

Socio-Cultural Beliefs and Road Use in a Low Income Country: a Qualitative Investigation of Superstition-Related Road Use Behaviour in Pakistan

Ahsan Kayani^a, Mark King^b, Judy Fleiter^c

^aEstablishment Division, Government of Pakistan; ^bCentre for Accident Research and Road Safety – Queensland (CARRS-Q), Queensland University of Technology (QUT); ^cGlobal Road Safety Partnership

Abstract

In developed countries much research has been conducted on human factors (including attitudes, beliefs and perceptions) contributing to road crashes. Less progress has been made in understanding and addressing human factors contributing to crashes in developing countries. In Pakistan, there are strong worldviews that foster diverse beliefs about crash causes and ways of avoiding them. Socio-cultural beliefs (traditions, customs and religion) impede efforts by developing countries to cope with the pace of modernisation and rapid motorisation. Therefore, to address gaps in our current knowledge about these issues, the current study sought to investigate driver perceptions, attitudes and beliefs towards road crashes and explored how they are linked to road user behaviour. A qualitative study involving 30 in-depth interviews identified superstitious road use behaviours interconnected with religious and superstitious beliefs, and low public credibility of evidence-based explanations. Moving towards the uptake of evidence-based protective behaviours is therefore a challenging, though desirable, task.

Background

It has been argued that countermeasures that are effective in developed countries in reducing road trauma may not be effective in developing countries and vice versa (Hill & Jacobs, 1981). Social and cultural (including religious) perspectives are becoming increasingly important in public health risk research, including road safety, although they are still not fully acknowledged and taken into account when developing interventions, particularly in the case of Pakistan (Kayani, King & Fleiter, 2012). A greater understanding of these perspectives can help people understand the bases of conventional approaches to road safety interventions and can assist in developing novel approaches that are culturally appropriate (Young, Morris, Burrus, Krishnan & Regmi, 2009).

Hess and McKinney (2007) and Forjuoh and Li (1996) argued that understanding the characteristics of a culture, as well as the social and political systems can assist in developing culturally appropriate approaches to unsafe behaviours. King (2005) and Mohan (2003) take up this issue in relation to road safety, arguing that it is naïve to expect that Western road safety interventions can simply be transplanted to developing countries without consideration of the social and cultural context. Two important domains of socio-cultural belief are fatalism and superstition (or belief in the supernatural). *Fatalism* can be described as the notion that struggle against nature is futile because events (e.g., a road crash) are believed to be inevitable and predetermined and (at the least) out of one's own control (Kayani, King & Fleiter, 2011). *Superstition* is a belief or practice that results from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation (Foster & Kokko, 2009). All societies show evidence of fatalism and superstition, but differ in the degree of their intensity and their influence on behaviour (Dixey, 1999; Foster & Kokko, 2009; Hira, Fukui, Endoh, Rahman & Maekawa, 1998; Leplat, 1983; Norenzayan & Lee, 2010; Torgler, 2007; Young et al, 2009).

Fatalism has received more research attention than superstition, as a number of studies have examined fatalism in relation to health and protective behaviours in both developed and developing countries; two general findings are that fatalism can lead to the perception that death is inevitable, regardless of an individual's actions and, that a person is, therefore, less likely to use protective

behaviours because of such perceptions (e.g. Coyne, Demian-Popescu & Friend, 2006; Dixey, 1999; Hamdy, 2009; King and King, 2006; Straughan & Seow, 1998; Turkum, 2006; Wilkes, Freeman & Prout, 1994). The concept of “external locus of control” has some similarity to fatalism and Hamdy (2009) argued that fatalism is a major impediment to the applications of scientific knowledge and to the reception of new technologies. We have previously documented research conducted in Pakistan that aimed to develop an understanding about the nature and role of religious and cultural beliefs in the broader context of road safety, and have reported on the role of fatalism (Kayani et al, 2011; 2012). However the role of superstitious beliefs remains poorly examined and reported. We have a paper under review (Kayani, Fleiter & King, under review) that reports on superstitious beliefs in Pakistan that express non-scientific construction of road crash causation. The current paper aims to document another piece of our larger research project by describing the superstitious practices undertaken in Pakistan to avoid road crashes and their consequences. It is expected that a better understanding of these practices and the rationale for them will contribute to the development of approaches to road safety in Pakistan that will be appropriate to the cultural context.

