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Abstract

The literature on drivers' knowledge, attitudes, and practices (KAP) towards road safety provides insights into the global and local dynamics of road traffic accidents (RTAs). Globally, RTAs remain a significant public health challenge, with driver behavior being a crucial factor. Studies indicate that inadequate knowledge of road safety regulations, risky attitudes towards traffic rules, and poor driving practices contribute substantially to accidents. In developed nations, stricter enforcement of traffic laws and widespread education campaigns have led to improved KAP among drivers, reducing accident rates. In Pakistan, RTAs are a growing concern, exacerbated by the lack of awareness, unsafe driving behaviors, and inadequate enforcement of traffic regulations. Research shows that drivers often possess limited knowledge of traffic laws, leading to dangerous practices like speeding, reckless driving, and poor use of seatbelts and helmets. These behaviors reflect a broader societal attitude towards road safety, where compliance with rules is often seen as flexible. Key indicators of driver knowledge include awareness of traffic signs, road markings, and legal speed limits. Attitudes are often measured by drivers' perceptions of risk and their beliefs about law enforcement. Practices, meanwhile, are evaluated based on seatbelt usage, adherence to speed limits, and avoidance of distracted driving. Understanding these indicators is essential for designing effective road safety interventions in Pakistan.

Keywords: Road Traffic Accidents, Driver Behavior, Road Safety Practices

1. Background of the Study

Pakistan is a developing country, and the infrastructure is also underdeveloped, where roads, like those in other developing nations, are vulnerable to accidents. Pakistan has ignored the issue of road safety and traffic laws (Zahoor et al., 2015). In Pakistan, around 14,000 people die in car accidents annually. Though many laws have been introduced to overcome the issues, they do not bear any results due to a lack of efficient implementation. Pakistan first put its Motor Vehicles Act 1939 into effect, to prevent the issue of road traffic accidents necessary to give the transport system and vehicle operations legal protection following independence (Swami, 2006).

A revised version of the law, the West Pakistan Motor Vehicles Ordinance 1965, was also passed by the National Assembly on June 8, 1965. The transportation systems in Lahore and Gujranwala were governed by the Punjab Bus Stands and Traffic Control [Lahore] Ordinance 1963 and the Punjab Bus Stands and Traffic Control [Gujranwala] Ordinance 1963. These acts were also enforced in other districts of Punjab with minor modifications. The Provincial Assembly then established the Provincial Motor Vehicles Rules in 1969 to give mass transit projects legal support in Lahore and other districts. The Punjab government also formed the Punjab Mass Transit Authority in 2015 (Rana & Bhatti, 2018).

The Punjab Transport Department shaped the Punjab Provincial Transport Authority (PPTA) in acquiescence with the law. Its purpose was to use authority and carry out precise measures to guarantee safe vehicle processes throughout the province and to support and guarantee the horizontal and smooth operation of the transport department and transport authority. To distribute the efficient operation of the transport authority throughout the province from the base, the District Regional Transport authority (DRTA) was founded throughout, with one in each district.

A study conducted by Shamim et al., (2011) stated that the first road traffic injury monitoring study in Pakistan's capital city of Karachi revealed that there were 5.7 fatalities for every 100,000 people and an annual incidence of RTIs of 184.3 per 100,000 people. Aberrant driving behaviors by both regular and professional drivers (bus and taxi) are one of the major causes of traffic accident injuries and fatalities. The overarching goal of all the reports and studies underscores the fact that road safety is the guarantee of any nation's progress worldwide. Safe and secure roadways are an indication of a progressive and developed society. One of the major reasons for traffic accidents is road safety rules and laws not being followed and inadequate road safety systems.

Another major reason for the excessive road accidents that these studies have highlighted is careless driving. A study by Batool (2012) found the role that drivers' attitudes play in road traffic accidents in Pakistan. Driving habits in the nation are severely impacted by being affluent, female, and a student. The results of the research were utilized to suggest specific and broad information-based road safety solutions. Similarly, Chakrabarty et al. (2013) researched to find out the knowledge of the drivers about traffic safety in Delhi, India. The findings showed different degrees of awareness of road signs among drivers. The one being highly recognized was the signs on Hills Road (89%) and the use of seat belts while driving (89%) followed by the safest way to stop in an emergency (40%), the safest location to park the car (39%), and road workings (27%) altogether. The average awareness level among drivers ranged from 52% to 77% respectively.

