Reviewer's report

Title: Positive recovery for low-risk injuries screened by the Short form - Örebro Musculoskeletal Pain Screening Questionnaire following road traffic injury: evidence from an inception cohort study in New South Wales, Australia

Version: 0 Date: 15 May 2019

Reviewer: Jessica J. Wong

Reviewer's report:

Thank you for the opportunity to review this interesting manuscript. I have followed the STROBE Statement to help assess the reporting for this cohort study.

The authors aimed to assess whether high risk for non-recovery (compared to low risk) as measured on the OMSPQ was associated with recovery, return to work, and health-related quality of life among those with common MSK injuries (neck, low back, lower limb) at 6 months after a road traffic injury.

COMMENTS

Research objective:
- The research objective is not consistently reported throughout the manuscript (i.e., abstract, introduction, and first paragraph of discussion). For example, at times health-related quality of life is included; also exposure and comparator not clearly specified in the objective in the introduction). Please revise and ensure PICOT format is followed.

Methods section:
- The exposure was assessed using an adapted version of the OMSPQ. Has this adapted version been validated? Were the thresholds used to define low versus high risk established in the literature? In addition, are the thresholds for recovery (using the GPE) previously validated/established in the literature? If not, consider discussing this as a limitation (potential source of bias, discussing direction and magnitude of any potential bias if possible) or any sensitivity analyses to explore the impact on results.
- The outcome of return to work was defined as paid-work at the same level prior to the injury. Please define the method of assessment/measurement for this outcome (e.g., was it self-reported? If yes, what question was asked?)
- Clearly define all covariates/potential confounders, including methods of assessment/measurement. Describe which groupings were chosen (e.g., category boundaries for continuous variables, if applicable) for the analyses.
- Were there any missing data; if yes, how were they addressed? In the results, indicate the number of participants with missing data for each variable if interest, if applicable.
- For the analysis, paired t-tests were used to examine changes in health-related quality of life. However, these do not account for covariates/potential confounders. Consider conducting multivariable regression models to account for important covariates, or discuss these results as
exploratory and acknowledge these limitations. This would involve revisions to the discussion
section and potentially some tables and figures.
- For the analysis, it is unclear which covariates were considered to be included in the
  models, and eventually included if found to be significantly associated with the outcome. There
  are limitations to using statistical associations to identify confounders, which should be
  acknowledged.

Results section:
- Consider using a flow diagram and report numbers of individuals at each stage of study
  (e.g. potentially eligible, examined for eligibility, confirmed eligible, included in the study,
  completing follow-up, and analysed), with reasons for non-participation at each stage.
- Provide unadjusted estimates and 95% CI (results from unadjusted Modified Poisson
  regression models)

Discussion:
- Consider a more cautious interpretation of results for health-related quality of life, given
  limitations discussed above. In addition, are some questions between OMSPQ and SF-12
  targeting similar constructs?
- For limitations, potential for residual confounding was acknowledged. Consider
  discussing potential selection bias (given some differences in those who were lost to follow-up)
  and measurement error/bias, and how this might affect the results.

Minor comments:
- Define acronyms in footnote of tables

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an
additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further
assessment in your comments to the editors.

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Acceptable

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