

# Master's Degree Program in Physical Education at the Federal University of Sergipe: profile, difficulties and perspectives

Mestrado em Educação Física da Universidade Federal de Sergipe: perfil, dificuldades e perspectivas

Antonio Cesar Cabral de Oliveira  
 Rogério Brandão Wichi  
 Afrânio de Andrade Bastos  
 Anderson Carlos Marçal  
 Carlos Roberto Rodrigues Santos  
 Ciro José Brito  
 Danilo Ribeiro Guerra  
 Emerson Pardono  
 José Aderval Aragão  
 Marco Antonio Prado Nunes  
 Marcos Bezerra de Almeida  
 Raquel Simões Mendes Netto

Postgraduate Program in Physical Education at the Federal University of Sergipe. São Cristóvão, SE, Brasil.

## Abstract

This paper presents the Physical Education Graduate Program at Sergipe Federal University (Master of Physical Education), which started in 2012. The areas of concentration are Physical Activity, Health and Sports, and under the following research directions: physical activity and health-related quality of life; determinant factors of practice and physical performance; morphofunctional adaptations of the physical exercise. The Program has been ranked by CAPES with a grade three, offering annual application for candidates graduated in physical education and related areas.

**Keywords:** Postgraduate programs; Master's degree; Physical education.

## Resumo

O presente artigo apresenta o Programa de Pós-Graduação em Educação Física da Universidade Federal de Sergipe (Mestrado em Educação Física), cujo início ocorreu no primeiro semestre de 2012. Tem como área de concentração Atividade Física, Saúde e Esporte e linhas de pesquisa: atividade física relacionada à saúde e qualidade de vida; fatores determinantes da prática e do rendimento esportivo; adaptações morfofuncionais do exercício físico. Está conceituado pela CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) com nota três, oferece seleção anual e está direcionado a graduados em Educação Física e áreas afins.

**Palavras-chave:** Pós-Graduação, Mestrado, Educação Física

## ENDEREÇO PARA CORRESPONDÊNCIA

Antonio Cesar Cabral de Oliveira  
 Universidade Federal de Sergipe  
 Pró-Reitoria de Pós-Graduação e Pesquisa  
 Núcleo de Pós-Graduação em Educação Física  
 Cidade Universitária Prof. José Aloísio de Campos  
 Jardim Rosa Elze  
 CEP 49100-000  
 São Cristóvão - Sergipe  
 e-mail: npgef@ufs.br

• Recebido: 31/07/2012  
 • Re-submissão: 01/08/2012  
 • Aceito: 02/08/2012

### From the beginning to the future directions

Society has undergone changes caused by the globalization of the economy, technological advance, new employment relations and social and cultural conceptions, in which the search for new mechanisms to improve quality of life poses challenges to the economic and educational relations.

The Federal University of Sergipe (UFS), the main federal public higher education institution in the state of Sergipe, is aware of this context and it has thus shown an interest in the implementation of new postgraduate courses to meet the needs of the local community. In addition, this university has been sensitive to the global context, aiming to qualify competent professionals, enabling an improvement in their living conditions through the transmission of new knowledge generated by programs that include teaching, research and continuing education.

In this context, the Department of Physical Education of the Federal University of Sergipe proposed the creation of the Postgraduate Program in Physical Education (PPGEF/UFS), realizing the need to contribute to this whole process more effectively.

Certain aspects seemed to fully justify the proposal. The state of Sergipe and the Northeastern region of Brazil need a faster scientific-technological development process. Increasingly, well-qualified professionals have been required for the good functioning of not only the job market, but especially society as a whole.

Additionally, official documents from the CAPES<sup>1,2</sup> (Coordination for the Improvement of Higher Education Personnel) indicated that there was a quantitative difference between undergraduate and postgraduate education in the area of Physical Education. At that moment, there were approximately 800 undergraduate courses in Physical Education and only 24 postgraduate research programs, of which only two (8%) were in the Northeastern region. Of these two programs, one derived from the association between the State University of Pernambuco and the Federal University of Paraíba, while the other was held at the Federal University of Rio Grande do Norte.

In the light of this situation, the Federal University of Sergipe is in a privileged geographical location where it can meet the restricted demand in the states of Sergipe, Bahia and Alagoas, resulting from nearly 25 undergraduate courses in Physical Education present in these three states.

In this sense, a Master's Degree Course in Physical Education, the third to be authorized by the CAPES in the Northeastern region, would promote the qualitative development of this area, increasing the production of knowledge about Physical Education in the state of Sergipe and Brazilian Northeastern region.

