Toward a performance-based approach to the Queensland Alcohol Ignition Interlock Program: the impact of performance record on risk of recidivism

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Abstract

Drink driving is a significant contributing factor to road trauma. The Queensland Alcohol Ignition Interlock Program (AIIP) aims to reduce drink driving recidivism among problematic offenders and has been evaluated to measure its effectiveness. Results of this evaluation revealed a significant reduction in drink driving recidivism associated with interlock fitment, but an increased risk from 55 days after removal, compared with those still suspended from driving. In addition, poor interlock use performance data was found to be predictive of a greater risk of future reoffending. These findings will inform future policy development to optimise the effectiveness of the AIIP in Queensland.

Background

Drink driving is a significant contributing factor to road trauma. An analysis of alcohol impaired motorists in 2015 found that alcohol was a factor in 23.5% of all fatalities on Queensland roads, representing a 10.5% increase from the previous five-year average (Department of Transport and Main Roads, 2016). Thus, despite considerable gains over recent decades, it appears a number of motorists continue to drink and drive and more innovative approaches are required to modify their behavior.

In 2010, the Queensland AIIP was introduced as a sanctioning option for selected high-range and repeat drink driving offences. After serving their court-ordered disqualification, eligible offenders are subject to an interlock sanction period (IPER), whereby they must either relicense on a conditional licence and fit an interlock to a nominated vehicle for at least 12 months, or 'sit out' the interlock period for 24 months, during which time they are not permitted to drive.

Method

Data from 27,371 offenders involved in the program were analysed using Cox proportional hazard regression, controlling for a number of covariates. Differences in risk of recidivism were assessed between offenders with an interlock fitted (intervention group) and those who 'sat out' the interlock period (comparison group). Moreover, differences in risk of recidivism were examined as a function of interlock use performance (e.g., breath test results, refusals, or attempts to circumvent) for a subsample of 2,916 offenders whose performance data was available.

Results

In total, 11,076 offenders fitted an interlock (40.5% of the sample). Findings revealed that the intervention group had a significant 90% reduction in hazard of drink driving recidivism compared to the comparison group while the interlock was fitted (see Table 1). However, consistent with previous research (see review by Willis, Lybrand & Bellamy, 2004), this impact quickly dissipated upon removal of the interlock, with the positive impact lasting approximately two months after the removal of the device. Indeed, the intervention group had a significant 35% increase in likelihood of reoffending in the year following the IPER period, compared to the comparison group.

An investigation of the 2,916 offenders with interlock use performance data showed 51.5% had one or more faults in their last service period (approximately four months). As Table 1 shows, those with

at least one fault had a 73% greater hazard of reoffending, compared to those with a 'clean' performance record, following the removal of the interlock. This finding is also consistent with previous research (Marques, Voas & Tippetts, 2003).

Table 1. Summary of Cox regression results (final model with covariates)

	B (SE)	**Exp(B)**	95% CI Lower	Upper
Intervention versus comparison groups				
First-year post-disqualification (interlock fitted)[abcdef]	-2.31 (0.26)	**0.10*****	0.06	0.16
Second-year post-disqualification (interlock fitted $<$ 55 days)[cf]	-1.00 (0.25)	**0.37*****	0.22	0.60
Second-year post-disqualification (interlock fitted $>$ 55 days)[cf]	-0.61 (0.10)	**1.85*****	1.53	2.24
First-year post-IPER (interlock fitted)[bcf]	0.30 (0.09)	**1.35****	1.13	1.62
Faulted versus clean performance record				
Post-interlock removal (fault)[c]	0.55 (0.16)	**1.73*****	1.27	2.34

Superscript denotes which covariates were included in the final model: [a] gender, [b] age, [c] prior offending, [d] index offence, [e] time interaction, [f] relicensed.
* $p < .05$, ** $p < .01$, *** $p < .001$.

Conclusions

The findings highlight the substantial impact of the AIIP on drink driving recidivism while interlocks are installed, however provide limited evidence of their long-term impact upon removal. Moreover, poor performance while the interlock was fitted was found to be predictive of increased risk of recidivism. Both findings are consistent with previous research. The finding that interlock fitment is associated with an increased risk of recidivism compared to the non-fitment group from 55 days post interlock removal extends findings from previous research. The study will inform future policy decisions for the program in Queensland.

References

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