CENTRO DE CIÊNCIAS DA SAÚDE

PROGRAMA DE PÓS-GRADUAÇÃO EM EDUCAÇÃO FÍSICA (PPGEF-UFPE)

CURSO DE MESTRADO ACADÊMICO

PROVA ESCRITA

Horário de início: 9:00

Horário final: 12:00

Horário de entrega: até 12:05

Endereço para envio da prova: ppgef@ufpe.br

QUESTÃO 01. O RESUMO A SEGUIR FOI RETIRADO DE UM ARTIGO CIENTÍFICO DO CAMPO DA ATIVIDADE FÍSICA E SAÚDE. LEIA O TEXTO E ELABORE UM TÍTULO ADEQUADO PARA O MANUSCRITO.

Abstract

Health Gym Program (HGP) is a strategic health and physical activity promotion program financed by the Brazilian public health system. The aim of this paper is to analyze the impact of HGP on the spending on hospital admissions for cardiovascular disease in Pernambuco State, Brazil. This public policy impact analysis had used a quasi-experimental approach which consists on the application of the Propensity Score Matching considering the years 2010 and 2018. Socioeconomics, demographics and epidemiological data of 89 municipalities that implemented HGP (treated) and 54 that did not (controls) were collected from Brazilian Health Data Department, Brazilian Institute of Geography and Statistics and other databases. The total number of hospitalizations for cerebrovascular diseases was 6,091 in 2010 and 10,595 in 2018. Municipalities that implemented HGP spent an average of R $ 1,258.61 less on hospitalizations for Cerebrovascular Disease ($p < 0.05$) for each group of 10,000 inhabitants. The econometric model developed in this study is adequate to explain the impact of the HGP on the expenses with hospital admissions for cerebrovascular diseases. The relationship between HGP implantation and the decrease in spending on hospital admissions allows us to infer that this intervention has complied with its guideline of constituting itself as a reference program for the health promotion, prevention and control of chronic diseases, and achieved its specific objective of increasing the level of physical activity of the population of the beneficiary municipalities.

QUESTÃO 02. LEIA A INTRODUÇÃO A SEGUIR E DESCREVA OS PROBLEMAS DE PESQUISA QUE O ESTUDO PRETENDE RESPONDER.

Introduction

In the United States the prevalence of disability in older adults is increasing [1-3] and the Centers for Disease Control and Prevention (CDC) highlight that 2 in 5 older adults have a disability [4].

Disability limits the functional autonomy and can be defined as a difficulty in performing activities of daily living and instrumental activities of daily living, or mobility limitation [5,6]. In older adults different types of disability have been studied, such as difficulties with activities of daily of living (ADL), difficulties with instrumental activities of daily (IADL) and mobility disability [1,7,8].

Overall, studies have shown that individuals aged 75 and older are most affected by all types of disability and are more likely to be female, frail, minority, and have a chronic condition [4,7,9,10]. A recent paper by Díaz-Venegas et al [11] also highlights that older adults who have any of the three most common types of disabilities (ADL, IADL and mobility disability) have an increased risk of all-cause mortality. Recently increased attention has focused on the potential role of sedentary behavior (SB) in contributing to the development of disability in older adults [12]. This concern is mainly focused on older adults who spend more time in SB compared to other age groups [13]. SB, which is defined as excessive involvement in activities that require low energy expenditure (≤ 1.5 METs), typically performed in the sitting position, has been associated with reduced functional capacity and disability in older adults [12–18].

A growing body of evidence also indicates time spent in SB can increase the risk for many chronic disease conditions, as well as development of a disability [4,19]. Specifically, studies have shown that while adults and children spend on average 7.7 hours/day in sedentary behavior, older adults spend even more time in SB (sitting or reclining), with an average of 8.0 to 11 hours per day [13,20]. This amount of time spent in SB, in older adults, may predict functional disability and also contribute to an increase in the burden of multiple chronic diseases resulting in the elevation of healthcare costs and increased risks for mortality [3,14,21–23]. Both television viewing and the total time in SB are significantly associated with disability in older adults [24,25].

Recent studies have reported that, independent of engagement in physical activity (PA), SB represents an important risk factor for functional limitations and disability in older adults [21,25,26]. Although SB is considered a modifiable risk factor for disability among the geriatric population [25], there are few longitudinal studies investigating the association of SB with functional disability in older adults [12]. Moreover, it is important that future studies analyze the relationship between both total SB, and different types of SB (e.g.TV viewing) [25] in older adults with and without functional disability [24].

