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Abstract

The current study examined drink driving attitudes among mature-aged women in Sweden and Australia, two countries with a Blood Alcohol Concentration (BAC) limit of 0.02% and 0.05%, respectively. The study aimed to identify attitudes that might influence drink driving tendency among this group of women and further show how these attitudes vary across countries. Using an ethnographic approach, 15 mature-aged women (Sweden: mean age = 52.5 years, $SD = 4.8$; Australia: mean age 52.2 years, $SD = 3.4$) were interviewed in each country. General patterns and themes from the data were developed using thematic analysis methods. The findings indicate that while women in both countries viewed drink driving negatively, the understanding of what the concept entailed differed between the two samples. The Swedish women appeared to cognitively separate alcohol consumption and driving, and consequently, drink driving was often spoken of as driving after *any* alcohol consumption. The Australian women's understanding of drink driving was more closely related to the legal BAC limit. However, for some Australian women, a "Grey Zone" existed, which denoted driving with a BAC of just above the enforceable limit. While illegal, these instances were subjectively seen similar to driving with a BAC of just under the legal limit and therefore not morally reprehensible. The practice of cognitively separating drinking from driving appeared to have implications for the tendency to drink and drive among the interviewed women. These findings are discussed in relation to current policy and legislation in Australia and the need for further research into mature-aged women's drink driving is outlined.

Keywords: drink driving, BAC limit, cross-cultural, mature-aged women

1. Introduction

Drink driving continues to be a major cause of traffic-related mortality and morbidity across the world (Global Road Safety Partnership, 2007), and accordingly, has generated a substantial amount of attention in the research literature. However, few studies have examined drink driving from a uniquely female perspective, despite a recorded increase in women's drink driving rates over the past decades (e.g., Perreault, 2013; Wylie, 1995). In an effort to address this gap, the current study investigates drink driving beliefs and attitudes among mature-aged women, a group that comprise a substantial proportion of all female drink drivers (Armstrong, 2013; The Swedish National Council for Crime Prevention, n.d.).

The acute effect of alcohol has been shown to impact on a range of physical skills and cognitive abilities that are critical to driving. At the lowest measurable consumption level alcohol increases reaction times and impedes visual accuracy, the ability to track objects, and to divide one's attention between competing tasks (Friedman, Robinson, & Yelland, 2011; Ogden & Moskowitz, 2004). The relationship between Blood Alcohol Concentration (BAC) level and the probability of being involved in a crash was first quantified in the 1964 Grand Rapids Study (Borkenstein, Crowther, Shumate, Zeil, & Zylman, 1964). Findings from this study and others like it (e.g., Blomberg, Peck, Moskowitz, Burns, & Fiorentino, 2009) showed that a significant increase in crash risk occurs at a BAC of around 0.04% and continues to rise exponentially as consumption increases.

Historically, drink driving has been seen as a male problem, as drink driving apprehension rates as well as alcohol-related crashes are more likely to involve men than women (Impinen et al., 2009; Kelly-Baker & Romano, 2010). However, in parallel with increases in women's alcohol consumption ([McPherson, Casswell, & Pledger, 2004](#)) and driving exposure (Robertson, Liew, & Gardner) the ratio of male-to-female drink driving has been slowly shifting. In many countries, drink driving rates among women have increased during the past three decades while there has been stabilisation or decrease in male drink driving (The Swedish National Council for Crime Prevention, 2008; Tsai, Anderson, & Vaca, 2010). The relative increase in the number of women who drive after drinking alcohol has been particularly rapid in the past decade. For instance, in the 11 year period between 2001 and 2011, data from New Zealand, Australia, the UK, Sweden, and the US show increases to women's drink/drug driving that range between 10.5% and 69.1% (Armstrong, Watling, Watson, Davey, 2014; Federal Bureau of Investigation, n.d.; Ministry of Justice, n.d.; Statistics New Zealand, n.d.; The Swedish National Council for Crime Prevention, n.d.).

