 22.5 and 33 points. (Gomez Campos, Vilcazán, Ahmadí, Hespañol and Cossío-Bolaños, 2012) To consider the valuation levels of physical activity, the results for the shows of this study have been drawn from the rule of 3 simple and percentages (Spiegel, 2010), which is presented in the following table:

Table 1: second Indicators percentage of valuation.

Indicators	% of the maximum valuation points
Well Valued	Between 81% and 100%
Valued	Between 61% and 80%
Averagely Valued	Between 41% and 60%
Regular Valued	Between 21% and 40%
Not Valued	Less than 20%

The scale of assessment uses intervals of 20 percentage points from the lowest level of valuation (20%) to the higher level of valuation (100 percent). The range was established considering the instrument used for data collection, which features 5 response intervals, 4 response intervals and 3 response intervals.

As referring to the relevant areas were determined measure to measure (% of maximum value of valuation); were formulated indicators and the calculation formula (3 simple rule and percentages); validated indicators, applying technical criteria (level of valuation according to the etiology of the term; questionnaire used). (Hernández Sampieri, Fernández-Collado, Baptista Lucio, 2010; Tomas & Nelson, 2006). As the definition of valuation is to deliver value (RAS- Royal Academy of Spain), it was considered that a range of 5 indicators is the most suitable for the purpose of the study.

Table 2: Percentage in average Valuation of Educational Establishments points, by genre

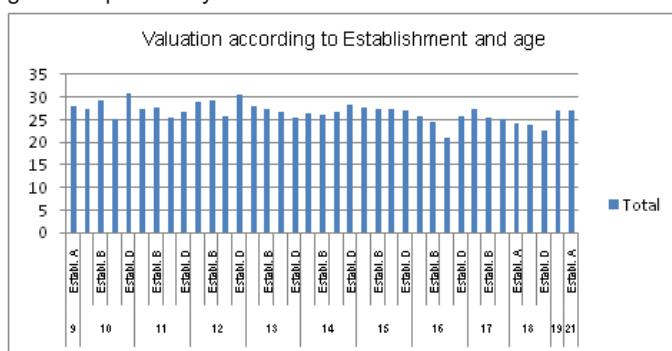
Genre/Establishment	Average/Points	Percentage/Value
Men	28,24	64,69%
Establishment A	27,82	64,69%
Establishment B	28,92	67,25%
Establishment C	28,94	67,30%
Establishment D	28,15	65,46%
Women	24,78	57,62%
Establishment A	24,49	56,95%
Establishment B	25,36	58,97%
Establishment C	22,93	53,32%
Establishment D	26,85	62,44%
Total geral	26,92845395	62,60%

According to the results for the men, the valuation provided introduces a tendency to a positive valuation, since, as indicated in table 1, there is a percentage of 67.2% in B, and C, presented a percentage of 67.3%. Then follows the establishment D, who presented a percentage of 65.4% and, lastly, the establishment, with a valuation of 64.6%. That can be determined with values greater than 65%, the young people of the male gender, place a high physical activity, according to the questionnaire applied.

Comparing with the results of the women, the men have a tendency to higher valuation of physical activity. And, also, it appears that the private and subsidized private educational establishments (B and C, respectively), have highest rates of assessment of physical activity among men.

These data indicate that there are greater tendency of men to the valuation of physical activity than women. Similar idea can be based on that, for men, the practice of sports is related to the practice of physical activity. And for the sports, football is considered the practice of physical activity more important social. (Díaz, Mantilla, 2012; García González, 2009)