A better understanding of how sedentary behavior affects older adults with and without disability is important to improve their quality of life, as well as to reduce the burden of adverse health outcomes and healthcare costs. Thus, the aim of this systematic review and meta-analysis was to estimate the relationship between sedentary behavior and functional disability (such as ADL, IADL or limitations to mobility) in longitudinal, observational studies, as well as examine whether older adults with functional disability engage in higher levels of sedentary behavior than those without functional disability.

QUESTÃO 03. QUAL A HIPÓTESE DO ESTUDO EM QUESTÃO E QUAIS SÃO AS VARIÁVEIS DEPENDENTE E INDEPENDENTE DO EXEMPLO ABAIXO?

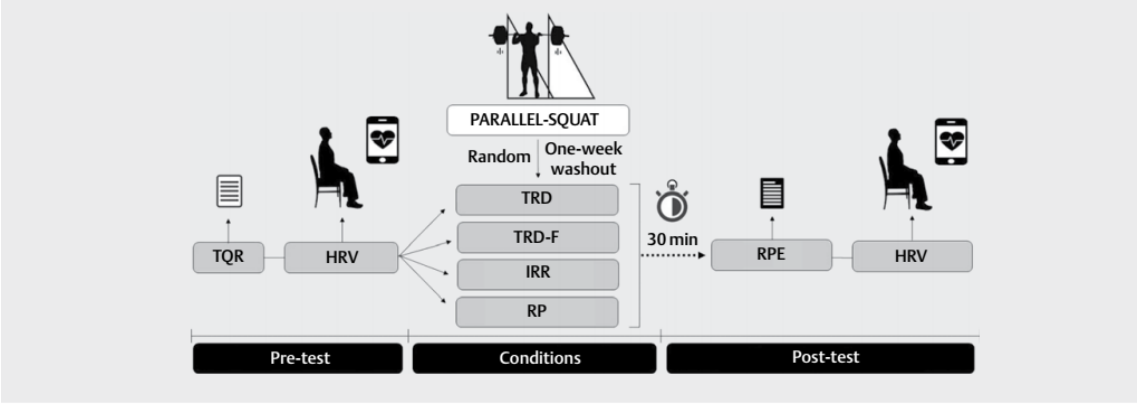
Avalie a situação apresentada a seguir:

Um pesquisador resolve investigar se o uso da bicicleta como meio de transporte interfere na ocorrência de internações hospitalares por hipertensão arterial no município de Caruaru. Para isso, acompanha dois grupos de 50 pessoas (cada) de ambos os sexos, ao longo de três anos. O primeiro grupo era composto por homens e mulheres que usam a bicicleta diariamente para ir ao trabalho, fazer compras, levar filhos para a escola e como forma de lazer. O segundo grupo era formado por adultos com a mesma faixa etária que só utilizavam o carro como forma de deslocamento. Ao término do estudo verificou-se o seguinte:

a) Entre os que se deslocavam de carro, 18 foram internados por problemas relacionados à hipertensão;

b) Apenas 09 indivíduos que usavam a bicicleta foram internados no período;

QUESTÃO 04. A FIGURA 1 DO ARTIGO SE CARACTERIZA POR QUAL TIPO DE ESTUDO? DESCREVA OS PONTOS FORTES E FRACOS DESSE TIPO ESTUDO. (1,0 PONTO)



▶ **Fig. 1** Design of the investigation. TQR = total quality recovery; HRV = heart rate variability; RPE = rating of perceived exertion; TRD = traditional systemnot to failure; TRD-F = traditional system to failure; IRR = inter-repetition rest; RP = rest-pause.

QUESTÃO 05. QUAL A FUNÇÃO DO GRUPO CONTROLE EM ESTUDO DE INTERVENÇÃO? PARA O DESENHO DO ESTUDO ACIMA (FIGURA 1), TORNA-SE NECESSÁRIO O GRUPO CONTROLE? (1,0 PONTO)

QUESTÃO 06. QUE TIPO DE ANÁLISE ESTATÍSTICA PODERIA SER REALIZADA PARA ESSE ESTUDO?