Another such study was conducted by the study (Issa, 2016) to abstract the overall impact of a driver's traits (socio-demographic profile) on traffic accidents in Tabuk, Saudi Arabia. According to the findings of the study, over 80% of accidents involving human factors include drivers under 30 years of age, and 60% of all accidents involve young drivers. The results also demonstrated a substantial correlation between drivers' age and educational attainment and traffic accidents. Furthermore, Muvuringi (2012) investigated the causes, effects, and mitigation techniques of traffic accidents in Zimbabwe. The results highlighted weak law enforcement, corruption, and road users' disregard for traffic safety laws as some of the major causes of road traffic accidents.

Similarly, Tajvar et al. (2015) conducted a study on the attitudes, knowledge, and behavior of drivers in Bandar-Abbas, Iran regarding traffic laws. The study found that drivers' expertise and work experience differed significantly from one another. The study concluded that many taxi drivers had unsafe practices, poor understanding, and negative attitudes about traffic laws and regulations. The major reason for this was the lack of education and awareness among these drivers.

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In Pakistan, road traffic accidents accounted for around 3% of all fatalities in the year 2016 and were rated 9th among major causes of death. The data of Rescue 1122 showed road traffic accidents (RTAs) in Punjab from the year 2015 to 2019, where 1.4 million RTAs, which led to around 1.6 million victims and more than 17,000 fatalities estimated. The age group that was most affected was 21–40 years. It included many different aspects like the rise in rear-end collisions, the vehicles involved, the causes, the victims, the age distribution, the injuries, and the state of the victims at the site. It's interesting to note that motorbikes make up 63% of the vehicles involved in accidents and around 90% of them are caused by human error, particularly carelessness and over speeding.

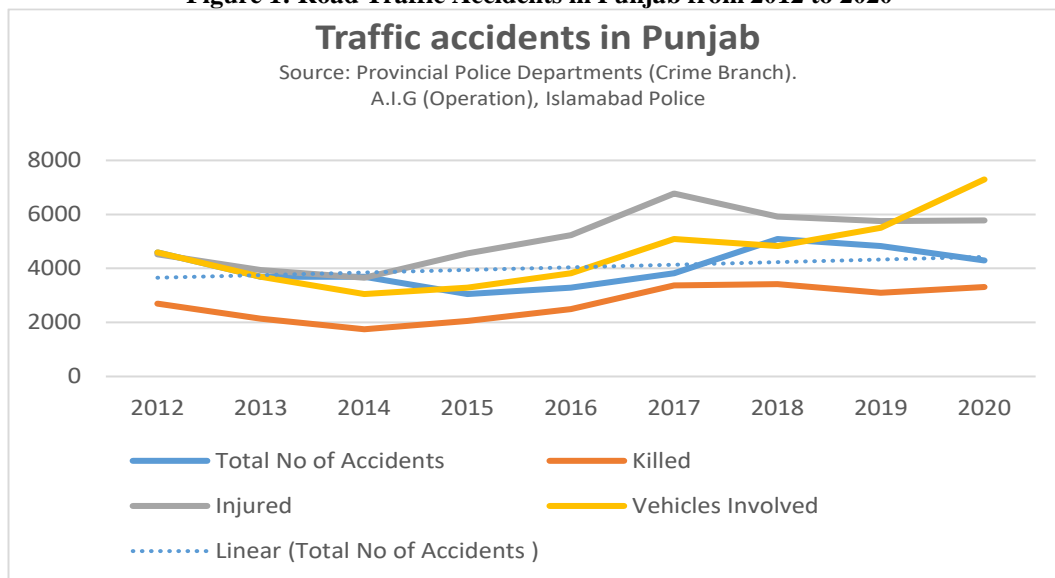
The data provides insight into the demographics of victims, showing an increase in victims who are evenly distributed by gender. Most injuries are mild ones but head traumas and limb fractures often occur. This data was collected from Punjab's five most populous cities between 2015 and 2019 with a particular emphasis on Lahore, Faisalabad, Multan, Rawalpindi, and Gujranwala. Half of all recorded accidents in the province occurred in these cities, which house around 31% of the province's population, during the research period. The sensitivity of major urban centers to RTAs is greater than that of the province overall despite large government investments in transport projects and road infrastructure.

