



RE-VIEWING ALCOHOL CONSUMPTION AND ROAD TRAFFIC COLLISION IN DELHI

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Abstract

The consumption of alcohol has become a part of leisure activities. However, the drinking problem has emerged as a major concern for policymakers. Driving under the influence of alcohol has increased the risk of road traffic collisions resulting in injuries and death. Rules and regulations or policies laid down in response to reduce such problems often recourse to the policies of prohibitions or banning. Despite all, there has been an increase in road traffic collisions due to alcohol in recent years. This article reviews studies on alcohol-associated road accidents in Delhi. Consideration of wider cultural practices and nuances of drinking at the intersection of transport and health studies could help in developing policies and planning to avoid drunk driving and road traffic collisions.

Keywords: alcohol, road traffic collision, drinking

Introduction

The consumption of alcohol depends on various socio-cultural and individual factors, which include religion, level of development, price and availability of drinks, gender, education, and age (see Frenndries and Talalovich, 2010; Holloway et al., 2009; Wasserman and Trovato, 1996; Holt et al., 2006). Among various factors, changing the economic condition from a poorer society to a better one could have an immediate effect on the pattern of alcohol consumption because of the increase in purchasing power and the availability of various alcoholic drinks. Economic development influences the consumption of alcohol in society, especially in those societies where there are less rigid religious norms (Jernigan, 2009; Esser and Jernigan, 2018). The 1990s economic liberalization in India expanded the retailing of various alcohol products and increased the rate of alcohol consumption. The distribution and sale of alcohol are controlled through a licensing system. However, the licensing system also helped to increase the availability and consumption of alcohol (WHO, 2018). The figure

for alcohol consumption has increased tremendously as per capita consumption in India climbed up to 5.7 liters per year in 2016, which is more than twice the figure in 2005 (Global Status Report on Alcohol and Health, 2018). Apart from economic development, India's increase in alcohol consumption is also attributed to the growing urban population and changing composition of drinkers, as there is a rise in women drinkers (Prasad, 2009). Urban lifestyles often entail drinking as a part of everyday life for socialization and recreation (see Arora *et al.*, 2017). The signature pattern of consumption in India is binge and frequent drinking. Alcohol use, on the other hand, is also associated with a high rate of violence, injuries, and health issues. Policies on alcohol control have been prevalent; however, any implementation has not contributed to an effective intervention. Instead, there is an increase in the rate of consumption and its related health issues. Adverse health consequences from long-term continuous alcohol consumption do not occur until late among consumers, but driving under the influence of alcohol risks fatal injuries and death at any stage of life. Alcohol consumption impairs driving ability and increases the risk of road traffic accidents. Alcohol consumption in urban areas is designed to be served in a more controlled manner collectively through alcohol laws and rigid policing. For road traffic collisions, consideration of the place of drinking is essential in enacting policies or regulations for health and safety on roadways. Road traffic collisions associated with intoxication have been a major problem in Delhi (Mohan *et al.*, 2002; Biswas, 2003; Millo *et al.*, 2008). Fatal injuries and deaths in road traffic collisions and other unintentional injuries due to drunk driving have been frequently reported in Delhi (see Kochar *et al.*, 2002; Tabin *et al.*, 2007). Alcohol studies dealing with health issues and rules and regulations have been debated and theorized but have not properly addressed drinking issues on roadways in India. Literature at the intersection of transport and health issues, particularly road traffic collisions due to alcohol in Delhi, is identified and discussed in this article. The following section deals with the pattern of alcohol consumption and road traffic collisions due to alcohol in Delhi. It is followed by a section that deals with rules and regulations and strategies to avoid road traffic collisions due to alcohol, and finally, the suggestion of this article.