Method

The research context: Pakistan

Pakistan has a population of just over 180 million people and has recently made the transition to the middle income group of countries (WHO, 2015). Road crashes are one of the most prominent social and civic problems in Pakistan, with an estimated annual fatality rate of about 26,000 (WHO, 2015). While Pakistan is one of the largest Muslim countries in the world, conversion to Islam followed centuries of Hinduism (Kayani et al, 2011); in practice, Pakistani culture is diverse with a combination of various ethnic, religious and folkloric ethics that have been evolving in the region for thousands of years (Malik, 2006).

Participants

Using a focused ethnographic approach, 30 in-depth interviews were conducted in the three major cities of Lahore, Islamabad and Rawalpindi. Participants ranged in age from 24 to 63 years, with a median age of 46 years. Twelve were professional drivers recruited at transport depots (3 taxi drivers, 6 truck drivers and 3 bus drivers), there were 5 car drivers, 7 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; religious orators lead the five daily Muslim prayers, but often have little education, including education in Islam). Three forms of qualitative sampling were used in this study to obtain the convenience sample: purposive (selecting particular groups); criterion (experienced in road use in Pakistan); and snowball (participants suggested other people to participate who fitted the relevant criteria). The majority of the sample was male, with only two females (a general car driver and a field police officer). In Pakistan, more men than women drive in general, and female drivers are very rare among professional drivers. The police force has only a small female presence. All participants were Muslims with the exception of a Christian driver and a Sikh field police officer. All the professional drivers, one general car driver, one field police officer, and two religious orators, had a high school degree or less, while other participants, such as general car drivers, field police officers, and policy officers, had college and university education. The majority of participants reported having been involved in at least one road crash, and almost all reported that relatives/friends/colleagues had been killed or severely injured in road crashes, as was expected according to the experience of the first author. Road crash involvement was frequent among professional drivers.

Procedure and analysis

All participants were treated in accordance with the requirements of the Queensland University of Technology's Human Research Ethics Committee, which provided ethical clearance for the research. All the interviews were recorded with the consent of participants.

An interview guide with simple prompt questions was developed and participants were interviewed individually for approximately 60 minutes. The prompt questions were designed to elicit discussion of the beliefs that participants had about road crashes and their prevention, and spanned fatalistic, superstitious, religious and cultural beliefs. All interviews were conducted in Urdu, except one in English. Participants were asked to discuss their attitudes and beliefs about driving, crash causation, and road use. This led to participants disclosing information about previous risky or illegal road use. The audio recordings were transcribed and translated by a translator using the concept of meaning translation (Esposito, 2001). The first author checked the translations against the recordings for validity and reliability, and an additional bilingual research assistant checked a random sample of transcripts, one from each of the participant groups, to ensure the validity and integrity of the backward translation process (Beaton, Bombardier, Guillemin & Ferraz, 2000). During the process of translation checking, the researcher also worked with the translator to discuss the content of interviews. Where issues of translation were not resolved (e.g., where sections of the interview were difficult to hear or could be interpreted in different ways), these were noted. The decision was taken to analyse the English versions of the transcripts in order to allow the co-authors to read and understand the concepts as they arose and as analysis continued.

Thematic analysis commenced as soon as the first interviews were transcribed, as it allowed for a continuous re-evaluation of the themes and reflexive adjustment of the question and observation guides in keeping with an iterative approach. Analysis involved searching for the expression of particular ideas within the overall context of the dialogue (Minichiello, Aroni, Timewell & Alexander, 1995), and connecting these ideas into themes that appeared important (Daly, Kellehear & Gliksman, 1997). The data were analysed consistent with the recommendations of Sandberg (2005), i.e. with the intention of understanding and unfolding and not of prediction. Note that comments made by participants about their beliefs are their own and do not constitute any judgement or statement on the part of the authors. No comment is made as to whether these stated beliefs are correct or incorrect.

Findings

A range of measures to prevent road crashes that are associated with religious and superstitious beliefs were described by participants. They are set out below under the following headings:

- *Dua* (a prayer, usually a holy verse)
- Sacred charms
- Practising *sadqa* (charity)
- *Drood* (holy breath)
- Preventive measures against evil eye, bad omens and bad signs
- Preventing the effects of black magic

Dua

The most commonly discussed method used to prevent road crashes was the use of *dua*, the act of praying to God to seek divine help by requesting to be kept safe from all evils and bad happenings. In order to evade danger or to have wishes fulfilled, it was described as imperative to seek God's help through individual *duas* and the *duas* of others (e.g., parents, saints, elders, and the poor, distressed, and ill). *Duas* can be the recitation of religious verses from the *Quran*, *hadiths* (accounts of Mohammed's words or actions), saints' prayers (from living or dead saints), or more specific prayer rituals.

