

# BARRIERS PERCEIVED TO THE PRACTICE OF PHYSICAL ACTIVITY IN THE NORTHEAST BRAZIL

**Thiago Ferreira de Sousa**

Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brasil

**Sueyla Ferreira da Silva dos Santos**

Universidade Federal de Santa Catarina, Florianópolis, Santa Catarina, Brasil

**Helma Pio Mororó José**

Universidade Estadual de Santa Cruz, Ihéus, Bahia, Brasil

## **Abstract**

In this study, we aimed at assessing the main type of physical activity practised during leisure and the perceived barriers regarding such practice. In order to do so, we were based on the socio-demographic indicators in academicians of a Physical Education course in the north-eastern Brazil. To do so, was performed a cross-sectional study including 105 university student of a physical education course. The main physical activity practised was the collective sports for both genera. As limiting factors to the practice of physical activities, the barriers regarding unseasonable weather, overwork, and familiar and study duties were predominant. The collective sports were the most practised and the barriers of such practice were from situations.

**Keywords:** Leisure - Students - Physical Activity - Perceived Barriers

---

## **Introduction**

Practising regularly physical activities (PA) means a behaviour which relates to sundry benefits for health. Such benefits must be encouraged for all ages (UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES – USDHHS, 2008; WORLD HEALTH ORGANIZATION – WHO, 2002). The diagnosis for PA level, in particular for adolescents, has contributed to create planning for encourage the active lifestyle (BARROS et al., 2009; PATE et al., 2005; SALLIS et al., 1997).

Linked to the rise in the study on intervention to encourage practising physical activities, emerges the need to gather information on the main activities practised (MALTA et al., 2009). In addition, the knowledge on so-called perceived barriers for the practice of physical activities in population has been frequent (SILVA et al., 2007; NAS-

CIMENTO et al., 2008), considering the need to understand the factor which can limit adopting such behaviour.

However, the research involving university students—group being always under maintenance and adoption of life habits—consists of a lack of information on such matter in the indexed databases. The research developed has been stressed gathering information on behavioural aspects, e.g. PA, and demonstrates that the young women (GUEDES; SANTOS; LOPES, 2006; SILVA et al., 2007; BIELEMANN et al., 2007), lower social class university students (GUEDES; SANTOS; LOPES, 2006) and those in the last period of the course tend to present more physical inactivity levels (SILVA et al., 2007).

Such matter is hugely important for the PE professionals, in particular focusing on understanding how such behaviour works within society and university students from north-eastern Brazil. In this study, thus, we aimed at assessing the type of the main PA practised during leisure and perceived barriers regarding such practice, according to the socio-demographic indicators for university students of a PE course in the north-eastern Brazil.

## Methods

This study is part of the research ‘Profile for the Indicators of physical aptitude and Health of Students of Physical Education at the State University of Santa Cruz—PAFIS – UESC/BAHIA’ (Perfil dos Indicadores da Aptidão Física e Saúde dos Estudantes de Educação Física da Universidade Estadual de Santa Cruz – PAFIS, UESC/BAHIA). Such research is an applied study which deals with quantity and cross-section in a state university of the State of Bahia. Other information on the PAFIS – UESC/BAHIA were presented recently (SOUSA, 2009; SOUSA et al., 2009).

Focusing on a census for the PE course, all the university students enrolled and the students performing their activity frequently in the university in 2007 were invited to participate; a total of 143 students. The data collection was performed in May 2007, according to the course, within three weeks, in such way that the university students present in the classrooms were informed of the objectives and how to take part in it. It included applying a questionnaire and physical aptitude tests concerning health.

In order to correct potential interferences during the collect, a pre-

vious training with the responsible researchers for how to conduct the physical aptitude tests and apply the research tool (questionnaire) Such tools was built by using other tools important to this study including adult population (BARROS, 1999; BRASIL, 2004) and completed by the university students freely. The researchers, however, followed up such stage and corrected the potential doubts. The questionnaire consisted of the sections: socio-demographic indicators, health and life quality, lifestyle (PA, food habits, stress control, preventive behaviour, and relationship), satisfaction, and body mass control.