Similarly, 59% of the cars in these cities are motorbikes and 90% of accidents are the driver's fault such as over-speeding and irresponsibility. In these big cities, the necessity of adapted infrastructural strategies and efficient road safety law enforcement is inevitable to mitigate such major fatalities. A large percentage of these accidents occur in major cities due to their higher urban population density particularly when vulnerable users like motorbike riders are involved. The research suggests that road safety should be given top priority in infrastructure and urban planning, that safe public transport options be encouraged, and that unhealthy driving behaviors be addressed through awareness programs and sensible legislation. The evaluation criteria of emergency response services must include a wider range of incident causes, including infrastructure-related issues. Even if there are signs of increased road safety, more needs to be done to guarantee a safer environment for the drivers in Punjab.

The number of road traffic accidents is higher in Punjab and the rate is increasing day by day. The below data is taken from the Source: Provincial Police Departments (Crime Branch) A.I.G (Operation), Islamabad Police.

Road Traffic Accidents in Punjab from 2012 to 2020.

Figure 1: Road Traffic Accidents in Punjab from 2012 to 2020



The cure is smoothly going up and the number of accidents both fatal and non-fatal is increasing along with the number of vehicles. This causes the economic loss in the province. Many studies have shown that 2 to 5% GDP loss annually due to road traffic accidents and the same is applicable in the context of Pakistan.

2. Knowledge Attitude and Practices of Drivers and Road Traffic Accidents Globally

Not only are road traffic accidents prevalent in underdeveloped nations, but the situation is getting worse even in rich nations. According to a study by Kareem (2003), drivers' ignorance of issues related to road traffic safety has contributed to an alarming rise in road accidents in Malaysia. Drivers making incorrect turns accounted for 26% of accidents, while narrow gaps between two vehicles caused 40% of them. This shows that the overall practices of drivers are also a major cause of road accidents. Similarly, 13% of all accidents occurred because of dangerous overtaking, while 20% were due to over-speeding. The facts mentioned above are associated with the human factor and imply that 90% of all road traffic accidents are the driver's fault or human error and not technical faults. Human error means neglecting the traffic rules and regulations without consciousness and sometimes without knowing everything. The driver's attitude is negative and aberrant towards driving and road safety rules.

Similarly, conditions in African nations where traffic accidents are common due to human causes are also getting worse. There is a greater danger of road traffic accidents in many South African countries, especially in Malawi, Uganda, and Ethiopia, where the death rate (deaths per 10,000 motor vehicles) is higher than in Thailand, Malaysia, and Saudi Arabia. However, the largest percentage of pedestrian deaths—nearly 67%—has been reported in Hong Kong. South Korea and Sri Lanka have higher percentages—48% and 45%, respectively. All of these figures show that road accidents kill more people across the world many leaders and countries have neglected these issues, and it is not even in many such country's policy priorities to overcome road traffic accidents and improve the knowledge, attitude, and practices of drivers towards road safety.

With 64% of motorcycle crashes and deaths, China leads the world in these statistics. Malaysia comes in second with 57% of motorcycle accidents and deaths. Similarly, there is a high death rate from traffic accidents in Arab countries, and numerous

studies have shown that drivers are ignorant of even the most basic traffic safety laws and regulations. Studies have shown that drug driving is widespread in these jurisdictions, and Kuwait has three times the number of young drivers engaged in traffic accidents compared to the US (Mirzaei et al., 2014).

As a result, the spinal cord injuries caused by traffic accidents suffered by patients from Riyadh Armed Forces Hospital were compared to those from the USA and the UK. According to Robert and Zamzami's 2013 study, 79.2% of patients in Saudi Arabia had spinal cord injuries, compared to 36% in the UK and 47.7% in the USA. Drivers' poor attitudes and carelessness about road safety are the main causes of traffic accidents in both developed and developing nations (Khanal, Sarkar, 2013). The number of traffic accidents in developing countries is higher than in industrialized countries, according to data collated from various research studies and reports.

