

Oral Track 1- Injury Prevention

OT1-01

Bicycle Injury among Left-Behind Children in the Southern Rural Areas of China

Yanru Ye¹, Liping Li¹, Yaogui Lu¹, Yang Gao², Sian Griffiths²

1. Medical College of Shantou University, China

2. The Chinese University of Hong Kong, Hong Kong

Objectives: To investigate the bicycle injury of children living in the Southern rural areas who were left-behind (Left-behind Children, LBC) since their parents are seeking for jobs in the urban areas.

Method: This study of rural Chinese middle school students was undertaken as part of a larger study in Chaoshan region, Guangdong, China. A comprehensive survey conducted in students of 6 middle schools in 1 township in Chaoshan region. Information was collected by a self-administrated questionnaire on bicycle injuries happened on the students and health related behaviors and completed with written informed consent.

Results: Of the 2957 students in our study, 590 (20.0%) were left-behind children. Ages ranged from 10 to 18 years (mean age: 13.74 years). 49.7% of the left-behind children did not live with their both parents. A significant difference of possibilities of bicycle injury ($X^2=20.572$, $p<0.01$) was detected between LBC and non-LBC with the injury rates of 18.3% and 10.7% respectively. LBC increased the odds of bicycle injury (OR: 1.68, 95%CI: 1.25-2.26) compared with non-LBC. In addition, female, higher home income and higher grade were also recognized as protective factors in children bicycle injuries while education degree and job types of parents did not show relationship to children's bicycle injury.

Conclusion: Children under 'left-behind' situation were in poor parental protection. Recognition of this situation by the communities, parents and policy makers would facilitate more attention and effective intervention programs to improve the situation.

OT1-02

Epidemiology of Animal Bites in Children in Sri Lanka

Ayanthi S Karunaratne^{1,2}, Lakruwan Dassanayake³, Prasanna Gunasena¹, Niranjan Illangakoon¹

1. Teaching Hospital Anuradhapura, Sri Lanka

2. University of Colombo, Sri Lanka

3. Disaster Preparedness and response unit, Ministry of Health, Sri Lanka

Animal bites are a major public health problem among children. A retrospective study was carried out in Teaching hospital Anuradhapura Sri Lanka to determine the types and the pattern of animal bites admitted to pediatric trauma Unit over a period of three months starting from January 2008. Parents of 100 consecutive children admitted with animal bites were interviewed to find out epidemiological data in detail in January 2009.

Animal bites accounts for 49.2% of total admissions (565) to pediatric trauma unit. Majority was dog bite 74.37%, followed by cats bite 20.21% and Monkey bites 2.5%. Rat, Rabbit and Squirrel bites accounts for the rest. Boys and girls were equally affected. Considering the cat bites 2 peaks were identified according to the age of the victim. First peak during the 3rd and 4th years and second during 10th and 11th. Less marked peaks were seen among dog bite victims, where 1st peak extend from 3rd to 6th and the second during 10th -12th years. Majority of the dog bites (92%) has occurred either at home or the neighbor's house. Stray dog bites were seen only in 3% of the sample. Provoking the animal, having the meals in the vicinity of the animal were the commonest pre disposing factors. None of the domestic dogs were properly vaccinated and all the victims were given anti rabies prophylaxis. Wounds had been washed with soap and water in every affected child.

OT1-03

Evaluation of the National Policy' Implementation on Child Injury Prevention and Control in Several Provinces, 2008

Quyen T Bui, Linh Le, Cuong Pham

Hanoi School of Public Health, Vietnam

Objective: 1. To describe the situation of child injury. 2.To describe child injury prevention activities and 3. To evaluate people's knowledge and practice in child injury prevention.

Method: A survey was conducted in 2008 using both quantitative and qualitative methods. Survey sites were three provinces, where child injury prevention activities were implemented. Quantitative data were collected through reports on child injury at levels from commune to province. Qualitative data were collected through in-depth-interviews and focus-group-discussions. Altogether, 60 in-depth-interviews (with 60 staffs working in Health facilities, Red Cross) and 6 focus-group-discussions (with 75 child-caregivers) were carried out.

Results: Child injury rate was high (about 2,700/100,000) with rate in males higher than females. Injury death rate was high (55% of injured). The leading cause of death was fall in Hanoi, traffic accident in Binhphuoc and drowning in Namdinh. Awareness of people were low in terms of injury risks as well as how to prevent injury and provide first aid to injury victims. Surveillance data on child injury were not well updated and difficult to access. There was no good collaboration and coordination among sectors. Implementation of the safe community model targeting at child injury prevention was greatly challenged by local limited resources.

