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Under-reporting of road crashes in Pakistan and the role of fate

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ABSTRACT

Objective: Comprehensive, accurate information about road crashes and related trauma is a prerequisite for identification and control of risk factors as well as for identifying faults within the broader road safety system. Quality data and appropriate crash investigation are critical in reducing the road toll that is rapidly growing in much of the developing world, including Pakistan. This qualitative research explored the involvement of social and cultural factors (in particular, fatalism) in risky road use in Pakistan. The findings highlight a significant issue, previously unreported in the road safety literature, namely, the link between fatalistic beliefs and inaccurate reporting of road crashes.

Method: Thirty interviews (one-to one) were conducted by the first author with police officers, drivers, policy makers and religious orators in three Pakistani cities.

Findings: Evidence emerged of a strong link between fatalism and the under-reporting of road crashes. In many cases, crashes and related road trauma appear to go unreported because a crash is considered to be one's fate and, therefore, beyond personal control. Fate was also implicated in the practice of reconciliation between parties after a crash without police involvement and the seeking and granting of pardon for a road death.

Conclusions: These issues represent additional factors that can contribute to under-reporting of crashes and associated trauma. Together, they highlight complications involved in establishing the true cost of road trauma in a country such as Pakistan and the difficulties faced when attempting to promote scientifically-based road safety information to counteract faith-based beliefs.

KEYWORDS

Fatalism, Pakistan, road safety, road crash reporting, crash data, Islam

INTRODUCTION

Road-related fatalities have been declining in many high-income countries but increasing disproportionately in developing countries (Ameratunga et al. 2006; Damsere-Derry et al. 2010; WHO 2009). Importantly, a key problem with international crash and injury data is that of inaccurate data and estimates, particularly in developing countries (Mohan 1997), yet accurate data are needed to better direct prevention efforts.

The methodologies used to derive fatality and injury estimates vary according to jurisdiction. Reliability of officially recorded data also varies; a situation emphasized by the World Health Organization (WHO) in its report on the global status of road traffic crashes (2004). Inaccurate crash data is a critical problem faced by all countries, yet seems more pressing for developing countries, particularly when assessing priorities for attention and funding. The main reasons cited for inconsistencies in official datasets include discrepancies in definitions and standardizations of data as well as under-reporting of crashes and associated road trauma (WHO 2004; Dixey 1999).

Of the limited research undertaken on data quality in low- and middle-income countries, research from Ghana illustrates many of the issues involved including: delays in compilation, unavailability of all relevant details, lack of a central data management facility, police reluctance to maintain information where court action is pending, and the decision of involved parties to settle the case out of court, independent of police involvement (Mock et al. 2004; Sailfu and Ackaah, 2009; Damsere-Derry et al., 2010).

Ameratunga et al. (2006) argue that the global estimation of the burden of road fatalities seriously underestimates the true extent of the problem and its devastating effects, especially where the burden is greatest: low-income and middle-income countries. Pakistan, a lower-middle income country (World Bank 2012), is the focus of this paper. Table 1 shows a comparative picture of deaths caused by road crashes in Pakistan compared to several other countries in South Asia. For this comparison the fatality figures for Pakistan are based on the WHO report (2009). It can be seen that Pakistan experiences a high degree of road trauma and has the highest fatality rate/100,000 population in South Asia.

(INSERT TABLE 1 ABOUT HERE)

Under-reporting of road crashes and associated trauma in Pakistan

Discrepancies exist between official fatality and injury figures for Pakistan when compared with estimates by other (external) organizations. Official sources recorded 5,280 deaths and 11,173 injuries from road crashes in 2009-2010 (Federal Bureau of Statistics), however the WHO (2009) estimated 41,494 fatalities/year, almost eight times higher. Part of this discrepancy could be due to differences in reporting criteria, but the WHO report (2009) indicates a lack of clarity in the police criteria which makes this difficult to establish. Various independent studies have identified significant under-reporting of road crashes in Pakistan. (e.g., Batool et al. 2012; Bhatti et al. 2008; Ghaffar et al. 2004; Hyder et al. 2006; Razzak & Luby 1998; and WHO 2009). For instance, one study found that only 14.3% of motor vehicle crash survivors (interviewed in hospital) reported that the crash had been registered by police (Health Services Academy 1998 cited in Hyder et al. 2000).