To this study, was investigated the main type of PA practised during leisure in the last two weeks previous to the data collection. The university students could choose only an option to answer the alternatives: collective sports, walking, running, cycling, gymnastic or weight training, swimming or water aerobics, dance or rhythm exercises, yoga, tai chi chuan or stretching, martial arts or fights, other physical activities; besides they did not have practised physical activities. Further, such variable was dichotomised as: players, the university students who reported the practice of any one of the options for physical activities mentioned; and non-players, who reported not having practised physical activities.

Concerning the perceived barriers, i.e. the factors which limit practising physical activities during leisure, the university students answered only one option regarding the following alternatives for potential barriers. They, thus, limited the practice within the last two weeks previous to the data collection. tiredness, unseasonable weather, overwork, unwillingness, responsibility for studies, responsibility for family, distance until the practice site, lack of motor ability, lack of physical conditions (physical aptitude, disposition), lack of facilities, lack of money, safety conditions, other barriers, and non-perception of difficulty. Afterwards, the answer options were classified according to (a) situation factors (unseasonable weather, overwork, responsibility for family, responsibility for study); (b) personal (tiredness, unwillingness, lack of motor ability, lack of physical conditions) and resources (distance until the practice site, lack of facilities, lack of money, safety conditions). The options for (c) other barriers and (d) non-perception of difficulty remained separated.

The main type of practice of physical activities during leisure in a isolated way, besides perceived barriers, were assessed regarding the

socio-demographic indicators: (a) gender (male and female), (b) age (tertile, 17–18 y.o., 21–22 y.o., and 23–42 y.o.), and (c) monthly family income, by using multiples of minimum wage that at that time was R\$ 350.00 ( $\leq$  R\$ 1750.00 &  $\geq$  R\$ 1751.00). The variable for the main PA dichotomised was assessed only regarding the perceived barriers.

The statistical software SPSS version 16.0 to apply the tests of descriptive statistics (mean, absolute frequency, relative frequency) and chi-square tests ( $X^2$ ) and Fisher's exact test were used. The significance value adopted was  $p < 0.05$ . The university students were informed of the anonymity, objectives and voluntary participation. One can find such information in the places to apply the questionnaire, and only took part those who signed the Free and Clarified Consent Term (TCLE), as one of the procedure regarding the resolution 196/96.

## Results

Although all bona fide university students in the Degree in Physical Education in 2007 (N=143) had been invited to take part in this study, only 105 took part in it, a total of 73.0 % of university students. The mean age was 23.2 y.o. (DP=4.9; 17–42) and once can observe the other information on the socio-demographic characteristics of students at the table 1.

Table 1: Descriptive analysis for socio-demographic indicators in university students of a PE course in the northeastern Brazil (State of Bahia). 2007

Variables	N	%
<b>Gender</b>		
Male	60	57,1
Female	45	42,9
<b>Age<sup>+</sup></b>		
17–20	32	32,0
21&22	22	22,0
23–42 y.o.	46	46,0
<b>Family income (Reais) *</b>		
$\leq$ R\$ 1750.00	49	52,1
$\geq$ R\$ 1751.00	45	47,9

\* Variable with higher quantity of observations ignored (N=11); + Tertile.

Was observed that the male students presented, as the main PA (table 2), the collective sports (35.6 %), with gymnastics or weight training (20.3 %). By contrast, the women reported, with a higher frequency, not practising (37.8 %). However, 20.0 % of the women



stated they practise collective sports and 17.8 %, gymnastics or weight training.

Regarding the other socio-demographic indicators, was observed that the youngest and lower-income students ( $\leq$  R\$ 1,750.00) reported they practised collective sports mostly. The students over 23 y.o. and the lower-income ones ( $\geq$  R\$ 1,751.00), however, reported with a greater frequency not practising (table 2). For the Perceived barriers based on socio-demographic variables, was not observed statistical difference; nevertheless, men and women informed the situation barriers as the main limiting factors (table 3).

