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Driving Safely for Work: A Study Investigating Aberrant Driving Behaviours within a Fleet Setting

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Abstract

This study reports on the utilisation of the Manchester Driving Behaviour Questionnaire (DBQ) and the Driving Attitude Questionnaire (DAQ) to examine the self-reported aberrant driving behaviours and safety attitudes of a sample of Australian fleet drivers (N = 443). Surveys were posted to drivers who agreed to participate in the study. Univariate analyses of the subscales revealed that participants were least concerned about speeding, followed by risky overtaking manoeuvres, while attitudes regarding the seriousness of close following and drink driving were significantly higher. In regards to behaviours, participants were most likely to report engaging in speeding and aggressive violations, and least likely to report making driving errors. Importantly, additional bi-variate analyses revealed that individuals who engaged in regular speeding behaviours and reported risky overtaking manoeuvres were most likely to incur demerit point losses. The results indicate that fleet interventions designed to improve road safety may benefit from focusing on attempting to reduce speeding infringements and the possible "speeding culture" that may exist within the fleet industry. This paper will further outline the major findings of the study, highlight the limitations and provide direction for future fleet safety research.

Résumé

Cette recherche étudie les témoignages de comportements routiers anormaux et d'attitudes envers la sécurité routière d'un échantillon de conducteurs professionnels australiens (N=443) au moyen du Manchester Driving Behaviour Questionnaire (DBQ) et du Driving Attitude Questionnaire (DAQ). Ces questionnaires furent distribués aux personnes acceptant de participer à cette étude. Des analyses à une variable révèlent que les participants sont moins préoccupés de la vitesse et dans une moindre mesure des manoeuvres de dépassement dangereuses que du caractère alarmant du non respect des distances de sécurité ou de la conduite en état d'ébriété. A propos de leur comportement, les participants sont plus à même de notifier leurs excès de vitesses et leur comportement agressif au volant que de reconnaître faire des erreurs de conduite. D’additionnelles analyses à plusieurs variables révèlent que les personnes qui sont régulièrement en excès de vitesses et reconnaissent prendre des risques lors des dépassements ont plus de chance de perdre des points sur leur permis. Ces résultats montrent que les flottes d’intervention pour améliorer la sécurité routière devraient se concentrer sur la réduction des excès de vitesses ainsi que la « culture de vitesse » qui peut exister dans l’industrie automobile. Cette publication résume les principales conclusions et limitations de nos résultats et propose de futures avenues de recherche dans le domaine de la sécurité des flottes automobile.
INTRODUCTION

Fleet and work related motor vehicle crashes continue to produce tremendous emotional and financial costs to the community. Previous estimations have indicated that the total cost of work related road incidents in Australia was in the vicinity of $1.5 billion [1]. More recent evidence has suggested that the average total insurance cost of a fleet incident to organisations and society is approximately $28 000 [2], and the average cost of a fatal crash in the general Australian motoring community is estimated to be $2 million [3]. Furthermore, estimates of the true cost for work related crashes suggest that hidden costs may be somewhere between 8-36 times vehicle repair/replacement costs [4]. Of note is that a high proportion of work-related deaths and injuries within the overall road toll consist of work-related crashes [1,4]. For example, work-related traffic injuries are about twice as likely to result in death or permanent disability than other workplace accidents [1], and account for up to 23% of work related fatalities in Australia, as well as 13% of the national road toll [4].

However, despite the considerable impact of fleet-related driving incidents, comparatively little national or international research has endeavoured to identify the extent of, and underlying factors associated with, engagement in aberrant driving behaviours. Currently, the scant research in this area may be considered to be a significant oversight as changes in industry/employer accountability, business processes, OH&S, workers compensation legislation, insurance, third party coverage and public liability are requiring industry to develop better benchmarking along with more comprehensive programs related to fleet safety [5]. As a result, there is a clear and growing need for industry, government and the community to allocate resources to further knowledge and expertise in this area.

Driving Assessment Tools

Given the impact of road crashes on society, researchers have been directing an increasing level of focus towards investigating the attitudes and behaviours of general motorists’, as well as identifying the relationship these factors have with self-reported aberrant driving behaviours as well as crash involvement [5,6]. Such measurement tools include: the Driving Skill Inventory [7], Driver Anger Scale [8], the Manchester Driver Behaviour Questionnaire (DBQ) [9] and the Driver Attitude Questionnaire (DAQ) [10]. The latter two measurement tools have more recently received increasing attention within the literature as researchers begin to identify driving attitudes associated with engagement in risky driving behaviours as well as crash involvement [11,12].

