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Does it matter whether friends, parents, or peers drink walk? Identifying which normative influences predict young pedestrian's decisions to walk while intoxicated



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ABSTRACT

Drink walking, that is walking in a public place while intoxicated, is associated with increased risk of injury and fatality. Young people and males are especially prone to engaging in this behaviour, yet little is known about the factors associated with individual's decisions to drink walk. The present research explores the role of different normative influences (friendship group norm, parent group norm, university peer group norm) and perceived risk, within an extended theory of planned behaviour (TPB) framework, in predicting young people's self-reported drink walking intentions. One hundred and eighteen young people (aged 17-25 years) completed a survey including sociodemographic measures and extended TPB measures related to drink walking. Overall the extended TPB explained 72.8% of the variance in young people's intentions to drink walk in the next six months with attitude, perceived behavioural control, friendship group norm, and gender (male) emerging as significant predictors. Males, as compared with females, had higher intentions to drink walk and lower perceptions of risk regarding drink walking. Together, these findings provide a clearer indication of the salient normative influences and gender differences in young pedestrian's decisions to walk while intoxicated. Such findings can be used to inform future interventions designed to reduce injuries and fatalities associated with drink walking.

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1. Introduction

The negative impact of alcohol use on driver behaviour has been widely acknowledged; however, pedestrians' use of alcohol and the resulting impact on their safety has received relatively less attention (Haque et al., 2012). It is generally accepted and commonplace for patrons in bars and nightclubs, having consumed alcohol, to choose to walk to their next destination or to start drinking at home and walk to a licensed venue or party to continue drinking (O'Connor et al., 2004). The risks associated with these behaviours, known as drink walking, are perceived by the general public, and young people particularly, to be less dangerous than drink-driving (Lang, Tay, Watson, Edmonston, & O'Connor, 2003). Perceptions of risk and other factors

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1369-8478/\$ - see front matter \odot 2013 Elsevier Ltd. All rights reserved. http://dx.doi.org/10.1016/j.trf.2013.10.007 likely inform pedestrian's choices to walk while intoxicated; however, there is little evidence available to draw definitive conclusions (Haque et al., 2012). Furthering our understanding of pedestrian's choices to drink walk and the factors that inform this decision is essential to develop countermeasures that reduce alcohol-related injuries and fatalities for this vulnerable road user group.

From the outset, it is to be noted that there is, currently, limited definitional clarity, with respect to defining drink walking (an issue which is discussed further in Section 1.1); however, for the purposes of this study we have adopted an objective and measurable definition of drink walking that is consistent with the national drink driving legislation (Federal Office of Road Safety, 1996) and prior Australian research on drink walking (Haque et al., 2012; Lang et al., 2003; McGhie, Lewis, & Hyde, 2012; O'Connor et al., 2004). Specifically, drink walking is defined herein as walking in public (including between or to/from licensed venues, public transportation, or home) with a BAC equal to 0.05 g/100 ml or more.

1.1. The extent of the drink walking problem

Crash statistics reflect the extent to which alcohol is a major contributing factor to road deaths. In Australia, in 2009, alcohol contributed to approximately one third of the 1075 male road user fatalities and over 10% of the 409 female road user fatalities. When considering fatally injured pedestrians in particular, during that same time period, alcohol was a contributing factor in 40% of the 136 male pedestrians killed and 17% of the 58 females killed (Australian Government Department of Veterans Affairs, 2009; Bureau of Infrastructure, Transport, and Regional Economics, 2011; see also Australian Transport Safety Bureau [ATSB], 2003). Another Australian study reported that, on average, 100 alcohol-affected pedestrians are killed each year, equating to more than 5% of all road crash fatalities (Cairney & Coutts, 2003). Internationally, alcohol accounts for up to 36% of pedestrian fatalities (Prijon & Ermenc, 2009; Öström & Eriksson, 2001).