Table 2: Frequency of the physical activities during leisure practised by PE-university students according to the socio-demographic indicators in the State of Bahia, Brazil. 2007

Variables	Sports Collectives		Walking		Race		Cycling		Gymnastic or weight training		Dance or rhythm exercises		Martial arts or fights		Other		No practice		p*	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
<b>Gender</b>																				0.02
Male	21	35.6	4	6.8	5	8.5	1	1.7	12	20.3	1	1.7	6	10.2	2	3.4	7	11.9		
Female	9	20.0	3	6.7	1	2.2	1	2.2	8	17.8	4	8.9	1	2.2	1	2.2	17	37.8		
<b>Age+</b>																				0.88
17-20	10	32.3	2	6.5	2	6.5	1	3.2	7	22.6	2	6.5	1	3.2	1	3.2	5	16.1		
21&22	7	31.8	2	9.1	-	-	-	-	5	22.7	1	4.5	2	9.1	1	4.5	2	18.2		
23-42	10	21.7	3	6.5	4	8.7	-	-	7	15.2	2	4.3	4	8.7	1	2.2	15	32.6		
<b>Family income (Reais)</b>																				0.35
$\leq$ R\$ 1,750.00	15	31.3	3	6.3	2	4.2	1	2.1	10	20.8	4	8.3	4	8.3	-	-	9	18.8		
$\geq$ R\$ 1,751.00	11	24.4	3	6.7	3	6.7	-	-	7	15.6	1	2.2	2	4.4	3	6.7	15	33.3		

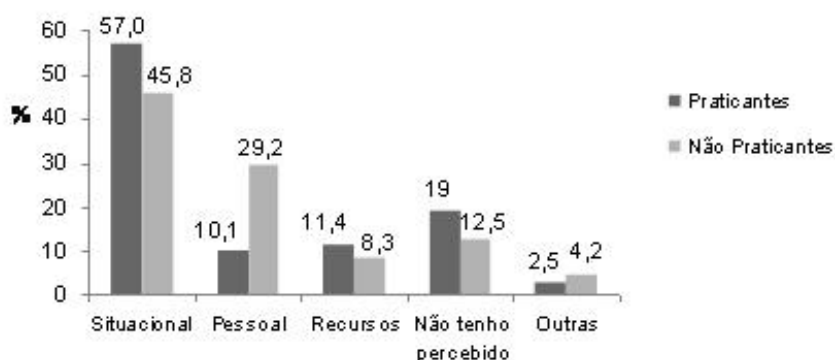
\* Fisher exact's test; + Tertile.

Table 3: Frequency of perceived barriers regarding the socio-demographic indicators for PE-university students in the State of Bahia, Brazil. 2007.

Variables	Situational		Personal		Resources		Non-perception		Other		p*
	N	%	N	%	N	%	N	%	N	%	
<b>Gender</b>											0.41
Male	35	59.3	7	11.9	8	13.6	8	13.6	1	1.7	
Female	22	48.9	8	17.8	3	6.7	10	22.2	2	4.4	
<b>Age+</b>											0.40
17-20	17	53.1	5	15.6	2	6.3	8	25.0	-	-	
21&22	9	40.9	4	18.2	2	9.1	6	27.3	1	4.5	
23-42	27	60.0	6	13.3	6	13.3	4	8.9	2	4.4	
<b>Family income (Reais)</b>											0.91
$\leq$ R\$ 1750.00	28	57.1	6	12.2	7	14.3	7	14.3	1	2.0	
$\geq$ R\$ 1751.00	25	55.6	7	15.6	4	8.9	8	17.8	1	2.1	

\* Fisher exact's test; + Tertile.

Regarding the association among barriers and classification of players and non-players, there was not significant relation ( $p=0.21$ ). However, both university student players and non-players reported situational factors as the main limits. It is important that the non-players presented, as the second barrier to the practice, barriers regarding personal origin (figure 1).



Barreiras para a prática de atividade física no lazer

Figure 1: Frequency of Perceived barriers regarding players' and non-players' condition for physical activities during leisure in PE-university students (N=103)

## Discussion

In a study on physical activity for university students in Egypt, it was observed that the non-completion of exercise (33.8 %) was prevalent (ABOLFOTOUH et al., 2007). By contrast, among Brazilian university students of Tocantins was 29.9 % (RODRIGUES; CHEIK; MAYER, 2008). Marcondelli et al. (2008) observed a high level of sedentary lifestyle regarding healthcare students (Medicine, Nutrition, Pharmacy, Nursing, Dentistry and Physical Education) from Brasilia, except PE students. Such results show that a part of the university students in and out of the country presents low levels for PA.