In Pakistan, a large variety of factors may contribute to data inaccuracies including a lack of emphasis on transport-related issues nationally leading to limited appreciation of the scale of the road trauma burden, inappropriate police training, insufficient resourcing of traffic police/wardens beyond the National Highways and Motorways Police, corruption within the police service, and a complex reporting system (Batool et al. 2012; Durrani et al. 2011; Hyder et al. 2000; Khoso et al. 2011). One factor which is potentially relevant to under-reporting of crashes, yet rarely studied in a road safety context, is fatalism. This issue has received scant research attention, yet is likely to be an important influence on behaviour and attitudes in a country such as Pakistan, one of the largest Muslim countries in the world and that scored highest on a measure of fatalism in an international survey (WVS 2004 cited in Acevedo 2008).

Fatalism and its relevance to road safety

Fatalism is the belief that life events are predetermined and inevitable, or (at the least) out of one's own control. Fatalistic attitudes have been shown to contribute to higher risks of contracting HIV or developing cancer (Baron-Epel et al. 2009; Hess and McKinney 2007; Powe and Finnie 2003) and there have been few investigations into fatalism with respect to road safety (Kouabenan 1998; Dixey 1999; Peltzer & Renner 2003; Peltzer 2003; Kayani et al. 2012; and see Kayani et al. 2011 for a review).

Although it has received limited research attention to date, fatalism is potentially of great relevance to road user behaviours in many developing countries, including Pakistan.

The current study

To better understand the link between fatalism and road safety, particularly to crash reporting, this paper presents findings from a larger research project investigating risky road use among various Pakistani road users. The larger study had a broader focus on religious and cultural beliefs, including fatalism. We have previously identified that fatalism appears pervasive in Pakistan and is apparent across ages, genders, levels of education and occupations, including police and policy makers (Kayani et al, 2012). The information presented here, however, relates specifically to the issue of crash under-reporting in this context of pervasive fatalism, focusing on the how police, policy makers and road users are influenced by this, such that crashes go unreported.

METHOD

Participants

Using a focused ethnographic approach, 30 in-depth interviews were conducted in Lahore, Islamabad and Rawalpindi. Participants ranged in age from 24-63 years (median age=46). Three forms of qualitative sampling were used: purposive (selecting particular groups); criterion (experienced in road use in Pakistan); and snowball. Twelve professional drivers (3 taxi drivers, 6 truck drivers and 3 bus drivers), 5 car drivers, 7 field police officers, 4 policy makers and 2 religious orators (added during the research because of issues of interpretation of religion which emerged during the interviews) were recruited through personal and professional contacts of the first author. These participant categories were included to provide a broad range of views on the issues under investigation. The majority of participants reported having been involved in at least one crash and almost every participant reported that relatives, friends and/or colleagues had been killed or severely injured in road crashes.

Procedure

All participants were treated in accordance with the ethical requirements set by the Queensland University of Technology. Participants were approached personally by the interviewer (first author) and the research purpose was explained verbally in the first instance. An information sheet was provided if

people showed interest in participating. The managers of depot facilities were approached to see approval to recruit professional drivers; car drivers were recruited via snowballing; police and policy makers were identified and approached through professional contacts of the first author; and religious orators were recruited from mosques known to the first author. All interviews were audio-recorded with consent.

An interview guide was developed and participants were interviewed individually for approximately 60 minutes. One-to-one in-depth semi-structured interviews were considered an appropriate method for this research due to the nature of the research subject and the limited published literature to date (Corbin & Strauss 2008). Participants were asked to discuss their attitudes and beliefs about driving, crash causation, and road use. Audio recordings were transcribed and translated by a separate translator using the concept of meaning translation (Esposito 2001). The interviewer (first author) checked the translations against the recordings for validity and reliability. Another bilingual researcher checked a random sample of transcripts to ensure validity and integrity of the backward transcription process (Beaton et al, 2000). Transcripts were analyzed using thematic analysis (Rice & Ezzy 1999) and analyses were undertaken with the intention of understanding, not of prediction (see Sandberg 2005). Comments made by participants about their beliefs are their own and do not constitute judgement or statement by the authors. For example, it is beyond our expertise to comment on whether a participant's interpretation of their religion is correct or not. The flow of words and common expressions were preserved where possible.

