Abstract
**PP-EHS-4 - Environmental, Occupational and Industrial Health**

**Poster Presentation**

**DETERMINATIONS OF FURAN IN INFANT FORMULAS**

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**Abstract**

Furan is a colorless, volatile liquid which has been reported to occur in many kinds of foods that undergo heat treatment, especially from canned and jarred containers. The presence of furan in food is of concern because it is both carcinogen and cytotoxic in rodents. On the other hand, furan has also been classified by the International Agency for Research on Cancer (IARC) in the group 2B as possibly carcinogenic to humans. Recently studies have indicated that the composition of foods as well as the different heating methods will affect the levels of furan.

The US Food and Drug Administration (USFDA) and the European Food Safety Authority (EFSA) have reported that the concentrations of furan in baby foods can be up to 112 ng g⁻¹. The presence of furan in infant formula is of particular concern because it is the sole diet for baby. Therefore, the objectives of this study were to assess the levels of furan in different infant formulas in Taiwan.

Furan in selected infant formulas was sampled by using the technique of solid phase microextraction (SPME) followed by the analysis with gas chromatography/mass spectrometry (HS-SPME-GC-MS). Due to matrix effects, standard additions method was performed in this study.

The results showed that the levels of furan in infant formulas ranged from 0.91 ng/g to 49.56 ng/g in various brands. Since there might be different procedures to prepare the feedings for baby, the effects on furan formation will be discussed as well.

**Keywords**: Furan; Infant Formula; Solid-Phase Microextraction; Gas Chromatography

**PP-EHS-5 - Environmental, Occupational and Industrial Health**

**Poster Presentation**

**Predictors of Smoking Cessation Among Staff in Public Universities in Klang Valley, Malaysia**

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Identification of individual characteristics of smoking cessation are limited to the clinic based settings. This study aims to find common predictors of success among staff in worksites smoking cessation programmes. We conducted this study in a non-clinic site setting in two major public universities in Klang Valley, Malaysia. All staff from both universities received an open invitation via staff e-mail and letters to participate in this study. At the start of treatment, participants were administered Rhode Island Stress and Coping Questionnaire and Family Support Redding’s Questionnaire. Similar behavior therapies with free Nicotine Replacement Therapy (NRT) were given as treatment. At two months, they were contacted to determine their smoking status.
185 staffs from University A (n=138) and University B (n=47), responded and voluntarily showed interest to quit. There was no significant difference in respondents of both universities with respect to socio demographic characteristics and smoking history. After two months of treatment, quit rates were 24% in University A vs. 38% in University B, although results were not significantly different. Univariate predictors of cessation were adherence to NRT (p<0.001), smoking fewer cigarettes per day (p<0.05) and the amount of clinic sessions attended (p<0.001). Logistic regression identified 3 significant predictors of smoking cessation. Participants attending more than one clinic sessions (OR= 27; 95% CI: 6.50; 111.57), and having higher pretreatment general stress (OR= 2.15; 95% CI: 1.14; 4.05) were more likely to quit, while a higher number of cigarettes smoked (OR= 0.19; 95% CI: 0.06; 0.59) reduced the likelihood of quitting. Increasing age, occupational group, ability to cope with stress and family support were not contributive. We conclude that, factors such as the number of counseling sessions, the amount of cigarettes smoked at baseline, adherence to NRT and pretreatment stress are important considerations for a worksite smoking cessation programme.

Keywords: Smoking cessation; predictors; university; worksite; staff

PP-EHS-6 - Environmental, Occupational and Industrial Health
Poster Presentation

Work Psychological Risk Factors and Job Strain Among University Workers in Kuala Lumpur
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Abstract
Job strain now appears to be a feature of occupational life for university staff. It is quickly becoming the single greatest cause of occupational disease and can have bad consequences for both the employer and employee. This study was conducted to determine the prevalence of job strain among staff in University of Malaya (UM) and its association with work psychological risk factors. A cross-sectional study was done to assess work psychological risk factors and job strain among multiple types of workers in UM, Kuala Lumpur. The validated Malay version of Job Content Questionnaire (JCQ) and Depression, Anxiety and Stress Score (DASS) questionnaire were self-administered randomly by 90 participants (72% response rate). The percentage of job strain among university staff in UM was 27.8%. The psychological risk factors that are significantly associated with high job strain were high job skill discretion (p value 0.018) and low supervisor support (p value 0.01). High job strain also was associated with high depression (p value 0.01), anxiety (p value 0.04) and stress (p value 0.01) score. Female workers were having higher job strain (p value 0.03) compared to male. We conclude that higher job strain workers would have a higher depression, anxiety and stress symptoms score especially among female workers.

Keywords: university staff, work psychological risk factor.

PP-EHS-7 - Environmental, Occupational and Industrial Health
Poster Presentation

Bioactive Dose Of Dioxin-Like Compounds And Associated Health Effects In Populations With High And Background Exposure