As drink driving is more common among men, the attention of drink driving research has been largely directed towards this gender. Subsequently, our understanding of drink driving and associated interventions and treatments are largely based on male drink driving behaviours. At the same time, the factors that influence women's drink driving remain relatively unexplored, and treatment programs targeted at female drink drivers are under-developed (McMurran, Riemsma, Manning, Misso, & Kleijnen, 2011). The need to expand the knowledge base on drink driving to include female offenders is further compounded by a burgeoning literature which have found important differences between male and female drink drivers. Compared to men, for instance, female drink drivers tend to be detected with lower BAC levels (Armstrong et al., 2014) and are less likely to reoffend (Rauch et al., 2010; Nochajski & Stasiewicz, 2006). Moreover, male and female drink drivers differ on a range of variables, with female drink drivers being more likely to have psychosocial problems (LaPlante, Nelson, Odegaard, 2008; McMurran et al., 2011), to be separated or divorced (McMurran et al., 2011), to be older (Bernhoft, Hels, & Hansen, 2008), and to be better educated but less well paid (LaPlante et al., 2008) than male drink drivers. Arguably, findings such as these suggest that an understanding of drink driving that is based on men's experiences will fail to address the unique needs and circumstances of female drink drivers.

Although different from their male counterparts, female drink drivers should, however, not be regarded as a homogenous group. In a qualitative study examining the life situations and social circumstances leading up to a drink driving offence among female drivers in the U.S., Robertson, Holmes, and Marcoux (2013) found that the characteristics of these events differed across women of different ages. Younger women often reported that they had been arrested after consuming alcohol at house parties and bars, that they experienced social pressure to drink, and that their drinking often was motivated by a desire to fit in. The second group, women with young children, instead reported that they had been drinking as a coping mechanism brought on by depression, loneliness, or isolation. Many of these women had been apprehended relatively close to their homes, often while running errands or picking up their children. Last, older women, many of whom had not been convicted of drink driving until later in life, reported that the catalysts for their drinking had included negative life-events such as divorce, parental illness or death, or sadness associated with their children leaving home. These women most commonly drank at home and often expressed intense feelings of shame and stigma around their drink driving conviction.

In one of the few studies that have compared the circumstances of women's drink driving across different age groups using apprehension records, Armstrong et al. (2014)

further found that, compared to younger women, older female drink drivers were more likely to be detected with a low-range BAC ($0.05 \leq \text{BAC} < 0.08\%$), to be apprehended between midday and midnight, and to refuse to provide a breath or blood specimen when requested to do so. Taken together, studies that have examined drink driving from a uniquely female perspective suggest that women's drink driving is not only different from men's but also that it varies among different groups of women. To gain an accurate picture of the underlying cause of women's drink driving, research must therefore consider factors, such as age and drinking motivation, when examining this phenomenon.

1.1 The Present Study

As part of a broader cross-cultural comparison, the current study sought to extend on previously outlined research by providing preliminary findings on the attitudes and beliefs toward drink driving held by mature-aged women in Sweden and Australia. Attitudes, through their influence on the formation of intention, has been theoretically and empirically linked to behaviour outcomes (Ajzen & Fishbein, 2005; Marcil, Bergeron, & Audet, 2001). In relation to drink driving, studies have shown that attitudes toward this behaviour is linked to self-reported drink driving (Freeman & Watson, 2009; Greenberg, Morral, & Jain, 2005) and that compared to community samples, drink driving offenders hold more positive attitudes toward drink driving (Baum, 2000).

The need to understand attitudes toward drink driving among mature-aged women is further evident when alcohol consumption statistics and drink driving data in Sweden and Australia are considered. After an initial decrease in alcohol consumption volume around the age of 30, women in both countries record a second peak in consumption levels/drinking frequency in their 40s and 50s (Australian Institute of Health and Welfare, 2011; Ramstedt, Lindell, & Raninen, 2013). In Sweden, this trend appears to overlap roughly with drink driving apprehensions, with more female drink drivers falling within the 40-49 and 50-59 year age groups than any other age groups (The Swedish National Council for Crime Prevention, n.d.). While data from Australia show that women aged 21-29 years are most commonly apprehended for drink driving, 27.7% of all female apprehensions involve women aged 40 years and older (Armstrong, 2013).

In addition to increasing the knowledge of mature-aged women's approach to drink driving, the current study sought to discern cultural differences in drink driving attitudes and behaviours among the participants. In particular, the impact of the different BAC levels for legally permissible driving in Sweden (≤ 0.02) and Australia (≥ 0.05) was of interest. Over the past decades there has been a trend in many countries towards the adoption of more stringent

BAC levels, which has resulted in reduced crash rates (Hingson, Heeren, & Winter, 2000). It has been argued that this reduction is not only attributable to decreased intoxication levels among drivers, but also to changes in public awareness of and attitudes towards drink driving (e.g., Mann et al., 2001; Nakahara & Ichikawa, 2011). The impact of the different BAC levels on attitudes toward drink driving was therefore investigated in the current study.