Similarly, Africa has a high accident rate (24.1/100000). This rate is 10.3/100000 in Europe versus 18.5/100000 in South Asia, where more people lose their lives in traffic accidents annually. According to Imran and Nasir (2015), the overall death rate from traffic accidents is higher in low-income nations—above 80%—than in middle- and high-income countries. Between 1969 and 1986, there was a nearly 20% decrease in the number of traffic accidents in twelve European states; conversely, over that same time frame, there was a 50% increase in accidents in eight Asian countries (Gulzar et al., 2012). This is because of the advancement in technology widely spread in developed countries playing a vital role in promoting awareness about accidents and enhancing the overall knowledge of drivers about driving and traffic rules and regulations.

All these losses are due to human errors which can be overcome through awareness, education, and some strict punishments. A study in Kuwait showed that 90% of all road accidents are due to drivers' fault, such as lack of driving knowledge, more negative attitudes, and bad practices towards driving. The study in the United Kingdom agrees that the attitude of drivers such as not giving way to other vehicles, improper overtaking, and loss of control leads to the collapse of vehicles. They observed that the major reason for this is over-speeding and keeping a very small distance between vehicles, with wrong judgment and slippery roads (Ndungu et al. 2015).

Moreover, Chakrabarty, Gupta, and Bhatnagar's (2013) study on the knowledge, attitudes, and driving behaviors of Indian drivers discovered a strong correlation between driving experience and educational attainment and traffic accidents. A driver's behavior and practices are influenced by their driving experience. In a similar vein, Issa (2016) asserted that socioeconomic status has an effect on Saudi Arabian traffic accidents. Tajvar et al. (2015) discovered in another Iranian study that drivers' up-to-date knowledge, positive attitudes, and appropriate behavior about traffic laws and regulations are important variables in reducing traffic-related injuries and fatalities (Riaz & Shahid 2018:158).

Currently, road accidents are 5th major cause of death among young people aged 16-24 worldwide. According to Imran and Nasir (2015), the death rate is significantly greater in low-income nations—over 80%—than in middle- and high-income countries. Furthermore, Kareem (2003) reported that in Malaysia, drivers' knowledge, attitudes, and behaviours about road safety are linked to 40% of accidents being caused by maintaining a close gap, 26% being caused by making incorrect turns, 13% being caused by rough overtaking, and 20% being caused by speeding. The nations with the highest risk of fatalities (deaths per 10,000 motor vehicles) include Malawi, Uganda, Ethiopia, Thailand, Malaysia, and Saudi Arabia. While every year in Europe, 50,000 individuals lose their lives in traffic accidents.

At almost 67%, pedestrian deaths in Hong Kong are likewise rather high, followed by 48% in Korea and 45% in Sri Lanka. Motorcycle crashes and fatalities account for 64% of all traffic incidents in China and 57% in Malaysia (Kareem 2003). According to Ndungu et al. (2015), 79.2% of patients in KSA have spinal cord injuries, compared to 36% in the UK and 47.7% in the USA. In Saudi Arabia, human error is to blame for 91% of all accidents, according to the Ministry of Interior (2013). According to Al-Saif (2012), the rate in Saudi Arabia is extremely high, accounting for about 0.55% of all fatalities, or 1.3 deaths for every 100 incidents. WHO (2006) reported that there are over 153000 road incidents in Saudi Arabia each year, resulting in 64500 deaths and over 36400 injuries.

On the other hand, Issa (2016) stated that human errors are the major cause of road traffic accidents with 82% of all crashed vehicles being passenger cars. Moreover, 87% of the drivers understand the sign boards in Arabic, and 52% understand English. Drivers over 50 were engaged in only 4% of accidents, whereas young drivers under 30 made up 60% of all drivers involved in traffic incidents. About 65% of incidents include drivers who have more than five years of driving experience, whereas just 8% involve drivers who have less than a year of experience.

3. Knowledge Attitude and Practices of Drivers and Road Traffic Accidents in Pakistan

Road traffic accidents are also high in Pakistan and the rate is increasing day by day, therefore large number of people die and many of them are left disabled and injured. The family would become even more impoverished and deprived as a result of this. Road accidents claim the lives of an average of fifteen persons every day, according to estimates released by the Pakistan Bureau of Statistics (PBS). This number is currently rising because of inadequate regulation, especially in large cities. An additional estimate from PBS indicates that every 20th person out of 100,000 in Pakistan, or about 30,310 persons, passes away in traffic accidents each year. Furthermore, Pakistan ranks 67th in the world for having more road accidents than any other country, with one person dying or being injured in one of these incidents every five minutes.