Firstly, in regards to the DBQ, the measurement tool distinguishes between three aberrant driving behaviours (i.e., speeding, aggressive violations & errors) and has been extensively utilised within a range of driver safety research areas such as: age differences in driving behaviour [13], the genetics of driving behaviour [14], cross cultural studies [15] and associations with the likelihood of being involved in an accident [9,12,3,16]. Such research has predominantly focused on general motorists, which has indicated that speeding violations are one of the most efficient predictors of crash involvement [16].

Secondly, another measurement tool that is beginning to receive increasing attention within the road safety literature is the Driver Attitude Questionnaire [10]. The DAQ was developed by Parker et al. [10], and focuses on four distinct factors that aim to measure respondents’ attitudes towards major driving issues (drink driving, following closely to other vehicles, risky overtaking & speeding). Research has begun to utilise the DAQ within a number of different applied settings such as: speed awareness
training [17], general driver training programs [18], bicycle interventions [11], as well as more recently work-related settings [6,12]. Preliminary research indicates that the DAQ has the potential to be implemented to investigate motorists’ attitudes towards key road safety behaviours, with motorists generally reporting the most lenient attitudes towards speeding violations [6,17].

Work-related Settings

Despite the considerable proportion of professional drivers on public roads, much less road safety research endeavours have been directed towards examining the self-reported driving behaviours and attitudes of those who drive company vehicles. In addition, only a small body of research has attempted to identify the personal and environmental factors associated with engaging in general aberrant driving behaviours, incurring infringement notices, or crash involvement within fleet settings. Nevertheless, a small body of research is beginning to indicate that company car drivers are at a greater risk of accident involvement than general motorists due to their exposure to the road and associated work-pressures [19,20]. Similarly, preliminary research has also indicated that self-reported data provided by fleet drivers can be utilised to predict crash involvement [12] and demerit point loss i.e., committing a higher number of errors [5,12]. For example, Davey et al., [12] examined the self-reported driving behaviours of 4195 fleet drivers in Australia which revealed that increased work pressure as well as driving mistakes (i.e., errors) were predictive of crashes, even after controlling for exposure to the road (i.e., kilometres driven per year). Another Australian study by Newnam et al. [19] investigated the driving behaviours of 204 individuals who drove for work purposes and identified that participants reported higher crash involvement in their work vehicle compared to private vehicle, and were less likely to engage in vehicle safety checking practices for the work vehicle e.g., tyre pressure. However, apart from these initial findings, very little research has endeavoured to examine fleet drivers’ self-reported road safety attitudes and driving behaviours, or the link such factors have with incurring infringement notices. What remains evident is that considering the tremendous amount of kilometres driven by professional drivers within Australia each year, often under time pressures, there is a genuine need to examine the usefulness of self-reported assessment tools, such as the DBQ and DAQ, to assess driving attitudes and behaviours in order to inform effective fleet safety interventions. As a result, the present research aimed to utilise the DBQ and DAQ to investigate the self-reported driving behaviours of a group of Australian drivers within a fleet setting. More specifically the study endeavoured to examine a group of fleet drivers’:

a) attitudes regarding the seriousness of drink driving, close following, risky overtaking and speeding (e.g., DAQ);
b) engagement in aberrant driving behaviours such as speeding, aggressive violations and errors (e.g., DBQ); and
c) investigate the relationship the DBQ and DAQ have with self-reported traffic offences and crashes.

METHOD

Participants

A total of 443 individuals volunteered to participate in the study who were all employees of a large Australian company. There were 345 (78%) males and 98 (22%) females. The average age of the sample was 44 years (range 18-68yrs). Participants were located throughout Australia in both urban
and rural areas. The largest proportion of vehicles driven by participants were reported to be for tool of trade (56%), although vehicles were also salary sacrificed (43%), and a small proportion were leased or participant's own vehicle (1%). Vehicles were reported to be sedans (85%), four wheel drives (12%) or other (3%). The majority of driving by participants was reported to be within the city (46%), or in the city and on country roads (40%). On average participants had held their licence for 26 years (range 5 – 48yrs), had been driving a work vehicle for approximately 5 years (range 1 – 33yrs), with the largest proportion driving between 11 and 20 hours per week (43%), and between 30,000 – 40,000kms per year. A total of 48 participants reported being involved in a crash while driving for work in the last year while 73 individuals reported incurring traffic infringements (i.e., demerit point loss) during the same time period.