Taking a qualitative approach, the overarching aims of the present study were twofold; first, to identify and describe the drink driving perceptions that might influence the tendency to drive after consuming alcohol among mature-aged women. Second, the study aimed to identify cultural differences in drink driving perceptions and investigate how such differences were related to the tendency to drive after drinking. Thus, by comparing findings among mature-aged women in two national samples it was anticipated that the link between drink driving attitudes and drink driving tendency would be further elucidated.

1.2 The setting

Sweden has a history of relatively progressive traffic laws, and with 3.0 fatal traffic injuries per 100 000 inhabitants in 2012 (Transport analysis, 2013), the country records one of the lowest road tolls in the world. Drink driving has been regulated since 1941, when a BAC limit of less than 0.08% was introduced for driving. This limit has since been lowered twice, to less than 0.05% in 1957 and to less than 0.02% in 1990. The BAC restriction placed on driving is mainly enforced through roadside Random Breath Testing (RBT). In 2012, Swedish police conducted around 2.3 million RBTs, with 15 200 drivers (0.007%) being detected with illegal BAC levels (Rikspolisstyrelsen, 2013). The same year, 26 fatally injured drivers (17.8% of all killed)¹ were recorded with a BAC above the legal cut-off (Transport analysis, 2013).

In Australian, per se laws were introduced in most of the states and territories by 1971, making it illegal to drive with a BAC of 0.08% or greater. By the 1980s and 1990s, this limit had been lowered to less than 0.05% for full licence holders. As in Sweden, the BAC limit is enforced mainly through police-operated RBTs. The number of conducted RBTs varies across Australia, however, most states and territories are guided by an annual target specifying that the number of RBT should equate to one third of all licensed drivers. As road safety policies and legislation are state and territory governed, the availability of statistical data on traffic incident rates vary and compiled national data are in some instances missing. The total road toll is however published annually; in 2012, the total road toll was 5.8 per

¹Based on cases with known BAC.

100 000 persons (Department of Infrastructure and Regional Development [BITRE], 2013). Statistics on the number of killed drivers and motorcycle riders with illegal BAC levels in 2012 are available for all jurisdictions except the state of Victoria. During this year, 20.1% of all killed drivers and motorcycle riders were recorded with a BAC that exceeded their license type (BITRE, 2013; National Road Safety Strategy 2011-2020, 2013; Transport Accident Commission, n.d.).

2. Method

The collection and interpretation of the data presented in this study was guided by an ethnographic methodology. Ethnography can be described as a framework and series of methods that guides researcher towards the discovery of the knowledge and meaning that different social groups associates with various objects, situations, and social relationships (e.g., Spradley, 1979). Many studies have previously examined attitudes towards drink driving. However, research has rarely focused on the way that groups of people define and understand drink driving, and how variations in this shared meaning can influence the behaviour itself. Thus, the current methodology represented a novel approach by enabling the inclusion of the meaning of drink driving as part of its investigatory focus.

2.1 Participants

A total of 30 women were recruited (15 in each country), using a range of methods that included advertisements, bulk emails, and snowballing techniques. The average age of the Swedish women was 52.5 years ($SD = 4.8$) and the majority were married or in a de-facto relationship ($n = 10$). The average age of the Australian women was 52.2 years ($SD = 3.4$), with 10 women being married or living in de-facto relationships. Two women in each sample reported caring for children under the age of 15. All participants completed the Alcohol Use Disorders Identification Test (AUDIT), a 10-item survey designed to assess levels of harmful or hazardous drinking (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Three Swedish women and five Australian women scored above the cut-off for risky drinking on the AUDIT².

2.2 Materials

Data were collected through a series of interviews. All interviews were guided by a semi-structured protocol designed to elicit the women's general views and approach to driving after drinking, their attitudes toward the respective BAC limits for legally permissible

² Swedish version of the AUDIT defines standard drinks as 12g of pure alcohol while the Australian version uses a 10g definition. This might bias results towards fewer identified risky drinkers in the Swedish sample.

driving, their beliefs regarding the effect of alcohol on driving, and their understanding of the relationship between alcohol consumption and BAC. The script included questions such as “*What are your thoughts on the current legal limit for drink driving in Australia/Sweden (should it be lower or higher)?*” and “*Do you believe that driving experience can mitigate the effects of alcohol on driving ability?*”. The interview script was developed by a bilingual researcher who was fluent in both Swedish and English. During the development of the interview script, care was taken to ensure that only words and expressions that were compatible between languages were used. This was done to ensure that the meaning of the questions asked to participants was consistent across samples.