On July 22<sup>nd</sup>, 2011, the Federal University of Sergipe Teaching, Research and Continuing Education Council (CONEPE) issued Resolution 54/2011/CONEPE, which created the Postgraduate Program in Physical Education, its Internal Regulations and Curriculum Structure of the Master's Degree Course. On July 26<sup>th</sup>, 2011, a New Course Proposal Application was submitted to the CAPES and subsequently approved by its Technical Scientific Council in December 2011, after the legal proceedings had been undertaken.

The proposed course had the following objectives: to stimulate and develop the production and transmission of knowledge in the area of Physical Education; to contribute to the qualification of researchers and professors to work in higher education; to increase the processes of exchange of knowled-

ge and experiences with society, aiming to meet the social demands and transmitting the knowledge produced in the area; and to consolidate the research on Physical Education performed in the state of Sergipe and Brazilian Northeastern region.

The area of concentration defined was Physical Activity, Health and Sports, including knowledge about Physical Education associated with health and sports and taking into consideration physical activity aspects associated with health and quality of life and factors determining sports practice and performance and morpho-functional adaptations of physical exercises. This choice was based on the Federal University of Sergipe Department of Physical Education's approach towards the development of projects connected to teaching, research and continuing education about physical activity and health since 2003.

As an example, there is the implementation of a movement to provide the state of Sergipe community with a continuing education project entitled "*Academia da Cidade*" (City Fitness Club), which seeks to raise awareness of the health process associated with quality of life and physical activity. Activities are held in public spaces such as pedestrian zones, squares and blocks, in addition to spaces provided by residents' associations and parish rooms. Currently, there are more than 2,500 participants distributed in 15 districts of the city of Aracaju. Every day, nearly 800 individuals walk, do gymnastics and other physical activities in their respective districts. This project has been used as a laboratory for teaching and research and several academic productions such as free themes<sup>3-7</sup>, scientific articles<sup>8-11</sup>, book chapters<sup>12</sup> and Master's degree dissertations<sup>12</sup> have originated from this relationship.

Events that discuss themes related to Physical Activity, Health and Sports reflect the great involvement of the Federal University of Sergipe Department of Physical Education with debates about physical activity and health. One such event is the Northeastern Region Symposium on Physical Activity and Health, which has had ten editions, three of which were held in the city of Aracaju, SE, in 2003, 2008 and 2010, where there were nearly 800 participants in each edition.

The development of the City of Sergipe Research and Physical Fitness Group (NUPAFISE/DEF/UFS) with the involvement of new professors from the Department of Physical Education, thus increasing academic production and the number of projects and undergraduate research interns, was another relevant factor that emphasized the importance of the Federal University of Sergipe Department of Physical Education in the production, discussion and transmission of knowledge in the area of Physical Activity, Health and Sports and that showed the need for greater academic investment in this area.

The proposal submitted to the CAPES included a faculty of 13 professors, of which 11 were permanent professors and two were collaborators, who belonged to departments such as Physical Education, Medicine, Nutrition and Morphology.

The following lines of research were defined, taking into consideration the program objectives and academic profile of the faculty: 1) Physical activity associated with health and quality of life, aimed at the study of the relationships among physical activity, health, living conditions and quality of life, in addition to intervention programs and processes in several populations and special groups. This research direction is followed by Professors Antonio Cesar Cabral de Oliveira, Carlos Roberto Rodrigues Santos, Danilo Ribeiro Guerra, José Aderval Aragão and Marco Antonio Prado Nunes; 2) Factors that determine sports performance and practice, aimed at the study of factors associated with adherence to physical activi-

ty and sports, with sports performance, and with the sports teaching-learning-training process. This research direction is followed by Professors Afrânio de Andrade Bastos, Ciro José Brito, Marcos Bezerra de Almeida and Raquel Simões Mendes Netto; 3) Morpho-functional adaptations of physical exercise, aimed at the study of morpho-functional adaptations induced by physical exercise in humans and experimental models. This research direction is followed by Professors Anderson Carlos Marçal, Emerson Pardono and Rogerio Brandão Wichi.

In December 2011, following the recommendation of "Area 21", the CAPES approved the Master's Degree Program in Physical Education at the Federal University of Sergipe, ranking it with a grade 3.

