

Physical activity in school teenagers of Puno's city

Actividad física en adolescentes escolares de la ciudad de Puno

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Editorial shedule: Article received: 28/03/2017 Accepted: 09/07/2017 Published: 01/09/2017

DOI: <https://doi.org/10.17979/sportis.2017.3.3.2015>

Abstract

The aim of the investigation was determined the level of physical activity in school teenagers women and males of Puno's city. The investigation corresponds to the transeccional-descriptive design. In the study there took part 225 students of fifth degree of secondary public education of ages between 15 to 17 years, 83 women and 142 males (M=16,10 years; DT=0,45); to whom there was applied the inventory of physical habitual activity for teenagers (Cronbach's Alpha of .80). All the selected students are of socioeconomic condition average - fall and belong to Puno's city, Peru, located to an altitude of 3827 m.s.n.m. The results of the physical activity present small differences in the highest percentages, the women are located in the moderate level (45,8 %), whereas the males are located in the low level (52,8 %), being like that the women in better level that the males. Statistically the results do not present significant differences between women and males ($p = .205 > 0.05$). The study concluded in that the level of physical activity that there present the school teenagers of Puno's city does not expire with the levels recommended of physical activity for the health, being more unfavorable in males than in women.

For cite this paper you must use this reference: Mamani, A.A.; Fuentes, J.D.; Machaca, J.E. (2017). Physical activity in school teenagers of Puno's city

Sportis Sci J, 3 (3), 525-541. DOI:<https://doi.org/10.17979/sportis.2017.3.3.2015>

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Keywords

Physical activity; sport; physical education; free time; adolescence.

Resumen

El objetivo de la investigación fue determinar el nivel de actividad física en adolescentes escolares mujeres y varones de la ciudad de Puno. La investigación corresponde al diseño transeccional-descriptivo. En el estudio participaron 225 estudiantes de quinto grado de educación secundaria pública de edades entre 15 a 17 años, 83 mujeres y 142 varones ($M=16,10$ años; $DT=0,45$); a quienes se les aplicó el inventario de actividad física habitual para adolescentes (Alfa de Cronbach de .80). Todos los escolares seleccionados son de condición socioeconómica media-baja y pertenecen a la ciudad de Puno, Perú, localizada a una altitud de 3827 m.s.n.m. Los resultados de la actividad física presentan pequeñas diferencias en los porcentajes más altos, las mujeres se ubican en el nivel moderado (45,8%), mientras que los varones se ubican en el nivel bajo (52,8%), encontrándose así las mujeres en mejor nivel que los varones. Estadísticamente los resultados no presentan diferencias significativas entre mujeres y varones ($p= .205>0.05$). El estudio concluyó en que el nivel de actividad física que presentan los adolescentes escolares de la ciudad de Puno no cumple con los niveles recomendados de actividad física para la salud, siendo más desfavorable en varones que en mujeres.

Palabras clave

Actividad física; deporte; educación física; tiempo libre; adolescencia.

Introduction

The physical stagnation or the sedentary conducts every time they come increasing by leaps and bounds in the current company (Castro, Zurita, Chacón, Mirror, Martínez and Perez, 2017), Reverberating considerably in the general health of the world population, causing diverse adverse factors in the individual, as the increase of the corporal weight, bad traffic, bad position, dorsalgias and lumbalgias, chronic weariness, fall autoestimates, few social interrelationship, appearance of chronic not transmissible diseases, between others (Ramirez, Vinaccia and Ramon, 2004); being constituted this way in the most important fourth factor of risk of mortality in the whole world, 6 % of deaths worldwide (World Health Organization WHO, 2010).

