

Government in adopting the mechanism of JAMKESMAS's new procedure, the unclear position of verifiers, the equivocal determination of the number and criteria of keluarga miskin (GAKIN) or poor family, as well as the inadequacy of information dissemination to give the same understanding in implementing JAMKESMAS based on the applied guidelines.

OT13-7

Preparedness Analysis of Rural Health Center in Desa Siaga Development in Mentawai Archipelago Regency, the Province of West Sumatera Year 2008 ***Dumilah Ayuningtyas Soekanto¹, Jhonny Asri²***

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There were 14 units of rural health center in the district of Mentawai archipelago that planned to be built in 2007. Nevertheless, the actualization is unsuccessful. In year 2008, 12 units more health center were planned to be built, following the determination of Desa Siaga (Alert Village) development policy. Therefore in the beginning the readiness of the community at Mentawai is required to be acknowledged.

The research was conducted to study the readiness of rural health center in the development of Desa Siaga. Qualitative research method was used, by in-depth interview with the person in charge at the health and family planning program, staffs of rural health center, and also by document comprehension as a triangulation form.

There were 'ready', 'lack of readiness', and 'not ready at all' variation of the village health centers' readiness at Mentawai. However, in overall the five variables which are physical infrastructure, logistic and equipment, budget, planning and monitoring has been matured, although have not entirely 100% fit the standard of Health Department. The construction model of the health center was specially designed to be well suited with the isolated, retarded, and archipelago area.

The study showed the rural health center model which developed by Health Department is not suitable to be implemented at Mentawai Archipelago and need some modification. The suggestion to be given to the Mentawai Archipelago Health Department is to expedite the actualization of the physical infrastructure and the equipment of the health center.

Short sleep durations and long working hours are two lifestyle factors that may contribute to weight gain and obesity in middle aged adults. We examined the potential associations between sleep duration, work hours and obesity (measured by body mass index) in 17 210 Australian full time employees, aged 45 to 65 years. The data for this study were drawn from the 45 and Up Study, a survey of adults aged 45 years and over conducted in New South Wales, Australia. Multinomial logistic regression was used to analyse these data, with sleep duration and work hours entered into a model predicting obesity, adjusting for socio-demographic factors, health behaviours, and chronic health conditions. The results demonstrate that short sleep duration and longer working hours were independently associated with obesity. For example, compared to 7 hours sleep, those reporting less than 6 hours (Odds Ratio [OR] = 1.75, 95% confidence interval [1.32, 2.31]) and 6 hours (OR = 1.36 [1.20, 1.54]) sleep a night were more likely to be obese. Compared to people working 35 – 39 hours a week, those working more than 50 hours a week were also more likely to be obese (OR = 1.48 [1.31, 1.67]). These results have important public health implications for middle aged Australian workers, as short sleep and longer work hours could be targeted to prevent obesity.

OT14-2

Social Patterning of Obesity: Sleep Problem as A Mediating Factor?

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Introduction: The association between sleep problem and obesity had drawn much public attention recently. Short sleep duration was a novel risk factor leading to obesity. Poor sleep quality was also considered to be obeseogenic. However, many biosocial factors such as age, physical exercise, socioeconomic status, and shift work were also associated with both sleep quality and obesity in previous studies. Herein, we examine the hypothesis whether sleep quality had mediating effect between these biosocial factors and obesity.

Method: Using data drawn from Taiwan's 2001 Social Development Survey on Health and Safety, a sample of 25,985 Taiwanese adults aged 20 to 64 were analyzed. We applied structural equation models (SEM) to estimate the causal relationships between socioeconomic status (personal income and education), sleep pattern (duration and quality), shift work pattern and a respondent's BMI value, while controlling physical activity and age.

Results: Both in men and women, poor sleep quality and low education level had direct effect on a higher BMI value. Poor sleep quality mediated the effect of higher personal income in men and shift work pattern in both sexes on a higher BMI value. Short sleep duration is shown to be an insignificant variable for an increased BMI value.

