



UNIVERSITI TEKNOLOGI MARA

**EFFECT OF AEROBIC DANCE ON BODY MASS INDEX, BODY FAT
PERCENTAGE AND AEROBIC FITNESS AMONG OVERWEIGHT
FEMALE ADULTS**

DORATHYANAK BAJA

2015687258

**BACHELOR OF SPORT SCIENCE (HONS)
FACULTY OF SPORTS SCIENCE AND RECREATION
UNIVERSITI TEKNOLOGI MARA (UiTM)**

JULY 2017

ABSTRACT

The aim of the study was to identify the effects of aerobic dance on body composition and aerobic fitness among overweight female adults. A true experimental design consisting of pre- and post-treatment was conducted among overweight female adults who were randomly divided into two groups: an experimental group and a control group. The sampling technique used in this study is convenience sampling. The study lasted 8 weeks. The intensity is between 65% -80%, between the two songs of aerobic dance the heart rate was recorded. The measurements that were used in this study are a stadiometer for weight and height and bioelectrical impedance analysis (BIA) used for measuring body fat percentage. After the intervention, an improvement in body fat percentage, BMI, and 2.4 km test was observed in the experimental group ($p < 0.05$).

KEYWORDS : *Aerobic dance; Body fat percentage ; BMI , 2.4km test.*

TABLE OF CONTENT

CONTENT	PAGES
DECLARATION	i
APPROVAL PAGE	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENT	v
LIST OF TABLE	vii
LIST OF FIGURE	vii
CHAPTER 1 INTRODUCTION	1
1.1 Background of study	1
1.2 Problem statement	2
1.3 Research objectives	3
1.4 Hypothesis	4
1.5 Limitation of study	4
1.6 Delimitation of study	5
1.7 Significance of study	6
1.8 Definition of terms	6
CHAPTER 2 LITERATURE REVIEW	8
2.0 Introduction	8
2.1 Aerobic dance	8
2.2 Body composition	10
2.3 Body fat percentage	12
2.4 Body Mass Index (BMI)	12
2.5 Aerobic fitness	13
2.6 Bioelectrical Impedance Analysis (BIA)	14
2.7 Overweight	15
	17

CHAPTER 1

INTRODUCTION

1.0 BACKGROUND OF THE STUDY

One of the most popular fitness activities female is aerobic dance that words from 'Aerobics' (Hoeger & Hoeger, 2007). Aerobic dance is a fun way to exercise that helps individual to improve cardio respiratory while exercise with music. Kimura and Hozumi (2012) discussed that aerobics dance exercise does help to improve body compositions and it enhance physical fitness and performance. To reduce body weight and body fat , and change body composition, aerobic training is best applied (Josrgic, 2011; Milanovic, 2012). Females are reported to worried more about their body weight than males, It is because females nowadays like to do aerobic dance and they indeed care about their body image and food intake in daily life.

World Health Organization (WHO), defines weight status according to body mass index (BMI) , the ratio of weight in (kg/m²) divided by height (in m²),The ranges of BMI of less than 18.5 as underweight, 18.5 – 24.9 as normal weight , 25.0 to 29.9 as overweight and equal to or greater than 30.0 to 39.9 as obese and > 40 as a extreme obesity. In 2016, Health Ministry stated that overweight and obese make up nearly half 30 million populace. Overweight is related with poor eating habits. Overweight could lead to obese, which is related to chronic disease such as high blood pressure, diabetes , cancer, osteoarthritis and so on. (National Institute of Diabetes and Digestive and Kidney Diseases , 2017) .The benefits of regular exercise to health are helped to reduce body fat (Schmidt, 2012). It can help to

CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

In this chapter, researcher has divided into four sections of aerobic dance, body composition study, the variable used which is bioelectrical impedance analysis and overweight population among female adults.

2.1 AEROBIC DANCE

According to Jaywant (2013) , Aerobic dances the one of the famous exercise that all people nowadays in city know about it. Aerobic dance performs with music that people can move their body and it not uses high cost for equipment and space. It consists of skips, jumps, turns, movements and various dance steps while exercise. (Kostic, Duraskovic, Miletic and Mikalacki , 2006). Besides that , aerobic dance depends on people who involve fitness activity either their goal to weight loss or just for fun. Mandaric (2001) found that exercise with music to help positive effect an memory , attention forming and rhythm. The popular music will help prevent boredom and keep motivated. Aerobic dance allows for individualization of a workout. The same movement sequence or exercise can be done by a well-conditioned participant and a beginning exercise with variation in the intensity or the number of repetitions. It is because the aerobic dance is done indoors and the environment provides security and comfort. Ingeledew and Markland (2008) , King, Hopkins, Caudwell , Stubbs and Blundell (2009) say that exercise will change people to improve appearance and weight lost .