The main physical activities practised, for both men and women, were the collective sports and gymnastics or weight training. Practising such activity is important and can be related to age, considering the frequency to practise such activities was higher for the university students until the age of 22. Such differences, however, were not significant to the this study. By contrast, studying youngsters, a similar tendency was observed (SILVA; MALINA, 2001; HALLAL et al., 2006). Current information from national survey in the 26 Brazilian capitals and Federal District showed that men and women (18 y.o. or over) reported they practised more the walking. Also, such activity is more practised by women (MALTA et al., 2009). Such observation was also observed in Ireland women (LIVINGSTONE et al., 2001).

A higher frequency of women, however, in this study revealed not

practising physical activities, being such difference significant for genders. A lower level for PA can be observed since the initial stages of life for the female gender, as observed with young women from Niterói, Rio de Janeiro (SILVA; MALINA, 2001) and from the State of Santa Catarina (SILVA et al., 2008). It also happened to other studies with adolescents (GORDON-LARSEN; NELSON; POPKIN, 2004; HARDY et al., 2008). Other research with adults demonstrated a similar tendency with lower levels for practice of physical activities during leisure regarding women (SALLES-COSTA et al., 2003; PIT-ANGA; LESSA, 2005).

Regarding the university students, men presented higher levels for practice than women (RABELO et al., 1999; SILVA et al., 2007). As seen in research by using university students of PE course in the Federal University of Pelotas, the prevalence of practising physical activities during leisure was higher for men (150 min or more a week) than women (BIELEMANN et al., 2007). For university students from Alexandria (Egypt), the prevalence for non-practice of physical exercises was higher for women (ABOLFOTOUH et al., 2007). Based on research information for different population groups, it is necessary encourage people to practise physical activities, in particular regarding women and physical activities during leisure; considering the beneficial effect for regular practice on health (UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES – USDHHS, 2008). A lower practice of physical activities during leisure for women can be related to cultural issues, which can help men taking part in intense activities (MALTA et al., 2009); further, a potential involvement of women, when children and adolescents, in artistic-cultural activities, e.g. dance (SILVA; MALINA, 2000) and taking part in games with ball (HALLAL et al., 2006). Thus, it can be related to how the practice within adult life is represented, besides matters for double shift work regarding women, which mean important elements according to a lower frequency of practice during leisure.

Other information widely observed is the higher prevalence of physical inactivity during leisure for university students of lower income. Bielemann et al. (2007) showed, by using PE students, that the university students of lower social class exhibited lower levels for practice of physical activities during leisure. Such fact agree with the results of this study, that 33 % of the university students of family lower income reported not practising physical activities. The leisure

active in lower income subjects is in many cases replaced by other activity, in particular those regarding occupational characteristics, focusing on supplying potential economic and family needs.

Other element straight related to the practice of physical activities during leisure is the educational component. Higher educational levels represent an important element which eases practising physical activities (BRASIL, 2009) for university students. Therefore, one can observe that those from the last period of the university, inclined to information on health benefits, tend to show lower levels for practice (BIELEMANN et al., 2007; FONTES; VIANNA, 2009). It may be related to a major worry to insert in the labour market and/or own activities of the course, representing a potential limit for the practice. In addition, by observing the barriers in physical activity for university students in this study, the components of situational origin are the main limiting factors for women and men, as well as for university students from a University of Southern California, USA (DUNTON; SCHNEIDER, 2006). One believes, however, that such situational factors can mostly represent an ordinary practice during leisure.