In Brazil, Chile, Mexico and Peru more than two third parts of the population do not practise the levels recommended of physical activity that need to earn benefits of health (Jacoby, Bull and Neiman, 2003). Sanz (2017); Serra (2008) and; Tammenlin, Ekelund, Remonth and Nayha (2007) corroborate that the school teenagers, do not come expiring with the international recommendations of physical activity for the health, more on the contrary they are adopting ways of life increasingly inactive, favoring to the increase of possible chronic not transmissible diseases to ages increasingly early (Yáñez, Hespanhol, Gómez and Cossio, 2014).

He understands himself to the physical activity (AF) as a corporal movement produced by the muscular voluntary action that increases the expense of energy over the rate of the basal metabolism or over the still-water levels, allowing to act with the beings and environment that surrounds us (Bouchard, Shephard and Stephens, 1994; Devís, 2001; Merino and Gonzalez, 2006; Pancorbo and Pancorbo, 2011).

The PA for school teenagers we understand it as the set of daily activities that realize regularly, by means of the sports, recreative activity, treks, between others; in the federations, leagues, clubs, in the educational institution and out of the hours of study; those who in his set produce a significant increase of the energetic expense over the still-water levels.

Under this panorama, the teen school population puneña also comes weighing the problem of physical stagnation or sedentary conducts, first, because great part they do not show interest or inclination towards the continued practice of the sport in the federations, leagues, clubs, selections of institutions, schools and sports programs; I come second, because during his assistance and permanency in the educational institution they do not interfere or take part actively in the sports competitions, in the classes of physical education or in the recreative - sports activities during the playtime. Already it is not very common to be going and to return walking from the institution to house or like before; third party, because in his free time they pass seeing television or they are close to the computer or with the video games, stopping going out to walk in bicycle or to practise some sport. The sum of these actions of physical stagnation or sedentary conducts, they carry to that the same ones do not fulfill with the levels recommended of physical activity for the health of 5 to 18 years (children and young women); it is to say, they do not accumulate a minimum of 60 daily minutes of physical moderate or vigorous activity (at least 3 days a week, activities of vigorous intensity and, activities of muscular and bony strengthening) (Ministry of Health, Social Services and Equality, 2015; WHO, 2010; Terreros, 2010).

The diagnosis and treatment of the physical stagnation or sedentary conducts is a problem of important health, which often exceeds the medical systems and increases the economic costs of his intervention (Andreyeva, Sturm, Ringel, 2004).

In reason of all this, urgently departments - entities and responsible professionals ask a systematic intervention from himself, contextualizada, functional and cozy, on the part of the world organisms, conditions, so that the world population, specially infante - teenager could realize physical activity of regular form, considering that the most direct and beneficial impact in the improvement of the indicators of health is the physical activity, especially if this one is effected by a moderate intensity, of constant or accumulated form, of preference every day of the week (Matsudo, 2012).

The follow-up of the trends of the levels of physical activity in early ages is basic for the prevention of diseases and promotion of the health (Serra, 2008), provided that the bosses of

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exercise recorded in the adolescence remain, no doubt, as the best predictor of the levels of adult activity (Greendorfer, 1992 and Mendoza, 2000).

The physical activity practised of regular form in the school phase for children and teenagers, allows to increase the academic and vocational performance; to reduce the alterations of behavior; to diminish the consumption of alcohol and to increase the abstinence; to improve the relation with the parents; and to increase the dedication and frequency to the classes (Matsudo, 2012). In synthesis, the regular practice of the physical activity in children and teenagers is a fundamental factor to face to the vices that come asechando our company and, especially a more healthy population would be have.

He study had as aim determine the level of physical activity in school teenagers women and men of Puno's city.

Material and method

Design

The study corresponds to the transeccional-descriptive design, where there was diagnosed the physical activity realized by school teenagers women and men of Puno's city, Peru.

Sample

In the study there have taken part 225 students of fifth degree of secondary public education of Puno's city of ages between 15 to 17 years (M=16,10 years; DT=0,45), 83 students women (M=16,02 years; DT=0,41) of the educational secondary institution Santa Rosa and 142 students men (M=16,15 years; DT=0,46) of the Great School Unit San Carlos. All the selected students are of socioeconomic condition average - fall and belong to Puno's city, Peru, located to an altitude of 3827 m.o.l.s.

