ABSTRACT

Analysis Factor Related to Body Fat Percentage, Bone Density, Muscle Mass, and Muscle Strength in women of childbearing age who followed zumba gymnastics and aerobic exercise

Correlational Study in Tresno Zumba Community and Febi Aerobic Studio

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Introduction: Reproductive age women experience increase in body fat percentage, but decrease in bone density, muscle mass and muscle strength which causes a decrease in physical fitness. Zumba fitness and aerobic exercise are types of physical exercises that can be done by reproductive age women. **Methods**: The purpose of this study was to analyze the factors associated with an increase in body fat percentage, decrease in bone density, muscle mass, and muscle strength in reproductive age women who followed zumba fitness and aerobic exercise and the differences of body fat percentage, decrease in bone density, muscle mass, and muscle strength beetwen Zumba fittness and aerobic exercise. This study was a correlational study with the total number of respondents 57 reproductive age women who followed zumba fitness in the Zumba Tresno Community and 57 reproductive age women who participated in aerobics exercise at the Febi Gymnastics Studio. The data collected by using Bioimpedance Analysis TANITA BC-541 and Wall Sit Test. Data will be analyzed using Spearman Rho Test with a significance level of p <0.005 and Mann Whitney with a significance level of p <0.005 **Results**: Results showed that the body mass index has a significant relationship with muscle mass (p = 0.000) and muscle strength (p = 0.003). The habit of consuming milk has a significant relationship with bone density (p = 0.000). Drug consumption has a significant relationship with bone density (p = 0.021). The frequency of childbirthing has a significant relationship with the percentage of body fat (p = 0.000). Breastfeeding duration has a significant relationship with bone density. Exercises frequences in a week has a significant relationship with body fat percentage (p = 0.000), bone density (p = 0.003), muscle mass (p = 0.007), and muscle strength (p = 0.012). The Length of exercises has a significant relationship with body fat percentage (p = 0.000). Other sports have a significant relationship with the percentage of body fat (p = 0.000), muscle mass (p = 0.000), and muscle strength (p = 0.003). There is a difference between the percentage of body fat (p = 0.045), bone density (p = 0.015), muscle mass (p = 0.023), and muscle strength (p = 0.000) between reproductive age women who follow zumba fitness and aerobic exercise. **Discussion**: It can be concluded that aerobic exercise is a good choice of exercise to maintain physical fitness of women of childbearing age. Further studies should used different method.

Keyword: body fat percentage, bone density, muscle mass, muscle strength, women, zumba fitness, aerobic exercise