

THE ASSESSMENT OF FOOD SECURITY STATUS: NUTRIENT PROFILES,
BMI AND BODY COMPOSITION STATUS AND HABITUAL PHYSICAL
ACTIVITY LEVEL AMONG UiTM PUNCAK ALAM STUDENTS

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ABSTRACT

For the past fifty years, food security has become an alarming issue all over the world. A cross-sectional study was designed to investigate the prevalence of food security status among UiTM Puncak Alam students aged 18-25 as well as the assessment of nutrient profile (macronutrients and micronutrients), BMI and body composition and physical activity level between food secure and food insecure group. Guided self-administered questionnaires consist of demographic data, Adult Food Security Survey Module (AFSSM), food frequency questionnaire (FFQ) taken from "Kajian Pengambilan Makanan Malaysia 2002/2003" and computerized physical activity were answered by the participants. Anthropometric measurement includes body composition was also examined. For analysis data, compare means, independent t-test were used. A total of 52.5% of participants showed food secure whereas 47.5% showed food insecure. The results showed that some of the macronutrients and micronutrients intake met the RNI recommendations. The same goes to BMI and body composition where some results showed higher on food secure group and some showed higher on food insecure group but all showed a normal mean(SD) of BMI FS = (21.73 ± 4.17) and FI = (22.87 ± 3.79) . Majority of habitual physical activity level of participants were light intensity with mean weekly of physical activity were (17.91 ± 48.10) hours and (14.74 ± 16.13) hours for food secure and insecure, respectively. A total of 75% of the participants showed that they met the physical activity requirements. The present study showed that food insecurity was indirectly not associated with nutritional status and BMI and body composition. Therefore, further investigation need to be designed as to see further reasons why the differences between food secure group and food insecure group in a university were inconsistent as well as to upgrade the investigations as to be able to see the differences that may occur clearly.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Since the past fifty years, food security has become an alarming issue all over the world. According to (Simon (2012), the history of food security begins since 75 years ago and he segregated the event into four different eras that based on the world food state. He also stated that the incidence of severe food scarcity in the poor countries become the world's earliest degree of hunger and undernourishment as evidenced by a survey carried out by the Health Division of the League Nations and submitted a report on 'Nutrition and Public Health' in 1935. The food shortage may become worst across the world as the number of population is increasing. The United Nation Population Division predicts that by 2050 the global population will achieve 9.3 billion higher than in 2012 which is 7 billion (Hanson, 2013; Asian Development Bank, 2012). Therefore, in each country, it is important to ensure enough supply of foods to feed people in order to stay active and healthy. In addition, in 1946, the Food and Agriculture (FAO) conducted the first World Food Survey and concluded that there were no less than one third of the earth population not obtaining enough total of energy (Simon, 2012). Poverty is the main reason to cause food insecurity in low-income households (Ahmed & Siwar, 2013). The poverty may increase the risk of insufficient supply of food in the household.

There are various ways of defining food security, however, an agreement of using food security definition as access to enough food at all times for an active and healthy life, and it is also considered as indicator of adequacy and stability of food supply to support active healthy living (Bawadi et al., 2012). Based on World Health Organization (WHO), food security is then built on three pillars. On contrary, food