Instrument

The instrument used for the withdrawal of information was the inventory of physical habitual activity for teenagers (IAFHA), applied by Gálvez, Rodríguez and Velandrino (2006) in 217 teenagers (85 men and 132 women) between 14 to 18 years of the city of Murcia (Spain). The

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internal consistency of the questionnaire was acceptable, presenting one Alpha de Cronbach of .85. This instrument was contextualizado in the used terminology, school center for educational institution.

The IAFHA has as end know the set of sports, recreative activities and treks, which the students realize daily in his free time and during his assistance and permanency in his educational institution. The IAFHA understood three areas of study (Picture saw 1): 1) sports activity (10 articles), 2) activity in the educational institution (8 articles), and 3) activity during the free time (05 articles).

Square 1

Inventor articles of physical habitual activity for teenagers

Sporting activity
<p>1. Practices some sport habitually (in a club, in a selection, in a sports school, sports program, etc.)? <i>Only if you have answered yes, it answers to the questions 2, 3 and 4.</i></p> <p>2. About what sport does it treat itself? (To mark the alone one)</p> <p>3. How many days a week, approximately, you practise it?</p> <p>4. How many hours a day, approximately, you practise it?</p> <p>5. Practices some another sport habitually (in a club, in a selection, in a sports school, sports program, etc.)? <i>Only if you have answered yes, it answers to the questions 6, 7 and 8.</i></p> <p>6. About what sport does it treat itself? (To mark the alone one)</p> <p>7. How many days a week, approximately, you practise it?</p> <p>8. How many hours a day, approximately, you practise it?</p> <p>9. I think that the sports activity that I realize is.</p> <p>10. Comparing with boys / aces of my age, I think that the sports activity that I realize is.</p>
Activity in the educational institution
<p>11. During the time of playtime I am in the habit of playing sports or playing.</p> <p>12. During the time of playtime I am in the habit of giving walks.</p> <p>13. I take part in the sports competitions that are organized in the educational institution.</p> <p>14. I realize the activities and tasks in the classes of physical education.</p> <p>15. In the classes of physical education I take part actively.</p> <p>16. Of house to the educational institution I am in the habit of being walking or in bicycle.</p> <p>17. To return from the educational institution to house I am in the habit of being walking or in bicycle.</p> <p>18. Comparing with boys / aces of my age, I think that, during the time of permanency in the educational institution, the physical activity that I realize is.</p>
Activity during the free time
<p>19. In my free time I am sat seeing TV or with the computer or with the video games, etc.</p> <p>20. At my hours of time free walk in bicycle.</p>

21. At my hours of free time I do some sport or physical exercise only or with friends.
22. I am in the habit of going to billiards, lounges of game - dance and sites like that.
23. Comparing with boys / aces of my age, I think that the physical activity that I realize in the free time is.

The sport has been valued depending on the worn-out METs (1MET = 1,25 Kcal./min.) from the offer of Ferrer (1998) (mentioned by Gálvez, 2004, p. 311), and in function to three trends of practice of the sport: competitive, competitive - recreacional and recreacional. These trends it is different of the adjustments that were realized to the valuation of the instrument and appears as offer (Picture sees 2).