Interviewer: What are the benefits of dua for travelling? Do you think it will save you if any unexpected thing happens while driving?

Participant: We should take our precautions and leave rest of the things on Allah's will. Ayat-ul-kursi is the best dua. It gives me confidence. When I recite the duas I consider that God is surrounding me with protection.

Interviewer: Can a road accident occur, even if you have recited the duas?

Participant: It can never. It is not possible.

Interviewer: Why?

Participant: The person who recites this does not make a mistake. Police, Masters degree, 36 years, Female, Muslim

Participant responses indicated that after the *dua*, they felt comfortable and relaxed because they believed that God had taken responsibility for their safety. *Duas* were also described as being used to avoid bad omens or bad luck (e.g., avoiding evil eye [malignant look] or avoiding failure in business or personal affairs: a more detailed description of 'evil eye' is in given Kayani et al, under review). Such practices and rituals were seen as so important, that if they were not able to perform them, people felt that something was wrong.

It [dua] saves us from every bad omen and bad luck. It's for our own good travelling and safety from bad happening. It gives us mental peace. Bus driver Middle school education, 55 years, Male, Muslim

Muslim participants noted that there was a *dua* (*dua'e safar*) specifically to keep people safe while travelling. It consists of verses that are supposed to be recited at the start of a journey and/or while travelling.

Whenever I drive I pray. I started driving when I was a child at the age of 16 and I have a habit of praying a specific verse which I believe will save me all the time; "Glory to him who has brought this under our control whereas we are unable to control it. Surely we are to return to our Lord". I have a strong faith, whatever will happen I will be saved. Car driver, Masters degree, 40 years, Male, Muslim

It is commonplace for vehicles to display this travel *dua*, hanging on the rear view mirror or positioned on the front windscreen (see Figure 1), as a reminder to drivers of the need to perform it during their journey. Some participants believed that using the travel *dua* is part of their Islamic understanding of the world and therefore that other preventive measures had no value.

As a Muslim we have a travel dua and we believe in that. We should see what our Prophet and Islam said. But other things have no importance. Policy maker, University education, 59 years, Male, Muslim



Figure 1. Holy verses used in vehicles to prevent road crashes

Professional drivers (i.e., truck, bus, taxi drivers) noted that they have greater exposure to risk and were more likely to express beliefs about the role of divine support for their protection.

Yes, I always pray before I drive because we are in the mouth of death all the time. We do not know when we face a death. So we seek for blessing from God. Bus driver, Middle school education, 39 years, Male, Muslim

When we are driving we are in between earth and sky. So we should pray all the time to God to save us and [our] passengers. When we are driving, it's a dangerous task, anything could happen. We should pray for ourselves and everybody else. Truck driver, Primary school education, 60 years, Male, Muslim

Participants expressed the belief that the prayers of others also had significant protective effects, particularly those of devout or pious people and those who are ill, poor or elderly people. Their *duas* could also be recited verses, but more commonly the practice involves simply wishing or praying to God for the safety of others or for them to enjoy a good life. People are more likely to bestow *duas* upon those who demonstrate good manners and pay respect to children, elders, parents, and the poor; conversely, failure to behave appropriately could bring a curse.

Prayers of others for you always helps you in every way. If someone is doing well with other people he gets prayers from them. If he does not care about others and hurts other people's feelings, they put a curse [upon him]. For example if I ever talk harshly to someone and then something bad happens to me, I always blame my bad manners towards that person in case I get in trouble... Truck driver, No education, 47 years, Male, Muslim

The *duas* of parents were considered to have the potential to change the course of a life that had been otherwise destined by fate. It is relevant to note that Islam in Pakistan gives great importance to the role of parents (second only to God), and for this reason their prayers and good wishes are given enormous importance.

Dua from parents has great importance and saves us from any bad happening. I think in Islam parents' blessings play a very vital role in our lives. I had no accident in 12 or 13 years and I think there is a great role of the duas of my parents." Religious orator, Middle school education, 37 years, Male, Muslim

Sacred charms

The placing of the travel *dua* in vehicles was noted above, as a reminder to recite the *dua* while driving, though it can also be seen as an example of a sacred charm. Drivers, particularly professional drivers, reported using different verses from the *Quran*, *hadiths*, saints' names, the name of the four caliphs (the four most prominent civil and religious leaders of Muslims), and other religious charms. The use of such sacred charms is for broad purposes, such as good luck in business and general protection, and this includes protection from road crashes. Participants also said they use these items to remind themselves to express their religious devotion and keep it in mind at all times. When this was discussed further, participants said that if a crash occurred in spite of their use of religious rituals and charms as preventive measures, they would then regard the crash as their fate:

Interviewer: Do you think installing these Quranic verses in your vehicle will prevent road accidents?