Table 3: Points for age and separated by Establishment



The age group between 10 and 12 years old, is the one that presents greater valuation of physical activity than other age groups. Possibly because at this age, young people maintain higher physical activity levels and other social activities, are not yet so attractive to them.(Ardoy, D.N; Fernández-Rodríguez, J.M; Ruiz, J.R; Chillón, P.; España-Romero, V.; Castillo, M.J; Ortega, F.B.,2011; Bustamante, A.; Beunen, G.; Maia, J., 2012; Cordova, A.; Villa, G.; Sureda, A.; Rodriguez-Marroyo, J.A; Sánchez-Collado, M.P., 2012, A; Cordova, A.; Villa, G.; Sureda, A.; Rodriguez-Marroyo, J.A; Sánchez-Collado, M.P., 2012, B)

The men of the C establishment recognizes men more physical activity than the other subjects of the sample; This is a public municipal educational establishment, which leads to infer that the teens of this shows, according to al socioeconomic level, have more free time to practice physical activities in your free time, because they are further away from the downtown. And women in the D educational establishment, private paid, recognizes more physical activity. In the case of women, one can infer that the aesthetic-related situations, they may be related to the valuation of physical activity.

The results indicate that there is a possible relationship between the socioeconomic status of the educational establishment, with valuation level delivered to physical activity, considering the results of men and women together.Thus, one can infer that there are other variables that can affect directly the implementation of physical activity, which can be: physical spaces to practice, structure of educational establishments, available material in educational establishments, family, political and pedagogical, technical etc.

This study helped to demonstrate that assess physical activity, not necessarily related to the physical activity practice. When comparing the results of studies conducted by government agencies in Chile, you can verify that the 14 year-old students from the four educational establishments of this study, present positive valuation levels of physical activity. But for this same age, the results of studies conducted by the Chilean Government (SIMCE, Sistema de Medición de la Calidad de la Educación, 2011) indicated that only 7% women and 9% men's sample, presents satisfactory physical condition.(Chile, 2011 A; Chile, 2011, B; Chile, 2010)

Other data that helps us understand this relationship is that according to studies submitted by the World Health Organization (WHO) the Chilean adolescents are the most sedentary of South America.(Chile, 2012).The study indicated that 23.9% for men and 28.7% of women are sedentary. In this case, comparing with the results of this study, the percentage differences are very similar between those who place a high and the sedentary. Also, study done by NSI (National Sports Institute) of Chile indicated that 70,7% of the population equal to or greater than 18 years is inactive.

The valuation to physical activity in sample in Talca is greater than the presented at the sample the cities of Linares and San Javier of Loncomilla. Important to consider in this case, is that in Linares city, the amount of questionnaires answered, was superior to the other establishments; even so, the valuation level is inferior. And of the four cities, is the one that has infrastructure and incentives for physical activity practice.

It's possible to considerate that results of the study helped to see differences between valued and to do physical education, is important to recommend studies and public politics to maintain and care the health through physical education, that are more effectives to reach the people with more strong way, against to the formation objectives to aware and practical teenagers.