The AUDIT was used to measure harmful/hazardous alcohol consumption among the interviewed women. The AUDIT was included to provide background information on drinking patterns among the interviewed women. Moreover, higher consumption levels have been linked to drink driving (Bingham, Elliott, & Shope, 2007; Freeman & Watson, 2009;). As such, the AUDIT was used on an exploratory basis to determine whether harmful drinkers expressed qualitatively different views of and attitudes towards drink driving. The AUDIT has demonstrated high cross-cultural applicability (Saunders, Aasland, Babor, Fuente, & Grant, 1993), strong psychometric properties (Shields & Caruso, 2002), and consistent predictive validity (Reinert & Allen, 2007). The Swedish version of the AUDIT (Bergman & Källmén, 2002; Selin, 2006; Wennberg, Källmén, Hermansson, & Bergman, 2006) was administered among the Swedish women. The 10-item survey produces a possible score range of 0-40 where higher scores indicate a greater likelihood of harmful drinking. The scale authors recommended using a cut-off score of 8 to identify risky drinkers, however noted that lower cut-off scores could be used for women and older people (Babor et al., 2001). The current study uses a cut-off score of 6 for risky drinking, based on a study examining the optimal cut-off in terms of sensitivity and specificity among mature-aged women (Aalto, Tuunanen, Sillianauke, & Seppä, 2006).

2.3 Procedure

Ethical approval was granted by the relevant institution in both countries; in Sweden by the Regional Ethics Committee for human research in Stockholm and in Australia by the Queensland University of Technology (QUT) Human Research Ethics Committee. All interviews were conducted by the same researcher who developed the interview script. In addition to fluency in both languages, this researcher has lived in both Sweden and Australia for extended periods of time, and as such was well equipped to interact with participants in both countries.

Interviews in Sweden were conducted either face-to-face or by telephone, however, all interviews in Australia were conducted by telephone. Previous studies comparing the delivery of alcohol surveys either face-to-face or via telephone has found that the two modes yield similar results in terms of key alcohol behaviours and consumption levels (Greenfield, Midanik, & Rogers, 2000; Midanik & Greenfield, 2003). It should however be noted that the increased sense of anonymity in telephone interviews might influence participants willingness to divulge sensitive information. Prior to the interviews, participants in both countries were greeted and given an overview of the study. The researcher stressed that the interviews were confidential and that honest responses were valued. The AUDIT was administered to participants after the completion of the interviews. Interviewing continued until saturation was reached and interviews were recorded and transcribed verbatim.

2.4 Data analysis

Interview transcripts were thematically analysed. This type of analysis focuses on the identification and interpretation of patterns or themes in the data, and has been described as a method of analysis that can be applied across methodological approaches (Boyatzis, 1998; Braun & Clarke, 2006). The analytic steps outlined by Braun and Clarke guided the organisation of the data; first, Meaning Units, the smallest segment of text that expresses a single concept or idea, were identified, coded, and categorised. As the analysis progressed, categories were renamed and modified to ensure they reflected the increasing number of codes. Finally, categories were organised into broader groups, which in turn allowed for the development of general patterns and themes from the data.

To ensure analytical continuity, the same researcher who conducted the interviews carried out the analysis. To enhance the rigor of the data analysis, a peer review process was moreover implemented. During this process, the links between the data and developed codes, categories, and themes, as well as the analytical interpretations were discussed within the research team. Discrepancies between the team members' interpretation of the data was conciliated, or incorporated into the final results where appropriate. Member checking was also employed as a technique during the interviews to enhance the credibility of the results. Analysis was conducted in an inductive and iterative manner, where new insights stemming from the interviews resulted in previously analysed material being revisited. New insights were also included as areas of investigation in subsequent interviews, where appropriate.

3. Results

Analysis of the interview transcripts revealed several similarities and differences in the belief around drink driving between the two samples of women. To illustrate these

beliefs, the quotes that best represent each of the developed themes are presented below. For ease of comparison, each participant is given an identification number that indicates nationality (Australian = Au; Swedish = Sw). Comparative analysis between risky and low-risk drinkers (as identified by the AUDIT) revealed no clear differences between these two groups of drinkers. As such, the quotes below are representative of both risky and low-risk drinkers.