There are several research and continuing education projects being developed and including the teaching and student body of this Postgraduate Program. The following can be mentioned as examples: growth, body composition and physical performance characteristics of the state of Sergipe students in a longitudinal study; participation in sports competitions as a source of stress in adolescents who practice group sports; interest in physical activity and its relationship with health and quality of life concepts; analysis of sports dropout in the city of Aracaju; influence of the cardio-respiratory system and energy metabolism on the performance; four-second exercise test: physiological and methodological aspects of the heart rate in exercise; cardiovascular responses to strength exercise; effects of beta-adrenergic stimulants on the resting heart rate, vagal activity and cardio-vascular response during sub-maximal exercise; health risk behavior in adolescents of the City of Aracaju Metropolitan Area; central action of the lippia alba essential oil (mill) N.E.Br. (Brazilian lemon balm) in cardiovascular control; resistance exercise and its effects on sensitivity to insulin in experimental animals with type 2 diabetes; post-exercise hypotension in normotensive young adults of the city of Aracaju and its relationship with ACE (Angiotensin-converting enzyme) I/D polymorphism; relationship between the maximum stable state of lactate and the dynamic balance between blood lactate production and removal, in addition to the determination of minimum lactate and glycemia with the polynomial function; effects of different intensities of resistance exercises on the Fos paraprotein marker in the central nervous system of mice; Fos protein activation as a response to resistance exercise after supplementation with L-arginine; body weight loss practices in young judo fighters; food consumption and anthropometric profile of sports-practicing adolescents of the city of Aracaju; and nutrition education as a tool to adopt healthy eating habits in physically active individuals of sports centers in the city of Aracaju.

The program's target audience are the graduates in Physical Education and related areas. This possibility of diversification enables an effective exchange of information and better multi-disciplinary qualification. However, themes related to physical activity, health and sports must necessarily be included in the object of study of Master's degree students, regardless of the area of their undergraduate studies. The selection process is annual and regulated by public notices posted on the webpage of the Postgraduate Program in Physical Education (<http://200.17.141.110/pos/educacaofisica/>) or that of the Federal University of Sergipe ([www.ufs.br](http://www.ufs.br)). The first public notice offered 11 job vacancies and approximately 24 vacancies distributed into three lines of research are expected to be available on the next one. The PPGEF/UFS granted four Master's degree scholarships to the first class, of which two

were from the CAPES and the other two from the FAPITEC/SE (State of Sergipe Technological Innovation and Research Support Foundation). The first selection process for the Master's degree program in Physical Education at this university occurred in four stages, including an English Proficiency Test that required a minimum score of six for approval. The other stages required for approval were as follows: curriculum assessment, research project assessment and interview.

Among the challenges for the near future, the PPGEF/UFS will need to consolidate and prove that it is capable of achieving the objectives established in the initial proposal. Through its three-year analysis and academic qualification and production indicators, the CAPES will be monitoring the program's development. It is understandable that any postgraduate programs will initially face certain administrative and academic challenges. However, it is necessary to pay attention to the current difficulties that can interfere with the process of consolidation.

First, one should be reminded that the state of Sergipe is situated in the Brazilian Northeastern region, geographically distant from the major research centers in the country. This fact hinders the debate about science among researchers, the participation of students and professors in scientific events held in the Southeastern and Southern regions, and the participation in research theme groups found in these same regions. Thus, it is essential for Postgraduate Programs located in the Northeastern region to establish partnerships, seeking to strengthen academic debate and knowledge production. The PPGEF/UFS has been in close contact with several other programs, aiming to establish official student and professor exchange programs with other national and international higher education institutions, such as the University of Brasília, Catholic University of Brasília, Federal University of Minas Gerais, Federal University of Viçosa, the Heart Institute of the University of São Paulo Medical School, Nove de Julho University (São Paulo) and São Judas Tadeu University (São Paulo) in Brazil, and the University of Porto (Portugal), University of León (Spain) and Wright State University (Ohio, USA).

Another limiting factor is the difficult access to new research technologies. The search for funding has helped the purchase of new equipment. Several PPGEF/UFS professors have received support through public notices from the CNPq (National Council for Scientific and Technological Development) and FAPITEC. It should be noted that the FAPITEC does not have the same budgetary and managerial dimension as research support agencies from other states. However, PPGEF/UFS professors who have been granted resources now encounter difficulties in the enlargement of research laboratories to install new equipment. Thus, the UFS administration and the NPGEF (Postgraduate Program in Physical Education Center) must work together to enlarge not only the laboratories, but also the classrooms, orientation rooms and recreation rooms for the Postgraduate Program professors and students. Although not preventing academic qualification and production, this can be a limiting factor. The enlargement of the premises will enable the development of these factors, further promoting the growth of the PPGEF/UFS. This will also help newly arrived professors, who are currently participating in the Postgraduate Program, to settle at the Federal University of Sergipe, in addition to attracting new professors to this Program.

In conclusion, the PPGEF/UFS is working with defined goals geared towards an immediate increase in the number of qualified professors, especially those graduated in Physical

Education, apart from increased investments in physical spaces associated with this Postgraduate Program.

## FINAL CONSIDERATIONS

The creation of the Postgraduate Program in Physical Education in the state of Sergipe will meet the restricted demand for professional qualification found in the Northeastern region, contributing to the qualification of professionals and production of knowledge in the area of Physical Education in Brazil.

