

and dislocation/sprain (12%). In both groups, the cause most often specified was a fall (56%). ASD cases and POP controls had similar odds of injury (crude odds ratio [cOR] = 1.1 [95% CI: 0.9, 1.4]; adjusted OR [aOR] = 1.2 [0.9, 1.7]) and serious injury (cOR = 1.1 [0.9, 1.4]; aOR = 1.2 [0.9, 1.6]).

Conclusions Children with ASD and population control children had similar odds of any medically-treated injury and serious injury. Sociodemographic and IQ differences did not influence these results. We plan to further explore and compare specific injury types and causes, and additional injury outcomes, between the two groups.

479 THE DYNAMICS IN LEADING CAUSE OF INJURY MORTALITY BY DEMOGRAPHIC TRAITS IN NINGBO, CHINA: 2004–2013

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Background Injuries have emerged as a crucial public health concern in China, accounting for about 10% of total mortality.

Methods Data from the death registry system in Ningbo in the period 2004–2013 were analysed to explore the tendency of injuries, using linear regression model on a log and absolute scale of mortality rate respectively.

Results The average crude injury mortality rate was 56.37/100,000/year, accounting for 9.09% of all deaths, and showed a substantial downturn (−73.28% of Annual Percent Change). The ratio of male to female was diminishing and the injury-related deaths were ageing significantly. MV traffic crashes, drowning and suicide had mainly contributed 50.87%, 18.18% and 10.52% for decrease of all-cause injury mortality rate respectively, instead, only fall had contributed 100% for increase. The greatest reduction occurred in rural-man, with the annual rate changes of −2.19/100,000/year, followed by urban-man (−1.96/100,000/year), urban-woman (−0.75/100,000/year) and rural-woman (−0.58/100,000/year) respectively. Alarmingly, women were disproportionately suffering from fall with a sharp increasing trend, especially in urban-woman. The average crude mortality in adults age 65 and older was 255.98/100,000/year and displayed an increasing trend ($\beta = 0.0143$, $p = 0.0299$).

Conclusions This study provides a comprehensive overview of the dynamic in injury-related mortality rate in a developed city in China, where some injury patterns are becoming similar with some high-income countries. Appropriate preventive strategies should be urgently initiated to control this aggressive evolution, basing on the successful experiences.

480 EXERCISE IN TREATMENT AND REHABILITATION OF HIP OSTEOARTHRITIS – A 12-WEEK PILOT STUDY

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Background Osteoarthritis (OA) is a chronic joint disease with the hip and knee being commonly affected lower limb sites. There is evidence supporting that aerobic and strength training is

beneficial for reducing pain and improving physical function in older adults with mild-to-moderate knee and hip OA. Good physical function is crucial in preventing fall-induced injuries in OA patients.

Methods The aim of this pilot study is to test the safety and feasibility of a tailored exercise program with particular emphasis on maintaining appropriate training intensity while minimising adverse events and injuries.

The self-reported disease-specific pain and physical function will be assessed using the pain and functioning subscales of the WOMAC questionnaire (range 0–100 mm) at baseline and at 12 weeks. The maximal leg-extensor strength, dynamic balance, Timed-up and go (TUG), Short physical performance battery (SPPB; includes tests of balance, 4-metre walking speed and 5-time chair stand) will be used in assessing physical functioning objectively. In addition, hip range of motion and stair-climb-test (step height 20 cm) will be used.

Thirteen women with diagnosed hip OA were recruited and received the exercise program 3 times a week. Main inclusion criteria were age ≥ 65 years, pain experienced in the hip region and living at home independently.

Results The pilot study started in September 2015, and the end point measurements will be done in December 2015. Dimensions such as intensity progression, individual tailoring of exercises and suitability for varying pain levels and functional ability will be evaluated. In assessing the treatment outcomes, each participant will function as her own control.

Conclusions Training intensity needs to be optimal to insure safety as well as progression in physical function and pain relief. The larger randomised controlled trial will be planned according to experience and feedback received from this pilot study.

481 THE INJURY MORTALITY MODEL IN SHENZHEN CITY FROM 1994–2013, A RAPIDLY DEVELOPING CITY

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Background In the 20 years, with the rapid development of economy in Shenzhen City, mortality model has been changed. However, we are still not sure the change tendency of injury mortality model, proportion of injury related death, and the main leading injury causes (such as road traffic injury, suicide, and fall). The study is aim to figure out these problems, and then promote scientific advices for injury prevention.

Methods The injury mortality data of 1994–2006 were collected from the Funeral Parlour, and other data of 2007–2013 were collected from the death surveillance system in China. The cause of injury related death was coded from V01 to Y99. All the data were cleaned by uniform standards, and analysed by SPSS 20.0.

Results Injury mortality rate has been reduced from 3.19/10000 to 1.30/10000 in the 20 years. Injury ratio of all deaths has decreased from 52.1% in 1994 to 14.8% in 2013. The majority of the injury mortality was man, about 70%. The floating population accounted for about 90% of injury related deaths. Although the ratio of injury death has been descended from 43.5% to 27.9% in 20 years, road traffic injury was the first leading cause of injury related death. Suicide and fall were increased from 6.6% to 27.0%, 8.3% to 11.8% respectively in 20 years.