Journal of Kinesiology and Wellness
A Publication of the Western Society for Kinesiology and Wellness
Volume 12, Number 1, Pages 1–9, 2023
ISSN# 2323-4505

Acute Beetroot Supplementation May Improve Blood Pressure but not Exercise Economy in Female Masters Swimmers

Ana Fulano[1], Blanca Zutano[1], Carina Mengano[2,3], and Dolorita Perengano [4]
[1]Department of Psychology, Ana and Blanca's University
[2]Carina's Primary Affiliation
[3]Carina's Secondary Affiliation
[4]Buffalo, NY

This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format.This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format. This document is a template demonstrating the apaquarto format.

Keywords: keyword1, keyword2, keyword3

Weight bias (i.e., anti-fat bias) is unreasonable judgments about someone based on weight (Washington, 2011). It is pervasive in the health industry, including those who work as physicians (Schwartz et al., 2003), physical educators (Fontana et al., 2017), fitness professionals (Dimmock et al., 2009; Fontana et al., 2018; Robertson & Vohora, 2008), and exercise science students (Chambliss et al., 2004; Fontana et al., 2013; Langdon et al., 2016; Rukavina et al., 2010; Wijayatunga et al., 2019). In the fitness industry, potential implications of these biases include negative perceptions of larger bodied individuals' abilities, motivation, and potential job qualifications (Sartore & Cunningham, 2007). Weight stigma is defined as discriminatory acts towards individuals in larger bodies due to their size (Washington, 2011). Consequences of experiencing weight stigma include a) poor physical health, such as an increased likelihood of maintained obesity or weight gain (Sutin & Terracciano, 2013), and b) increased psychological distress, including greater rates of body dissatisfaction and symptoms of eating disorders (Vartanian & Novak, 2011). Paradoxically, individuals who experience weight stigma are more likely to avoid exercise as a result of internalized anti-fat attitudes (Vartanian & Novak, 2011) and experience an increased allostatic load (cumulative response to ongoing stress) (Guidi et al., 2021), which has a greater impact on their health than being in a larger body does (Gordon, 2020; Milburn et al., 2019).

A systematic review on weight bias among exercise and nutrition professionals included 31 studies; however, only three focused specifically on fitness professionals (e.g., personal trainers or group fitness instructors) compared to "exercise professional trainees" (e.g., exercise science students). Robertson and Vohora (2008) were the first to report strong anti-fat implicit and explicit biases in fitness professionals (n = 57, "gym instructors" and "aerobics instructors"), with the bias being greater in those who had never been overweight

Ana Fulano
Blanca Zutano
Carina Mengano
Dolorita Perengano

Author roles were classified using the Contributor Role Taxonomy (CRediT; https://credit.niso.org/) as follows: Ana Fulano: conceptualization, writing; Blanca Zutano: project administration, formal analysis; Carina Mengano: formal analysis, writing; Dolorita Perengano: writing, methodology, formal analysis

Correspondence concerning this article should be addressed to Ana Fulano, Department of Psychology, Ana and Blanca's University, 1234 Capital St., Albany, NY 12084-1234, Email: sm@example.org

and believed obesity was controllable. In a study surveying fitness center employees (management and administrative staff n = 15, personal trainers n = 16, fitness instructors n =19, and exercise/sport physiologists n = 20), Dimmock et al. (2009) reported a moderately strong implicit bias, but no explicit bias, towards individuals in larger body sizes. More recently, Fontana et al. (2018) found that personal trainers (n = 52) report strong implicit biases against individuals who are obese.

Recently, Zaroubi et al. (2021) published a review article on the predictors of weight bias in fitness professionals and exercise science students (Zaroubi et al., 2021). Most of the studies in this review sampled undergraduate students in the exercise science field, with only four of the 18 sample fitness professionals. Of those four studies, only three included weight bias as a dependent variable (Dimmock et al., 2009; Fontana et al., 2018; Robertson & Vohora, 2008). A thematic analysis was conducted, and six themes emerged. First, exercise science students and fitness professionals strongly believe that weight is controllable and associate individuals with larger bodies with negative attributes such as laziness. Second, the relationship between gender and weight bias is still unknown as data is conflicting. Third, being enrolled in an exercise science or similar educational program is likely a predictor of weight bias. Fourth, personal and psychosocial factors (e.g., the tendency to internalize an athletic body as the ideal body shape) likely influence weight bias. Fifth, knowledge of the uncontrollable aspects of obesity (e.g., genetics) is likely to lower weight bias. Lastly, there is conflicting evidence regarding the influence of one's personal history with someone in a larger body. Chambliss et al. (2004) report that a lack of family history of having a larger body leads to higher explicit weight bias in fitness professionals and regular exercisers (Chambliss et al., 2004). In contrast, DeBarr and Pettit reported no statistical differences in weight bias held by health educators classified as overweight compared to normal weight.

Little research has examined explicit weight biases of fitness professionals, and no research has focused on whether their social identities and/or role in the industry (e.g., group fitness instructor versus personal trainer) influence their weight bias. This research is particularly important due to the influential nature of this field. Clients often look to fitness professionals for advice and education on changing their health behaviors. If fitness professionals hold strong weight biases, they may contribute to a harmful cycle whereby their clients become less likely to participate and/or adhere to their health behavior changes. Fitness professionals need to have more knowledge of weight biases. Thus, the study aimed to examine the influence of age, gender, body dissatisfaction, race, role in industry, BMI, income, and education on weight bias in fitness professionals.

Results

There was a statistically significant interaction between gender and BMI on total AFAT scores, F(2,272) = 3.139, p = .045, partial 2 = .023. Therefore, an analysis of simple main effects for gender and BMI was performed with statistical significance receiving a Bonferroni adjustment. Women in the healthy (2.02 .51) and overweight (1.97 .49) BMI categories had significantly greater total AFAT scores (p = .003 and p = .023, respectively) compared to women in the obese BMI category (1.63 .48). There was also a statically significant interaction between education and BMI on total AFAT scores, F(9,266) = 2.201, p = .022, partial 2 = .069. An analysis of simple main effects for education and BMI was performed with statistical significance receiving a Bonferroni adjustment. For participants who had completed some college, those who were classified in the healthy BMI category had significantly greater total AFAT scores (2.05 .50) compared to those in the overweight BMI category (1.72 .46), p = .045. For participants who completed a master's degree, those in the healthy BMI category (2.08 .56) and overweight BMI category (2.05 .43) had significantly greater total AFAT scores (p = .003 and .016, respectively) compared to those in the obese BMI category (1.48 .46). No other interaction effects were found. Therefore, one-way ANOVAs and MANOVAs were conducted to assess the direct effect of the IVs on AFAT total and AFAT subscales, respectively. The mean total AFAT scores for each IV are listed in Table 7.

Age

rrr

Displaying Figures

A reference label for a figure must have the prefix `fig-`, and in a code chunk, the caption must be set with `fig-cap`. Captions are in title case.

To refer to any figure or table, use the `@` symbol followed by the reference label (e.g., Figure **??**).

Imported Graphics

One way to import an existing graphic as a figure is to use `knitr::include_graphics` in a code chunk. For example, Figure **??** is an imported image. Note that in apaquarto-pdf documents, we can specify that that a figure or table should span both columns when in journal mode by setting the `apa-twocolumn` chunk option to `true`. For other formats, this distinction does not matter.

Figure graphics can be imported directly with Markdown:

Displaying Tables

We can make a table the same way as a figure. Generating a table that conforms to APA format in all document formats