According to a study by Shabir, Hayat, and Hamad (2014), if significant steps are not taken to prevent traffic accidents, they are expected to rank as the fifth leading cause of death by the year 2030. Additionally, this study noted that human factors and driver irresponsibility are the main causes of traffic accidents. Furthermore, it has been stated by Salman et al. (2006) and Shafiq et al. (2006) that human error and driver mistakes accounted for 75–80% of all road accidents that were reported internationally. A few markers that are closely linked to drivers' knowledge, attitudes, and behaviours regarding road safety in the river have been found in both studies.

The indicators of knowledge, attitude, and practices are as follows: drivers' faults or negligence which included using drugs while driving, driving recklessly or dangerously, driving unfit vehicles on lengthy routes, overspeeding on fast tracks, making improper overtakes on highways, driving public transport at night on long routes and driving tiredly because they were the only drivers on the route (Gopalakrishnan, 2012). Due to drivers' disregard for regular procedures and breaking of traffic laws and regulations, there are a lot of road accidents in Pakistan. Large Pakistani cities like Karachi, Islamabad, Faisalabad, Lahore,

Multan, and Rawalpindi are experiencing an even worsening of the condition; in these places, accidents happen so frequently that they are now considered normal occurrences (Ahmed, 2007).

According to a study on road safety by Imran & Nasir (2015:705-709), the majority of drivers in Pakistan were either uneducated or had only a low level of education and did not even possess a driver's license. They are more likely to exhibit unfavorable views, possess inadequate driving skills, and violate traffic laws. In addition, the majority of drivers drive without a valid license, and many of them do not renew it when it expires. They also drive slowly in the fast-track lane, overtake on the wrong side of the road, disregard traffic signals, drive in the wrong lane on a highway, and use drugs while driving long distances. Research by Tajver et al. (2016), Issa (2016), and Mirzaie et al. (2014) on drivers' knowledge, attitudes, and behaviours about road safety in Pakistan have revealed that these factors have a major impact on on-road accidents.

According to figures from 2010, there were about 332 fatalities and 27,264 injuries from traffic accidents in less than a year. The use of drugs while driving, improper overtaking, excessive speeding, and making improper U-turns on fast highways were the main causes of these collisions. Numerous studies conducted in Pakistan reveal that the majority of drivers do not have valid driver's licenses (Batool, Carsten & Jopson, 2012.). In Pakistan, unlike in other nations, there is no suitable system for granting driving licenses, particularly for those who operate public transportation. A commercial or heavy traffic vehicle driving license can be obtained with ease by anyone with a connection to the police or local government, even in the absence of a driving test (Mehmood & Baig, 2019).