Conclusions: Child injury rates in the provinces were high. The localities need to be more active in making plans for child injury prevention activities and implement concrete activities to improve the program effectiveness. There should be a consistent report form in different localities.

OT1-04

Help Seeking Behavior and Implication on Health Service Provision of Post Nonfatal Unintentional Household Injury Patterns in Hong Kong

Emily YY Chan, Jean Kim, Joyce Leung, Sian Griffiths, Carol Suen

The Chinese University of Hong Kong, Hong Kong

Introduction: Health seeking behaviors and preferences for health care location after nonfatal unintentional household injury have not been examined in urban settings. This study explores help seeking behavior of people who have incurred non-fatal household injuries in Hong Kong. We examine individual choice and preference for medical care service provision after home based injury. Predictors and implications of injury prevention and health service delivery are discussed.

Methods: An anonymous, population-based, cross-sectional telephone survey study was conducted in March-May 2009 (n=6500). A modified, Chinese questionnaire based on WHO Guidelines for Conducting Community Surveys on Injuries and Violence was used for data collection. Descriptive and multivariate analysis was conducted to identify predictors of health service utilization and to examine help-seeking behavior post-non-fatal unintentional household injury in general population. **Results:** Results indicated 43% of population with injury received no help, 43% relied on self-care as first aid, and bone setters (36%)/traditional herbalists (28%) are more common than the Western medical practitioners (private general practitioners 12%, A&E 12%) as the help obtained after household injuries. Proximity (46.4%) and trust (17.9%) were cited as the main factors in the choice of care; 77% of population required 2nd treatment post injury. Predictors for health service location were examined and discussed.

Conclusion: Predictors for health service utilization, mode and location of health services providers were identified. Injury prevention program and service providers should target on specific injury as well as the socio-demographic subgroups.

OT1-05

Trend and Implication of Helmet Use Six and Twelve Months after Helmet Regulation in Central Vietnam

Nguyen Mai Huong, Cuong Pham Viet, Ha Nguyen Trong

Hanoi School of Public Health, Vietnam

In Vietnam, Road Traffic Accidents (RTA) is being serious problem. In order to decrease RTA cases, helmet-wearing was made compulsory for riders and passengers driving on all roads from December 2007.

Objectives: Assess helmet-wearing six and twelve months after the regulation in three central provinces of Vietnam (BinhDuong, YenBai, DaNang). **Method:** Road side observations were made on classes of road using 5 sites in each province. Two researchers observed wearing-helmet, one observing riders, the other

passengers. Observations were made on one weekday and one weekend (non consecutive), 4 times per day: 7:00-9:00, 10:00-12:00, 16:00-18:00 and 19:00-21:00. Helmet-wearing and incorrect use (helmet strap not fastened) were recorded for riders and passengers. **Results:** Helmet-wearing was higher after enforcing the regulation. However, comparing the 6 and 12 month observations helmet-wearing among riders decreased from 93.9% (June) to 88.1% (December) in YenBai; increased from 94.6% to 96.9% in BinhDuong and leveled off 99.7% in DaNang. Helmet-wearing among passengers fell from 90.5% to 78.5% in YenBai; from 98.8% to 90.2% in DaNang and rose from 88.7% to 94.6% in BinhDuong. In YenBai and DaNang, helmet-wearing among riders and passengers fell at 4 observation times. Incorrect wearing among riders and passengers increased in 3 provinces. **Conclusion:** The regulation had a positive impact on helmet-wearing in three provinces. However, incorrect use is rising in riders and passengers. This trend and the reasons behind are likely significant for Vietnam and other countries introducing regulation. Possible causes and policy implications of this trend will be explored as likely remedies.

OT1-06

Risk Factors for Hip Fractures in Elderly People in Taiwan

Hsin-Dai Lee¹, Mau-Roung Lin², Chih-Yi Chen²

1. Taipei Medical University Hospital, Taiwan

2. Taipei Medical University, Taiwan

Hip fractures are the most serious consequence in elderly fallers, and more than 90% of them result from falls. It is necessary to identify risk factors for hip fractures in the elderly before any effective intervention can be undertaken; however, these factors have not been determined in Taiwan. A case-control study was conducted to determine risk factors for hip fractures in elderly people. As recruited from the emergency rooms of three hospitals in Taichung area, persons aged 65 or older who fell and sustained a hip fracture were selected as cases and those who fell and had an injury other than hip fractures as controls. In the study, there were 336 cases and 479 controls. The result of the logistic regression model analysis shows that the risk of occurring a hip fracture during a falling event was significantly associated with older ages, poorer vision, osteoporosis, use of medication of lowering blood sugar levels, type of falls, falling direction (the side and backwards), and long lie after a fall. Most of risk factors identified in the study are consistent to those reported in previous studies; however, some are in conflict possibly due to environmental or racial differences. Factors such as poorer vision, use of medication, and fall direction can be modified or trained in order for reducing the occurrence of hip fractures during a fall in the elderly.