Participant: Yes, it takes the driver's attention to Allah and Allah will remain in the heart by watching those verses constantly. And I start my day with Allah's name and

end it with Allah's name. If still something [bad] happens [to me] then I'll consider it my fate. Truck driver, Primary school, 60 years, Male, Muslim

The protective value of religion was reported as extending to objects associated with religion or religious devotion. The *imamah*, an Islamic turban, is used to express religious identity and can show greater devotion towards religion. As noted by one participant, wearing the *imamah* may not be conducive to wearing a helmet, but is considered to be more important.

Interviewer: Do you wear a helmet?

Participant: No I don't wear a helmet.

Interviewer: Why not?

Participant: I wear an imamah, so I can't wear a helmet but don't take it as if I don't respect the law. It's very difficult for me to change the imamah again and again for a helmet. Religious orator, Middle school education, 37 years, Male, Muslim

Several respondents also implied that by using religious outfits, God would be happy with them and would make them safe in the event of a road crash; even if they had not used other precautionary measures (e.g., a helmet). It is the experience of the first author (who was a traffic police officer in Pakistan) that on many occasions, police officers could be easily manipulated by this religious justification for not wearing a helmet so that no violation was recorded.

Another holy object thought to afford protection underlies the practice of using a piece of green cloth to provide protection for vehicles and prevent road crashes. It is common for people to place large pieces of green cloth at the tombs of saints. Some people remove small portions of the cloth to use in their vehicles as a form of protection from harm.

People who follow saints do these kinds of things. They also use green cloth in their vehicle. I also have green big cloth on my vehicle for good omens. When we buy a vehicle we go to saints and distribute food at saints' tomb and take the green cloth. In this way we can keep safe from bad happenings. Truck driver, No education, 26 years, Male, Muslim

In all of these cases, the protection has value because of the association with religious observance or devotion.

Practising sadqa

The religious ritual of *sadqa* (charity) is a more active approach to protection, as it is performed specifically to avoid any bad happening in the present or the future. Bad events are believed to be avoided by providing money, food, shelter or other things to deserving and needy people (also to animals, birds or other creatures). Performing *sadqa* was discussed in all participant categories as a means of evading any bad events and the impact of evils such as black magic, evil eye and bad omens (discussed below).

Interviewer: Some people drive with care, but even then they can have a road accident?

Participant: We should do sadqa. When our owners buy new vehicles they distribute food for good signs and to get prayers [from others]. Truck driver, Primary school, 60 years, Male, Muslim

In the experience of the first author, it is common for Pakistanis to believe that, when confronted with a small problem (e.g., a minor road crash), giving *sadqa* can ensure larger problems will be avoided. The religious orators interviewed indicated that they encourage people to use different

rituals, including *sadqa*, *duas* and recitation of other holy verses in vehicles, to avoid road crashes. The proposition of a crash occurring, even if all the religious-based preventive measures were used, was explored. As illustrated from the quote from a religious orator below, it is clear that fate remained the prevailing attribution nominated for crash involvement, even when all other measures were in place.

Interviewer: Many drivers use holy verses on the front of their vehicles. Does it have any importance?"

Participant: Yes surely. They are very beneficial. It saves them from common accidents [preordained by] God.

Interviewer: Even then after using them, what if a road accident occurs? It is due to God [in their fate]. Verses help to avoid evils in life. Sadqas (charitable acts) also work like that and it saves people from evils and losses in life. The people to whom we give sadqa, they pray for you to save you any loss like accidents. It's a blessing from Allah. Religious orator, Primary school education, 63 years, Male, Muslim

A policy maker interviewed for this research also expressed the belief that *sadqa* was the only possible solution to evade the possible occurrence of road crashes destined by fate.

Interviewer: To what extent can we say that a road accident is fated?

Participant: As far as my knowledge is concerned, sadqa (charity) can avoid something bad in our lives. So this could be the [only] possible solution. Policy maker, University education, 59 years, Male, Muslim

Drood

Drood refers to the practice of a blowing a holy breath. A person stands in front of a saint or a devout person who recites sacred or holy verses, then gently blows in the direction of the person requiring a blessing and assistance. Some participants described the use of this practice as a way of helping to protect them from any bad happening while travelling, such as disease or road crashes.

