Results 2060 unique articles were screened of which 28 (from 24 studies with 2 88 264 participants) were included. We statistically pooled information from 19 studies, showing that males with high intensity OPA had a higher risk of early mortality than those with light intensity OPA (HR [95% CI]: 1.24 [1.03 1.49]). Such an association was not observed for females (0.88 [0.75 1.03]).

Conclusion These findings support the PA health paradox, with levels of high intensity OPA being associated with ill-health (for males). An explanation for this finding may be the nature of OPA, involving sustained demanding tasks, causing chronically elevated blood pressure and heart rate responses. Males may be more prone than females because of gender differences in OPA, with males more likely to work in higher intensity occupations. Future research (preferably using objectively measured OPA) should further explore these potential mechanisms.

Poster Presentation

Musculoskeletal

0019 THE ASSOCIATION OF ADOLESCENT SPINAL PAIN WITH WORK ABSENTEEISM IN EARLY ADULTHOOD – SIX-YEAR FOLLOW-UP DATA FROM A POPULATION-BASED COHORT

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Introduction For many, spinal pain first develops during adolescence. However, the extent to which adolescent spinal pain impacts work absenteeism later in life is largely unknown. We assessed the association of spinal pain in adolescence with work absenteeism in early adulthood, using a population-based cohort.

Methods Data from a sample of working people in the Western Australian Pregnancy Cohort (Raine) Study (n=476) were analysed. At 17 years of age, spinal pain (low-back or neck) with impact on work and/or study behaviour was self-reported. Six years later (at 23 years), participants replied to four quarterly text messages asking them about their work absenteeism, from which annual total and sickness absence were estimated. Negative binomial mixed-models were used to estimate the association between spinal pain and work absenteeism (Incidence Rate Ratios (IRR) with 95% confidence intervals (95% CI)).

Results Participants with adolescent spinal pain with impact at year 17 reported significantly higher (mean [SD]) total work absenteeism at year 23 (148.7 [243.4] hours/year), compared to those without pain (43.7 [95.2] hours/year); with IRR [95% CI]: 3.9 [1.5 10.3]. Comparable findings were found for sickness absence (IRR: 3.6 [1.3 10.2], with 94.1 [201.5] and 29.3 [75.0] hours/year absence, respectively).

Conclusion Results of our study show a more than three-fold higher risk of work absenteeism in early adulthood among those with adolescent spinal pain with impact compared to those without spinal pain. These findings indicate that pain

behaviour during adolescence can set a stage for work absenteeism later in life, underlining the importance of early pain prevention and management.

Poster Presentation

Injuries

0020 ROAD TRAFFIC COLLISIONS RISK IN PROFESSIONAL DRIVERS WITH DIABETES MELLITUS AND RECEIVING TREATMENT- A PROSPECTIVE COHORT STUDY

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Aim A cohort study was used to follow up the outcomes of DM and treatments to assess for the 6 year risk of RTC event.

Methods Taiwan Bus Driver Cohort Study (TBDCS) recruited 1650 professional drivers in Taiwan since 2005. The subjects were interviewed in person, completed the basic and working patterns questionnaires. Moreover, this cohort of drivers was linked to the National Traffic Accident Database (NTAD), and researchers found 152 new RTC events from 2005 to 2010. History of DM and DM treatments were found from National Health Insurance Research Dataset (NHIRD). Cox proportional hazards model were performed to estimate the hazard ratio (HR) for RTC.

Results The RTC drivers had high frequency of DM (13.8% vs. 7.3%; p=0.007), type 2 DM (13.2% vs. 7.0%; p=0.009), and DM treatment (11.2% vs. 5.8%; p=0.014) in comparison to non-RTC drivers. DM and type 2 DM increased the 6 year RTC risks among professional drivers (HR: 2.31, 95% CI: 1.33 to 4.01; p=0.003, and HR: 2.31, 95% CI: 1.31 to 4.06; p=0.004), even after adjusting for education, caffeine drinks used, sleeping pills used, time since first employment, hypertension, and overnight oxygen desaturation index. Moreover, DM treatment with insulin secretagogue (Sulfonylurea and Meglitinide) and insulin sensitizer (Biguanide) had an increased risk for RTC (HR: 2.22, 95% CI: 1.01 to 4.93; p=0.049, and HR: 2.07, 95% CI: 1.06 to 4.05; p=0.033).

Conclusion This study have proposed recommendations to labour or health care professionals for managing professional drivers with diabetes.

Poster Presentation

Occupational Medicine (SCOM/Modernet)

0022 ASSESSING SELF-REPORTED HEALTH EFFECTS BY FORKLIFT OPERATORS

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Aim Forklift is a special machine used in transporting, lifting, carrying and storing heavy objects in logistics and in all other