FINDINGS

Specific demographic information about participants is presented in Table 2. The main themes presented below are illustrated with participant quotations. Age, gender, level of education and participant group is identified after each quotation.

(INSERT TABLE 2 ABOUT HERE)

The role of fate in under-reporting of crashes

Many factors relating to crash under-reporting have previously been identified. However, the current study revealed another factor. Fate emerged as a major contributing factor to not reporting road crashes. When people believe that fate is the reason that a crash happened, there is no apparent reason for them to report this incident to police so that they can apportion responsibility.

The comments below are from field police officers who are usually first or second responder at a crash and responsible for crash investigation and reporting. They summarise the concept of non-reporting linked to fate while describing experiences of what happens at a crash scene.

“...it is very common that people think it is natural to have loss and that this is in their fate. Many times it happens if someone is injured or killed [in a road crash], he [the driver] gives a written statement on the spot that the case should not be registered because it was in their fate.” Male Police Officer aged 52, 10 years schooling

“The accidents I have seen I never tried to know actually what happened. Who had the fault? I have left it on God [considered to be fate]” Male Police Officer aged 30, University education

There was ample evidence to indicate the belief that crashes are predetermined by God (i.e, fated) and, therefore, not under the control of road users (see Kayani et al, 2012, for an in-depth discussion). It appears that as a result of such fatalistic beliefs, there is no need to follow up with authorities, even if death and injury occur. Thus, holding such a belief represents a primary reason why crashes are unreported because there is no need to pursue legal action in order to apportion blame for the crash.

Reconciling after a road crash without legal involvement

The concept of reconciliation between crash-involved parties refers to the parties deciding for themselves what will happen as a result of the crash without involvement of police or the legal system.

For example, the involved parties decide for themselves how much money should be paid, and by whom, for vehicle repairs and other expenses. The quote below illustrates this point.

Interviewer: "Do you think that road accidents, including the accident in which you and your family were involved, were registered by [reported to] the police?"

"No, they never got registered. Once my car's bumper got destroyed by a van which came wrongly from a side lane. We told the driver that we wanted to register this accident but he told us that he's a poor man and he will bear our expenses. We went into a hot argument for few minutes. He said that he's poor man, so we pardoned [forgave] him for the sake of God. Usually cases don't get registered anywhere." Male Taxi Driver, aged 24, 10 years schooling

This suggests that the act of crash-involved parties reconciling on the spot also contributes to under-reporting. Police officers also reported that police often encourage people to reconcile without their involvement because of the lengthy and complicated processes, for both the police and affected motorists, involved in official reporting and court procedures. However, it was also stated that some police attempt to bribe drivers by asking for money in return for not reporting a crash.

Giving and seeking pardon

It was reported as common practice in Pakistan for drivers who have killed or injured someone to be forgiven (i.e., granted a pardon) by the relatives of the deceased person and, subsequently, for the crash to not be reported. Again, this was linked to fate because the losses in a crash are generally not associated with human error. Rather, they are considered as predetermined and an act of God.

Interviewer: "Do you think people give pardon even if the accident results in a death?"

"Yes, because people know that it's [the crash occurred] because of fate so they give pardon.

They think it was sudden and fate and [so] why [would] they start legal procedures or take money over the dead body of their loved ones?" Male Truck Driver, aged 59, 5 years schooling

It seems that the act of pardoning is another reason why not all road crashes are reported in Pakistan. It appears that even if a crash is reported, pardon can still be granted before or during legal proceedings and the case is withdrawn from court without any liability on the involved driver. It is

noteworthy that the act of pardon is acceptable by the court (if reported) in compoundable cases (e.g., road crashes), since Pakistan law makes provision for an affected party to give pardon in their own matters or the matters that are considered compoundable¹. The police officers interviewed for this research were conversant with this practice of receiving pardon in road crashes.