The situational factors, moreover, relevant elements to limit practices, were observed in other research, in particular regarding adolescents (MARANI; OLIVEIRA; GUEDES, 2007; ALLISON; DWYER; MAKIN, 1999; ZUNFT et al., 1999). In a research with adolescents in the last year of secondary school, was observed that the lack of time represented the main limit factor, being such frequency higher for the women than men (MARANI; OLIVEIRA; GUEDES, 2007). Similarly, adolescents from the metropolitan region of Toronto also reported the lack of time as the principal barrier to practise PA, stressing barriers related to responsibility for studies and family (ALLISON; DWYER; MAKIN, 1999). In another research including 15 counties from EU was observed that the responsibility for study and labour represented the principal perceived barriers to practise PA regarding 15–y.o. (or more) subjects (ZUNFT et al., 1999). The information presented, in particular regarding adolescents, means important indicators to create strategies focusing on the active lifestyle, since most new university students just finished their secondary education.

Study on barrier description for practising PA has been conducted for different population (REICHERT et al., 2007; SILVA; PETROSKI; REIS, 2009). The important diagnosis of the potential factors which limit the practice help how to understand the process linked to



the human behaviour. Such behaviour includes different answers from socio-environmental and individual contexts which affect differently in the way the individual lifestyle is adopted. In this wise, considering the lifestyle as a conception for actions, values and opportunities (NAHAS; BARROS; FRANCALACCI, 2000), other measures can be performed by clearing hypotheses which can create public policies, and, for the university students in particular, institutional actions which provides an active life.

An interesting characteristic of this study was the quality of subjects who take part in it and that represented the PE university students from the institution investigated. Moreover, other potential behavioural variables were corrected by the short collection period (two weeks). As limit, the group investigated tend to show higher levels for PA practice than students from other courses (MARCONDELLI et al., 2008; SILVA et al., 2007); hence, could have been overestimated the practice level of such university students. As another limit, the analysis performed does not allow to control the confounding variable, but represents important indicators regarding the main activities practised and perceived barriers from such practice.

## **Conclusion**

The main type of practice regarding physical activities during leisure for university students was the collective sports and gymnastics or weight training. The women, however, exhibited higher frequency for non-practice of physical activities; therefore, being different among the genders statistically significant. Concerning the other socio-demographic indicators, e.g. age and income, statistical observation was not observed. For barriers regarding practice of physical activities, was observed a predominance of situational origin, i.e. responsibility for family and study, besides unseasonable weather and overwork, for both men, women and university students who took part in it and non-players concerning physical activities during leisure.

The diagnosis of the barriers for PA practice means important information which allow to clarify potential hypotheses related to the practice description for university students. Thus, such population can acquire negative habits, e.g. a PA low level. It is stressed the need for better opportunities regarding the practice of physical activities during leisure, in particular for women; further, measures to importantly en-

courage the practice during leisure, which help to organise and therefore adopting an active way of life. Gathering information, in addition, regarding the university students from other courses is necessary, focusing on understanding the distribution of the principal practices concerning physical activities and limiting factor from such practice. Therefore, it will allow actions by means of the project and/or planning for intervention, as well as institutional measures which contribute to ameliorate the PA practices.

---

#### **Acknowledgements**

To the PE university students, who took part in this study and to the team of research Group of Research for Physical Activity and Health in the State University of Santa Cruz, in Ilhéus city (State of Bahia, Brazil).

---

#### **Bibliographic references**

ABOLFOTOUH, M. A. et al. Health-related lifestyle and risk behaviours among students living in Alexandria University hostels. **East Mediterranean Health Journal**, Egypt, v. 13, n. 2, p. 376-91, mar./abr., 2007.

ALLISON, K. R.; DWYER, J. J. M.; MAKIN, S. Perceived barriers to physical activity among high school student. **Preventive Medicine**, Estados Unidos, v. 28, n. 6, p. 608-15, jun., 1999.

BARROS, M. V. G. **Atividades físicas no lazer e outros comportamentos relacionados à saúde dos trabalhadores da indústria no estado de Santa Catarina, Brasil**. 1999. 131f. Dissertação (Mestrado em Educação Física) – Curso de Educação Física, Centro de Desportos, Universidade Federal de Santa Catarina, Florianópolis, 1999.

BARROS, M. et al. Effectiveness of a school-based intervention on physical activity for high school students in Brazil: the Saude na Boa project. **Journal of Physical Activity Health**, Estados Unidos, v. 6, n. 2, p. 163-169, mar., 2009.

