

ICBC studies risky behaviors

Motor vehicle collisions represent one of the most significant causes of injuries and fatalities in British Columbia, particularly for youth.¹ The vast majority of these crashes are not unpredictable or inevitable but are the result of risky decisions and actions by drivers. For a number of years, ICBC has been conducting research on risk-taking behaviors with the aim of reducing the frequency and severity of such crashes and to develop effective intervention strategies.

Many physicians across the province have been actively involved in various crash prevention initiatives to educate both current and future drivers about the consequences of unsafe driving. The focus has been mainly on young drivers who continue to be significantly overrepresented in various crashes caused by intentional risk-taking. One of the most popular forms of preventive medicine has been to expose potential risk-takers to the harsh reality of the aftermath of crashes. Visiting the local ER and attending presentations that use vivid images of ER procedures involving crash victims have been particularly memorable with youth around the province. As ICBC's recent program evaluations revealed, these memories last for years for many young people, and appear to partly influence their daily driving decisions.²

Risk predictors

Physicians can also play an important prevention role by recognizing and discussing with young patients and their families some of the risk factors implicated in at-fault crashes. Identified factors include demographic, psychological, biological, and sociocultural variables.³

Youth and inexperience indepen-

dently predict crash risk, and both aspects are addressed by the current Graduated Licensing Program (GLP), which has now been shown to improve the safety of new drivers by reducing their exposure to some well-established risks such as night-time driving, carrying multiple passengers, and drinking and driving. Unfortunately, recent research has also shown that crash risk increases again for a short time after young drivers obtain their full licence and leave the GLP, as many push the limits of their newly found driving freedom.

Experience appears to influence the ability to detect potential road hazards, as well as vehicle control skills. Many studies have shown that experienced drivers are better than novices at dealing with hazards.⁴ Compared with experienced drivers, new drivers take about 2 seconds longer to recognize hazards. They show weak scanning and anticipation skills, are less able to recognize and use hazard cues, and tend to have delayed and more abrupt corrective actions. Furthermore, it appears that visual attentiveness and driver experience are important in the early detection and response to hazards.

Attention deficit disorder and driving

Given the critical role of driver attentiveness, it is not surprising that attention deficit disorders (ADDs) are also associated with increased crash risk.⁵ Physicians who diagnose ADD and ADHD are in a good position to alert affected patients to the elevated risk they face when driving. Relevant symptoms include low tolerance for boredom, impulsive tendencies, emotional volatility, restlessness, and distractibility. This profile is similar to the sensation-seeking temperament and probably the best predictor of crash

risk, which is evident across age groups, gender, and socioeconomic levels.⁶ It may be useful for physicians to address the implications of driving on these conditions in addition to the impacts on school or work performance.

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vers also revealed that compared with low-risk drivers, they tend to view driving as a symbolic rather than a practical activity.³ Driving is an opportunity to demonstrate to others and to themselves that they are assertive, competent, high-performing individuals who are not afraid to push the limits on the road and in their lives. For this group, risky driving symbolizes freedom, control, power, status, competence, and performance—both on and off the road.

Many risky drivers also tend to be preoccupied with cars, spending a lot of time simply driving with no particular destination. They may view the car as a sanctuary and use driving to relieve stress or to vent their emotions, often at the expense of other drivers and resulting in road-rage incidents. Spotting and addressing these warning signs early could greatly reduce the risk such individuals pose.

Patient/public education

vs. incentives and penalties

A hard lesson that ICBC and international transportation safety agencies have learned is that awareness of individual risk factors and exposure to the dire consequences of risky driving may not be enough to change driving behavior.⁷ As with other health-compromising behaviors, patient education is necessary but may not be sufficient to modify behavior. Incentives and penalties such as strategically designed risk-based insurance products and police enforcement are also needed. Nevertheless, public campaigns and patient education is essential in the overall prevention program mix because education can amplify the positive impact of complementary measures such as enforcement and engineering.

Risk-taking behavior and recovery

The good news is that a risk-taking orientation may be a protective factor in recovery from the injuries it caused in the first place. When ICBC interviewed young risk takers about their post-crash experiences they reported feeling impatient during their recovery and felt motivated to quickly get back to their pre-crash status.⁸ Whether this translates into an earlier return to work is still an open question, but studies of recovering injured athletes indicate a similar pattern of enhanced readiness to resume a normal routine for the higher risk takers.⁹

This is consistent with the view that sensation seekers tend to have a higher tolerance for emotional arousal, greater openness to new experiences, and more optimistic cognitive style—all factors that are generally associated with better health outcomes.

ICBC's work with risky drivers also revealed that they may have a more adaptive explanatory style. They tend to view their injuries as specific rather than global in terms of daily functioning, and perceive their injury symptoms as transitory rather than

chronic. They also may be less vulnerable to secondary injury reactions such as depression. Therefore, what appears to get risk takers in trouble also helps them recover faster. Better understanding of risky behaviours may inform not only prevention but also the treatment of injuries sustained in motor vehicle crashes.

If you have suggestions for ICBC about future article topics, or questions relating to the care of patients injured in motor vehicle collisions, please contact medinquiries@icbc.com.

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to the office from the health unit. Return unused vaccine to your local health department—do not discard it. Some returned vaccines may have monetary value under contract credit policies, so throwing them away is literally throwing money in the trash.

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—Monika Naus, MD, MHSc
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