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Tourist use of mopeds in Queensland

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HIGHLIGHTS

- ► Little research to date has examined the safety of tourists using mopeds.
- ► Approximately 10% of reported moped crashes in Queensland in the five years to June 2008 involved tourists.
- ► Compared with other crashed riders, tourists were younger and more likely female, in single vehicle crashes, and at fault.
- ► Moped rental companies have an important role to play in managing client safety.
- ► Moped use by tourists may satisfy adventure tourism objectives.

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ABSTRACT

Tourist use of mopeds in Queensland is encouraged by licensing regulations permitting moped riding for car licence holders, who may lack prior knowledge or experience of moped or motorcycle use. Using official crash and registration data, this research examines moped use by tourists, identified as crash-involved riders holding an interstate or overseas licence. Tourists were more likely to be younger, female, in single vehicle crashes, and deemed at fault than Queensland licence holders. Potential safety issues include poor riding skills, inexperience, inattention and lack of protective clothing. Moped rental companies play an important role in managing client crash and injury risks. These risks could also be reduced through introduction of more stringent licensing requirements, though this may be detrimental to moped rental companies as well as to tourist mobility and enjoyment. The discussion considers the relevance of adventure tourism perspectives and theory to the use of mopeds by tourists.

1. Introduction

Moped, scooter or motorcycle rental is an option available at many international locations for tourists seeking personal transport at their chosen destination. As well as providing flexible mobility, these vehicles are generally seen by those who ride them as more enjoyable than other transport modes, providing an added attraction for tourists (Blackman & Haworth, 2010; Broughton & Walker, 2009; Jamson & Chorlton, 2009; Walker, 2010). The safety of tourists using mopeds, scooters or motorcycles, collectively termed powered two-wheelers (PTWs) in road safety literature, has received little research attention from either tourism or road safety perspectives (see Methods section for vehicle definitions). However, motor vehicle crashes are the leading cause of accidental injury among tourists in many countries. In Australia between 1997 and 2000, motor vehicle crashes accounted for 51% of accidental deaths and 22% of hospitalisations of overseas visitors (Wilks & Pendergast, 2011; Wilks, Pendergast, & Wood, 2002; Wilks, Watson, & Faulks, 1999). Additionally, PTW riders are widely considered vulnerable road users, along with cyclists and pedestrians, being at greater risk of injury than car and other vehicle occupants due to a relative lack of protection (Constant & Lagarde, 2010; Johnston, Brooks, & Savage, 2008; Naci, Chisholm, & Baker, 2009).

PTWs account for less than 5% of registered vehicles in Australia, the United States and United Kingdom, yet in recent years their riders have comprised 16%, 13% and 21% of traffic fatalities respectively in those countries (BITRE, 2010; Department for Transport, 2010; NHTSA, 2010). In developed countries, fatality rates per distance travelled are 20–40 times higher for PTWs than for cars (Department for Transport, 2010; Huang & Preston, 2004; Jamson & Chorlton, 2009; Johnston et al., 2008; Lin & Kraus, 2009; NHTSA, 2007).

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In recent decades, increases in PTW usage and reported crashes have stimulated considerable research activity. Most of this research has focused on motorcycles rather than mopeds, though some has sought to compare these PTW types in terms of safety and also usage. Some studies report that mopeds have a lower crash risk and lower injury severity risk than motorcycles (Koornstra et al., 2002; Noordzij, Forke, Brendicke, & Chinn, 2001; Yannis, Golias, & Papadimitriou, 2005), but these findings are not consistently supported in other literature (Aare & Holst, 2003; Koornstra et al., 2002; Russell et al., 2011; Sexton, Baughan, Elliott, & Maycock, 2004). The sometimes contradictory findings are influenced by the different regulatory, social and environmental conditions of the research locations, making it difficult to generalise about some of the relevant safety issues. Despite inconsistencies in the research, it is clear that riders of motorcycles and mopeds alike are at significant risk of serious injury in the event of a crash.

In response to observed overall increases in moped use and crashes, previous research has identified concentrations of moped crashes in tourist areas in Queensland and also Hawaii. These jurisdictions permit moped riding for car licence holders, making mopeds widely accessible to tourists with no PTW riding experience (Haworth & Nielson, 2008; Kim, Takeyama, & Nitz, 1995). A study of moped crashes in Honolulu, Hawaii, found a spatial pattern of tourist crash involvement that was distinct from the pattern of residents' crashes (Kim et al., 1995). This study also examined other differences in tourist and resident crash characteristics, finding similar rates of rider error and alcohol involvement, but less rear-end crash involvement, lower rates of injury and relatively more springtime crashes among tourists. More recently Haworth and Nielson (2008) reported that moped crashes in Queensland from 2001 to 2005 were relatively more likely than motorcycle crashes to occur in tourist areas. In this study about 18% of all reported moped crashes appeared to involve tourists, who on average were found to be younger than other moped riders. This research raised questions around moped rider licensing and training requirements, in terms of what is appropriate for tourists and residents alike (Haworth, Greig, & Wishart, 2008).