Square 2

Metabolic cost (METs) according to trend of practice of the sport

<i>METs</i>	<i>Activity</i>	<i>Trend of practice of the sport</i>	<i>Days and time of practice</i>	<i>Scoring</i>
7	To run (7,5 km./h), cycling (20 km./h), football, volleyball, básquetbol, swimming, etc.	Recreational	1 on 2 30th minutes 1 to 2 days from 30 minutes to 1 hour 1 to 2 days from 1 to 2 hours	8,75
8	To run (8 km./h), cycling (21 km./h), football, volleyball, básquetbol, swimming, etc.	Competitive - recreacional	1 to 2 more days two hours 3 days from 30 minutes to 1 hour 3 days from 1 to 2 hours 3 more days 2 hours 4 days of 30 minutes 4 days from 30 minutes to 1 hour	10
10 o >10	To run (> 9 km./h), cycling (> 21 km./h), football, volleyball, básquetbol, swimming, etc.	Competitive	4 days from 1 to 2 hours 4 more days 2 hours 5 or more days from 1 to 2 hours 5 or more more days two hours	12,5

Procedure

The process of withdrawal of information I effect between September and October, 2016. The application of the IAFHA was at the expense of two due qualified teachers of physical education. The inventory was answered by the students in his classes of physical education, for it they had between 10 to 15 minutes. The instrument in this study showed a capacity of reproducibility of Cronbach's Alpha of .80.

Statistical analysis

There was applied a statistical descriptive analysis (percentage analysis) and inferencial (it proves T de Student for independent samples and Rho de Spearman's correlation) of the sample, supported on the Statistical Software SPSS 22.

Results

With regard to the sports activity realized in the federations, leagues, clubs, selections of institutions, schools and sports programs; the results according to the highest percentages are similar in women (60,2 %) as in men (63,4 %), placing both in the low level. Statistically the results do not present significant differences between women and men ($p = .777 > 0.05$) (Table sees 1).

In relation to the activity realized during the assistance and permanency in the educational institution (participation activates in the sports competitions, in the classes of physical education or in the recreative - sports activities during the playtime, and to be going and to return walking from the institution to house or like before); the results of agreement to both highest percentages present differences, in the highest percentage the women (45,8 %) and the males (51,4 %) place in the moderate level; nevertheless, in the percentage that is still the women (44,6 %) they overcome for a long time the men (25,4 %), existing this way a strong trend in the women to realize activity in the educational institution in a high level. Statistically the results present significant differences between women and men ($p = .000 < 0.05$) (Table sees 1).

Modal to the activity realized during the free time (to see television or to be close to the computer or with the video games, to go out of walk in bicycle or to practise some sport); the results according to the highest percentages present similarity in women (49,4 %) as in men (45,1 %), placing both in the low level. Statistically the results do not present significant differences between women and men ($p = .193 > 0.05$) (Table sees 1).

The sumatoria of the results of sports activity, activity in the educational institution and activity during the free time divided between three, they allowed to determine AF's level in the subjects of study.

The results of the PA in general present small differences in the highest percentages, the women are located in the moderate level (45,8 %), whereas the men are located in the low level (52,8 %), being like that the women in better level that the men. Statistically the results do not present significant differences between women and men ($p = .205 > 0.05$) (Table sees 1).

Table 1
Physical activity in school teenagers of Puno's city

	Level	Women		Men		Sig.
		Frequency	Percentage	Frequency	Percentage	
Sporting activity	Very low	50	60,2	90	63,4	.777
	Low	3	3,6	3	2,1	
	Moderate	13	15,7	18	12,7	
	High	10	12,0	22	15,5	
	Very high	7	8,4	9	6,3	
Activity in the educational institution	Low	5	6,0	31	21,8	.000
	Moderate	38	45,8	73	51,4	
	High	37	44,6	36	25,4	
	Very high	3	3,6	2	1,4	
Activity during the free time	Very low	2	2,4	2	1,4	.193
	Low	41	49,4	64	45,1	
	Moderate	36	43,4	61	43,0	
Phisycal activity	High	4	4,8	15	10,6	.205
	Very low			1	0,7	
	Low	36	43,4	75	52,8	

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Moderate	38	45,8	52	36,6
High	9	10,8	14	9,9