The interviews were started with open-ended questions designed to elicit participants' thoughts on driving after drinking and the views they believed their female friends held on this topic. In both samples, the women agreed that drink driving was morally wrong. In particular, it was the risks that drink drivers posed to other "innocent" road users that were the source of these views. These attitudes appeared to have a direct impact on the participant's own approach to drink driving;

"I think that the thought that you might be on the road and harm someone because you've had a drink that just is... that would be so horrible." (Au 15)

Exceptions or excuses were generally dismissed. Unless it pertained to a life threatening emergency where no other transport was available, the women in both samples believed that drink driving could never be condoned. For instance, although about half of the sample in each country believed that driving experience could mitigate some of the impact of alcohol on driving ability, this was not seen as an excuse to drive with illegal BAC levels. Drink driving, it seemed, was understood as inherently wrong and inexcusable.

Among Australian women in particular, the negative attitudes toward drink driving were framed in terms of the social roles and expectations that are associated with age and motherhood, for instance;

"I think you become a bit more of a citizen, you know, you get a bit older and it's not all about you, it's also about living in a society that has some sort of standards " (Au 1)

"I think us women who are mothers become very cautious" (Au 15)

Some of the Australian women also spoke of the need to be role models for their own children, for instance; “[...] and we have to also role model for our kids who are also drinking” (Au 6). Interestingly, when discussing drink driving in general, several of the Australian women spontaneously raised the importance of drink driving education for young drivers, and others praised the Australian licensing system, which stipulates a legal BAC limit of 0.00% for provisional licence holders. Through these comments, it appeared that drink driving was viewed as a problem that was particularly prevalent among younger drivers. Among the Swedish women, however, drink driving was not linked to age, maturity, or responsibility in the same way. More simply, it was seen as a behaviour that carried its own negative connotations independent of the age of the driver. One Swedish woman, for instance, spoke of an experience from her youth;

”I remember there was one, a friend of my husband who did that when he was young, who drove when over the limit. And it was horrible and I know my husband, he reacted very strongly back then, and so did I” (Sw 5)

The underlying negative views of drink driving that appeared to be shared among the women in both countries were also manifested through perceived social pressure to conform to the drink driving laws in each respective country. One example;

“So, um, there’s a bit of social peer pressure on us to, to do the right thing. And that’s good, that’s good.” (Au 6)

Moreover, several Swedish and Australian women explained that they or their friends would be willing to intervene to stop others who they thought might be over the legal BAC from driving. Removing the drivers’ keys or calling the police was mentioned as potential strategies;

“[...] if I knew that anyone, for instance, was, was under the influence of alcohol and got in the car I would call the police straight away.” (Sw5),

In these initial discussions about drink driving it appeared that the women in both countries shared an understanding of drink driving as a highly undesirable and unforgivable behaviour. Yet, as the discussions progressed, it became apparent that these views were rooted in the understanding of what constitutes drink driving. This understanding which, in turn, was

influenced by the legal BAC limit in the two countries. In Sweden, the low BAC limit puts a practical limitation on driving after drinking alcohol. However, the relatively strict BAC limit appeared have had an impact on attitudes and behaviours that extended beyond simple deterrence; it had also instituted a cognitive separation between alcohol consumption and driving in the minds of many of the interviewed women. Almost without exception, the Swedish women thought and spoke of drinking and driving as two separate activities, with statements such as; *“Either you drive or you drink”* (Sw 10) or *“[...] it feels natural not to drive a car in those situations”* (Sw 4) being common. Moreover, this separation of alcohol consumption from driving appeared to transcend the restrictions posed by the BAC limit. As can be seen in the following quote, driving after consuming any amount of alcohol, no matter how small, was viewed as either unnecessary or wrong;

“[...] if you are going to drive you should absolutely not drink. Not even half a glass” (Sw 8)