Materials

Driver Behaviour Questionnaire (DBQ)
A modified version of the DBQ was used in the current study that consisted of 20 items. Questions relating to lapses were omitted due to previous research indicating that this factor is not associated with crash involvement [21]. In addition, the authors of the current paper made minor re-wording or rephrasing modifications, in order to make the questionnaire more representative of Australian driving conditions. For example, references to turning “right” were removed on some items as there are instances where drivers may attempt to overtake someone who is turning left1. Respondents were required to indicate on a likert scale (0 = never to 5 = nearly all the time) how often they commit each of the errors (8 items), highway code violations (8 items) aggressive violations (4 items).

Driver Attitude Questionnaire (DAQ)
The DAQ is a 20-item self-report questionnaire designed to measure attitudes regarding a range of driving behaviours which are collated to identify four factors: drink driving, close-following, dangerous overtaking and speeding. Respondents are required to indicate on a likert scale (0 = strongly disagree to 5 = strongly agree) their agreement with statements regarding the appropriateness of various driving behaviours.

Demographic Measures
A number of socio-demographic questions were included in the questionnaire to determine participants’ age, gender, driving history (e.g., years experience, number of traffic offences and crashes) and their weekly driving exposure (e.g., type of car driven, driving hours).

Procedure
The vehicle insurance company provided a list of individuals who expressed interest in participating in the research. A letter of introduction, the study questionnaire and a reply paid envelope were distributed through the company’s internal mail system to the participants. In total 1440 were mailed out and 443 were returned indicating a 30% response rate.

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1 Previous research has demonstrated that the DBQ is robust to minor changes to some items in order to reflect specific cultural and environmental contexts [13, 23, 24].
RESULTS

Structure and Reliability of the DBQ and DAQ for an Australian Sample

The internal consistency of the DBQ and DAQ scores were examined through calculating Cronbach’s alpha reliability coefficients, which are presented in Table 1. Similar to previous Australian research [13,22], and professional drivers [20], the factors appear to exhibit relative internal consistency. Examination of the scores reveals that the items traditionally associated with highway code violations indicate the highest reliability coefficients (.80) while aggressive violations (which consisted of only 4 items) had the lowest reliability (.60). In contrast, while there has been little research to determine the psychometric properties of the DAQ, the results are similar to one previous study [17], which has indicated the factors only exhibit relative internal consistency.

<table>
<thead>
<tr>
<th>DBQ</th>
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<tbody>
<tr>
<td>Speeding Violations</td>
<td>(8 items)</td>
<td>.80</td>
</tr>
<tr>
<td>Errors</td>
<td>(8 items)</td>
<td>.77</td>
</tr>
<tr>
<td>Aggressive Violations</td>
<td>(4 items)</td>
<td>.60</td>
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<tr>
<th>DAQ</th>
<th></th>
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<tbody>
<tr>
<td>Alcohol</td>
<td>(5 items)</td>
<td>.65</td>
</tr>
<tr>
<td>Close Following</td>
<td>(5 items)</td>
<td>.66</td>
</tr>
<tr>
<td>Overtaking</td>
<td>(5 items)</td>
<td>.62</td>
</tr>
<tr>
<td>Speeding</td>
<td>(5 items)</td>
<td>.51</td>
</tr>
</tbody>
</table>

Table 1. Alpha reliability coefficients of the DBQ and DAQ scale

Table 2 reports the overall mean scores for the sub-factors of the two measurement tools. It should be noted that higher DAQ means reveal more appropriate attitudes towards the road safety factors, while higher means for the DBQ scale indicated a higher level of engagement in aberrant driving behaviours. Firstly for the DBQ, participants reported a similar frequency for each of the driving categories, although further analyses indicated highway code violations occurred significantly more frequently than errors $F(1, 443) = 80.73, p < .01$ as well as aggressive violations $F(1, 433) = 94.42, p < .01$. In addition, Table 2 reports the mean and standard deviation scores for the three highest ranked DBQ items, which were: *Exceed the speed limit on a highway* ($M = 2.62, SD = .94$); *Exceed the speed limit on a residential road* ($M = 2.26, SD = .83$); and *Sound your horn to indicate your annoyance to another driver* ($M = 1.89, SD = .86$).

