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Occupational Herniated Intervertebral Disc (HIVD) in Taiwan-Physical, Occupational and Genetic Interaction

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Background: Herniated intervertebral disc (HIVD) is listed as an occupational disease in Taiwan's workers' compensation system. Known occupational risk factors include heavy lifting, whole body vibration, awkward posture and heavy physical activities. Nevertheless, the contribution of personal factors, e.g. genetic factor, is considered as an important role of causing HIVD in recent studies.

Purpose: We recruited highly weight-lifting exposed fruit wholesaling workers to determine the roles of genetic susceptibility in especially highly exposed workers.

Study Design: For a higher exposed population, total of 112 workers working for more than 2 years in the fruit market were invited in this cross-sectional study. Every participant was assessed with questionnaire, MRI and BMD assessment, blood testing and genomic analysis, photographs taken of simulated working posture and lumbar load estimation.

Result: We found that cumulative lift load was associated with risk of HIVD. Among those highly exposed to lifting, i.e., $\log_{10}(\text{lift load}) > 6.5$, COL9A2 carrying a Trp allele was a susceptibility factor for women to have HIVD. In male fruit workers, such susceptibility factor was not witnessed. It could be due to high lifting load resulting in undifferential damage to the intervertebral discs among male fruit workers.

Conclusion: COL9A2 with any Trp allele seemed to interact with lift load and played susceptibility factor among workers exposed to weight-lifting.

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A Study on the Relationship among Work Characteristics, Working Pressure and Health-Related Quality of Life (SF-36 Scale) of Psychiatric Nurses- The Influence on Hospital Moderating Effects

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Objective: The purpose of this study is to investigate the relationship among job characteristic, working pressure (effort-reward imbalance model (ERI)) and health-related quality of life (SF-36) in psychiatric nurses. Furthermore, it also examines the cross level influence between group and individual level.

Methods: Hierarchical Linear Modeling analysis hospital variables for the hypotheses in a sample of 852 psychiatric nurses and 39 general and psychiatric hospitals.

Results: The results showed that subjects' ERI and over-commitment (OVC) showed significant negative

correlation with health-related quality of life variables. And subjects' general health (GH) in psychiatric hospital was significantly superior to subjects in the psychiatric department in general hospital. And, subjects' mental health (MH) in public hospital is also significantly superior to subjects in non-public hospitals. Moreover, in the interaction of HLM, only hospital categories have moderating effects. It means that different hospital categories (psychiatric hospitals and psychiatric department in general hospitals) moderate the relationship between ERI and health-related quality of life variables.

Conclusions: When psychiatric nurses suffer from the problems of ERI and OVC in working environment, their health condition tends to get worse. However, the GH of subjects who work in psychiatric hospitals is better than those who work in the psychiatric department in general hospitals. Moreover, the MH of subjects working in public hospitals is also better than those who work in non-public hospitals. Furthermore, the negative influences between ERI and health-related quality of life was stronger when psychiatric nurses who work in psychiatric department in general hospitals.

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Exploring the Relationship among Demographic Factors, Job Factors, Job Perception, Other Job Opportunities and Turnover Intention of Nursing Staffs

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Objectives: To explore: 1. attitudes of nursing staffs toward job perception and turnover intention; 2. the relationship among demographic factors, job factors, job perception, other job opportunities and turnover intention.

Methods: Nursing staffs of regional, district hospitals and clinics were enrolled in the survey, in which 1,767 self-administered questionnaires had been collected, with a response rate of 64.84%. The data was analyzed by structural equation modeling, with confirmatory factor analysis and path analysis to explore the relationship among above factors.

Results: 1. Nursing staffs have a lower level of job perception and a higher level of turnover intention. 2. Job perception is a significant and negative predictor of turnover intention (coefficient β : -0.328); Other job opportunities is a significant and positive predictor of turnover intention (coefficient β : 0.310). Among all demographic and job factors, nursing staffs with a higher education level, with a formal job, and with a daytime work (instead of a night-shift work) grossly have a lower level of turnover intention. Nursing staffs who are rookies in the nursing profession have a higher level of turnover intention.

Conclusions: The mechanism for turnover intention of nursing staffs is multi-factorial and also multi-level.