In contrast, the Australian women conceptualised drink driving in relation to the legal BAC limit, voicing opinion such as this; *“If you’re going to drive then you need to drink within the limits”* (Au 1). While “drink driving” was a morally inexcusable behaviour in both samples, the definition of the concept thus differed; among the Swedish women it was understood as driving after *any* alcohol, among the Australian women it was understood as exceeding the legally prescribed BAC limit for driving. This had implications for the way in which the Australian women approached the choice to drive in situations when alcohol was involved. While some women chose to abstain from alcohol completely, the majority elected instead to restrict their consumption to remain under the limit. Moreover, the understanding of drink driving in relation to a set BAC limit appeared, for some women, to be rather fussy. That is, several of the women who restricted rather than abstained from drinking in driving situations spoke of what was referred to as a “Grey Zone” (Au 6), which denoted instances when they, or their friends, had driven when potentially over the BAC limit. For instance, when speaking of her female friends, one participant related that; *“Um, they won’t be much over but, you know, they won’t be much over but, in my mind, they will be over, yeah.”* (Au 4). Another woman described her own Grey Zone driving as follows;

“Where it might be a work show and its drinks or it’s one of those conference cocktail parties and you have had one, two, you might have had one more than you should have.”

And then there's sort of decision and you know, I know I do occasionally, I'm only allowed to have two, but I have had three but I will drive, yeah.” (Au 6)

These quotes revealed an interesting paradox as the Australian women, like their Swedish counterparts, had expressed rather strong negative attitudes towards drink driving. Yet, for some women, Grey Zone driving did not appear to challenge the views of themselves as responsible drivers. One example:

“. . . and I still think that we take risks from time to time and get in a car, yeah. But generally, generally I think I feel myself and most of my friends are very, very wary about getting in a car after they've been drinking.” (Au 2)

While not seen as ideal, it is possible that instances of Grey Zone drink driving was thought of as different from “actual” drink driving; driving while just over the limit might not have been seen as reckless or dangerous enough to be considered immoral. For instance, one woman spoke of how in instances of Grey Zone driving, the prospect of being apprehended was a stronger deterrent than the risk of injuring other road users:

“I'm really terrible, obviously I would hate to hurt somebody doing it, ah, but I'm really scared about going to the watch house (laughs). . . I suppose I think it's like if I did drink I would be, you know, just barely over the, barely over and I feel, I suppose I feel safe then.” (Au 4)

The difference in the association (or lack thereof) between alcohol and driving also became evident when the women were asked to discuss the appropriateness of the current BAC limits in their respective countries. Initially, the women appeared to voice similar views; none of the women in either sample believed that the current limit should be increased, and women from both groups agreed that there would be benefits associated with a zero-tolerance approach (i.e., 0.00% BAC) to drink driving. For instance, it was thought that a zero-tolerance approach might stop drivers from taking a chance and driving when they might be over the limit. Moreover, some women in each sample believed that any agreed upon limit was arbitrary as the impact of BAC levels on driving ability is contingent on variable factors such as a person's size or tolerance to alcohol. In this sense, they argued, a 0.00% BAC might be a better approach to the enforcement of drink driving. However, when asked if they believed that the legal limit should be lowered in their respective countries, differences between the samples became apparent. While some Australian women thought that a zero tolerance

approach had its merits, the majority maintained that the current 0.05% BAC limit was both reasonable and safe. Lowering the limit or adopting a zero-tolerance approach was seen by some of the women as impractical, impossible, or even as a “*prohibition type of situation which is anti-social*” (Au 3). These views were not echoed among the Swedish women. When discussing the current BAC limit in Sweden most women stated that the 0.02% BAC limit was adequate. A further few believed that the BAC limit was “very low” and that a BAC level around 0.02% would not critically influence driving ability. However, despite holding these views, all but one of the Swedish women said they would support a zero-tolerance approach to drink driving, for instance; “*It’s probably a good limit but at the same time you wonder; why couldn’t it just be zero tolerance?*” Sw12). The willingness to forgo alcohol in the context of driving, even at levels perceived to be safe, appears to again attest to the cognitive disassociation between alcohol and driving that was characteristic of the Swedish sample.