Despite the perception that drink walking is less dangerous than drink driving (see Lang et al., 2003), a significant proportion of emergency department presentations and hospital admissions involve alcohol-related pedestrian injuries. For instance, during 2006–2008, alcohol was involved in 264 Victorian traffic-related hospital admissions, with a large proportion of these injuries occurring to male pedestrians (81%), and pedestrians aged 15–29 years (44%) (Cassell, Clapperton, Alavi, & Jones, 2010). Of note, within Australia, the legal age for consuming alcohol is 18 years. A similar pattern in an inner Sydney hospital during 2002–2004 shows alcohol was a factor in 49% of cases where pedestrians were admitted with injuries (Small, Sheedy, & Grabs, 2006). Not only do these injuries and fatalities place a significant cost burden on health care systems, alcohol involvement in pedestrian injuries is frequently underreported in hospital records and emergency department presentations (Cassell et al., 2010), meaning that the extent of the drink walking problem is likely underestimated.

Two further issues confound attempts to obtain a true estimate of the impact of drink walking on pedestrian safety. The first issue relates to the primary focus on risk to pedestrians at high levels of blood alcohol content (BAC). Information derived from 1997 to 1999 Australian coronial records show alcohol as the primary cause in two thirds of pedestrian fatalities, and a significant proportion of these fatalities were males (38%) (ATSB, 2003). Of these pedestrian fatalities, 70% had a BAC over 0.05 g/100 ml, with 5 out of 6 of the pedestrians having a BAC of 0.15 g/100 ml or above at the time of the crash (ATSB, 2003). There is also evidence for even higher BACs in large proportions of fatalities, at 0.20 g/100 ml and beyond, a level associated with alcohol misuse and abuse (ATSB, 2003; Blomberg, Fell, & Anderson, 1979; Cairney & Coutts, 2003; Hutchinson, Kloeden, & Lindsay, 2009; Small et al., 2006; Öström & Eriksson, 2001). Although there are significant risks associated with high levels of alcohol use, risk of injury to pedestrians begins at low levels of alcohol consumption and rises with increasing BAC (Australian Government Department of Veterans Affairs, 2009). The consideration of only higher levels of BAC and subsequent injuries and fatalities means that lower BACs and the associated impacts on pedestrian safety, such as falling and/or stumbling and other minor injuries (e.g., grazed knee/hands, sprained wrists/ankles) (Lang et al., 2003), may be overlooked. The need to monitor and, in particular, increase the monitoring of the BACs of crash-involved pedestrians has been recommended (Cairney & Coutts, 2003; Cassell et al., 2010).

Second, as alluded to earlier, there exist concerns regarding how best to define drink walking and, specifically, a lack of consensus regarding the level of alcohol intoxication deemed necessary to impact pedestrians' safety (Holubowycz, 1995a; Hutchinson et al., 2009). Pedestrians' ability to judge the speed of oncoming traffic and the distance between vehicles reduces with BAC levels from 0.06 g/100 ml (Oxley, Lenne, & Corben, 2006). BACs exceeding 0.05 g/100 ml (Blomberg et al., 1979), especially BACs over 0.15 g/100 ml (Cairney & Coutts, 2003; Hutchinson et al., 2009), have been associated with pedestrian fatalities. In recognition of the risks associated with both higher and lower BACs and the absence of a legal BAC limit for pedestrians in Australia (Hutchinson, Kloeden, & Lindsay, 2010a), drink walking has been defined as walking in public (including between or to/from licensed venues, public transportation, or home) with a BAC equal to 0.05 g/100 ml or more; with the BAC level based upon that ascribed for drink driving in Australia (Federal Office of Road Safety, 1996).

1.2. Reducing the drink walking problem

Efforts to reduce drink walking behaviour have generally taken two approaches. The first approach involving identification of the sociodemographic characteristics of pedestrians who drink walk has demonstrated an overrepresentation of young adult males (Cairney & Coutts, 2003; Holubowycz, 1995a; Hutchinson et al., 2009; Mason & Monk-Turner, 2010; Prijon & Ermenc, 2009) and increased prevalence of drink walking behaviour among young adults aged 15 through to Download English Version:

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