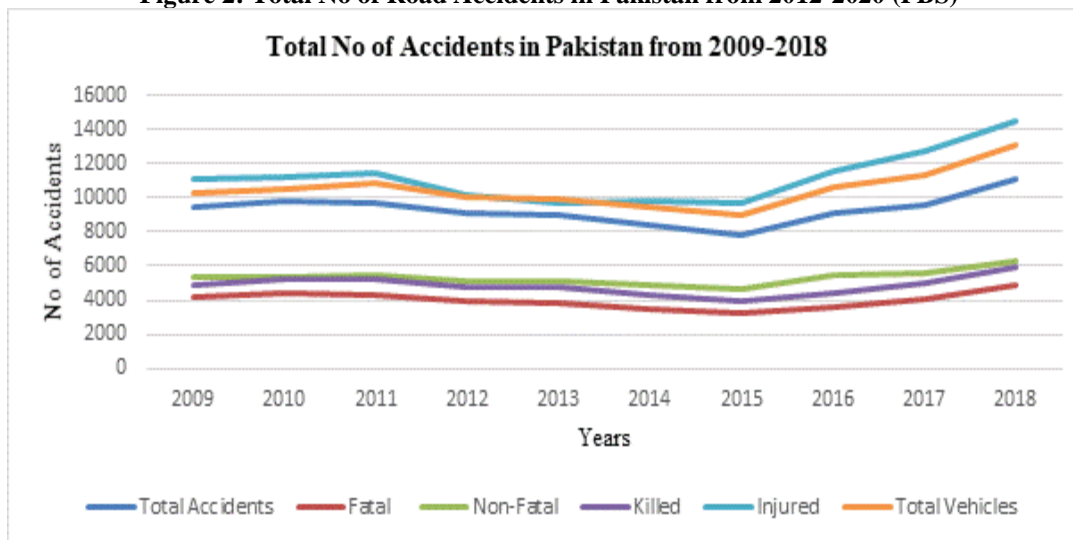
The Karachi Chamber of Commerce and Industry (KCCI, 2017), Detho et al. (2018), Martin et al. (2012), Gulzar et al. (2012), Hassan and Raza (2015), and Rao & Grenoble (1991:3-9) all state that the majority of traffic accidents in Karachi and other large cities, particularly in Punjab, are the result of driver error and human error. The fact that drivers barely give a thought to traffic laws and regulations in favor of squeezing through the narrowest gap on the road in order to get where they're going says more about how dangerous the situation is. One calculation puts the number of private vehicles registered in Karachi per day at above 300. Approximately 1.5 million automobiles are now registered in Karachi.

Furthermore, despite the government of Sindh allocating millions of rupees annually for road maintenance, a higher percentage of road accidents in Karachi and other large cities like Multan and Rawalpindi are linked to poor road design, a lack of a road maintenance system, a lack of information on traffic signs, poor road maintenance, and a lack of financial investment in road repair. However, a study by Neelima, Gupta, and Bhatnagar (2013) found a clear positive link between driving experience and educational attainment and traffic accidents. Driving experience affects how drivers behave; compared to less experienced drivers, professional drivers are more likely to operate a car safely.

Similar to this, Issa (2016) noted in the context of Pakistan that individual factors like drivers' socioeconomic background, degree of education, experience behind the wheel, qualification, and monthly income affect road accidents in Saudi Arabia and other developing South Asian nations. Increases in awareness and education improve drivers' ability to obey traffic laws and steer clear of dangerous driving practices. Every nation, developed or developing, has a problem with traffic accidents.

One of the most important studies Imran & Nasir (2005) stated that in Pakistan, especially in the context of Islamabad, 87% of road traffic accidents are caused due to the negligence of traffic regulations such as poor compliance with traffic rules. The rate of accidents is higher in Punjab, particularly in the big cities of Punjab. The statistics about road accidents from 2009 to 2018 showed that the total number of fatal and nonfatal accidents has increased.

Figure 2: Total No of Road Accidents in Pakistan from 2012-2020 (PBS)



The figure showed that from the year 2000 to 2010, as compared to other provinces of Pakistan, Punjab faced the largest number of road traffic accidents, on the contrary, Baluchistan had the smallest ratio of road accidents (Gulzar et al. 2012). The violation of traffic rules are leading cause of deaths and injuries between the ages of 18 and 44 years (WHO 2018). The big cities of Pakistan are under a higher threat and risk of road accidents, where the violation of traffic rules is high due to the drivers paying less attention to them. Moreover, in Pakistan, two-wheelers such as motorbikes, are more likely involved in road accidents and are frequently seen violating traffic rules and regulations. Some figures from 2013 showed that in 20154 people died in motor vehicle accidents which ranked Pakistan 12th globally for the highest number of motorbike accidents (Abdelfatah, 2016).

According to Feroz, Naz & Ilyas (2024), a study conducted in the context of Pakistan found that participants had a sufficient and reasonable level of awareness about road safety, there was a noticeable gap between what they knew and how they followed the law. This disparity frequently causes unsafe behaviors to become more commonplace, which raises the number of traffic-related injuries and fatalities. The study highlights a substantial disconnect between the execution of safe driving and pedestrian