Settlement of crashes between parties can involve the remuneration of the loss (death, injury, medical expenses) or damage to vehicles, though this was less frequently reported than the act of pardoning. Culturally, the act of seeking and accepting compensation is not seen as worthy of respect, while the act of forgiveness is highly respected. Additionally, the act of pardoning was reported as being practised so as to avoid people having to endure legal proceedings for something that they had not intentionally done. In other words, people viewed crashes as a matter of fate, did not attribute blame, granted forgiveness (a pardon), and did not, therefore, wish to see that person involved in legal proceedings. This concept seemed linked to religious beliefs where the concept of forgiveness was a pre-eminent act that pleases God and that will bring a reward in this life or the next.

A related yet somewhat contradictory concept is that of seeking pardon. It was described as common practice that after a crash, people visit those injured or visit the relatives of the deceased to admit their mistake, seek pardon, and request that the crash not be reported to police. The affected family or individual may acknowledge that the other driver and his relatives or colleagues had visited them and in turn, accept their mistake as an expression of fate. This act of visiting the affected family was described as a good act and one that could lead to the aggrieved family granting a pardon. For example:

“When a driver accepts his mistake he is given the pardon. Some people go with them to take sympathy to the victim and request a pardon. The relative of the victim is also approached. It is also the saying of the Holy Prophet (Peace Be Upon Him) that if someone accepts his mistakes, we should forgive him.” Male Truck Driver, aged 47, No formal schooling

Seeking pardon for personal gain – fabricated fatalism

¹ Compoundable crimes refer to crimes against the individual (e.g., road crashes, murder) and non-compoundable crimes refer to crimes against the state (e.g., robbery, terrorism). The act of pardon and the right to compensation is not permitted, in law, for non-compoundable crimes. As far as compoundable crimes are concerned, it is more common for those involved in road crashes to be granted a pardon than for those who commit acts of murder or injury to others.

We devised the term 'fabricated fatalism' to describe the situation where a person may deceptively attribute a crash to fate in order to reduce their personal involvement or mistake. In this way, fate is used in a manipulative sense as justification to be pardoned. These quotations provide evidence of manipulating the attribution of fate in a road crash.

"They do this [request pardon] to cover their mistake. People have these kinds of beliefs but they are not right". Male Policy Maker, aged 59, University education

Interviewer: People say that if a road accident happens then it's by fate and luck. They may also get a pardon for that.

"That means that you're deliberately making a mistake and inviting death upon you. Our law and constitution is there to guide us. This kind of absurdity is present and used as an excuse to cover their mistake." Male Police Officer, aged 36, University education

This concept was not commonly reported and is somewhat contradictory to the other concepts described throughout this paper. It appears that some people have recognized the 'benefit' of attributing adverse events to fate, even if they do not personally believe that is the reason for the event. While fatalistic beliefs were commonly reported, as described above, it is clear from the interviews that not everyone shares a belief in the link between fate and crashes.

DISCUSSION

Difficulties maintaining accurate datasets in Pakistan are acknowledged (Bhatti et al 2008) and improving them should be a priority. During interviews with drivers, policy makers, police and religious orators, information about the role of fate in crash non-reporting emerged, providing an extension to how we have understood the complex variety of factors contributing to inaccurate crash, fatality and injury data. Participants suggested that crash causation is widely viewed as something beyond human control because it is controlled by God. Three aspects of crash non-reporting were identified where fate played a key role.

Firstly, people with fatalistic beliefs tended to indicate that because crashes were an act of God, they were not inclined to implicate human involvement in crashes, and, as a result, did not report crashes to police because they were viewed as inevitable. In turn, they did not see the need to determine fault because of the belief that the event was destined to happen. Secondly, even if they believed that there was fault, such as another driver's mistake, and even if the other driver admitted this, people were still predisposed to overlook actions and accept the event as fate. Thirdly, even when acknowledging that there may have been fault and a breach of the law, people reported willingness to grant pardon for religious reasons.

