## PHYSICAL ACTIVITY AND PHYSICAL FITNESS AMONG PRIMARY SCHOOL CHILDREN IN SEKOLAH KEBANGSAAN PUNCAK ALAM 2, PUNCAK ALAM, SELANGOR

# AINI BINTI ZAINUDIN HANISAH BINTI MOHD YATIM ROSSHANISZAN BINTI MOHD KAMARUL ZAMAN WAN SAFIRAH HAKIMAH BINTI WAN SALÈHUDDIN

THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF NUTRITION AND DIETETICS

DEPARTMENT OF NUTRITION AND DIETETICS
FACULTY OF HEALTH SCIENCES
UNIVERSITI TEKNOLOGI MARA (UiTM)
PUNCAK ALAM

#### **DECLARATION**

We declare that this thesis entitled "Physical Activity and Physical Fitness Level among Primary School Children in SekolahKebangsaanPuncakAlam 2, PuncakAlam, Selangor" is the result of our own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

10 January 2014

AINI BINTI ZAINUDIN

2010830884

HANISAH BINTI MOHD YATIM

2010840338

ROSSHANISZAN BINTI MOHD

KAMARUL ZAMAN

2010462118

WAN SÁFIRÀH HAKIMAH BINTI

WAN SALEHUDDIN

2010671228

#### **ACKNOWLEDGEMENT**

In the name of Allah, the Most Gracious and Most Merciful

We would like to express our gratitude to our supervisor, Prof. Madya Dr. Datin Safiah binti Md. Yusof, the Head of Department of Nutrition and Dietetics Department from the Faculty of Health Science, University Technology MARA for her continuous supports and supervisions during the year of our study. We have been extremely lucky to have a supervisor who cared so much about our work, and who responded to our questions and queries punctually.

Thank you to Prof. Poh Bee Koon as co-supervisor who guided and supported us in order to complete this research. Thank you also to Prof. Poh's student, Miss Xiao Chuan Lau who guided us on doing pilot study for physical fitness test at Sekolah Kebangsaan Tamil Vivekananda, Brickfields.

Special thanks for Headmaster, Vice Headmistress, teachers, staffs and the students of Sekolah Kebangsaan Puncak Alam 2 for giving a good cooperation for us to collect the data at the school. Not to forget the students for their willingness to participate during data collection. To the Ministry of Education (MOE) committee, we express acknowledgement in allowing us to conduct our research and approving our research proposal.

Thousands of gratitude we owed to our parents, families and friends because of their continuous support for completing this study. Thank you to Mr. Khairil Anuar Md Isa for his guidance on statistical analysis for our findings. And also thank you to Dr. Norazmir Md Nor as the coordinator for his advice and guidance.

#### **ABSTRACT**

Physical activity and physical fitness play important roles in determining the body weight status and health outcomes of an individual. This study aimed to determine the association between physical activity and physical fitness level with body mass index (BMI) and waist circumference and to determine the association between physical activity levels with physical fitness level among primary school children in Sekolah Kebangsaan Puncak Alam 2, Puncak Alam. Total of 321 school children were randomly selected in this study. Students' demographic, physical activity behaviors and physical fitness evaluation were collected. Anthropometric measurements were taken to assess students' nutritional status and BMI status. Physical activity behaviours were assessed using Physical Activity Questionnaire for Older Children (PAQ-C). Meanwhile, physical fitness assessed using four types of fitness test which are one-minute sit-up test, hand-grip test, sit-and-reach test, and Progressive Aerobic Cardiovascular Endurance Run Test (PACER) test. The results showed that school children are facing overweight which is 41% while it is about 56% of children are obesity. This study found that, there is no significant between the physical activity score and the BMI status by using Pearson test. On the other hand, physical fitness shows there are no significant differences between groups BMI by using Independent T-test. There is also no significant different between sit and reach test (p=0.108), both hand grip test (left, p=0.85; right, p=0.112) between physical activity score using Independent T-test. It is recommended that physical activity that encourages health related fitness be intensified among school children in order to overcome these problems.

### TABLE OF CONTENTS

	Page
DECLARATION	i
ACKNOWLEDGEMENT	ii
ABSTRACT	iii
TABLE OF CONTENT	iv
LIST OF TABLES	viii
LIST OF FIGURES	X
ABBREVIATION	xi
CHAPTER 1 INTRODUCTION	
1.1 BACKGROUND	1
1.2 RESEARCH QUESTIONS	2
1.3 OBJECTIVES	3
1.3.1 Main Objective	3
1.3.2 Specific Objectives	3
1.4 SIGNIFICANCE OF THE STUDY	3
CHAPTER II LITERATURE REVIEW	
2.1 NUTRITIONAL STATUS (ANTHROPOMETRY) OF	5
SCHOOL CHILDREN	
2.1.1 Definition of Anthropometry	5
2.1.2 Benefits of Anthropometric Measurement	6
2.2 PHYSICAL ACTIVITY AND ITS HEALTH BENEFITS	7
2.2.1 Definition of Physical Activity	7
2.2.2 Physical Activity Improves Quality of Life	8
2.2.3 Physical Activity Prevent Disease	9
2.3 MEASUREMENT OF PHYSICAL FITNESS IN CHILDREN	10
2.3.1 Subjective Measurement	11
2.3.2 Objective Measurement	12
2.3.3 Strengths and Limitations of Physical Activity	12
Questionnaire	
2.4 PHYSICAL FITNESS AND ITS HEALTH BENEFITS	14
2.4.1 Definition of Physical Fitness	14
2.4.2 Physical Fitness Prevent Diseases	14
2.4.3 Physical Fitness Improves Academic Performance	15
2.4.4 Physical Fitness Prevent Overweight and Obesity	16