

UNIVERSITI TEKNOLOGI MARA

**COMPARISON OF BODY FAT PERCENTAGE AND
PHYSICAL PERFORMANCE OF MALE NATIONAL
SENIOR AND JUNIOR KARATE ATHLETES**

NASREE NAJMI

Dissertation submitted in partial fulfillment of the requirements for the degree of
Master of Sports Science

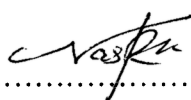
Faculty of Sports Science & Recreation

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Author's Declaration

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This dissertation has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledgement that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student	:	Nasree Bin Najmi
Student I.D. No	:	2010618444
Programme	:	Master of Sport Science
Faculty	:	Sport Science and Recreation
Dissertation Title	:	Comparison of body fat percentage and physical performance of male national senior and junior karate athletes
Signature of Student	:	
Date	:	May 2012

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Abstract

The purpose of the present study was to compare the body fat percentage and physical performance of male national senior and junior karate athletes. It is hypothesized that the senior and junior athletes could differ regarding their body fat percentage and physical performance profiles. Sixteen male karate kumite competitors of the national karate team (senior $n = 8$; junior $n = 8$) participated in this study. The tests applied included both the assessment of selected anthropometric variables (body height, weight and body fat percentage) and the following physical performance measurements: strength (hand grip test), power of lower extremity (vertical jump test), agility (T-test), flexibility (sit and reach test) and maximal oxygen consumption (20-m shuttle run test). The senior athletes revealed a lower body fat percentage ($p < 0.05$) and the differences in body fat percentage were significant. The senior athletes also demonstrated greater strength ($p < 0.001$) and leg power (vertical jump; $p < 0.001$). The findings in agility presented that senior performed better than the junior team ($p < 0.001$). There was no significant difference in flexibility of both groups ($p > 0.05$). Senior athletes revealed higher in oxygen consumption ($p < 0.001$). It can be concluded that senior karate athletes' physical performance are superior compared to the junior athletes.

Table of Contents

Title	Pages
Author's Declaration	i
Acknowledgement	ii
Abstract	iii
Table of Contents	iv
List of Tables	vii
List of Figures	viii
List of Appendices	viii

CHAPTER 1- Introduction

1.1	Background Of The Study	1
1.2	Problem Statement	4
1.3	Purpose of Study	5
1.4	Objectives	5
1.5	Research Hypotheses	6
1.6	Significant of Study	6
1.7	Delimitation	7
1.8	Limitation	7
1.9	Research Assumption	7
1.10	Operational Terms	8