4. Discussion

This study sought to describe and explain drink driving attitudes and behaviour among mature-aged women in Sweden and Australia, two countries with different BAC limits for legal driving. Data generated through semi-structured interviews indicated that the concept or idea of drink driving was associated with strong negative attitudes and emotions among the women in both countries. Particularly, the notion that drink drivers endanger the lives of other road users situated this behaviour as irrefutably immoral. Yet, while the women were unanimous in their negative attitudes towards drink driving, the understanding of what this concept entailed differed between the two samples. Among the Swedish women, there appeared to be a cognitive separation between alcohol consumption and driving, and consequently, drink driving was often spoken of as driving after *any* alcohol consumption. In Sweden, the lower BAC limit puts practical constraints on the amount of alcohol that can legally be consumed before driving. However, the influence of the BAC limit on drink driving extended beyond mere practical limitations. Even at consumption levels where legal driving could conceivably be achieved (e.g., half a glass of wine) driving was seen as wrong and unnecessary. The notion of a cognitive separation between drinking and driving was further evident in the willingness among the Swedish women to support zero-tolerance (0.00% BAC) drink driving laws despite perception of the current BAC limit as adequate and safe.

The Australian women’s understanding of drink driving (as an immoral act) was more closely related to the enforceable BAC limit. This finding is perhaps not surprising as the

characterisation of a behaviour as criminal or immoral often is inherently linked to the laws of a country (Horne, 2001). However, the understanding of the point at which driving after drinking becomes drink driving appeared to be somewhat fluid for some of the interviewed Australian women. Driving with a BAC limit of just over the legal limit was, for these women, part of a “Grey Zone” where their behaviour had not yet firmly moved from safe and morally defensible to reckless and reprehensible. These findings align with the previous finding that older women in Australia are more likely to apprehend with low-range BAC levels (Armstrong et al., 2014). The notion that intoxicated driving around 0.05% BAC is safe was further reflected in the Australian women’s practices around driving and after consuming alcohol and their views of the current BAC limit. Most women in this sample chose to moderate rather than abstain from alcohol in situations when they were planning to drive. Again, these findings align with previous research; surveys of the wider population of mature-aged women in Australia have found that 45% of women aged 40-59 years chose to restrict their drinking rather than abstain when driving (Petroulias, 2011)³. Similarly, while some Australian women reported that they would support the implementation of zero-tolerance laws, most believed that a 0.00% BAC limit would be impractical and that it would impose unwarranted restrictions on their ability to take part in social events.

4.1 Conclusion

Several conclusions and implications can be drawn from these findings. First, the notion that many of the Australian women equated safe and morally defensible driving to a BAC level around the legal cut-off shows that the underlying reason for the enforceable BAC limit of less than 0.05% has been lost. This is of concern as, while the Grey Zone might appear to be safe, measurable decline in driving ability is likely to already have occurred at this BAC level. Additionally, the findings presented here draw attention to the practices around alcohol consumption in situations when driving is planned. Although consumption guidelines to stay under the enforceable BAC limit are publically available, perceptions such as those that surround Grey Zone driving highlight the potential dangers associated with an approach that advocated moderation over abstinence. Moreover, estimating intoxication levels is fraught with difficulty as the inebriating effect of alcohol depends on a number of factors including drinking pace, alcohol tolerance, and body composition. Taken together, the promotion of messages advising motorists *not* to drive when they are drinking might be better

than those that promote driving under the BAC limit. Last, the cognitive distinction between alcohol consumption and driving that was apparent among the Swedish women could be relevant to drink driving prevention efforts elsewhere. Although the results presented here are preliminary in nature, it appears that the lower BAC limit in Sweden had spill-over effect on drivers' understanding of and attitudes towards drink driving. Taken together with the problems associated with moderating alcohol consumption when driving, these findings lend initial support to calls for low BAC limits that have been made in several countries, including Australia (e.g., Podda, 2012; Rolfe & Drill, 2009).

4.2 Limitations

The current study used a relatively small sample of mature-aged women to form an initial understanding of drink driving attitude among this age-group. The impact of idiosyncratic differences on the findings can therefore not be ruled out. Consequently, further studies that substantiate these attitudes and link them to drink driving outcomes are necessary. Additionally, although face-to-face and telephone surveys have been found to yield similar results in alcohol research, the impact of the relative anonymity of telephone surveys on the willingness to discuss drink driving behaviour must be taken into consideration. As all the Australian interviews were conducted via telephone, this might have introduced biases in the data. Last, the Swedish women in the current sample expressed strong negative attitudes toward drink driving and appeared to cognitively separate the task of driving from alcohol consumption. Yet, mature-aged women are overrepresented among those women who are apprehended for drink driving in Sweden. It is therefore of interest to further investigate the intersection of these views and drink driving behaviours. More generally, the application of the findings presented here to apprehend or convicted drink drivers is a topic that would benefit from further attention from researchers.

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