REFERENCES

- ARDOY, D.N; FERNÁNDEZ-RODRÍGUEZ, J.M; RUIZ, J.R; CHILLÓN, P.; ESPAÑA-ROMERO, V.; CASTILLO, M.J; ORTEGA, F.B. Mejora de la condición física en adolescentes a través de un programa de intervención educativa: estudio, Rev Esp Cardiol; 64(6): 484-491, jun., 2011.
- BRIONES, G. Epistemología de las ciencias sociales. Bogotá, Instituto Colombiano para el Fomento de la Educación Superior, ICFES, 1996.
- BUSTAMANTE, A.; BEUNEN, G.; MAIA, J. Valoración de la aptitud física en niños y adolescentes: construcción de cartas percentílicas para la región central del Perú, Rev. perú. med. exp. Salud Pública, jun. 2012, vol.29, no.2, p.188-197, 2012.
- CHILE. SIMCE Educación Física, Agencia de Calidad de la Educación, Gobierno de Chile, 2011 A; Disponible en: www.simce.cl, acceso: 11 de julio de 2013.
- _____. Informe de Resultados Educación Física 2011, Ministerio de Educación, 2011 B; Disponible en: www.simce.cl, acceso: 11 de julio de 2013.
- _____. Informe de Resultados Educación Física 2010, Ministerio de Educación, 2010, Disponible en: www.simce.cl, acceso: 11 de julio de 2013.
- CORDOVA, A.; VILLA, G.; SUREDA, A.; RODRIGUEZ-MARROYO, J.A; SÁNCHEZ-COLLADO, M.P. Actividad física y factores de riesgo cardiovascular de niños españoles de 11-13 años, RevEspCardiol, 65(7): 620-626, jul., 2012 A.
- CORDOVA, A.; VILLA, G.; SUREDA, A.; RODRIGUEZ-MARROYO, J.A; SÁNCHEZ-COLLADO, M.P. El fútbol: espacio de interacción social y construcción de identidad local. Quito, UNIVERSIDAD POLITÉCNICA SALESIANA, Tesis de Pregrado, 2012 B; disponible en: http://dspace.ups.edu.ec/handle/123456789/2506, acceso: 17 de julio de 2013.
- CUENCA-GARCÍA, M.; JIMÉNEZ-PAVÓN, D.; ESPAÑA-ROMERO, V.; ARTERO, E.G.; CASTRO-PIÑERO, J.; ORTEGA, F.B.; RUIZ, J.R.; CASTILLO, M.J. Condición Física Relacionada con la Salud y Hábitos de Alimentación en Niños y Adolescentes: propuesta de addendum al informe de salud escolar. Rev. De Invest. En Educación, n.9 (2), pp. 35-50, 2011.
- DÍAZ, D.; MANTILLA, M.J. El fútbol: espacio de interacción social y construcción de identidad local. Tesis de Pregrado, UNIVERSIDAD POLITÉCNICA SALESIANA, Ecuador, 2012; Disponible en: http://dspace.ups.edu.ec/handle/123456789/2506.
- GARCÍA GONZÁLEZ, V. La Importancia Social del Deporte en el Proceso Civilizador: el caso del fútbol bandera. Deporte, Cultura y Comunicación, n.69, 2009; Disponible en: http://w.razonypalabra.org.mx/LA%20IMPORTANCIA%20SOCIAL%20DEL%20DEPORTE%20EN%20EL%20PROCESO.pdf, acceso: 17 de julio de 2013.
- GÓMEZ CAMPOS, R.; VILCAZÁN, E.; ARRUDA, M. DE; HESPAÑOL, J.; COSSIO-BOLAÑOS, M.A. Validación de un Cuestionario para Validación de la Actividad Física en Escolares Adolescentes. An. Fac. Med.2012; 73(4):307-13, 2012.