Oral Track 14- Social Determinants of Health

OT14-1

Short Sleep and Long Working Hours Predict Obesity in Middle Aged Australian Employees ***Christopher A Magee, Peter Caputi, Donald Iverson***

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Conclusion: By elucidating the mediating effect of sleep quality on the link between personal socioeconomic status and increased BMI values, improving sleep quality may play an important role in curbing the global trend of obesity.

OT14-3

Gender Differences in Smoking among Adolescents in Malaysia

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The aim of this study was to explore gender differences in smoking among adolescents in Malaysia. A combination of quantitative and qualitative studies was conducted among male and female adolescents aged 14-16 years. The study showed that there are gender differences in the factors that were related to smoking. The factors that seem to influence smoking initiation in boys are friends and siblings smoking, urban locality, living with others, poor family closeness/bonding, moderate religiosity and higher sensation seeking characteristics. While for the girls, the predictors other than friend and sibling smoking were age and higher risk characteristics. For both boys and girls the interaction between school connectedness and parental smoking behavior was statistically insignificant. However, among girls, an association between school connectedness and smoking existed only when they had smoking parents. Low school connectedness constituted a risk factor among girls only in combination with parental smoking status while in boys, low school connectedness without any parental involvement will lead them to initiate smoking. Girls seem to be more influenced by happenings at home while boys are more susceptible to happenings at school. Subsequently, this may cause gender differences in norm internalization. The above gender differences may be explained by the different social worlds in which boys and girls live, and by the different roles of boys and girls in society. Therefore smoking plays an important role in the social lives of adolescent girls and boys alike, but the functions and meanings of smoking differ for both sexes.

OT14-4

Has Social Disparity in Mortality Become Widened in Korea Since the Economic Crisis in the Late 1990S?

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Introduction: South Korea experienced serious economic recession during the late 1990s due to a foreign currency

crisis and accepted the neo-liberal market oriented economic policies. It is general that social inequality in health and mortality increases with the advent of neo-liberalism. To date, there have been few attempts to examine whether social disparity in mortality has worsened in Korea since it has adopted economic policies based on the neo-liberalism. Methods: We estimate educational inequalities in life expectancy and age-specific death rates for three different time points: before the economic crisis (1995), in the middle of the economic crisis (2000), and after the economic crisis (2005). Results: Life expectancy at age 40 has gradually increased in all levels of education for both sexes during the study period. However, the gradient by the level of education persisted. Relative disadvantage of women with low education over their counterparts with higher education became slightly wider. Regarding age-specific death rates, the relative disadvantage by the levels of education was the highest in 2005, followed by 2000 and 1995 among working aged men. Discussion: Findings suggest that social disparity in mortality did not become notably worse in both sexes in terms of life expectancy at age 40. However, age-specific mortality rates showed that relative disparity certainly became worse during the study period only among working age adults. Since the neo-liberalism is mainly about the market system and more flexible employment conditions, socially deprived working aged population became the victim of worsening mortality profiles in Korea.

OT14-5

Urbanisation and Non-Communicable Disease Risk in Sri Lanka

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Non communicable diseases (NCD) make a major contribution to the burden of diseases in developing and developed countries with marked differences between urban and rural populations mainly in the developing countries. We aimed to evaluate the patterns and distribution of common NCDs and risk factors using a objective tool (Allender et al). It is important to understand the relationship between urbanisation and NCDs to adopt preventive policies. Urbanisation was quantified using the tool comprising seven components. This scale was administered in all 100 comprising the Sri Lanka Diabetes and Cardiovascular study. The area level score for each cluster was assigned to 4485 participants. Mean urbanicity score was 22.08 (SD= 8.4). Clusters were allocated into 3 groups according to the urbanicity score; low, middle and high. For males higher body mass index (BMI) (ANOVA test $F = 38.454$, $sig < 0.05$) lower level of physical activity ($F=52.022$, $sig < 0.05$) and raised LDL cholesterol ($F=8.808$, $sig < 0.05$) was observed with increased exposure to urbanisation. Similar findings were observed for females with

urbanicity, higher BMI ($F=100.6$, $\text{sig}<0.05$), raised LDL cholesterol ($F=5.12$, $\text{sig}<0.05$) and lower level of physical activity ($F=9.85$, $\text{sig}<0.05$). Quantification of urbanisation using a multi-component scale is feasible in a developing country setting. Several NCD risk factors are associated with increased level of urbanisation identifying possible points of intervention over the development cycle to augment the chronic disease impact of urbanisation.