## REFERENCES

1. Brasil. Ministério da Educação. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. Plano Nacional de Pós-Graduação – PNPg 2011-2020/Coordenação de Pessoal de Nível Superior. – Brasília, DF: CAPES, 2010.
2. Brasil. Ministério da Educação. Coordenação de Aperfeiçoamento de Pessoal de Nível Superior. Plano Nacional de Pós-Graduação – PNPg 2005-2011/Coordenação de Pessoal de Nível Superior. – Brasília, DF: CAPES, 2004.
3. Silva DAS, Mendonça BCA, Cabral de Oliveira AC. Influência das horas sentadas no nível de atividade física de mulheres a partir de 50 anos. In: VIII Simpósio Nordestino de Atividade Física e Saúde, 2007, Salvador. Anais VIII Simpósio Nordestino de Atividade Física e Saúde. Salvador: União Metropolitana de Educação - UNIME, 2007. p. 107-107.
4. Mendonça BCA, Silva DAS, Toscano JJO, Cabral de Oliveira AC. Relação entre nível de atividade física e domínios da qualidade de vida em mulheres ativas do programa academia da cidade em Aracaju.. In: VIII Simpósio Nordestino de Atividade Física e Saúde, 2007, Salvador. Anais VIII Simpósio Nordestino de Atividade Física e Saúde. Salvador: União Metropolitana de Educação - UNIME, 2007. p. 102-102.
5. Mendonça BCA, Santos AM, Toscano JJO, Cabral de Oliveira AC. Influência do Programa Academia da Cidade sobre a Percepção de Saúde, Capacidade Funcional, Relações Sociais e Consumo de Medicamentos em Mulheres na Cidade de Aracaju. In: II Seminário Brasileiro de Efetividade da Promoção de Saúde, 2008, Rio de Janeiro. Anais do II Seminário Brasileiro de Efetividade da Promoção de Saúde, 2008.
6. Silva DAS, Mendonça BCA, Cabral de Oliveira AC. Atividade física e promoção da saúde: o modelo Academia da Cidade de Aracaju-SE. In: VI Congresso Sul Brasileiro de Geriatria e Gerontologia. V Jornada Catarinense de Geriatria e Gerontologia, 2009. Envelhecimento e Comorbidade: Interfaces terapêuticas para qualidade de vida. Florianópolis, 2009. p. 64-64
7. Cabral de Oliveira AC, Toscano JJO. Alterações no somatório de dobras cutâneas e no perímetro da cintura em um programa de promoção da atividade física. In: XIII Congresso Brasileiro de Obesidade e Síndrome Metabólica, 2009, Salvador - BA. Arquivos Brasileiros de Endocrinologia e Metabologia. São Paulo - SP: Segmento Forma, 2009. v. 53. p. S586-S586.
8. Silva DAS, Mendonça BCA, Cabral de Oliveira AC. Qual é o impacto do comportamento sedentário na aptidão física de mulheres a partir de 50 anos de idade? Revista Brasileira de Cineantropometria & Desempenho Humano (Online), v. 14, p. 154-163, 2012.
9. Mendonça BCA, Cabral de Oliveira AC, Toscano JJO, Knuth AG, Borges TT, Malta DC, Cruz DK, Hallal PC. Exposure to a community-wide physical activity promotion program and leisure-time physical activity in Aracaju, Brazil. Journal of Physical Activity & Health, v. 7, p. S223-S228, 2010.
10. Toscano JJO, Cabral de Oliveira AC. Qualidade de Vida em Idosos com Distintos Níveis de Atividade Física. Revista Brasileira de Medicina do Esporte, v. 15, p. 170-174, 2009.
11. Mendonça BCA, Toscano JJO, Cabral de Oliveira AC. Do diagnóstico à ação: experiências em promoção da atividade física. Programa Academia da Cidade, promovendo saúde por meio da atividade física. Revista Brasileira de Atividade Física e Saúde, v. 14, p. 211-216, 2009.
12. Mendonça BCA, Hallal PRC, Soares J, Amorim TC, Knuth AG, Cabral de Oliveira AC.. Programa Academia da Cidade de Aracaju. In: Ministério da Saúde. (Org.). Avaliação de Efetividade de Programas de Atividade Física no Brasil. Avaliação de Efetividade de Programas de Atividade Física no Brasil. 1ªed. Brasília: Ministério da Saúde, 2011, v. 01, p. 107-120.
13. Mendonça BCA. Avaliação de efetividade do programa academia da cidade: influência na utilização de espaços públicos. Dissertação de Mestrado em Ciências da Saúde. Universidade Federal de Sergipe, UFS, Brasil. 2009.