OT1-07

Demonstrating A Survival Swimming Program in Natural Water Bodies to Prevent Drowning

Orapin Laosee, Sunitra Pakinsee, Ratana Somrongthong, Natawan Deelertyonyong, Sukarin Wimuktayon

Chulalongkorn University, Thailand

Child drowning in Thailand is a leading cause of mortality and is now a major public health priority. Providing children with survival swimming lessons is an effective way of decreasing the risk of drowning. However, conventional swimming lessons have been limited to standard swimming pools which are a limited resource in developing countries like Thailand. Operational research was conducted in the Chaing Rai Province during 2008 which aimed to develop a feasible survival swimming program to be effective in natural bodies of water and increase the survival swimming ability of 60 primary school children (aged 6-12). A cooperative of people from the local administration, health center staff, parents, school teachers, and the research team was formed and initiated the survival swimming program as a community effort. A clean natural water body in the community was chosen as a safe area to swim. Local materials such as bamboo, empty gallon plastic bottles and dry coconuts were utilized during program. The swimming lessons were provided by a trained survival swimming instructor and 60 children from the local school were enrolled and divided into five groups of 12. At the conclusion of 20 swimming lessons, over 80% (83.3%) of the children gained a level of swimming ability which required the physical skills necessary to enter and across at least 20 meters of open water without assistance and floated for 90 seconds. This research demonstrated that with limited resources a survival swimming program in a natural water body is an effective and feasible way to increase swimming abilities of primary school aged children.

OT1-08

Accident Emergency Response of Public Buses at the Daya Automobile Terminal in Makassar- Indonesia

M. Furqaan Naiem

University of Hasanuddin, Indonesia

Bus accidents frequently occurred with fatal injuries and high number of victim. Indonesian government has regulated the accident emergency response that is attitude and action which should be implemented quickly in holding an accident event of motor vehicle. The regulation arranges the safety minimum standard which can give maximum safety protection to bus passengers and crews. This is intended in order the bus crews and passengers can get maximum protection by confirming that the buses have minimum safety requirement which is always in good working condition and the crews of buses know to operate them. Bus is one of land

transportation which is often to get an accident. The most important factor which may minimize the number and fatality of accident are the driver behaviors and emergency response facilities of buses. This study is aimed to identify the accident emergency response of buses in the Daya Regional Terminal, Makassar city, Indonesia. Total 147 of 478 buses and their drivers involved in this study selected by using an accidental sampling method. Results of the study indicated that 42 buses (28.6%) have fully facilitated with emergency tools. Total 129 drivers (87,8%) having high knowledge score, 108 drivers (73,5%) having good attitude score, 15 (10.2 %) drivers having good proactive action score and 6 drivers with good reactive action score. The study suggests to educate the bus company managers and drivers on bus safety regulation followed law enforcement in order they complete and maintain their buses in good and full safety facility.

Oral Track 2- Clinical Research & Public Health

OT2-01

Gender Differences in the Relationship between Depression and Cardiac Autonomic Function among Community Elderly

Hsi-Chung Chen¹, Cheryl C. H. Yang², Terry B.J. Kuo², Tung-Ping Su², Pesus Chou²

1. National Taiwan University Hospital, Taiwan

2. National Yang-Ming University, Taiwan

Objective: The mechanism underlying the differential effect of depression on morbidity and mortality in men and women remains unknown. This survey was designed to examine gender effects on the relationship between depressive symptoms and cardiac autonomic function among community dwelling elderly.

Methods: Six hundred and six randomly selected community-dwelling elderly men and women ≥ 65 years of age were enrolled. Depressive symptoms were assessed with the Hospital Anxiety and Depression Scale. Cardiac autonomic function was evaluated by measuring heart rate variability parameters. Frequency-domain indices of heart rate variability were obtained.

Results: Among the subjects, 58.4% were male with a mean age of 77.9 years. Stratified analyses by gender revealed a dose-response association between depressive symptoms and lower cardiac vagal control among elderly males ($p=0.003$). Male subjects with mild depressive symptoms (depression scores: 5-6) showed prominent cardiac sympathetic predominance compared with the reference group (depression scores: <5) ($p=0.005$). In contrast, these findings did not exist among elderly females.

Conclusions: The association of depressive symptoms with poor cardiac vagal control and sympathetic predominance was more robust among elderly males than females. This finding may help explain gender differences in the association of depression with morbidity and mortality.