CENTRO DE CIÊNCIAS DA SAÚDE
PROGRAMA DE PÓS-GRADUAÇÃO EM EDUCAÇÃO FÍSICA (PPGEF-UFPE)
CURSO DE MESTRADO ACADÊMICO
EDITAL DE SELEÇÃO DISCENTE 2021.2

PROVA ESCRITA

CPF:
Data: 02/07/2021
Horário de início: 14:00
Horário final: 17:00
Horário de envio: até 17:05
Endereço para envio da prova: ppgef@ufpe.br

QUESTÃO 1. O resumo a seguir foi retirado de um artigo científico desenvolvido por um grupo de pesquisadores participantes da equipe que desenvolveu recomendações para a prática de atividade física para diferentes grupos etários do Brasil. Leia o texto e elabore: (a) um título para o manuscrito; (b) Escolha três palavras-chave/descritores adequados para o resumo (1,0 pt)

Abstract

This paper describes the process of establishing physical activity recommendations for children up to five years old included in the Physical Activity Guidelines for the Brazilian Population. The development of these recommendations was based on the guidelines proposed by the World Health Organization in 2019. Theoretical support was gathered by using the following strategies: 1-Scoping review conducted to update the body of knowledge about the correlates and determinants of physical activity in children 0-5 years old; 2-synthesis of the existing national physical activity guidelines; 3-Online interviews with parents and teachers aiming to identify their degree of difficulty in understanding the recommendations contained in the World Health Organization Physical Activity guidelines and to identify barriers and strategies for improving the involvement of children in physical activities; and, 4-Public consultation. All actions were developed in the period from May to December 2020, by a working group composed of researchers with expertise in this field and representatives of the Ministry of Health. As a result, a total of 35 recommendations were included in the Brazilian guidelines,

10 of which were related to benefits, four to the dose, seven to the types of activities, seven to the strategies for improving practice, and seven others related to the reduction of sedentary behavior. When relevant and possible, these recommendations were differentiated for children from birth to one year of age, 1-2 years, and 3-5 years. The main message is that any physical activity is better than none and that sedentary behavior should be reduced.

QUESTÃO 2. A partir da leitura da introdução apresentada a seguir: (a) Descreva os problemas de pesquisa que o estudo pretende responder; (b) Determine qual a variável dependente e quais as possíveis variáveis independentes que são levantadas a partir da abordagem teórica utilizada na introdução. (1,0 pt)

INTRODUCTION

The growth and human development are concomitant phenomena, however, distinct in their function and purpose, leading to different changes in the function and structure of the body[1], being influenced by a biological-cultural relationship, being shaped by individual factors (i.e., biological) and the contexts to which it is inserted (i.e., involvement in different environments)[2-4]. Therefore, due to the influence of body size (i.e., growth variability), it can modify the dynamics of some physical, physiological and / or biological variables[5]. As differences in body size and shape may confound motor competence (MC) and physical fitness (PF) variables[6] the allometric approach provides an insightful methodology to interpret differences in children's that are associated with changes in their body size and shape[7]. This approach is a method of mathematically expressing the extent to which a variable (i.e., physiologic, anatomic, or temporal) is related to a unit of body size, as size increases[8].

Currently, some studies identify the existence of a decline in motor competence from preschool age[9-11]. On the other hand, a series of studies points to the existence of a positive association between motor competence and health indicators (such as, healthy weight status, level of physical activity, cardiorespiratory capacity), highlighting that some individual variables (such as, age, sex, socioeconomic status) can influence levels of motor competence and consequently active and healthy development[12-14].

In fact, the development of motor competence results from a complex interaction of biological, maturational, physical, behavioral characteristics, in addition to a wide range of aspects related to environmental factors[15,16]. Thus, it is also necessary to identify the influence of different contextual characteristics (that make reference to the environment) in the

development of motor competence, among which we would highlight the school context, clubs / sports schools or even in the neighborhood where he resides[17-19].

In this sense, some studies report the existence of associations between individual variables (i.e., healthy weight status, socioeconomic status, gender, age) and contextual (i.e., type of school, physical education classes, presence of the offer of sports practices at school) with motor competence[12-14, 20]. In addition, other studies have examined different aspects of human performance considering allometric adjustments[6, 21-23] and finally other research used multilevel analysis or hierarchical modeling as a resource to identify the association and contribution to changing individual and contextual variables with different outcomes (i.e., physical activity, physical fitness and motor competence)[23-25]. However, only one study examined the association between physical activity, physical fitness and motor competence, using multilevel modeling, adjusted for body size in children[24]. Thus, the aim of this study is to analyze the association between individual variables, school context and motor competence of children through an allometric approach.

<u>QUESTÃO 3</u>. Avalie a situação apresentada a seguir:

A organização mundial da saúde (OMS), em documento recente define que a população adolescente precisa atender as recomendações de atividade física (AF) e comportamento sedentário (CS) para assim terem uma maior probabilidade de serem ativos ao longo da vida e obterem desfechos positivos de saúde. Dada essa informação, um grupo de pesquisadores desenvolveu um estudo onde foi avaliado o atendimento das recomendações de atividade física (60 minutos de atividade física de intensidade moderada a vigorosa por dia) e de comportamento sedentário (ponto de corte definido pelos autores: <2h de tempo de tela por dia) sendo as variáveis categorizadas em: Atende as recomendações (0); não atende as recomendações (1). Posteriormente, operacionalizaram a variável dependente para identificar qual padrão conjunto de AF e CS (Que atende as recomendações e que não atende as recomendações – variável dicotômica) estava relacionado a desfechos de saúde, tais como: status de peso (saudável e não saudável), sintomas depressivos (presença e ausência) e qualidade do sono (boa qualidade do sono e má qualidade do sono/distúrbios do sono).