A general observation made previously regarding tourism and road safety is that tourists may be at risk when driving or riding vehicles in unfamiliar environments (Wilks et al., 1999). More specifically this refers to risk factors related to poor knowledge of local road rules, roadways and environmental conditions. Driving or riding an unfamiliar vehicle or vehicle type has also been identified as a crash risk in PTW safety research (Clarke, Ward, Bartle, & Truman, 2004; Harrison & Christie, 2005). Higher crash risk associated with unfamiliar vehicles has been found even among experienced riders, so it is expected that tourists with little or no PTW riding experience will be at risk to a similar if not greater extent when riding rented mopeds.

Lack of protective clothing may be a particular concern for tourists riding mopeds, as it is for moped riders generally (Christie, 2008; de Rome, 2006). Although there have been relatively few attempts to evaluate the effectiveness of different items (with the exception of helmets), and a lack of objective standards for design and manufacturing has hindered such research, protective clothing has been shown to significantly reduce injury risk and severity for PTW riders (de Rome et al., 2011). Non-use of protective clothing has been found to be significantly associated with moped and scooter use (vs. motorcycle use), younger riders (17–25 years), hot weather, and being uninformed and/or sceptical about protective clothing and its potential benefits (de Rome et al., 2011). These findings likely help to explain some of the different injury outcomes of crash-involved moped and motorcycle riders mentioned above (Russell et al., 2011). Moreover, de Rome et al. (2011) suggest that young tourists riding mopeds in a warm climate with potentially no experience or knowledge of safety issues are prime candidates for riding unprotected.

It is possible to view moped use by tourists as a form of 'adventure tourism', being an outdoor activity through which tourists engage with new experiences, challenges and perhaps an element of perceived risk (Bentley, Cater, & Page, 2010; Tourism Queensland, 2008). Among the adventure tourism activities listed in the Queensland Adventure Tourism Action Plan 2008–2011 (Tourism Queensland, 2008), cycling, quad-biking and go-karting all offer some of the attraction and also some of the risks associated with moped riding. However, moped riding is not included as a form of adventure tourism in the literature and, moreover, it is not explicitly marketed as such. From both theoretical and applied research perspectives, whether or not it should be depends on how adventure tourism is conceptualised and defined.

Cater (2006) has argued that the prevailing view in the literature of adventure tourism as necessarily involving pursuit of risk is simplistic. Rather, he argues that pursuit of thrill, fear and excitement is central, while actual risk is, typically, expected by participants to be controlled such that it is negligible. This discussion refers mostly to highly organised forms of adventure tourism, where the risks inherent in an activity are controlled and managed by the tour provider and the client has no actual expectation of becoming injured. The potential for accidents arises when competence levels are outweighed by risks, a situation uncommon in organised adventure tourism run by commercial operators, but highly relevant for 'individual participation in adventurous pursuits' (Cater, 2006, p. 319) Individual pursuit of adventure is addressed by Weber (2001), who claims that the journey can be as important as the destination (and the activities that occur there) in satisfying a quest for adventure. More importantly in the context of moped riding, Weber (2001, p. 367) notes that 'the setting (non-commercial vs. commercial) determines who provides (the) skills… and who controls the risk'.

In the case of tourists renting mopeds, risk management responsibilities fall to both the tourist and the moped rental operator and the setting cannot be defined as either entirely commercial or non-commercial. The moped rental operator is able to manage risks to some degree at the point of hire by providing a roadworthy vehicle, a helmet and (potentially) other protective clothing, instruction on moped operation, local road rules and environmental conditions, and by confirming that the client has an appropriate licence. Once the client leaves the point of hire, safety and risk management are no longer the responsibility of the moped rental operator. While some companies do offer guided moped tours in Queensland, tour guides are largely unable to control the behaviour of clients while riding and cannot be expected to influence in any way the behaviour other road users.

According to Weber (2001), whether or not moped riding qualifies as adventure tourism could depend on the perceptions and subjective experience of individual tourists, rather than on rigid definitions proposed by researchers and industry. From this perspective, a tourist who has never ridden a PTW is arguably more likely than an experienced motorcycle rider to consider moped riding an adventure in itself (although adventure may also be experienced in the journey and/or setting).

Having outlined these perspectives, it is not necessary to resolve at this point whether or not moped riding constitutes a form of adventure tourism. It is arguably more useful to consider what can be drawn from adventure tourism frameworks and, at a practical level, management practices, that is relevant to moped use by tourists. Bentley et al. (2010) note that adventure tourism operators in Queensland are subject to relevant Codes of Practice and workplace health and safety regulations (Bentley et al., 2010). Detailed