- GUILLÉN GARCÍA, F.; RAMÍREZ GÓMEZ, M. Relación entre el Autoconcepto y la Condición Física en Alumnos del Tercer Ciclo de Primaria. Revista de Psicología del Deporte, v. 20, n. 1, pp. 45-59, 2011.
- HERNÁNDEZ SAMPIERI, R., FERNÁNDEZ COLLADO, C., BAPTISTA LUCIO, M. Metodología de la Investigación. Quinta Edición. McGRAW-HILL / Interamericana Editores, s.a. de C.V. México D.F., 2010.
- INSTITUTO NACIONAL DE DEPORTES DE CHILE, IND. Encuesta Nacional de Hábitos de Actividad Física y Deporte en la población chilena igual o mayor de 18 años, 2012. Disponible en: http://www.ind.cl/estudios-e-investigacion/investigaciones/Documents/2012/encuesta_nacional_habitos.pdf, acceso: 17 de julio de 2013.
- OMS, ORGANIZACIÓN MUNDIAL DE LA SALUD. Inactividad física: un problema de salud pública mundial, 2013 A; Disponible en: http://www.who.int/dietphysicalactivity/factsheet_inactivity/es/index.html
- _____. Cuestionario Mundial sobre Actividad Física, 2013 B; Disponible en: http://www.sdpac.org/lhn-tools/gpaq-spanish.pdf Acceso: 29.05.2013.
- _____. Ranking Sudamericano de Salud, 2012. Disponible en: http://www.etoconcepcion.cl/webapp/index.php?option=com_content&view=article&id=173:ranking-sudamericano-de-salud&catid=1:latest-news, acceso: 17 de julio de 2013.
- _____. Salud mental: un estado de bienestar, Organización Mundial de Salud, 2011; Disponible en: http://www.who.int/features/factfiles/mental_health/es/, acceso: 24 de julio de 2013.
- _____. Recomendaciones mundiales sobre la actividad física para la salud, 2010 Disponible en: http://www.who.int/dietphysicalactivity/factsheet_recommendations/es/, acceso: 10/05/2013
- PONSON M., A. DE. Adolescentes chilenos son los más sedentarios de Sudamérica. Diario La Tercera, edición de 31/03/2010, Chile.
- RAE, REAL ACADEMIA ESPAÑOLA. Diccionario de la Lengua Española, 2014;Disponible: http://www.rae.es/, acceso 10/05/2013.
- REYES J., M.; DÍAZ B., E.; LERA M., L.; BURROWS A., R. Ingesta y metabolismo energético en una muestra de adolescentes chilenos con sobrepeso y obesidad. Rev. méd. Chile, vol.139 no.4 Santiago abr. 2011.
- RUIZ, J.R.; ESPAÑA ROMERO, V.; CASTRO PIÑERO, J.; ARTERO, E.G.; ORTEGA, F.B.; CUENCA GARCÍA, M.; JIMÉNEZ PAVÓN, D.; CHILLÓN, P.; GIRELAR REJÓN, M.J.; MORA, J.; GUTIÉRREZ, A.; SUNI, J.; SJÖSTROM, M.; CASTILLO, M.J. Batería ALPHA-FITNESS: test de campo para la evaluación de la condición física relacionada con la salud en niños y adolescentes, NutriHosp, 26(6):1210-1214, 2011.
- SPIEGEL, M.R. Probabilidad y Estadística, 3^a ed., España: McGraw-Hill Interamericana de España, 2010.
- TOMAS, J.R. & NELSON, J.K. Métodos de Investigación en Actividad Física. España: Paidotribo, 2006.
- ZAVALA, LERAÇ, VIO. Actividad física y dieta saludable, percepción de peso y estrés en población adulta de Chile: Análisis de la encuesta de calidad de vida y salud 2006. Arch. Latin. Americ. De Nutr. V. 60, N.4, 2010.