QUESTÃO 07. O QUE É VALIDADE INTERNA E EXTERNA? CITE UM ASPECTO QUE PODE COMPROMETER CADA UMA DELAS, VALIDADE INTERNA E EXTERNA, RESPECTIVAMENTE EM UM ESTUDO.

Com base nos resultados, descritos e exibidos na figura abaixo, responda as seguintes questões:

QUESTÃO 08. QUAL A VARIÁVEL DEPENDENTE DO ESTUDO?

QUESTÃO 09. A PARTIR DOS RESULTADOS APRESENTADOS, ELABORE UMA CONCLUSÃO.

Results

According to the results presented in the Figure 1, _____ was verified between the conditions ($F_{(2.4)}$ = 0.011; p= 0.99). The means obtained in each condition were 96.6 ± 19.55 kg for the caffeine supplementation, 96.9 ± 18.46 kg for the placebo, and 96.00 ± 19.04 kg for the control.

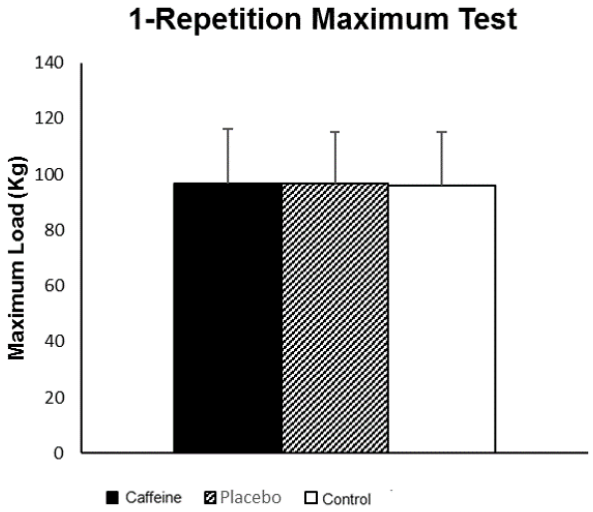


Figure 1. Bench press strength performance in the 1-Repetition maximum test (1RM)

QUESTÃO 10. A FIGURA ABAIXO FOI EXTRAÍDA DE ESTUDO QUE ANALISOU A RELAÇÃO DOSE RESPOSTA DO TREINAMENTO DE FORÇA SOBRE DIFERENTES PARÂMETROS RELACIONADOS A SAÚDE DE IDOSOS. A PARTIR DELA RESPONDA: A) QUAL O DESFECHO ANALISADO E B) QUAL A INTERPRETAÇÃO DO RESULTADO?

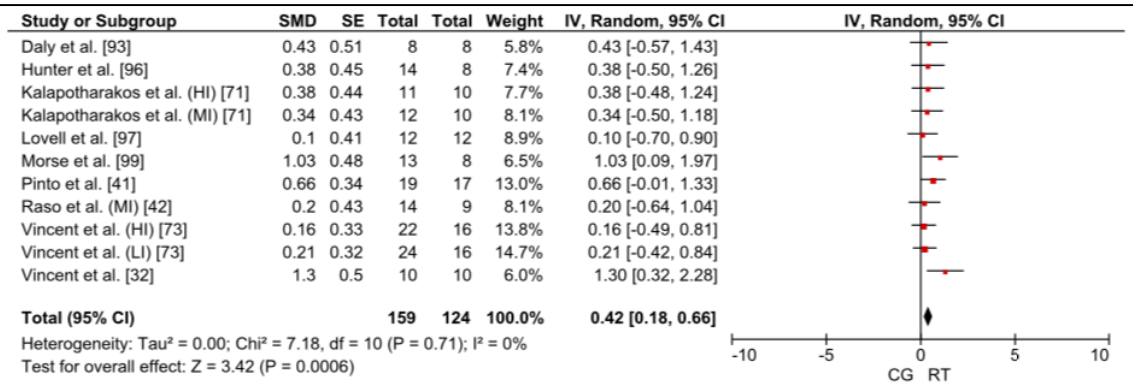


Fig. 3 Effects of RT on measures of muscle morphology. *CG* control group, *CI* confidence interval, *HI* high-intensity training group, *IV* inverse variance, *LI* low-intensity training group, *MI* moderate-intensity training group, *Random* random effects model, *RT* resistance training, *SE* standard error, *SMD* standardized mean difference, *Weight* weight attributed to each study due to its statistical power