THE ASSOCIATION BETWEEN NUTRITIONAL STATUS AND PHYSICAL ACTIVITY AMONG AUXILIARY POLICE IN UTMI SELANGOR, MALAYSIA.

HARUNNAR AMINNUR SHARIF BIN JAFAAR

BACHELOR (HONS.) OF NUTRITION AND DIETETICS

January 2016
DECLARATION

I hereby declare that the work in this thesis is my own except for the quotations and summaries which have been duly acknowledged.

JANUARY 2016

HARUNNAL AMINNUR SHARIFF BIN JAAFAR
2012605042
# TABLE OF CONTENTS

DECLARATION..............................................................................................................i
TABLE OF CONTENTS .................................................................................................. ii
LIST OF FIGURES AND TABLES................................................................................. iv
ACKNOWLEDGEMENT ................................................................................................. v
ABSTRACT ..................................................................................................................... vi

CHAPTER 1 .................................................................................................................. 1
INTRODUCTION .......................................................................................................... 1
1.1 BACKGROUND OF STUDY .................................................................................. 1
1.2 PROBLEM STATEMENT ....................................................................................... 3
1.3 OBJECTIVES OF STUDY .................................................................................... 4
   1.3.1 General Objective ......................................................................................... 4
   1.3.2 Specific Objectives ....................................................................................... 4
1.4 SIGNIFICANCE OF OUTCOME FROM RESEARCH ......................................... 4
1.5 HYPOTHESIS ....................................................................................................... 5
1.6 RESEARCH QUESTION ....................................................................................... 5
1.7 CONCEPTUAL FRAMEWORK .............................................................................. 5

CHAPTER 2 .................................................................................................................. 6
LITERATURE REVIEW .................................................................................................. 6
2.1 NUTRITIONAL STATUS AND BODY MASS INDEX .......................................... 6
2.2 ASSOCIATION BETWEEN NUTRITIONAL STATUS AND PHYSICAL ACTIVITY LEVEL .............................................................................................................. 7
2.3 ASSOCIATION BETWEEN NUTRITIONAL STATUS WITH SOCIO-DEMOGRAPHIC BACKGROUND ......................................................................................... 9
2.4 ASSOCIATION BETWEEN PHYSICAL ACTIVITY LEVEL WITH SOCIO-DEMOGRAPHIC BACKGROUND ............................................................................... 11

CHAPTER 3 .................................................................................................................. 13
MATERIALS AND METHODS ..................................................................................... 13
3.1 STUDY DESIGN ................................................................................................... 13
ABSTRACT

The nutritional status and physical activity level of Auxiliary Police may have an interaction with one another. This study aims (i) to assess nutritional status (via BMI) of the Auxiliary Police of UiTM in Selangor, (ii) to determine physical activity level of the Auxiliary Police and (iii) to identify association between nutritional status and physical activity level of Auxiliary Police. 122 Auxiliary Police (108 male and 14 female) aged between 18 and 65 years old from five selected campuses located at Kampus Puncak Alam, Puncak Perdana, Shah Alam, Sungai Buloh and Selayang, Selangor have involved in this cross sectional study. The instrument used is International Physical Activity Questionnaire (IPAQ) to assess the physical activity of Auxiliary Police. Auxiliary Police from five different campuses are chosen using simple random sampling. The data of this study were analyzed by using Statistical Package for the Social Sciences (SPSS) software. The BMI mean score of Auxiliary Police is 27.17 ± 4.46. Mean score for physical activity level is 1796.28 ± 4115.28. There is a significant correlation between BMI with physical activity level (p< 0.01) and physical activity level with sitting time (p=0.045).

CHAPTER 1
INTRODUCTION

1.1 BACKGROUND OF STUDY

Nutritional status is a reflection of nutritional habits, absorption and utilisation of nutrients, human energetic load and activity in maintaining a good health state (Tomczak et al., 2012). An individual is in a state of good nutrition as the body receives all the nutrients in appropriate amounts to meet body requirements. Nutritional status can be interpreted via body mass index (BMI) of an individual. A persistent and unbalanced daily energy intake can cause disturbances in nutritional status. In other word, a positive energy balance will result in occurrence of overweight (BMI > 24.9 kg/m^2) and obesity (BMI > 30 kg/m^2), whereas a negative energy balance results underweight occurrence (BMI < 18.5 kg/m^2). The state of obesity is harmful as it may lead to other health problems. However, epidemiological research has identified the leisure-time physical activity (LTPA) as a key health behavior protecting against the development of obesity.

According to World Health Organisation (WHO), physical activity (PA) refers to bodily movement produced by skeletal muscles in which it requires energy expenditure. It has been established that a 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity aerobic exercise as profitably beneficial for maintaining health. Globally, more than 80% of the adolescent population is not physically active. Physical activity affects total energy expenditure, which is the sum of the basal metabolic rate (the amount of energy expended while at resting, a neutrally temperate environment and in fasting state), the thermic effect of food (dietary-induced thermogenesis) and the energy expended in physical activity (Department of Health 1991). Physical activity is a multi-dimensional behaviour. Many different forms of activity contribute to total physical activity; such as occupation, household (e.g. caregiving, domestic cleaning), transport (e.g. walking or cycling to work) and leisure-time activities (e.g. dancing, swimming). According to Livingstone (2003), increased mechanisation during work, travel, leisure time and at home has lessened the