

Predictors of psychological and functional outcome in adult trauma patients following road traffic crash: A scoping literature review

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Introduction

Road Traffic Crashes (RTCs) are a major source of death and disability globally. Each year tens of millions of individuals are injured or disabled as a result of RTC. In addition to immediate death, there is an increased risk of subsequent death, ongoing physical disability, psychological issues, and reduced overall HRQoL following RTCs.

Understanding factors that contribute to trauma patient outcomes following an RTC may assist healthcare providers, governments and funding agencies to refine their responses to these events. This may include interventions in the injury prevention sector, and in pre-hospital, in hospital, rehabilitation, and post discharge domains of care.

Aims

This study aims to identify the factors reported in the literature that are associated with adult trauma patients' physical and psychological morbidity following RTCs

Methodology

A scoping literature review was conducted. Peer-reviewed articles were retrieved from MEDLINE/PubMed, EMBASE, and CINAHL. These databases were chosen as the MeSH and Emtree thesauri allow for high specificity searches. Articles were reviewed by undergoing a process of title, abstract and full text screening using the Covidence tool (<https://www.covidence.org/>). Reference lists were simultaneously searched to identify additional publications.

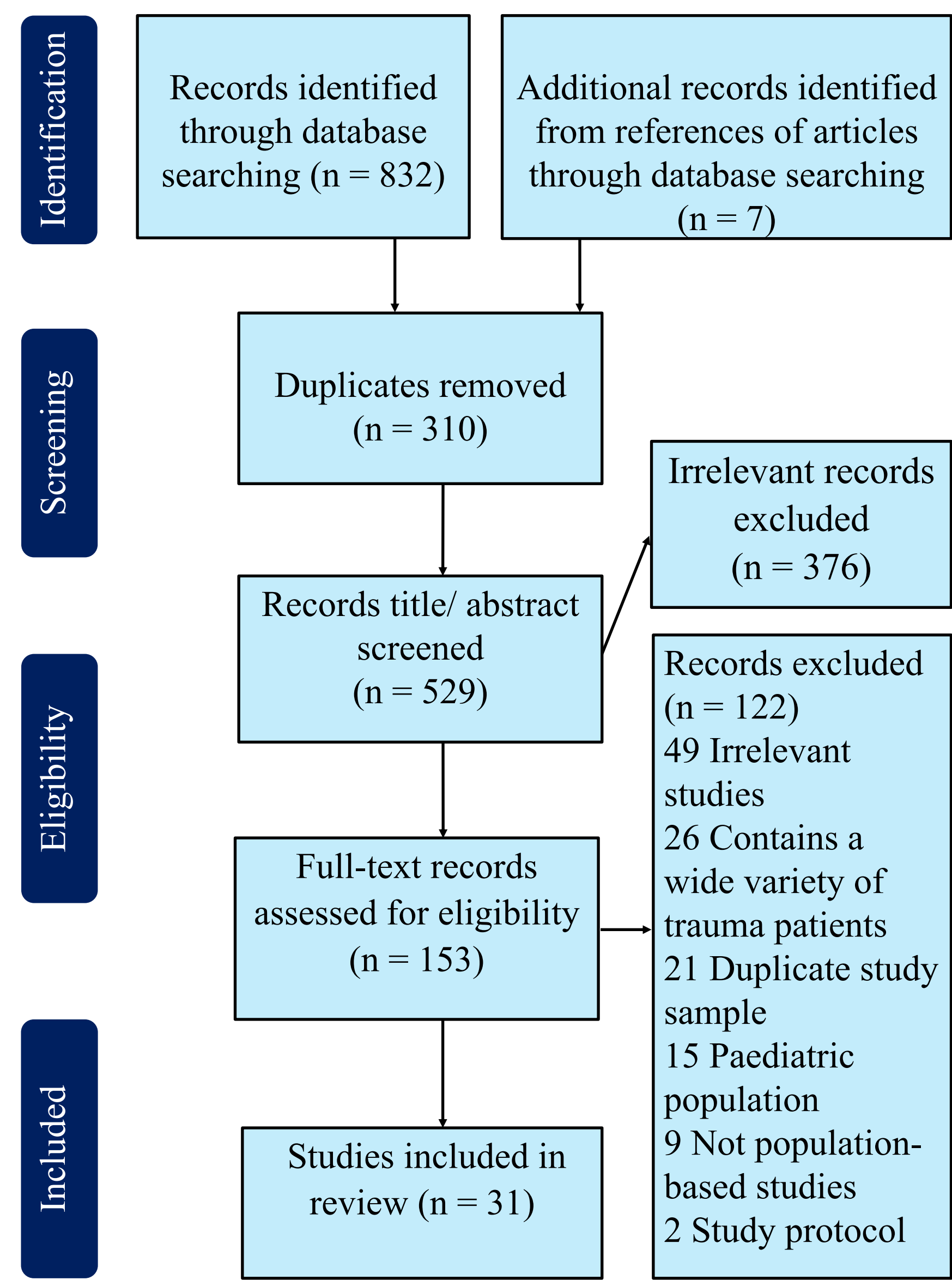


Figure 1. PRISMA flow diagram show the searching and screening processes

Results

Thirty-one studies from 10 countries are reported in a PRISMA chart. This literature review identified six categories of variables being used in studies that explored predictors and factors associated with physical and psychological morbidity following RTCs. Five of the categories represented independent variables; (i.) injury characteristics and hospital predictive factors; (ii.) demographic factors; (iii.) family and social support; (iv.); compensation system process and fault in the RTC (v.); and pre-injury health status (vi.). The sixth category was used to represent the range of (vi.) psychological and functional outcomes.

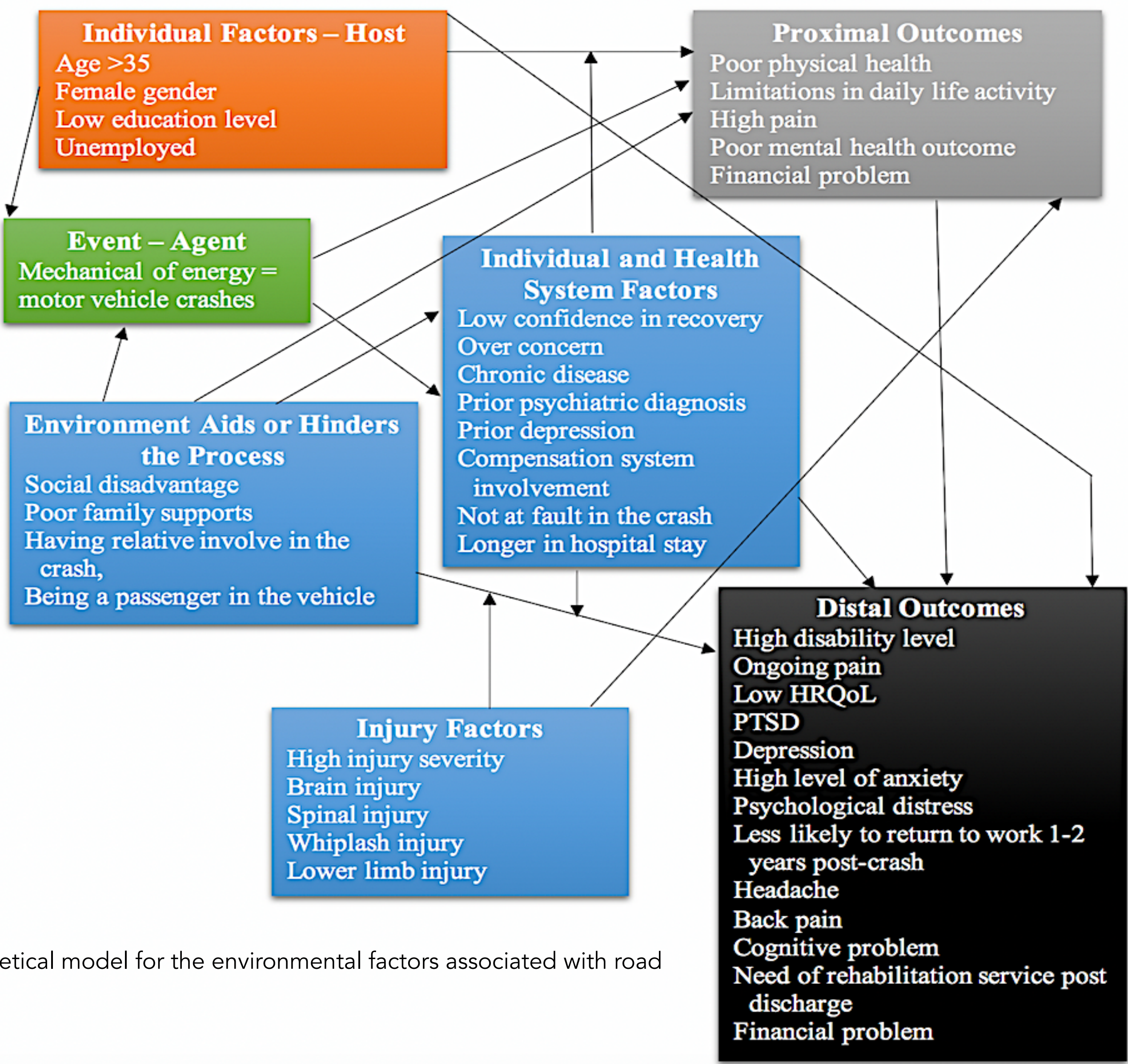


Figure 2. Proposed theoretical model for the environmental factors associated with road traffic-related injury

