# ROAD RAGE AND ROAD SAFETY IN INDIA: A PUBLIC HEALTH CONCERN

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## Abstract

Road rage and road traffic accident (RTA) are of the major preventable public health problems and are on the rise which can be attributed to increase in the number of vehicles and lifestyle changes and risky attitudes. This paper is intended to search for available published information which in turn might help the policy makers as well as practitioners to make use of it. The information has been gathered from papers related to RTAs from various databases such as PubMed, Google scholar, government websites to get an overview in India for the last 15 years. The burden of RTA and road rage was found to be considerably high globally as well as in India. RTA and road rage causes a number of effects which can be: economical, physical, psychological and social. The burden of RTA is on the rise which makes it necessary to take a multi-sectoral approach in its prevention and control. This paper is intended to search for available published information which in turn might help the policy makers as well as practitioners to make use of it. The information has been gathered from papers related to RTA and road rage from various databases such as PubMed, Google scholar, government websites to get an overview in India, for the last 15 years.

Key Words: Road rage Road safety; India; Adverse effects; Control and prevention

Good driving requires a responsible attitude to other road users as well as a high level of concentration, observation and anticipation. The reality is, however, that everyone makes mistakes. Our attitude as drivers, how we deal

with our own mistakes and our reaction to those made by other people, will influence our own safety and well-being and that of other road users around us. Aggressive, selfish or impatient attitudes influence the way we drive. This can develop into a tendency to take irresponsible risks, such as tailgating, exceeding speed limits, undertaking, or jumping red lights. Our emotional mood also influences our behavior; drivers commonly express how they feel in the way they drive. Traffic delays and congestion can also influence our frame of mind. Life stresses such as relationship anxieties, financial or employment problems, domestic or workplace arguments (to highlight only a few) influence our mood and can affect our attitude to driving and safety behind the wheel.

Road rage refers to aggressive or angry behavior which is displayed by a driver of a road vehicle. Furthermore, these behaviors consist of rude and offensive gestures, verbal insults, threats, and dangerous driving methods. Moreover, drivers or pedestrians become the targets of such negative behaviors. Most noteworthy, the main motive behind such behavior is to intimidate others or release frustration and anger. Also, the various strategies of road raging consist of long horn honks, tailgating, swerving, and aggressive physical behavior. The behavior of a stressful driver is dependent on the driver's coping abilities. Also, drivers who display high aggression often indulge in direct confrontation strategies when they face stress during driving. It seems like drivers who experience road rage also commit more traffic violations. Driving certainly presents many stresses to a driver who is driving a vehicle. There is a direct positive correlation between driving stress and road rage. As the driving stress increases, similarly, the chances of committing road rage increases dramatically. Furthermore, younger males are more likely to indulge in road rage behavior in comparison to other types of people. Most cases of road rage take place due to cutting in and cutting out of traffic, parking spots disputes, rude gestures, and lane changes. Some experts believe that people who customize their cars with stickers and adornments are more susceptible to road rage behavior. Psychologists probably don't consider road rage as a mental disorder.

Most road rage incidents take place as a result of ignorance or misunderstanding of the driver. This ignorance or misunderstanding can be due to the failure of a driver to look on the road while taking a turn or

forgetting to switch off the turn signal. Many people seem to take things the wrong way. Countless road accidents take place due to simple mistakes on the road. However, not every rage action leads to an accident but certainly involves aggressive acts. Furthermore, any individual may commit road rage irrespective of gender, ethnicity, religion, age, or culture. The most aggressive driving accidents consist of much more than just a vile word or offensive gesture. Sometimes, the use of weapons is made in road rage incidences. Most noteworthy, road rage takes place in various actions and forms from time to time. Road traffic accident (RTA(s)) is one of the major preventable public health problems and is on the rise which can be attributed to increase in the number of vehicles, lifestyle changes and risky attitudes . Injuries due to RTA as one of the prime causes to the 'global burden of diseases' was on the 10<sup>th</sup> position in the year 2002, but according to 'Global status report on road safety 2013' it is on the eighth place and expected to be at the fifth place by 2030 if trends continue at the same pace

