

Factors Influencing Social and Health Outcomes after Land Transport Injury: recruitment and participant characteristics, and interim results

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Abstract

This abstract presents the interim results from a large inception cohort study being conducted across New South Wales to identify predictors of recovery following a mild to moderate land transport injuries. Participants were recruited from multiple sites and data sources such as hospitals, physiotherapists, general practitioners and insurance data. A high proportion of injuries from urban hospitals were reported for bicyclists (36%) whilst a large proportion of motorbike injuries were from rural hospitals. At the first interview, most participants were experiencing worse health status (EQ5D) compared to pre-injury; despite less than half reporting admission to hospital because of their injury.

Background

The Factors Influencing Social and Health Outcomes after Land Transport Injuries (FISH) aims to identify predictors of recovery after mild to moderate land transport injuries. There has been a substantial work on prognostic factors associated with recovery from particular types of injuries including traumatic brain injury, spinal cord injury, musculoskeletal injuries, and whiplash. Research on outcomes of the above listed injuries have established that socio-demographic, pre-injury health, psychological, social, crash related factors, health care systems and compensation system all play a pivotal role in recovery after injury. The aim is to a) describe key characteristics of the cohort (compensable and non-compensable) injured in a land transport injury, with an emphasis on socio-demographics and general health before injury and soon afterwards (within 28 days of injury) b) present interim results of the cohort, with a huge proportion of bicyclists injury c) explains the changes to the previously reported intended methods of the FISH study (Jagnoor et al., 2014).

Methods

777 participants aged ≥ 17 years involved in a land transport crash and who had sustained a mild – moderate injury diagnosed by a medical practitioner or registered health practitioner were interviewed. A telephone-administered questionnaire obtained information on socio-economic, pre-injury health, and crash-related characteristics. These participants are followed up with a telephonic interview at 6, 12 and 24 months.

Results

Over one-fourth (215; 27.3%) of the participants were born outside Australia, 67% were males, and 79.5% were in paid employment at the time of injury. The data source/ hospital was significantly associated with the distribution of mode of transport injuries and major differences were observed for urban hospitals with 35.9% (232/647) of the cohort being bicyclists whilst a high proportion of

motorbike riding injuries (51.6%; 48/93) were reported from rural hospitals. At the first interview, most participants were experiencing worse health status (EQ5D a mean difference of -0.539; <0.0001) compared to pre-injury health status; despite less than half reporting admission to hospital because of their injury. Return to work was reported by 65% whilst only 36% reported being able to return to their usual social activities. Analysis of outcome predictors related to post-injury function, disability and return-to-work soon after injury and 6 months later is now under way. The cyclists were more likely to be male than car occupants, as well as having a higher frequency of tertiary education and pre-injury paid work, a lower frequency of being overweight, a lower frequency of comorbidities, greater self-reported pre-injury health ratings and were also less likely to report a large perceived danger of death.

Conclusion

The interim analysis of the cohort reported a very high proportion of bicycle related injuries. The results highlight the impact of mild to moderate injuries in both compensable and non-compensable cohort in the first 4 weeks after injury. And the bi-cyclists clearly reported better recovery as compared to injuries amongst motorized vehicle users.

References

Jagnoor, J., Blyth, F., Gabbe, B., Derrett, S., Boufous, S., Dinh, M., et al. (2014). Factors influencing social and health outcomes after motor vehicle crash injury: an inception cohort study protocol. *BMC Public Health*, 14(1), 1.