BIELEMANN, R. et al. Prática de atividade física no lazer entre acadêmicos de Educação Física e fatores associados. **Revista Brasileira de Atividade Física & Saúde**, Florianópolis, v. 12, n. 3, p. 65-72, set./dez., 2007.

BRASIL. Ministério da Saúde. Instituto Nacional do Câncer. Coordenação de Prevenção e Vigilância. **Inquérito domiciliar sobre com-**

**portamentos de risco e morbidade referida de doenças e agravos não-transmissíveis:** Brasil. 15 capitais e Distrito Federal, 2002-2003. 183f. Rio de Janeiro: INCA. 2004.

BRASIL. Ministério da Saúde. **Vigilância de fatores de risco e proteção para Doenças Crônicas por inquérito telefônico:** estimativas sobre frequência e distribuição sócio-demográfica de fatores de risco e proteção para doenças crônicas nas capitais dos 26 Estados brasileiros e no Distrito Federal em 2006. 114f. Brasília: Ministério da Saúde. 2009.

DUNTON, G. F.; SCHNEIDER, M. Perceived barriers to walking for physical activity. **Preventing Chronic Disease**, Estados Unidos, v. 3, n. 4, p. 1-11, out., 2006.

FONTES, A. C. D.; VIANNA, R. P. T. Prevalência e fatores associados ao baixo nível de atividade física entre estudantes universitários de uma universidade pública da região Nordeste. **Revista Brasileira de Epidemiologia**, São Paulo, v. 12, n. 1, p. 20-9, mar., 2009.

GORDON-LARSEN, P.; NELSON, M.; POPKIN, B. Longitudinal physical activity and sedentary behavior trends adolescence to adulthood. **American Journal of Preventive Medicine**, Estados Unidos, v. 27, n. 4, p. 277-83, nov., 2004.

GUEDES, D. P.; SANTOS, C. A.; LOPES, C. C. Estágios de mudança de comportamento e prática habitual de atividade física em universitários. **Revista Brasileira de Cineantropometria e Desempenho Humano**, Florianópolis, v. 8, n. 4, p. 5-15, out./dez., 2006.

HALLAL, P. et al. Prevalência de sedentarismo e fatores associados em adolescentes de 10-12 anos de idade. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 22, n. 6, p. 1277-287, jun., 2006.

HARDY, L. et al. Physical activity among adolescents in New South Wales (Australia): 1997 and 2004. **Medicine and Science in Sports and Exercise**, Estados Unidos, v. 40, n. 5, p. 835-41, mai., 2008.

LIVINGSTONE, M. et al. Physical activity patterns in a nationally representative sample of adults in Ireland. **Public Health Nutrition**, Inglaterra, v. 4, n. 5A, p. 1107-16, out., 2001.

MALTA, D. et al. Padrão de atividade física em adultos brasileiros: resultados de um inquérito por entrevistas telefônicas, 2006. **Epidemiologia e Serviços de Saúde**, Brasília, v. 18, n. 1, p. 7-16, mar., 2009.

MARANI, F.; OLIVEIRA, A. R.; GUEDES, D. P. Indicadores comportamentais associados à prática de atividade física e saúde em escolares do ensino médio. **Revista Brasileira de Ciências do Movimento**, Brasília, v. 15, n. 2, p. 39-46, abri./jun., 2007.

MARCONDELLI, P.; et al. Nível de atividade física e hábitos alimentares de universitários do 3º ao 5º semestres da área da saúde. **Revista de Nutrição**, Campinas, v. 21, n. 1, p. 39-47, jan./fev., 2008.

NAHAS, M. V.; BARROS, M. V. G.; FRANCALACCI, V. O pentágono do bem estar – base conceitual para avaliação do estilo de vida de indivíduos ou grupos. **Revista Brasileira de Atividade Física & Saúde**, Florianópolis, v. 5, n. 2, p. 48-59, 2000.

NASCIMENTO, C. M. C. et al. Nível de atividade física e as principais barreiras percebidas por idosos de Rio Claro. **Revista de Educação Física**, Maringá, v. 19, n.1, p. 109-18, jan./mar., 2008.