As for the relation of variables (Table sees 2), the sports activity with the activity in the educational institution they do not associate statistically in women ($p = .743 > 0.05$) as in men ($p = .154 > 0.05$). The sports activity with the activity during the free time they do not associate statistically in women ($p = .188 > 0.05$), but if in men ($p = .000 > 0.05$). The activity in the educational institution with the activity during the free time they associate statistically in women ($p = .000 > 0.05$) as in men ($p = .000 > 0.05$). The sports activity, activity in the educational institution and activity during the free time association statistically with the PA in general ($p = .000 > 0.05$). As the school teenagers (women and men) are not in a prominent level in sports activity (very down), activity in the educational institution (moderated) and activity during the free (low) time, they will not be able to place in AF's high or very high level.

Table 2
Relation between variables

		Sporting activity		Activity in the educational institution		Activity during the free time		Physical activity	
		Women	Men	Women	Men	Women	Men	Women	Men
Sporting activity	r	1,000	1,000	-,037	,120	,146	,293	,697	,728
	Sig.	.	.	,743	,154	,188	,000	,000	,000
	N	83	142	83	142	83	142	83	142
Activity in the educational institution	r	-,037	,120	1,000	1,000	,392	,411	,422	,517
	Sig.	,743	,154	.	.	,000	,000	,000	,000
	N	83	142	83	142	83	142	83	142
Activity during the free time	r	,146	,293	,392	,411	1,000	1,000	,644	,640
	Sig.	,188	,000	,000	,000	.	.	,000	,000
	N	83	142	83	142	83	142	83	142
Physical activity	r	,697	,728	,422	,517	,644	,640	1,000	1,000
	Sig.	,000	,000	,000	,000	,000	,000	.	.
	N	83	142	83	142	83	142	83	142

Discussion

The results of sports activity, they are similar both in women and in men, being both sexes inside the very low level of sports activity. For what, there is demonstrated that the school teenagers largely, are not accustomed to practise the sport of a continued way (Gutiérrez, 2004), in order to improve his physical condition and achievement of results in competitions of all the levels (Gil and Contreras, 2005). We think that these results are a reflection of the absence or deficient sports promotion for the authorities of the Peruvian Institute of the Sport, municipality and sports federations (leagues - clubs).

The results of activity in the educational institution, they present significant differences, being the women in better level that the men, with a strong trend of moderated to high place; on the other hand the men show a similar trend of moderated to highly and low, being in risk. The difference of the results owes at the level of participation in sports competitions organized in the institution and to the active participation during the execution of tasks in the classes of physical education that the women show, which does not happen with the same magnitude in the men. It is clear that the educational secondary institution Santa Rosa does a utilization of the time that there remain the teenagers of the facilities and assistance needed to realize physical activity (Merino and Gonzalez, 2006). It thinks that they conceive to the physical education as the best opportunity to provide to the teenagers positive experiences related to the physical activity that there promote healthy and lasting ways of life for the whole life (National Association for Sport and Physical Education NASPE, 2004).

The results of activity during the free time, are similar, both in women and in men, being both in a low level, with certain trend to moderated. These results demonstrate that the teenagers during his free time do not come giving positive response to his recreative needs, more on the contrary they are vivenciando consciously and unconsciously a deterioration of his quality of life (Suárez, 2002). In this sense, the free time does not come expiring with his preventive character of some of the men that they afflict to the company: depression, isolation, alcoholism, drug addiction, diseases for sedentarismo, etc. (Hernández and Mulberry trees, 2008, mentioned for Beautiful, 2009, p. 64).

The results of PA's level in general, they demonstrate, on one hand, that the women think inside a level of moderate AF (not recommended) and for other one, that the males are inside a level of low PA (not recommended). The women are lightly in PA's better level that the males. Nevertheless, in none of the cases there is had a strong trend to be in PA's high or very high level (recommended levels).