Fatalistic beliefs were exhibited across participant groups and also across all levels of education, including amongst policy makers who have responsibility for governing road safety affairs. The role of policy makers and those who implement policy is vital in dispelling misconceptions about road crash causation linked with things such as fatalism. However, our findings have demonstrated that people in these influential positions hold misconceptions about crash causation that are linked to fatalism (see Kayani et al. 2012) which may act as a barrier to scientifically-based policy development. There is a need for road safety education focusing on scientific knowledge and awareness among policy makers and implementers, as well as among police officers and community.

Overcoming faith-based beliefs is not an easy task. Our findings suggest that the mechanism of religion should be taken into account when trying to change beliefs, attitudes and behaviours relating to road use in Pakistan. Such beliefs are likely to be difficult to address because of the deep-rooted nature of Islamic belief and practice (Acevedo 2008). Indeed, it has been argued that some interpretations of Islamic teachings may be seen as not adequately addressing the issue of personal responsibility in any given situation (Acevedo, 2008). As an aside, it is noteworthy that there is often a contrast between what is stated in religious texts and what is taught and practiced as religion (Hinnells 1991). One suggestion to begin addressing this issue is to focus on what Islam says about the responsibility of the individual: that individuals are held responsible for deeds and made answerable for them. The concept of right or wrong in Islam is used along with the freedom of will to choose between good and evil. These issues could be used to promote the concept of personal responsibility in crash causation, thereby enhancing awareness of the need to report crashes in Pakistan. There is a need to change the tone of the road safety debate in

Pakistan. Effort needs to be channeled towards education about scientifically-based road safety issues. In other words, to encourage safer behaviours it is important to provide people with a better understanding of why events occur and the risk factors associated with their actions.

We acknowledge several research limitations. With a dependence on self-report information, it is possible that people espouse more willingness to engage in practices related to religious/cultural beliefs than they actually exhibit. Conversely, due to self-report bias, people may engage in more traditional behaviour than they espouse. Importantly, the use of qualitative methods means that there was no attempt to gain a representative sample (Rice & Ezzy 1999). Rather, qualitative research provides an opportunity to explore novel topics that can then be examined more systematically in more representative samples. Future research could seek to quantify the issues described here to assist authorities in developing interventions to deal with under-reporting.

Many factors contribute to inaccurate reporting of crashes and associated trauma. Efforts to change road user behaviour in developing countries have been hampered by limitations of knowledge, absence of reliable estimates of the current level of trauma, and traditionally restrictive views on safe behaviours (Ghaffar 2004; WHO 2004). The findings of this study highlight another significant, yet not previously described issue related to the non-reporting of road crashes in Pakistan. Those who are killed or injured, in many cases, appear to go unreported because many people accept the tragedy of a crash as predestined. Identifying priority action areas and evaluating the effectiveness of measures used to improve safety are important steps in a comprehensive reporting system (Salifu & Ackaah 2009). The current research has offered additional insight into understanding belief-based factors related to non-reporting of road crashes which may assist in identifying priority action areas in Pakistan.

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Table 1. Road deaths and fatality rates in Pakistan compared with other South Asian countries (Source: Global Status Report on Road Safety [WHO, 2009])

Country	Income Level	Estimated road crash fatalities 2007	Population 2007	Road fatalities per 100,000 population	Road fatalities per 10,000 vehicles
South Asian Countries					
Bangladesh	Low	20,038	158,664,959	12.6	190.10
Bhutan	Middle	95	658,479	14.4	26.60
India	Low	196,445	1,169,015,509	16.8	27.01
Maldives	Middle	56	305,556	18.3	16.56
Nepal	Low	4,245	28,195,994	15.1	68.77
Sri Lanka	Middle	2,603	19,299,190	13.5	8.32
<i>Pakistan</i>	<i>Low</i>	<i>41,494</i>	<i>163,902,405</i>	<i>25.3</i>	<i>78.48</i>

Table 2. Number of participants reporting specific demographic characteristics

Demographic characteristic	Number of participants
Gender	
	Male 28
	Female 2
Religion*	
	Muslim 28
	Christian 1
	Sikh 1
Education level	
	High school or less 16
	Tertiary education 14

*Islam is the state religion of Pakistan; 95-97% of the population identifies as Muslim