We go to the pir [saint] for drood for our own satisfaction. Allah also helps. There are certain things which Allah has bestowed to his pious people [pirs]. Allah listens to those who pray for us. I have this belief. Car driver, Matriculation, 28 years, Male, Muslim

In the experience of the first author, this practice is widely believed to hold great power and it is common for people to visit devout persons or living saints who have a good reputation for performing *drood*. This reputation is generally spread by word of mouth, according to the perceived success of *drood* in the past.

Unlike the 'countermeasures' listed above, *drood* is not necessarily accepted as religious: one of the policy makers interviewed for this research expressed the belief that such practices are inconsistent with the real teachings of the *Quran*. This may be an example of the incorporation of older beliefs and practices, since *drood* (under different names) is also described in areas of Southeast Asia that were Hinduised and have never adopted Islam, e.g. Thailand (King and King, 2014).

Preventive measures against evil eye, bad omens and bad signs

Kayani et al (under review) describe strong beliefs about the existence and impact of crash causes that are unequivocally superstitious, such as evil eye, bad omens such as cats (any colour, crossing

one's path), and other bad signs. A range of strategies used to prevent the effects of evil eye were discussed by participants. Commonly, the use of amulets, charms and talisman were described.

It is good to use them [amulets, charms]. I believe that when we buy a new vehicle and it is looking beautiful, the evil eyes of others can bring bad luck to us. Truck driver, No education, 47 years, Male, Muslim

The most commonly discussed amulets were black and red strips of cloth, horses' hooves and hair, peacock feather, wigs, and shoes. Black cloth is usually attached to the outside of the vehicle, a horse's hoof within the body of the vehicle, and red strips and horse hair within the cabin of the vehicle. Amulets placed outside the vehicle are intended to be visible so that other vehicles and the malicious looks or feelings of other people do not harm them. In addition to the vehicle, some charms used by drivers are attached to the body (e.g., worn around the neck) for protection.

Interviewer: Do you use these as precautions?

Participant: Yes, when I bought a new van I tied a horse's hoof and an old shoe to it. I also have holy verses in my vehicle. I think it saved me from bad omens. Truck driver, Primary school education, 60 years, Male, Muslim

Such practices were more common in professional and less educated drivers in the current sample. For professional drivers, it was noted that vehicle owners and/or drivers may take the preventive measure of attaching charms or amulets to a vehicle for protection. For instance, if a driver was not likely to believe in such things, the owner of the vehicle may attach them to the vehicle. The quote below provides an indication of the high prevalence of this type of preventive measures taken by drivers in Pakistan.

Interviewer: How many people do you think believe in them (evil eye, bad omens and signs)?

Participant: Many people have belief in them. 80% people in our society believe in them.

Interviewer: How can you say 80%?

Participant: Everyone I know believes this. Car driver, Matriculation, 28 years, Male, Muslim

Other ways described to combat evil eye involved making the person or vehicle less attractive. People often try to mar the beauty of appearance of people or vehicles in order to avoid evil eye (i.e., reducing the beauty by making a small mark, since it is believed this will reduce the likelihood that someone will have jealous or harmful feelings towards them or their possessions).

If you put some mark on something which lessens its beauty then it can save it from the evil eye. This is the truth. Actually the thing is made ugly slightly so that it does not catch evil eye. People use different things to protect from evil eye like they use a horse's hoof. Truck driver, Middle school education, 40 years, Male, Muslim

Preventing the effects of black magic

As noted in Kayani et al (under review), many Pakistanis believe that black magic can cause road crashes. Participants therefore described a number of measures that are used to prevent black magic from affecting them. Even though belief in black magic is essentially superstition, the measures used against it crossed over with religious beliefs. For example, one approach is to consult a *pir* (a holy man or a living saint) who is considered to have special powers to deal with things such as black magic, superstition, and bad omens.

Interviewer: What did you do to escape it [constant mechanical faults in vehicle]?

Participant: I went to a man who has the special knowledge and requested him to pray for me for the break [removal] of that black magic.

Interviewer: Did he help you in this regard?

Participant: He helped me and I managed to escape from it. Now there is no problem.
Bus driver, Middle school, 55 years, Male, Muslim

In the first author's experience, people who have been involved in a road crash may consult with a *pir* to seek assistance in preventing this happening again, only to be told that black magic was the reason the crash occurred. Some level of manipulation could be involved in this practice in that people then seek a remedy for the first "case" of black magic and continue consulting the *pir* in future to protect themselves from harm. The *pir* often provides protection in the form of amulets or charms (e.g., a single human hair, a piece of paper with words written on it, a metal nail to affix to a wall).