Nursing staffs with a lower job perception and a higher opportunity of other job have a higher turnover intention. Turnover of nursing staffs is an important issue to the management of health care organizations. This study may serve as a reference and utility for nursing staffs and medical managers who focus on researching or solving this problem.

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In-Flight Medical Emergencies and Public Safety in Hong Kong Commercial Aviation

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Background: With increasing globalization, commercial air travel has become more accessible. More passengers present with in-flight medical problems, and critical illness may lead to aircraft diversions or in-flight death. The study objective was to examine the predictors of medical diversions and in-flight deaths among passengers who present with in-flight medical problems. **Methods:** Retrospective cohort study of in-flight medical problems for a large commercial airline based in Hong Kong. All passengers with in-flight medical problems for whom emergency medical advice (MedLink) was sought from December 2003 to November 2008 were studied. For each passenger set variables were collected, and those with recorded outcomes of diversion and death were identified. The variables associated with diversion and death were identified using t-tests, the chi square tests and logistic regression analysis.

Results: There were 4068 medical emergencies with 46 diversions and 30 deaths in the five year study period. Increasing age, altered mental status and the use of an automated external defibrillator (AED) were significant risk factors for both diversions and deaths. For passengers aged 81-90 years who presented with medical problems, the odds ratio for diversion increased to 15.2 compared to 11-20 year olds. Passengers who were unconscious were 33.4 times more likely to require diversion and 234 times more likely to die.

Conclusions: Public awareness of potential medical risks during flights and prescreening of passengers are important in preventing in-flight medical emergencies. Improvements in the reporting system are necessary to improve our understanding of in-flight medical emergencies.

SP-156

Self Efficacy & Sociocultural Factors: Impact on Condom Practices & Condom Programming

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Malaysian married men's low condom use, at 6.9%, is a serious challenge to its national efforts to halt rising HIV/AIDS. Individual and sociocultural factors impact

on condom practices. A mixed methods study of 240 urban respondents (68% male, 32% female) was conducted to assess condom practices and barriers (individual and sociocultural factors) through survey and 6 Focus Group Discussion (FGD). 40% of the sexually active respondents ever used condoms and 33% never used. Majority did not use condoms at first sexual intercourse, or with primary partners. Self efficacy barriers included low confidence in condom use, condoms tearing, semen spillage, and interrupted choreography of condom use. Other individual factors were decrease in sexual pleasure, "lazy" to use condoms and embarrassment when buying condoms. However, FGD findings revealed sociocultural factors underlying self efficacy/individual barriers: men's culture of resistance to condom use based on male privilege to sexual pleasure; male anxiety about interruptions, fear of losing erection and failure to ejaculate based on norms of masculinity and sexual prowess. Cultural inhibitions and non-acceptance of sex among the young, unmarried, and of diverse sexual orientations explain men's embarrassment in buying condoms. The complex interrelationship between self efficacy/individual barriers and sociocultural factors call for comprehensive condom programming and promotion. It should incorporate strategies that desensitize the condom, behavioral change communication, improved access and availability of condoms; and targeting masculinity and condom resistance through promotion of gender equality and male responsibility towards safe sex.

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Breast Health Awareness and Practice of Breast Self Examination (BSE) among Female Adults in Malaysia

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Breast cancer is the most common cancer amongst Malaysian women. It is known that knowledge and self awareness about early detection of breast cancer could encourage women to carry out Breast self examination (BSE). Thus, the objective of this study is to document the levels of knowledge, attitudes and practice of BSE among rural women in the state of Pahang, Malaysia. **Methodology:** A cross-sectional study was conducted among 1079 females aged between 20 and 60 years that were selected from five districts by random sampling to represent the population of Pahang, Malaysia. **Results:** Generally, there was a very high degree of awareness among the females in all the districts. About half (53.3%) of the information regarding breast cancer were obtained directly from the healthcare sector, while mass media contributed only 32.3% in providing awareness of breast cancer. It is encouraging to note that more than 62.6% had ever practiced BSE and more than 60% of those who do BSE practiced it once a month. Self awareness of breast cancer was reported to be the main factor (74.1%) that encouraged the females to practice BSE. Out of the