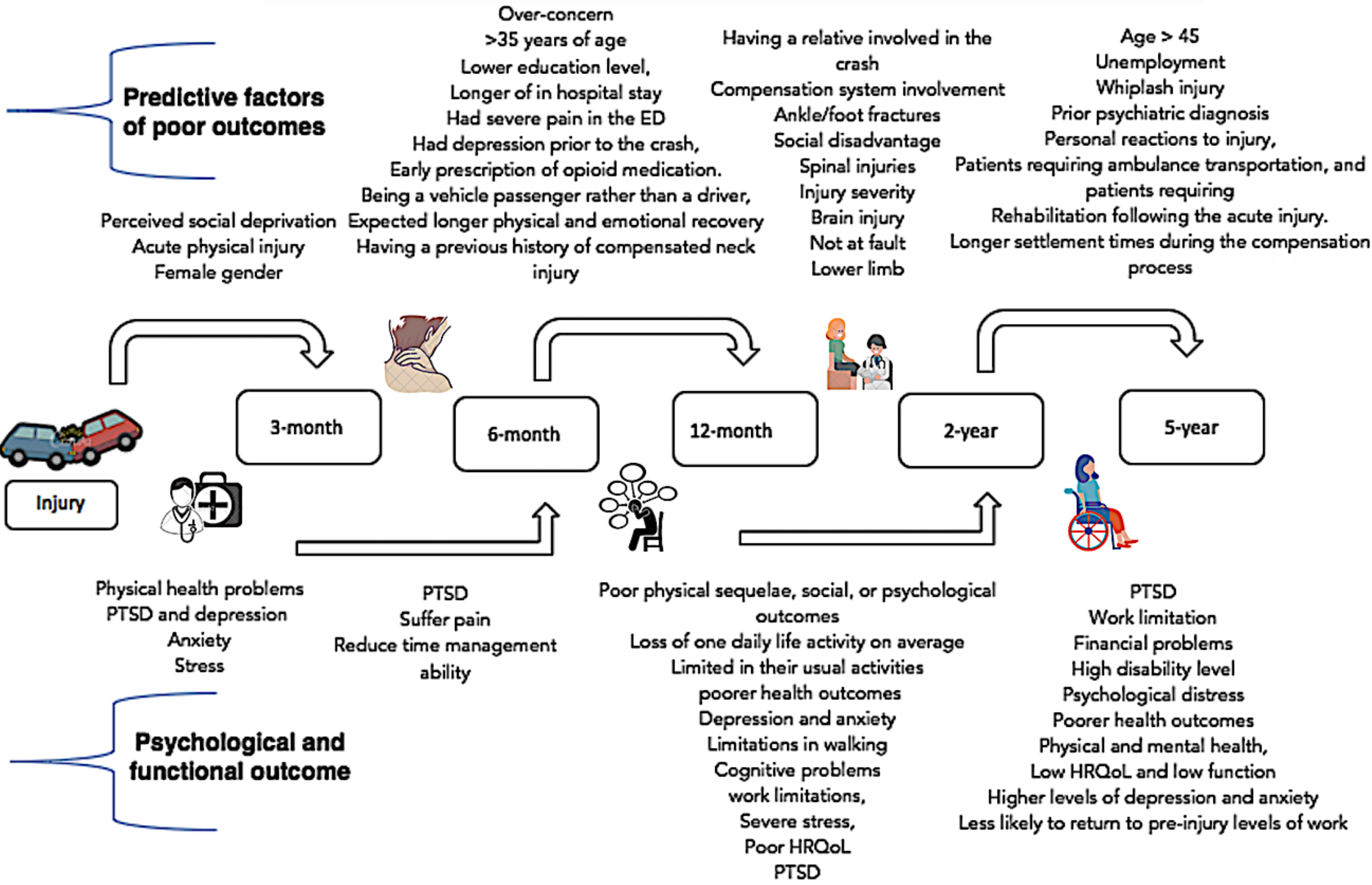


Figure 3. Factors and outcomes at different time points as reported in reviewed literature

Conclusions

These findings highlight the multiple and diverse contributors that influence person outcomes following an RTC. These factors are intrinsic and extrinsic and commence from the time of injury as well as highlighting the importance for ongoing support after acute care discharge to enable a quick return to optimal wellbeing. Research examining RTC outcomes must integrate information about the crash response and health care system whilst simultaneously measuring other factors to appropriately quantify the relative contribution of each variable to psychological and functional outcomes.