According to the Ministry of Health, Social Services and Equality (2015), WHO (2010) and Terreros (2010) to expire with the levels recommended of physical activity for the health of 5 to 18 years (children and young women), it means, that they must accumulate a minimum of 60 daily minutes of physical moderate or vigorous activity (at least 3 days a week, activities of vigorous intensity and, activities of muscular and bony strengthening).

The school teenagers on having been in a level of moderate or low PA, definitively do not expire with the levels recommended of physical activity for the health of 5 to 18 years (children and young women). First, because they do not belong and practise sport in the federations, leagues, clubs, schools and sports programs. I come second, because the participation in sports competitions organized in the institution is temporary and the classes of physical education are between 1 to 2 times per week 90 to 180 minutes. Third party, because they do not come giving positive response to his recreative needs in his free time. In reason of it, there is not demonstrated that there is accumulated a minimum of 60 daily minutes of physical moderate or vigorous activity.

PA's results obtained in the investigation, they are similar to the obtained ones for Serra (2008) and Sanz (2017) in Spain and; Montoya, I Paint, Cup, Meléndez and Alfaro (2016) in Peru. Serra (2008) precise that the pupils and pupils of secondary obligatory of institutes of Huasca's province do not fulfill the international recommendations of accomplishment of physical activity. For his side, Sanz (2017) mentions that there exist low levels of fulfillment of the recommendations of practice of physical moderate - vigorous activity in pupils of 1 ° and 2 ° of secondary obligatory education of the municipality of Soria. Montoya et to. (2016) demonstrate that the population of students of ages between 14 and 17 years of the district of Porres's St Martin they demonstrate a low level of physical activity.

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The results obtained by Mulberry trees, Añez and Suarez (2016) in the Callao (Peru) and Quispe (2015) in Puno (Peru), turn out to be contradictory to the obtained ones in the study. Mulberry trees et to. They demonstrate that the teenagers from 15 to 19 years of the district My Peru (Callao) that they deal the fourth and fifth year of secondary education show a high level of physical activity. For his side, Quispe adds that the practice of physical - sports activities in students of the educational secondary institution State police of Peru Programmes Colibri of Juliaca's city, has a trend regularly favorable for the frequency and time that they her dedicate. One gives this opposition with major forcefulness with regard to the males, who are inside a level of low PA.

PA's results demonstrate, that the women present lightly PA's better level that the men, being these results very opposite to the reached ones for Yáñez et to. (2014) in Talca (Chile), Fernandez (2012) in Spain, and Mulberry tree (2010) in Andalusia (Spain). Yáñez et to. They hold that the women demonstrated AF's minor level that the men. Fernandez indicates that the fulfillment of the recommendations of physical activity is major in the men. And Mulberry tree adds that the men between 13-16 years are more active than the women.

This contradictory phenomenon, it answers to the influence of the area of practice of the PA in the educational institution; it is to say, in this area is observed clearly that the policies of sports practice and transcendancy of the classes of physical education that gives him in the educational secondary institution Santa Rosa, come acting as influential factors in the practice of the PA, which does not come happening in the educational secondary institution Great School Unit San Carlos. Hoehner, Soares, Grapevine, Ribeiro, Pratt, Bracco, Hallal and Brownson (2010) identified to the programs of physical education in the schools, as the only intervention with sufficient evidence to realize a recommendation for the practice of physical activity in Latin America.

The results reached in the student studied population it needs urgently a rapid intervention, otherwise they will be favoring to the increase of possible chronic not transmissible diseases,

considering that similar the age advances the bosses of PA diminish (Alvear, Sandal, Urra, Gonzales, Forest and Gómez, 2015).

Conclusions

The level of physical activity that there present the school teenagers of Puno's city does not expire with the levels recommended of physical activity for the health, being more unfavorable in men than in women.