Secondly for the DAQ, examination of the mean scores indicates that of the four aberrant driving behaviours, participants were most likely to report that drink driving was generally an unacceptable behaviour in most circumstances ($M = 3.71$). The second highest factor was close following, followed by attitudes regarding risky overtaking. In contrast, participants were most likely to report that speeding was an acceptable behaviour ($M = 2.76$). Between group analyses demonstrated that participants’ attitudes towards the unacceptability of drink driving were significantly higher than risky overtaking practices $F(1, 443) = 80.73, p < .01$ as well as speeding $F(1, 433) = 94.42, p < .01$. Not surprisingly as speeding was identified as the least serious driving offence, the three highest ranked items relating to less safe attitudes were also directly associated with speeding behaviours: *I know...*
exactly how fast I can drive and still drive safely (\( M = 2.51, SD = .89 \)), The main aim of speeding fines is revenue raising (\( M = 2.66, SD = .98 \)) and Speed limits are often set too low and drivers ignore them (\( M = 2.78, SD = .95 \)).

<table>
<thead>
<tr>
<th>Factors</th>
<th>( M )</th>
<th>( SD )</th>
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<tbody>
<tr>
<td><strong>DBQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway Code Violations (8 items)</td>
<td>1.70</td>
<td>.58</td>
</tr>
<tr>
<td>Errors (8 items)</td>
<td>1.61</td>
<td>.37</td>
</tr>
<tr>
<td>Aggressive Violations (4 items)</td>
<td>1.53</td>
<td>.48</td>
</tr>
<tr>
<td><strong>Highest Ranked Items for DBQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Exceed the speed limit on a highway</td>
<td>2.62</td>
<td>.93</td>
</tr>
<tr>
<td>2. Exceed the speed limit on a residential road</td>
<td>2.26</td>
<td>.83</td>
</tr>
<tr>
<td>3. Sound your horn to indicate annoyance</td>
<td>1.89</td>
<td>.86</td>
</tr>
<tr>
<td><strong>DAQ</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td>3.71</td>
<td>.41</td>
</tr>
<tr>
<td>Close Following</td>
<td>3.36</td>
<td>.40</td>
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<td>Overtaking</td>
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<td>.48</td>
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<tr>
<td>Speeding</td>
<td>2.76</td>
<td>.49</td>
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<tr>
<td><strong>Highest Ranked Items for DAQ(^2)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I know exactly how fast I can drive and still drive safely</td>
<td>2.51</td>
<td>.89</td>
</tr>
<tr>
<td>2. The main aim of speeding fines is revenue raising</td>
<td>2.66</td>
<td>.98</td>
</tr>
<tr>
<td>3. Speed limits are often set too low and drivers ignore them</td>
<td>2.78</td>
<td>.95</td>
</tr>
</tbody>
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Table 2. Mean Scores for the DBQ and DAQ factors

**Intercorrelations between Variables**

The relationship between the current sample’s attitudes regarding the DBQ and DAQ sub-factors as well as employment related variables were initially examined through bi-variate analyses. While the relationship between the major factors and aberrant driving behaviours are examined more closely in the following section, some notable bi-variate relationships are reported below.

In regards to the associations between the DBQ factors, strong relationships appeared evident between all three factors, with the strongest being between speeding and engagement in aggressive violations (\( r = .63^{**} \)). Similarly, there were significant positive relationships between all of the DAQ factors, with the strongest correlation being between close following and overtaking (\( r = .48^{**} \)), as participants who reported an unwillingness to engage in risky overtaking manoeuvres were also more likely to report following closely to other vehicles was another unacceptable behaviour. Consistent with previous research [20,25], age and years driving experience also appear to have a significant negative relationship with errors, highway and aggressive violations. This indicates that as drivers gain more experience, they are less likely to engage in aberrant driving behaviours on public roads. However, contrary to previous research [16,20,25,26] a positive relationship was not identified between the number of kilometres driven each year and the presence of errors and violations. There were also a number of significant negative relationships between the DBQ and DAQ factors, which indicate those...
who reported more acceptable road safety attitudes were less likely to report engaging in aberrant
driving behaviours. The strongest negative relationship was between the DBQ speeding factor and
DAQ close following scale \( r = -.34^{**} \), which indicates those less inclined to speed were also unlikely
to engage in other risky driving behaviours. In regards to sample characteristics, the only notable
relationships were found between age and overtaking \( r = .11^* \) and close following \( r = .20^{**} \), as older
drivers were more likely to report a lower level of acceptance towards such aberrant driving
behaviours.