Another religious measure described as able to protect against the harmful effects of black magic was some verses from the *Quran*. For example:

Interviewer: Does it happen often that a person is under a black magic spell and a road traffic accident occurs?

Participant: Yes. It can be.

Interviewer: What do people do for the safety from black magic?

Participant: There are some verses [from the Quran to pray] like four "Quls" and Ayat ul Quran's. Religious orator, Primary school education, 63 years, Male, Muslim

Discussion

It is clear that drivers in Pakistan exhibit a number of superstitious behaviours that are intended to avoid road crashes. Some of these, such as *duas*, sacred charms and *sadqa*, draw directly on Pakistani interpretations of religion; some, such as *dood* and some of the preventive measures against evil eye, bad omens and black magic, are based on older superstitions; and many exhibit a mix of both approaches. By their very nature, these superstitious behaviours are at odds with the standards and evidence-based countermeasures routinely adopted by developed nations to reduce road crashes. Pakistanis rely on traditional or non-scientific methods instead, e.g. prayers, amulets and superstitions, even among educated road users, police and policy makers. Beliefs in religious and cosmological forces (e.g., black magic, evil eye) appear to have created more trust among people than scientific evidence. Given our earlier finding about the pervasiveness of a belief in divinely ordained fate (Kayani et al, 2012), it is perhaps not surprising that the failure of superstitious behaviours to avoid crashes is interpreted as the ultimate dominance of fate. However, participants also believed that fate could be changed if the right superstitious actions were carried out.

These practices have implications for efforts to achieve safer road use in Pakistan. The strategies and interventions implemented in developing countries are usually adapted from developed countries. In some cases, the implementation of these interventions has improved road safety and appears to be culturally acceptable to a certain extent. Health promotion interventions intended to prevent or minimise the consequences of road crashes have been developed mainly in western, industrialised countries (Dixey, 1999). Although some of these solutions have been applied to less developed countries with success, there are also good reasons why other solutions are ineffective when tried in a different context to that in which they were developed. As health promotion concepts developed in the west have a particular ideological bias, being framed within a secular, individualist and rationalist culture, we should not be surprised that they are open to failure when taken from one social/cultural/religious context to another (Dixey, 1999). The pattern of

superstitious behaviour described here, with its ultimate recourse to fatalism, appears to be resistant to the rational arguments of road safety advocates and health promoters.

In principle, road crash interventions must reflect the requirements and the capacity of local communities and must also consider the relative influence of environmental, social, economic, and demographic factors. To encourage safer behaviours it is important to provide people with a better understanding of why events occur and the increased knowledge and awareness of the cause of risk factors associated with their own actions. However, a persuasive approach requires an understanding of the commonly accepted behaviours, the rationale for them, and the beliefs that underpin them. In the case of Pakistan, where religious belief clearly plays a major role in behaviour, this is a challenge. It is important that a distinction is made between (i) religion as a positive coping method in which people are encouraged to take responsibility for their own choices with the concept of evil and good; and (ii) religion as a means of promoting misconceptions such as fate or predestination for which the individual takes no personal responsibility (Kayani et al. 2011, 2012). One potential mechanism to persuade people is to involve Islamic scholars, who hold sound religious knowledge, to assist with correcting misconceptions, increasing awareness among the population, and help to develop effective road safety policies, strategies and campaigns.

Conclusion

This study provides information on behaviours employed by Pakistani road users to protect themselves against road crashes. Although not representative of the broader population, the information contained in this paper, together with an understanding of the superstitious and fatalistic beliefs underlying these behaviours, can inform strategies aimed at educating people about more effective, evidence-based ways of reducing road crash risk. Adaption of culturally appropriate strategies, combined with policy design and implementation which takes into account the differential influence of cultural, religious, and social values, can enhance the transfer and adoption of evidence-based interventions. The interconnected and resilient nature of religious and superstitious belief and behaviour in Pakistan makes this a challenging task, but nevertheless a desirable one that moves action towards the uptake of evidence-based protective behaviours. In this latter half of the United Nations Decade of Action for Road Safety (2011-2020), it is imperative that efforts continue to identify novel approaches to tackle the road crash burden placed on so many developing countries and their people. The integration of information, such as that contained in this paper, may assist in reducing the road trauma burden by identifying underlying beliefs that currently hinder safer road use practices.

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