- Dadas as informações, formule uma hipótese para o estudo (1,0 pt)

<u>QUESTÃO 4</u>. A Figura 1 do artigo caracteriza qual tipo de estudo? Descreva os pontos fortes e fracos desse tipo estudo (1,0 pt)

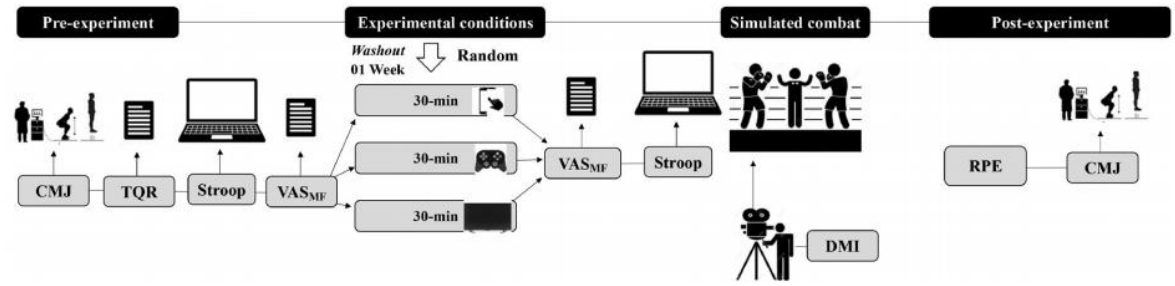

Figure 1. Design of study. CMJ: countermovement jump; TQR: total quality recovery; VAS_{MF}: Mental Fatigue Visual Analogue Scale; DMI: decision-making index

<u>QUESTÃO 5</u>. Qual a importância do grupo controle em estudo de intervenção? Para o desenho do estudo acima (Figura 1), torna-se necessário o grupo controle? (1,0 pt)

<u>QUESTÃO 6</u>. Com base na Figura 1 (Questão 4), sugira um objetivo para o estudo e descreva um plano de análise estatística que permita responder ao objetivo. (1,0 pt)

<u>QUESTÃO 7</u>. O que é validade interna e externa? Cite um aspecto que pode comprometer cada uma delas, validade interna e externa, respectivamente em um estudo? (1,0 pt)

As perguntas, a seguir, serão baseadas no estudo intitulado "DIFFERENT PRE-ACTIVATION METHODS ON EMG AND VOLUME DURING THE BENCH PRESS EXERCISE". Com base nos resultados, descritos e exibidos nas figuras abaixo, responda os seguintes questionamentos:

<u>QUESTÃO 8</u>. Quais as variáveis dependentes e independentes do estudo, considerando as Figuras 2 e 3, respectivamente? Apresente a resposta correspondente à cada uma das figuras. (1,0 pt)

RESULTS

The data presented in Figure 3 shows that EMG activity at the pectoralis major _____ at the bench press exercise _____of the experimental conditions (PA-SJ = 58.87 ± 12.74; PA-MJ = 56.18 ± 12.29; traditional method = 57.44 ± 13.14; P = 0.87).

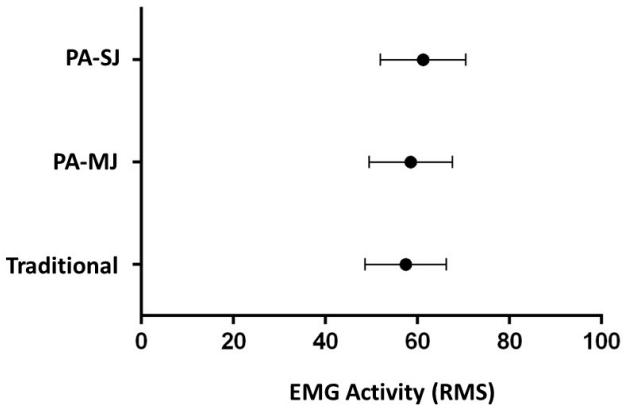

Figure 2. EMG activity of pectoralis major during PA-SJ, PA-MJ and traditional method. PA-SJ = Pre activation Single-joint; PA-MJ = Pre activation Multi-joint.

Regarding the volume of training Figure 4 shows that the number of repetitions performed was _____ from traditional method (9 ± 1.78; P = 0.036) compared to PA-SJ and PA-MJ.

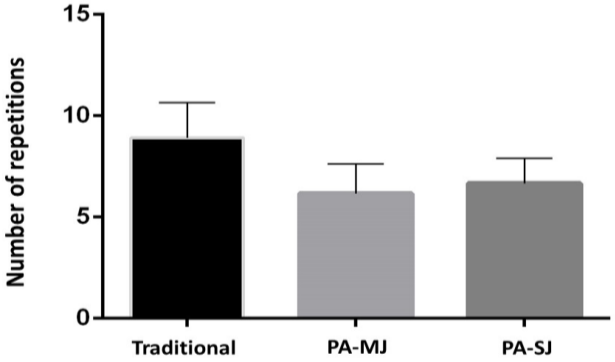

Figure 3. Number of repetitions performed for PA-SJ, PA-MJ and traditional method. PA-SJ = Pre activation Single-joint; PA-MJ = Pre activation Multi-joint.

<u>QUESTÃO 9</u>. Ainda de acordo com as Figuras 2 e 3, e considerando os resultados descritos, elabore uma conclusão. (1,0 pt)

<u>QUESTÃO 10</u>. 10.A partir do trecho abaixo, retirado da sessão de métodos, descreva e destaque o principal ponto forte do design do estudo. (1,0 pt)

Experimental approach to the problem

This is an experimental study with a crossover-counterbalanced design…