Limitations of the study

For the quantity of variables that they interfere directly or indirectly in the investigation, any investigation can have certain limitations, which must be born in mind. The study only was focused on school teenagers of fifth degree who deal his studies in educational secondary public urban institutions of socioeconomic condition average - fall, for what it is necessary to take information doing comparisons between educational institutions public and deprived of the urban and rural way. It is necessary to to implement applicative studies considering in the intervention different groups of interest, in order to expire with the levels recommended for the health in the school population.

Bibliographic References

1. Alvear, F., Abarca, H., Urra, C., Gonzales, C., Silva, R. y Gómez, R. (2015). Niveles de actividad física de adolescentes escolares con sobrepeso y obesidad. *Revista Peruana de Ciencias de la Actividad Física y el Deporte*, 2(1), 135-139.
2. Andreyeva, T., Sturm, R, y Ringel, J. (2004). Moderate and severe obesity have large differences in health care costs. *Obes Res*, 12, 1936-1943. Recuperado de <http://onlinelibrary.wiley.com/doi/10.1038/oby.2004.243/pdf>
3. Bouchard, C., Shephard, R. y Stephens, T. (1994). *Physical activity, fitness and health. International proceedings and consensus statement*. Champaign: Human Kinetics.
4. Castro, M., Zurita, F., Chacón, R., Espejo, T., Martínez, A. y Pérez, A. (2017). Sustancias nocivas y actividad física en adolescentes. *Sportis Sci J*, 3(2), 223-240.

5. Devís, J. (2001). *La educación física, el deporte y la salud en el siglo XXI*. Alcoy: Marfil.
6. Fernández, J. (2012). *Actividad física en los jóvenes de Santiago de Compostela* (Tesis doctoral). Universidad de Santiago de Compostela.
7. Gálvez, A. (2004). *Actividad física habitual de los adolescentes de la región de Murcia. Análisis de los motivos de práctica y abandono de la actividad físico-deportiva* (Tesis doctoral). Universidad de Murcia, España.
8. Gálvez, A., Rodríguez, P. y Velandrino, A. (2006). IAFHA: inventario de actividad física habitual para adolescentes. *Cuadernos de Psicología del Deporte*, 6(2), 85-99. Recuperado de file:///C:/Users/Win8.1/Downloads/113901-452221-1-PB.pdf
9. Gil, P. y Contreras, O. (2005). Enfoques actuales de la educación física y el deporte. Retos e interrogantes: el manifiesto de antigua, Guatemala. *Revista Iberoamericana de Educación*, 39, 225-256.
10. Greendorfer, S. (1992). Sport socialization, en T.Horn (ed.) *Advances in sport psychology*. Champaign, IL: Human Kinetics.
11. Gutiérrez, M. (2004). El valor del deporte en la educación integral del ser humano. *Revista de Educación*, 335, 105-126.
12. Hermoso, Y. (2009). *Estudio de la ocupación del tiempo libre de la población escolar y su participación en actividades extraescolares* (Tesis doctoral). Universidad de Málaga.
13. Hoehner, C., Soares, J., Parra, D., Ribeiro, I., Pratt, M., Bracco, M., Hallal, P. y Brownson, R. (2010). Intervenciones de Actividad Física en Latinoamérica: ¿Qué valor se puede agregar al incluir resúmenes de conferencias científicas en una revisión de la literatura? *Journal of Physical Activity and Health*, 7(2), 265-278.
14. Jacoby, E., Bull, F. y Neiman, A. (2003). Cambios acelerados del estilo de vida obligan a fomentar la actividad física como prioridad en la Región de las Américas. *Rev Panam Salud Pública*, 14(4), 223-225. Recuperado de <http://www.scielosp.org/pdf/rpsp/v14n4/18120.pdf>
15. Matsudo, S. (2012). Actividad física: pasaporte para la salud. *Rev. Med. Clin.*, 23(3), 209-217.