The third part of the study aimed to examine the relationship between participants’ driving behaviours
and attitudes (as measured by the DBQ and DAQ) and self-reported demerit point loss and crash
involvement. Due to the relatively small number of participants who reported a work-related crash in
the last 12 months \( N = 48 \) or work-related driving infringements \( N = 75 \), the implementation of
multivariate models of prediction (e.g., logistic regression) were not undertaken due to the uneven
sample sizes. Rather, a series of between-groups analyses (that focused on infringement notices)
revealed that participants who reported engaging in a higher frequency of speeding violations (e.g.,
DBQ factor) were significantly more likely to report incurring demerit point loss \( t(1, 443) = -2.63, p = .009 \) \( M = 1.67 \) vs \( M = 1.87 \). Similarly, individuals who reported more lenient attitudes towards
speeding (e.g., DAQ) were also more likely to report incurring demerit point loss \( t(1, 443) = 3.20, p = .001 \) \( M = 3.00 \) vs \( M = 2.73 \). In contrast, no other DBQ or DAQ sub-factor differences were identified
between those who did and did not report receiving infringement notices in the last 12 months.
Similarly, examination of additional socio-demographic and situational factors revealed no significant
difference on a range of variables including: age, gender, type of vehicle, company logo, or hours
driving per week. However, it is noteworthy that a significant difference was identified with “kilometres
travelled each year” \( t(1, 443) = -4.04, p = .000 \), which indicates an exposure element as those who
travel greater distances per year are susceptible to incurring more demerit points.

DISCUSSION

The present research aimed to utilise the DBQ and DAQ to conduct one of the first investigations into
the driving behaviours of a group of Australian fleet drivers. Firstly, analysis of the measurement
scales’ reliability revealed coefficients that were moderately robust for the DBQ, which is consistent
with previous research in the area [13,22], and professional drivers [20]. However, the internal
reliability of the DAQ was reduced, but again similar to previous research [17]. Despite this, given that
the speeding factors alpha coefficient was identified to be .51, further research appears necessary
within fleet arenas to determine the DAQ’s psychometric properties (e.g., reliability) as well as its utility
as a predictive measure within the work-related driving field.

Secondly, examination of the overall mean scores of the scale sub-factors revealed that in regards to
behaviours, participants were most likely to engage in speeding behaviours e.g., highway violations.
This finding is once again consistent with previous driving research [15,16,27], and in particular fleet
safety research [5], which has reported speeding violations are the most common form of aberrant
driving behaviour both exhibited and reported by motorists. It was also noteworthy that examination of
the DAQ scales revealed that participants believed that speeding was the least serious driving offence.
This finding is again consistent with recent research that has reported that fleet drivers hold a general
belief that minor speeding violations are acceptable in some circumstances [5,28]. Similarly, given the
considerable time pressures often placed on professional drivers in work settings, the present finding
appears to confirm that this group of motorists are at risk of engaging in speeding-related driving
infringements [6].
Taken together, these preliminary results indicate that individuals who drive in work-related settings (e.g., fleet drivers) may both report and engage in a disproportionate amount of speeding violations. As a result, fleet interventions designed to improve road safety may benefit from focusing on attempting to reduce speeding infringements and the possible “speeding culture” that may exist within the fleet industry. Currently, there are a variety of fleet interventions that have been implemented in recent years including: driver selection and induction, driver training and education, incentives, legislation and policy and government initiatives. While the majority of fleet interventions have yet to be scientifically evaluated, countermeasures recognising and addressing the likelihood that drivers will engage in speeding behaviours within their working duties is likely to have the greatest impact on creating behavioural change. In addition, further research that aims to examine the link between engaging in speeding violations and self-reported work pressure and scheduling demands may prove fruitful in possibly determining the origins of this aberrant driving behaviour.

