06 USING IN-DEPTH CRASH DATA TO ASSESS THE ROLE OF DRIVER INATTENTION AND DRIVER DISTRACTION IN CRASHES

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Background Driver inattention and distraction represent major challenges for road safety. Although both are believed to increase crash risk, there is currently limited information on their role in crashes.
Aims This study aimed to investigate driver inattention and distraction in serious casualty crashes using data from the Australian National Crash In-depth Study.
Methods The sample included 340 serious casualty crashes from 2000–2011 where a driver or passenger was interviewed. Pre-hospital, hospital and post-crash information concerning the vehicle and scene were collected. Using a 'case-by-case' approach, driver behaviours were classified using a recently developed taxonomy of driver inattention. Five inattention subtypes were defined: restricted attention; misprioritised attention; neglected attention; cursory attention; and diverted attention (distraction).
Results 124 crashes (36.5%) showed no evidence of inattention, 20 crashes (5.9%) involved possible inattention, and 196 crashes (57.6%) involved an element of inattention on the part of a driver. The most common inattention subtypes were restricted attention (n =128; 37.6%), in which attention is limited due to physical or biological factors (eg, fatigue, intoxication), and distraction (n =54; 15.9%). The most common distractions were voluntary, in-vehicle, non-driving related distractions (eg, passenger interactions).
Significance The results demonstrate that the majority of serious injury crashes involve an element of driver inattention or distraction. In most cases, the type of inattention and distraction behaviours observed were preventable, highlighting the need for improved education as well as new technology solutions to aid the driver. This study also highlights the value of in-depth data in understanding crash causation.