PATE, R. et al. Promotion of physical activity among high-school girls: a randomized controlled trial. **American Journal of Public Health**, Estados Unidos, v. 95, n. 9, p. 1582-1587, set., 2005.

PITANGA, F. J. G.; LESSA, I. Prevalência e fatores associados ao sedentarismo no lazer em adultos. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 21, n. 3, p. 870-7, mai./jun., 2005.

RABELO, L. M. et al. Risk factors for atherosclerosis in students of a private university in São Paulo – Brazil. **Arquivos Brasileiros de Cardiologia**, Rio de Janeiro, v. 72, n. 5, p. 575-80, mai., 1999.

REICHERT, F. F. et al. The role of perceived personal barriers to engagement in leisure-time physical activity. **American Journal of Public Health**, Estados Unidos, v. 97, n. 3, p. 515-9, mar., 2007.

RODRIGUES, E. S. R.; CHEIK, N. C.; MAYER, A. F. Nível de atividade física e tabagismo em universitários. **Revista de Saúde Pública**, São Paulo, v. 42, n.4, p. 672-78, ago., 2008.

SALLES-COSTA, R. et al. Associação entre fatores sócio-demográficos e prática de atividade física de lazer no estudo Pró-Saúde. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 19, n. 4, p. 1095-105, jul./ago., 2003.

SALLIS, J. et al. The effects of a 2-year physical education program (SPARK) on physical activity and fitness in elementary school students. **American Journal of Public Health**, Estados Unidos, v. 87, n. 8, p.1328-34, ago., 1997.

SILVA, G. S. F. et al. Avaliação do nível de atividade física de estudantes de graduação das áreas saúde / biológica. **Revista Brasileira de Medicina do Esporte**, Rio de Janeiro, v. 13, n. 1, p. 39-42, jan./fev. 2007.

SILVA, R.; MALINA, R. Nível de atividade física em adolescentes do município de Niterói, Rio de Janeiro, Brasil. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 16, n. 4, p. 1091-7, out., 2000.

SILVA, D. A. S.; PETROSKI, E. L.; REIS, R. S. Barreiras e facilitadores de atividades físicas em frequentadores de parques públicos. **Motriz**, Rio Claro, v. 15, n. 2, p. 219-27, abri./jun., 2009.

SOUSA, T. F. Autoavaliação do nível de saúde em estudantes de Educação Física. **Revista Saúde e Pesquisa**, Maringá, v. 2, n. 1, p. 17-21, jan./abr., 2009.

SOUSA, T. F. et al. Associação entre indicadores de prática de atividades físicas na adolescência com o nível atual de prática de atividades físicas no lazer em acadêmicos de um curso de Educação Física no Nordeste do Brasil. **Revista Pensar a Prática**, Goiânia, v. 12, n. 3, set./dez., 2009. Disponível em: <<http://www.revistas.ufg.br/index.php/fef/article/view/6521/5975>>. Acesso em: 10 jan. 2010.

UNITED STATES DEPARTMENT OF HEALTH AND HUMAN SERVICES (USDHHS). **Physical activity guidelines for Americans**. Washington, 2008. Disponível em: <<http://www.health.gov/paguidelines/pdf/paguide.pdf>>. Acesso em: 20 out. 2008.

WORLD HEALTH ORGANIZATION (WHO). **The World Health Report 2002**. Reducing risks, promoting healthy life. Geneva, 2002. Disponível em: <[http://www.who.int/whr/2002/en/whr02\\_en.pdf](http://www.who.int/whr/2002/en/whr02_en.pdf)>.

Acesso em: 24 jan. 2008.

ZUNFT, H. F. et al. Perceived benefits and barriers to physical activity in a nationally representative sample in the European Union. **Public Health Nutrition**, Inglaterra, v. 2, n. 1a, p. 153-60, mar., 1999.

---

Recebido em: 15/12/2009

Revisado em: 17/03/2010

Aprovado em: 21/04/2010

**Endereço para correspondência**

tfsousa\_thiago@yahoo.com.br

Thiago Ferreira de Sousa

Universidade Federal de Santa Catarina

Coordenadoria de Pós-Graduação em Educação Física

Campus Universitário,

CEP: 88.040-900

Florianópolis - Santa Catarina - Brasil