While speeding remained the predominant (and statistically significant theme) to emerge from the current research, it is noted that the practical difference between the behavioural and attitudinal sub-factor scores within the “real-world” driving environment may prove minimal. In fact, examination of the bi-variate correlations revealed that significant correlations exist between all three aberrant driving behaviours (e.g., speeding and aggressive violations [r = .63**]), and thus individuals who engage in one form of driving violation are likely to demonstrate lower levels of road safety with other aspects of the driving task. Similarly, positive correlations were evident between the drink driving, close following, overtaking and speeding factor, and thus those who reported less safe driving attitudes in one domain were also likely to report a more lenient perspective towards other driving behaviours. This finding may suggest that while the four factors are conceptually distinct, at some level, they may reflect related attitudes or propensities towards driving behaviours. As a result, fleet drivers may yet be found to be at a heightened risk of engaging in aberrant driving behaviours other than speeding, and thus further research and associated fleet countermeasures designed to improve road safety may also benefit from a holistic approach. More recent research in fleet settings has revealed that additional driving factors such as inattention/fatigue and driving pressure can also be predictive of incurring fines/demerit points [29]. However, it is noted that further research that includes a more refined examination of the possible relationships between the factors and subsequent crash involvement may prove fruitful in identifying if the association is affected by the purpose of the driving task i.e., personal vs work.

In contrast to participants’ attitudes regarding speeding, the majority recognised the serious nature of drink driving and the results are consistent with previous research which has demonstrated DAQ respondents are likely to indicate that drink driving is the most unacceptable behaviour of the four subcategories [12,18]. The findings also supports current initiatives (e.g., media campaigns & police blitzes) which aim to promote the message that drink driving is a serious road safety concern. A similar finding was also noted for close following, which is again consistent with previous research [12, 17], indicating motorists believe this behaviour to be a serious safety risk. Concern towards overtaking was marginally lower than for close following, although it is noted that participants did not adamantly report overtaking in risky situations to be an unacceptable behaviour (e.g., M = 3.27).

Finally, in regards to identifying the attitudes and behaviours associated with self-reported driving offences and crashes, only a relatively small proportion of the sample reported incurring demerit points in the last year (with less involved in a crash within the last year), which contributed to difficulties identifying factors associated with the event. While the time period to examine the incidence of crashes in the current study may have been relatively short (i.e., 1 year), accidents remain a relatively rare event and the current findings support research that suggests an aggregate of different driving
behaviours/offences may be required to obtain an accurate measurement of driving performance [6,12,30].

Subsequently, an examination of self-reported driving violations (i.e., infringement notices) through between group analysis revealed that: (a) engaging in speeding violations, (b) reporting that speeding was an accepting behaviour and (c) having a greater level of exposure to the road, were the only significant factors associated with demerit point loss in the current sample. As a result, not only did the majority of the sample report that speeding was a generally acceptable driving behaviour in some circumstances, but this factor also appears significantly associated with incurring infringement notices. Given that speeding may be considered one of the most likely methods to incur infringement notices, it may not be surprising that attitudes towards speeding are associated with fines [6]. However, as highlighted above, future research that identifies the particular reason for fleet drivers’ speeding behaviour (i.e., the origins) may provide for a more refined analysis to determine the specific behavioural and attitudinal contributions of speeding to driving infringements and general unsafe driving practices. This process may lead to the development of targeted interventions aimed at reducing the likelihood of a work-related crash before the event occurs, rather than on the traditional post hoc basis [5]. To a lesser extent, the current study also confirms previous research which has demonstrated that individuals who spend longer periods on the road are at a greater risk of engaging in aberrant driving behaviours [5,6,20].

Limitations
A number of limitations should be taken into account when interpreting the results of this study. Some aspects of the scales demonstrated low internal consistency, which limits the accuracy of making individual predictions. The response rate of participants was relatively low, and questions remain regarding the reliability of the self-reported attitudes and associated driving behaviours. Similarly, questions remain regarding the possible disparity between attitudes and actual behaviours. Questions also remain about the representativeness of the sample as participants were mainly corporate fleet drivers (e.g., involved in insurance sales) and such driving styles may not be easily transferable to other fleet driving populations. In summary, further research is required to establish the reliability and validity of the DBQ and DAQ scales for the Australian setting and the usefulness of the measurement tools to provide direction for fleet safety interventions.

Despite such limitations, the results of the present research indicate that driving measurement tools have the potential to be successfully utilised to examine fleet drivers’ attitudes and behaviours in the Australian context. Such tools may be used in further research to establish the predominant road safety risks experienced by fleet drivers, as well as identify and measure the impact of the most effective methods to create change within this population through associated countermeasures.

REFERENCES