OT14-6

Health Outcome Expectancies Predict Fruit and Vegetable Consumption Behavior

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Consuming fruits and vegetables impacts health and helps reduce risks of certain cancers and diseases. Despite knowledge of guidelines, most Americans do not consume enough. In Expectancy Theory, an individual's outcome expectancies help predict behavior. This cross-sectional study examined differences between daily servings of fruits and vegetables participants thought they needed for health benefits compared to knowledge of health experts' recommendations, and the relationship of these differences to reported consumption. Participants were 3,169 adults from a random-digit-dial telephone survey. Most participants were female (66.5%), married (60.0%), and had some college education or more (74.7%). Participants included Whites (41.5%), Asians (33.9%), and Hawaiians/Pacific Islanders (14.1%). Both knowledge of recommendations ($r=.390$, $p<.001$) and health outcome expectancies ($r=.586$, $p<.001$) were positively correlated with consumption behavior, and significant differences existed by categories for outcome expectancies, $f(2, 3166)=81.51$, $p<.001$. Tukey posthoc comparisons indicated that those with positive health outcome expectancies (those who thought they needed to eat more servings than recommended by experts) reported greater consumption than those with neutral (needed same as recommended) or negative (needed less than recommended) outcome expectancies ($p<.001$). In addition, those with neutral outcome expectancies had greater consumption than those with negative outcome expectancies ($p<.001$). It appears that positive and neutral health outcome expectancies are correlated with greater fruit and vegetable consumption. Future research should address health outcome expectancies in addition to knowledge in order to increase consumption.

OT14-7

Multi-Objective Transferal Medical Service Spatial Location Model

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Transferal medical service is a new policy for Taiwan prime care service in recent years. Although it just started, more and more clinics joint in indicated the prospective of future success. Due to the complexity and lack of similar math model to handle the assignment of grouping the transferal medical service this study develops a Multi-objective Transferal medical service Spatial Location model, MTSL, to deal with the spatial aspect of location decision which not yet been dealt with. MTSL uses the spatial data from Taichung City and County to provide a spatial and capacity equity toward the residents within. The variables used are spatial address point, prime care location points, hospital location point and medical center location point as the basic data. The model itself is based on multi-objective operation research and the process required Voronoi and P-Center algorithm. The result is the locations and boundaries for each transferal medical service group which contain at least 3 types of clinic out of 5 different types which include Family medicine, Ophthalmology, Dentistry, Chinese medicine and Rehabilitation. The capacity of each assigned transferal medical service group is given by using the average of population over hospital within the study area. The final map indicated 71 transferal medical service groups with average about 36,350 residents accessing nearest clinic with the average of 492.74 meters, the standard deviation for capacity and distance are 6,266, 522 with respect which is a fairly good result.

Oral Track 15- Social Determinants of Health

OT15-1

Cancer Patients' Satisfaction with Communication, Information Given by Nurses at Teaching Hospitals of Tehran City, Islamic Republic of Iran

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Effective patient-professional communication can be of crucial importance to long-term psycho- social outcomes in patients with cancer. A cross sectional study was carried out to examine patients' satisfaction with regard to various aspects of communication and information given by nurses. A proportional stratified sampling method was done and data was collected via face-to-face interview based on a validated Patient Satisfaction Questionnaire (PSQ) during a 3 month period. A total of 384 patients aged 14 years old and above were selected. The majority of respondents were males (52.4%) and married (66.4%), working (52.6%) and age group 45-54 year (26.4%) with secondary education level (44.8%),