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VALUATION OF PHYSICAL ACTIVITY IN SCHOOL TEENAGERS, BETWEEN 10 AND 18 YEARS OLD, IN EDUCATIONAL ESTABLISHMENTS OF THREE CITIES IN THE REGION OF MAULE, CHILE

ABSTRACT

The practice of physical activity is a recognized factor for maintenance and health care. The inclusion of these activities in the daily life of teenagers depends on the level of valuation that they deliver to physical activity. The objective of this study was to verify the valuation that teenagers from 10 to 18 years old, deliver to physical activity in educational establishments of the Región del Maule, Chile. Methodology: quantitative study, descriptive; application of Valuation Questionnaire of Physical Activity; four establishments in the three Chilean administrative dependencies; sample of 1245 subjects; results presented in frequency descriptive statistics. Results: 65% of the sample to value physical activity (between 61 and 80% of the maximum

score of valuation); men have a higher valuation of physical activity than women. Conclusions: the sample give value to physical education activity; but analysis suggests that the valuation isn't directly related to realization of physical activity.

KEYWORDS: physical activity, valuation, teenagers.

DONNER UNE VALEUR A L'ACTIVITE PHYSIQUE A L'ECOLE DE ADOLESCENTS ENTRE 10 ET 18 ANS, DANS LES ETABLISSEMENTS EDUCATIFS DE TROIS VILLES DE REGION LA MAULE, CHILE

RESUMÉ

La pratique d'activité physique est un facteur reconnu pour l'entretien et les soins de santé. L'inclusion de ces activités dans la vie quotidienne des adolescents dépend du niveau d'évaluation qu'ils livrent à l'activité physique. Le but de cette étude était de vérifier l'évaluation que les adolescents de 10 à 18 ans, se livrent à l'activité physique dans les établissements scolaires de la Région del Maule, Chili. Méthodologie : étude quantitative, descriptive ; demande d'enquête d'évaluation de l'activité physique ; quatre établissements dans les trois dépendances administratives chiliennes ; montre de 1245 sujet ; résultats présentés dans les statistiques descriptives de la fréquence. Résultats : 65 % de l'activité physique de spectacles donner une valeur (entre 61 et 80 % de la note maximale d'évaluation) ; les hommes ont une évaluation plus élevée de l'activité physique que les femmes. Conclusions : le sujet de donne une valeur montre l'activité physique ; mais l'analyse donne à penser que l'évaluation n'est pas directement liée à la réalisation de l'activité physique.

MOTS-CLÉS: activité physique, évaluation, adolescents.

VALORACIÓN DE LA ACTIVIDAD FÍSICA EN ESCOLARES ADOLESCENTES, ENTRE 10 Y 18 AÑOS, EN ESTABLECIMIENTOS EDUCACIONALES DE TRES COMUNAS DE LA REGIÓN DEL MAULE, CHILE

RESUMEN

La práctica de la actividad física es un factor reconocido como importante para mantención y cuidado de la salud. La inclusión de esta actividad en el cotidiano de los adolescentes, depende del nivel de valoración que ellos entregan a la actividad física. El objetivo de este estudio fue verificar la valoración de la actividad física en escolares adolescentes, entre 10 y 18 años, en establecimientos educacionales de la Región del Maule, Chile. Metodología: estudio cuantitativo, descriptivo; aplicación de Cuestionario de Valoración de la Actividad Física; cuatro establecimientos en las tres dependencias administrativas chilenas; muestra de 1245 sujetos; resultados presentados en estadística descriptiva de frecuencia. Resultados: 65% de la muestra valoran la actividad física (entre 61 y 80% del puntaje máximo de valoración); hombres presentan mejor valoración hacia la actividad física que las mujeres. Conclusiones: los sujetos de la muestra valoran la actividad física; pero los análisis sugieren que la valoración no está directamente relacionada a la realización de la actividad física.

PALABRAS CLAVES: actividad física, valoración, adolescentes.

VALORAÇÃO DA ATIVIDADE FÍSICA EM ESCOLARES ADOLESCNETES, ENTRE 10 E 18 ANOS, EM ESTABELECIMENTOS EDUCACIONAIS DE TRÊS CIDADES DA REGIÃO DE MAULE, CHILE

RESUMO

A prática de atividade física é um fator reconhecido para a manutenção e cuidado da saúde. A inclusão destas atividades no cotidiano dos adolescentes depende do nível de valoração que eles entregam à atividade física. O objetivo deste estudo foi verificar a valoração que adolescentes de 10 a 18 anos, entregam à atividade física, em estabelecimentos educacionais da Região del Maule, Chile. Metodologia: estudo quantitativo, descriptivo; aplicação de Questionário de Valoração da Atividade Física; quatro estabelecimentos, nas três dependências administrativas chilenas; mostra de 1245 sujeitos; resultados apresentados em estatística descritiva de frequência. Resultados: 65% da mostra valora a atividade física (entre 61 e 80% da pontuação máxima de valoração); homens apresentam maior valoração da atividade física que as mulheres. Conclusões: os sujeitos da mostra valoram a atividade física; mas análises sugerem que a valoração não está diretamente relacionada com a realização da atividade física.

PALAVRAS -CHAVE: atividade física, valoração, adolescentes.