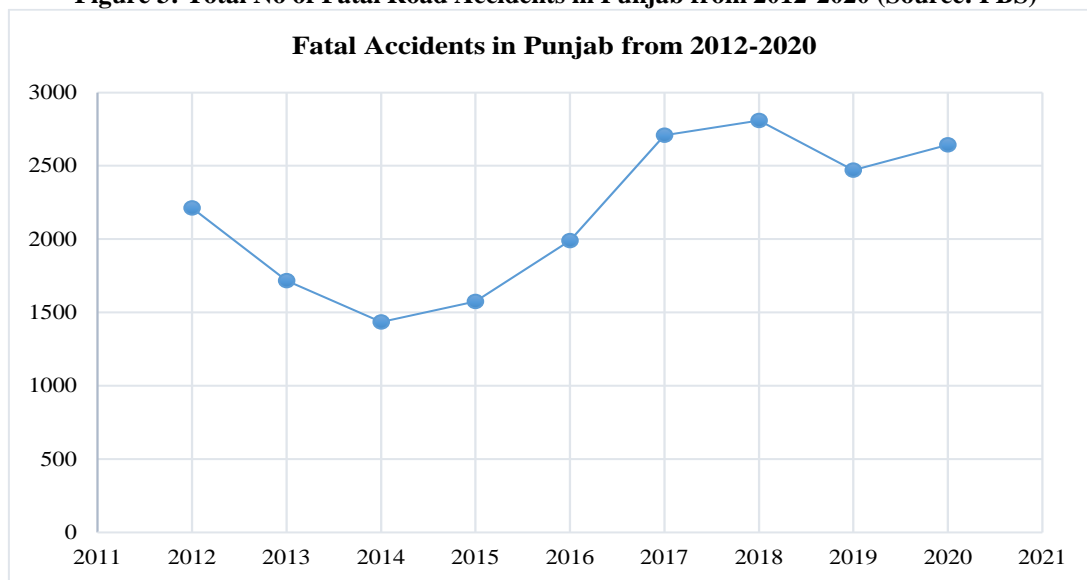
habits in real-world scenarios and the theoretical understanding of road safety. This misalignment increases the risks that drivers and pedestrians face when traveling, underscoring the urgent need for stronger enforcement of current traffic laws to reduce these risks.

Moreover, the findings imply that raising awareness of road safety alone is insufficient. It is imperative for effective interventions to tackle the social and cultural determinants that sustain hazardous behaviors. Many drivers were found to be ignorant of basic traffic laws and how to properly use safety equipment, like seat belts, according to a study done in 2010 by Khan & Hyder. Numerous studies conducted in Pakistan have examined drivers' attitudes towards different facets of road safety. In this sense, a study by Ahmad et al. (2017) found that drivers generally had a dangerous attitude, which was demonstrated by their disdain for speed limits and propensity to violate traffic signals. Temporary above safety is a cultural construct that frequently exacerbates this mentality. Furthermore, Siddiqui et al.'s (2019) study revealed a fatalistic mindset in drivers, wherein fatalistic views about fate minimize the significance of following safety rules. Driver practices include real-world actions taken while driving, which represent attitudes and understanding about road safety. Studies reveal notable disparities between the suggested habits and the real actions of Pakistani drivers.

Hussain et al. (2018), for example, reported that despite being aware of the safety advantages, there is widespread non-compliance with seat belt usage. Similarly, a Malik et al. (2020) study found that Pakistani drivers had a high rate of speeding and careless driving. These behaviors have a direct impact on the high number of traffic fatalities and accidents in the nation. Enforcing traffic regulations effectively and implementing focused education efforts that highlight the negative effects of driving recklessly could reduce these kinds of actions and enhance overall road safety results. Several obstacles stand in the way of Pakistani drivers' efforts to raise their knowledge of road safety. These include socioeconomic variables affecting driving behavior, poor driver education programmers, and insufficient enforcement of traffic regulations.

In addition, Pakistan's fast motorization and urbanization are making road safety issues worse and necessitating creative solutions. Interventions need to have a holistic approach to addressing these issues. Important moves forward include putting stronger enforcement mechanisms into place, improving driver education programs, encouraging collaborations between governmental and non-governmental organizations, and utilizing technology for surveillance and instruction. Long-term interactive change may also be facilitated by encouraging a culture of accountability and responsibility among drivers through community involvement agendas and public awareness campaigns.