'India has the highest number of road accidents in the world' as well as highest number of deaths due to it. Every year 130,000 deaths are reported due to RTA in India which accounts for 6% of the global burden, though it has only 1% of the vehicles globally. When compared to developed nations, the number of RTAs in India were three times highe. It has overtaken even the most populous China. Experts caution that the actual estimate of mortality as well as injuries due to RTA could be much higher than what is actually reported, which could be because of underreporting. Of the total estimated 1.4 million RTAs, only 0.4 million are recorded each year, which is even worse in rural areas. Around 40 people, below 25 years of age, die due to RTA every hour in the world, while in India it is 14 deaths/hour. As per World Health Organization (WHO), it is the second most prime cause of mortality among 5-29 year olds. The deaths due to RTA in India accounts for twice more than the deaths caused due to malaria, HIV, cholera etc. all put together. Risky road situations have been generated due to the growing number of automobiles along with population growth, which leads to jamming problems in the nation for which road infrastructures are usually not prepared to manage the heavy flow of traffic. Rescue operations: Delay in providing required medical services is one of the causes of mortality due to RTAs. Nearly 50 % of the nations of the world lack evidence on alcohol related deaths due to RTAs. Drunken driving has been stated as a major

factor for RTAs. Evidence on the usage of helmet is scarce. Properly wearing a helmet while riding a motorbike can lessen the risk of dying by nearly 40% as well as the risk of severe injuries by more than 70%. Wearing a seat-belt declines the probability of fatality in the person sitting in the front-seat by 40-60% and of rear-seat passengers by between 25-75%. Using child restraints reduces deaths by approximately 70% in infants and 54 % in toddlers. Only about 32% of the population globally have executed child restrained laws. There are many types of distractions that can lead to impaired driving, one of them is using mobile phones while driving. Those drivers who use phones during driving have four times more odds of becoming a victim of RTAs when compared to those who do not indulge in such practice. As the speed increases the probability of occurrence of crash as well as the degree of its consequences also increases. Less than one tenth (7%) of the countries of the world have sufficient laws which address risk factors of RTAs such as speed, drunken driving, overloading the vehicle and use of protective devices like seat belts, child restraints and helmet. Stringent drunk and driving laws help to protect about 70% of the population globally.

Though laws on road safety do exist in India their implementation is very weak. The execution of these laws as per the Supreme Court is a state responsibility unfortunately, child restrained laws do not exist in our nation. Pedestrians and cyclists/two-wheelers account for majority of all deaths due to RTAs. Driving during night is more risky than day which can be attributed to fatigue and/or alcohol consumption. As per WHO, injuries due to RTAs was the sixth most important reason for mortality in India leading to hospitalization, fatalities, disabilities and socio economic losses. RTAs cost US \$518 billion globally and accounts for 1-2% of gross national product in LMIC's. In developing nations a loss of about \$100 billion/year occurs because of RTAs. As a result of RTAs, the affected families have to put up with the cost of extended medical care, bear the loss of wage earner, take additional care of the disabled which ultimately leads them to poverty, because the expenses are borne exclusively by the family of the disabled. In India, the gross domestic product lost due to RTAs was 1-3% in the year 2008-09. RTAs also contributes to the massive burden on the health sector (e.g. pre hospital and acute care as well as rehabilitation). Lack of road safety leads to spending of 20 billion/year in India which corresponds to food requirements of half of the countries malnourished children .The

number of people injured/disabled due to RTAs range from 20 to 50 million. More than three fifth of traumatic brain injuries were caused due to RTA in India. The most commonly involved part of the body was head and neck followed by extremities. RTAs also has effect on the psychological and social well-being of a person and his/her family. A multi-sectoral approach should be used for the controlling and preventing RTAs.

If you find that you have agitated another driver, whether the fault is truly yours or not, do not react or retaliate to the other driver on the road. This will only cause the situation to escalate. Remind yourself that the other driver is just bad at handling stress, avoid eye contact and continue to practice safe driving habits. All you can do is be a considerate, aware driver that follows the rules of the road. While it may be difficult in the heat of the moment, do not give in to feelings of anger or rage on the road. Think twice before you honk the horn or flip that finger, because you never know what may set off the person in the cars around you. Getting home safely is more important than teaching someone a dangerous lesson. This paper was intended to get an overview of road rage and road safety in India. It provides evidence on factors responsible for injuries, trends of fatalities, various adverse effects as well as about control and prevention of road traffic accidents (RTAs) in 0061 condensed form. This might help the policy makers as well as practitioners to make use of this evidence in forming policies for tackling the issue of RTA which is on the rise. The burden of road rage and RTA was found to be considerably high globally including India. RTA is one of the major preventable public health problems and is on the rise which can be attributed to increase in the number of vehicles, lifestyle changes and risky attitudes. Though the burden of RTAs in India is high, there is dearth of evidence on it at the national level, which is a serious issue. Road rage and RTAs cause a number of adverse effects which can be: economical, physical, psychological and social. The burden of RTA is increasing, making it necessary to take a multi-sectoral approach for its prevention and control.

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