

### Symposium 3: Young Investigators Symposium Diet-related psycho-social factors associated with fat, fruits and vegetable consumption in adults

#### ABSTRACT

There is consistent evidence that eating fruits and vegetables (F&V) and reducing fat intake reduce risks of major chronic diseases, including cardiovascular diseases and some cancers. The purpose of this cross-sectional study was to determine the relationship between diet-related psycho-social factors such as stages of change, self-efficacy, perceived benefits, perceived barriers and fat, fruit, and vegetable intake among 100 UPM staff. The sample comprised academic (29%) and non-academic staff (71%) with a mean age of 34 years. Data on socio-economic status, self-efficacy, and stages of change (SOC), perceived benefits and barriers to fat, fruit and vegetable intake were collected using a pre-tested interviewer-administered questionnaire. Dietary fat, fruit and vegetable servings were determined from two days of 24-hour diet recall data. The mean fat intake was  $54.98 \pm 22.72$  g with 63% of the subjects consuming more than 30% of total calories from fat. The mean serving size for fruit and vegetables was  $1.57 \pm 1.79$  and  $2.04 \pm 1.91$  respectively. A significantly higher intake of fruit was observed in the academic group compared to the nonacademic group ( $t=6.441$ ,  $p<0.05$ ) but not for fat and vegetable intake. Using the SOC algorithm, 11% and 7% of the subjects were in Stage I (Pre-Contemplation), for fat and F&V (combined) intake respectively, 6% and 1% in Stage II (Contemplation), followed by 68% and 40% in Stage III (Preparation), 1% and 34% in Stage IV and in Stage V, 14% and 18%, respectively. Fruit mean serving size increased from lowest in Stage 1 (0.8) and highest in Stage 3 (1.79). A similar trend was seen for vegetable intake. Self-efficacy for fat showed a decrease in fat intake from highest in the 'not confident' group ( $58.57 \pm 24.8$  g) to lowest in the 'very confident' group ( $50.15 \pm 17.45$  g). The mean number of fruit servings was similar across self efficacy levels but vegetable intake was highest in the 'somewhat confident' group ( $2.21 \pm 2.44$ ) and lowest in the 'not confident' group ( $1.87 \pm 1.18$ ). Frequent eating out was the highest barrier for fat reduction (42%) while the highest benefit for fat reduction was its potential to reduce the risk for chronic diseases (56%). For benefits of consuming fruits and vegetables, 60% agreed that both are good for health while 8% identified price and shelf life as the most important barriers. Persons with more perceived benefits consumed less fat and more fruits and vegetables. The perceived benefits were negatively associated with perceived barriers for fat intake ( $r=-0.204$ ,  $p<0.05$ ) while there was no association between perceived benefits and barriers with fruit and vegetable servings. In conclusion, psychosocial factors appear to influence fat, fruit and vegetable intake in this group of adults. Nutrition education programmes should focus on staging, increasing self-efficacy and perceived benefits while trying to reduce perceived barriers for effective change in diet related health behaviours.