Figure 3: Total No of Fatal Road Accidents in Punjab from 2012-2020 (Source: PBS)



The figure showed the total number of road fatal accidents that happened in Punjab Province. The curve showed that accidents rates are increasing, which is alarming for not only the government, but also threat for the public health of the inhabitants of Punjab.

4. Major Indicators of Knowledge, Attitude, and Practices of Drivers towards Road safety

According to many studies, few common indicators have been identified in a systematic way regarding the knowledge, attitude, and practices of drivers towards road safety in Pakistan. These indicators have been divided into four major themes or sections. The first section consisted of the socio-demographic characteristics of drivers towards road safety in Pakistan. These characteristics, which fall under the section of the socio-demographic profile are the gender of respondents, age, income level, family type, higher level of qualification or education, learned driving from whom, driving experience total time spent driving on the roads in Pakistan.

4.1. Indicators Associated with Knowledge of Drivers Towards Road Safety

There are following indicators of knowledge of drivers towards road safety in Pakistan. These indicators are opinions and views of drivers towards certain indicators. The selected indicators are based on the views and perceptions of drivers towards traffic rules and regulations. These are as follows:

- A driving license is vital for drivers.
- It's important to fasten the seat belt while driving for safety.
- It is compulsory to wear a helmet while on a bike/motorcycle.
- It's important to follow the road sign while on the highway or the fast tracks.
- Takeover from the right is dangerous and a threat to life, sometimes it causes death or permanent disability.

- The usage of drugs is dangerous while driving.
- Penalties for violating traffic laws are very important to overcome road accidents.
- Driving speed near residential areas should be slow and careful.

4.2. Indicators Associated with Attitude of Drivers Towards Road Safety

There are multiple indicators in different ways. These indicators show the overall attitude of drivers towards road traffic safety in Pakistan. These indicators are as follows:

- A driving license is not necessary and is uncomfortable.
- Seat belts may cause discomfort while driving.
- I do not like wearing a helmet while driving.
- Following traffic rules and regulations while driving.
- Pedestrians must be given importance while driving.
- Drugs are not causing road accidents.
- Road signs help reduce road traffic accidents.
- By the police following the policy is normal and ok for the drivers.
- Keep speed slow near residential areas.
- Keeping a safe distance between vehicles even on fast tracks.
- Eating and drinking are not dangerous while driving.

4.3. Indicators Associated with Practices of Drivers Towards Road Safety

In addition to the indicators above of knowledge and attitude, the indicators below showed the overall practices of drivers towards road traffic rules and regulations in Pakistan. These indicators showed drivers' practices while driving on the roads. These indicators are as follows:

- Possessed driving license.
- Always wear a seat belt when driving.
- Always wear a helmet on a motorbike.
- Obey the road signs and signals.
- Stop vehicles when people cross the road.
- Using drugs while driving.
- Do not care for fines.
- Ever been in a road accident?
- Driving speed < 40 near residential areas.
- Eating and drinking while driving.
- Overtake without indicators.
- Using a Mobil phone while driving.
- Drive too fast when hurrying.

5. Conclusion

According to the WHO, around 1.37 million people die, and more than 4 million people are injured annually in road accidents. Many injured people become permanently disabled in traffic accidents worldwide. Road crashes are not only affecting developing countries, but developed countries are also suffering from this problem. In Pakistan, road accidents are very common in big cities, such as Rawalpindi, Faisalabad, Multan, and Karachi. Many studies have noted that in Pakistan, the majority of drivers have less updated driving knowledge and negative attitudes, and they violate traffic rules and regulations. Numerous studies have found that 75-80% of road accidents happen due to the carelessness of drivers.

There are several causes of road accidents, however, most leading factors are over speeding, lack of driving license, underage driving, congested roads, and wrong overtaking. Moreover, drivers in Pakistan have poor socio-economic backgrounds, family pressure, and a lack of awareness and education about traffic laws. Additionally, there is no standard mechanism to issue a driving license in Pakistan, aimed at public transport drivers and whoever has a reference and source in government, easily obtains the driving license, even without undergoing a driving test and evaluation of the vehicle's fitness condition. Moreover, some studies have found that the majority of drivers in the country have poor socio-economic backgrounds. Thus, they have less updated knowledge regarding road safety, negative attitudes, and malpractices toward traffic rules and regulations.

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