16. Mendoza, R. (2000). Diferencias de género en los estilos de vida de los adolescentes españoles: implicaciones para la promoción de la salud y para el fomento de la actividad físico-deportiva. *Actas del II Congreso Internacional de Educación Física*. FETE-UGT. Cádiz.
17. Merino, B. y González, E. (2006). *Actividad física y salud en la infancia y adolescencia. Guía para todas las personas que participan en su educación*. Madrid: Grafo S.A.
18. Ministerio de Sanidad, Servicios Sociales e Igualdad. (2015). *Actividad física para la salud y reducción del sedentarismo. Recomendaciones para la población. Estrategia de Promoción de la Salud y Prevención en el SNS*. Madrid. Recuperado de https://www.msssi.gob.es/profesionales/saludPublica/prevPromocion/Estrategia/docs/Recomendaciones_ActivFisica_para_la_Salud.pdf
19. Montoya, A., Pinto, D., Taza, A. Meléndez, E. y Alfaro, P. (2016). Nivel de actividad física según el cuestionario PAQ-A en escolares de secundaria en dos colegios de San Martín de Porres - Lima. *Rev Hered Rehab*, 1, 21-31.
20. Moral, J. (2010). *Actividad física y composición corporal en escolares andaluces de 13-16 años. Análisis de la calidad de vida y motivos que inducen a la práctica de actividades físico-deportivas* (Tesis doctoral). Universidad de Jaén, España.
21. Morales, J., Añez, R. y Suarez, C. (2016). Nivel de actividad física en adolescentes de un distrito de la región Callao. *Rev Perú Med Exp Salud Pública*, 33(3), 471-477.
22. National Association for Sport and Physical Education (NASPE). (2004). *Moving into the future: National standards for physical education*. Reston, VA: Author.
23. Organización Mundial de la Salud (OMS). (2010). *Recomendaciones mundiales sobre actividad física para la salud*. Suiza.
24. Pancorbo, A. y Pancorbo, B. (2011). *Actividad física en la prevención y tratamiento de la enfermedad cardiometabólica. La dosis del ejercicio cardiosaludable*. Madrid: IMC S.A.
25. Quispe, P. (2015). *La práctica de las actividades físico-deportivas en los estudiantes de la Institución Educativa Secundaria Policía Nacional del Perú Programa Colibri - Juliaca* (Tesis de pregrado). Universidad Nacional del Altiplano, Puno.

26. Ramírez, W., Vinaccia, S. y Ramón, G. (2004). El impacto de la actividad física y el deporte sobre la salud, la cognición, la socialización y el rendimiento académico: una revisión teórica. *Revista de Estudios Sociales*, 18, 67-75.
27. Sanz, D. (2017). Niveles de actividad física moderada-vigorosa de adolescentes del municipio de Soria. *Sportis Revista Técnico-Científica del Deporte Escolar, Educación Física y Psicomotricidad*, 3(1), 100-122. Recuperado de file:///C:/Users/Win8.1/Downloads/1738-5903-2-PB%20(1).pdf
28. Serra, J. (2008). *Factores que influyen en la práctica de la actividad física en la población adolescente de la provincia de Huesca* (Tesis doctoral). Universidad de Zaragoza, España.
29. Suarez, S. (2002). *La formación universitaria para el tiempo libre*. Caso de la Facultad de Turismo de la Universidad Nacional de Comahue. Universidad Nacional de Comahue, Argentina.
30. Tammenlin, T., Ekelund, U., Remes, J. y Nayha, S. (2007). Physical activity and sedentary behaviours among Finnish youth. *Medicine and Science in Sports & Exercise*, 39, 1067-1074.
31. Terreros, J. (2010). *Plan integral para la actividad física y el deporte*. *Actividad física y salud*. Madrid.
32. Yáñez, A., Hespanhol, J., Gómez, R. y Cossio, M. (2014). Valoración de la actividad física en adolescentes escolares por medio de cuestionario. *Rev Chil Nutr*, 41(4), 360-366. Recuperado de <http://www.scielo.cl/pdf/rchnut/v41n4/art03.pdf>