

UNIVERSITI TEKNOLOGI MARA

**ANTHROPOMETRIC, BODY COMPOSITION
AND PHYSICAL FITNESS AMONG
PRIMARY SCHOOL CHILDREN**

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the degree of

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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 results of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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Abstract

The aim of this study was to analyze the association between body composition and physical fitness among primary schoolchildren in Beruas, Perak. A total of 246 participants, aged from 10 to 12 years old were randomly selected from four primary schools. Anthropometric and body composition were assessed. The mean body mass index (BMI) of boys ($n=113$) and girls ($n=133$) were 19.09 ± 5.03 and 18.49 ± 4.69 , respectively. The prevalence of underweight, normal weight, overweight and obese was at 24.8%, 48.8%, 13.4% and 13.0%, respectively. Physical fitness comparison by weight categories, noted that the normal weight category showed significantly better performance than the other weight categories ($p<0.05$). Comparison by age revealed that, the 12 years old group performed significantly better than the other age groups ($p<0.05$). The Partial Correlation analysis revealed a negative correlation with high significant correlation between (BMI, $r=0.58$), waist circumference (WC, $r=0.60$), and percentages body fat (BF, $r=0.59$) among overweight/obese female category for upper body strength (UBS). Result also showed high significance between (WC) and (UBS) for boy in the underweight category ($r=0.66$) and girl in the normal weight category ($r=0.53$). Only BF ($r=0.52$) were correlated with UBS in boy with normal weight category. Moreover, only UBS for girl in normal weight category was highly correlated with WC ($r=0.52$). In conclusion, malnutrition either for the underweight or for overweight among primary school children in Beruas, Perak were significantly associated with physical fitness level.

Table of Contents

Title	Pages
Author's Declaration	ii
Acknowledgment	iii
Abstract	iv
Table of contents	v
List of Tables	ix
List of Figures	xi
 CHAPTER 1 - Introduction	
1.1 Background of study	1
1.2 Problem statement	3
1.3 Purpose of the study	4
1.4 Objectives	4
1.5 Hypothesis	4
1.6 Significant of Study	5
1.7 Definition of Term	6
 CHAPTER 2 – Literature Review	
2.1 Introduction	7
2.2 Concept of physical fitness	8
2.3 Health Related Fitness	10
2.3.1 Cardiovascular Fitness	10
2.3.2 Flexibility	11

2.3.3 Muscular strength and power	11
2.4 Test instrument	12
2.4.1 Queen collage step test	12
2.4.2 Sit and reach test	13
2.4.3 Hand grip	13
2.4.4 Partial curl up	14
2.5 Measurement outcome	14
2.6 Physical activity and physical fitness	16
2.7 Obesity and physical fitness	17
2.8 Academic performance and physical fitness	19
2.9 Anthropometric, body composition and health	21

CHAPTER 3 – Methodology

3.1 Research design	24
3.2 Conceptual framework	24
3.3 Description sample	25
3.4 Data collection	26
3.5 Subject selection	28
3.6 Instrumentation and its procedure used	29
3.6.1 Anthropometric Measurement	29
3.6.2 Waist and Hip Circumference	30
3.6.3 Body Mass Index (BMI)-for-Age	31
3.6.4 Body Fat Percentages	31
3.6.5 Aerobic fitness	32
3.6.6 Muscular strength	33