Alcohol consumption and road traffic collisions in Delhi

The alcohol market in India is largely dominated by middle-class consumers; a sizable portion of the middle class has increased spending power due to the improvement of the economy after the 1990s economic liberalization. The Indian made foreign liquor (IMFL) is the most consumed liquor in Delhi; its alcohol strength does not exceed 42.8%. However, among the working class, country liquor (like *Arack, Toddy, Fenny, Naranggi*, and so on), which has an alcohol content of around 25%, is popular because it is less expensive, and its cost usually ranges from 120 to 150 Indian rupees for 750 ml. Apart from that, lager beers are popularly consumed in India. The rate of duty on beer, which is lower than that on hard liquor, encourages shifting from high-alcoholic drinks to low-alcoholic drinks. Urban India, especially Delhi, Mumbai, and Bangalore, consumed approximately 85% of the country's wine consumption (ASSOCHAM, 2014). According to the NSSO, the per capita consumption of *Toddy and Country Liquor* per week (in ml) as of 2011-12 in Delhi was 55, and that of beer and wine was 86 (Rukmini, 2014). Looking at the wider scale, the per capita consumption of alcohol in India increased from 2.4 liters in 2005 to 4.3 liters in 2010 and climbed up to 5.7 liters in 2016 (Global Status Report on Alcohol and Health, 2018). Therefore, there is an increasing trend in alcohol consumption in India as drinking becomes a part of everyday life for leisure and socialization. On one side, it has been used more congenially in social ceremonies; there are many possibilities of appropriating it in society in terms of hospitality, friendship, as a gift, and so on.

On the other side, many studies on alcohol reinforced that alcohol consumption also led to a number of health (see Bennett *et al.*, 1998; Benegal, 2005; Prasad, 2009; Girish, 2010) and social issues (see Carpenter, 2004; Rodriguez *et al.*, 2001; Shepherd and Brickley, 1996). The pattern of drinking while eating rendered less harm from chronic diseases than the same pattern of drinking at other times (see Trevisan *et al.*, 2001; Stranges, 2004). Alcohol consumption generally declines with age; young adults typically consume alcohol more frequently than other older age groups. Also, as people grow older, their bodies are typically less able to handle the same levels and patterns of alcohol consumption as in previous years of life, leading to unintentional injuries such as alcohol-related falls (Sorock *et al.*, 2006; Grundstrom *et al.*, 2012). Irrespective of age, alcohol inhibits or slows down our brain, which affects our reactions and other body functions.

Road traffic collisions are one of the unwanted consequences of alcohol consumption. Alcohol consumption led to many non-fatal traffic collisions, injuries, and deaths. The case of fatal and non-fatal injuries in motor vehicle traffic collisions due to alcohol has been studied in different parts of the world (see Bried *et al.*, 1985; Soderstrom *et al.*, 1988; Holmgren *et al.*, 2005; Miyatake *et al.*, 2013). Mohan and Bawa (1985) studied the nature of fatal crashes on Delhi roads and found that alcohol played a vital role in fatal traffic collisions, particularly in the evening hours. Likewise, Tabin *et al.* (2007) also found the role of alcohol in non-fatal road traffic collisions in Delhi, and the highest number of traffic collisions occurred between 9 p.m. and 1 a.m., and the cases increased on weekends with higher alcohol content in the blood. In India, driving under the influence of alcohol or drugs resulted in 1.5% of total traffic collisions that caused injuries to 6,295 individuals and 2,988 deaths in 2015 (National Crime Records Bureau, 2015). A study from a ward in a hospital in New Delhi found that 29% of traffic collision victims were under the influence of alcohol (Mishra *et al.*, 1984). It is important to assess quantities of alcohol consumption for health and social intervention and policy (Gupta *et al.*, 2003). Likewise, Ghosh *et al.* (2012) also argued that it is imperative to examine the patterns of alcohol consumption among different types of drinkers, especially among different age groups, which vary in quantity of consumption, in framing policies and programs for controlling devastating social pathology in urban areas. The authors found that many drinkers are alcohol dependent and have a low mean age of initiation of drinking alcohol, which is concerning, and the practice of drinking in public places and workplaces also needs attention in the policy. Arora *et al.* (2017) found that alcohol consumption has increased and is becoming a part of everyday life. In urban Delhi, apart from drinking in licensed premises, drinking in public spaces, like streets, market places, and parks, is also evident despite the fact that drinking in public spaces is illegal. However, drinking in bars, clubs, and other legally approved drinking premises passively demands or assures good action or conduct, which is not always the case. Heavy drinking is a major problem among drinkers in Delhi. Mohan *et al.* (2002) argued that economic liberalization led to a dynamic shift in consumption patterns and functions, leading to a major increase in alcohol consumption. He also noted there is a constant rise in road traffic collisions, where drunk driving often leads to death. The country has

undergone a rapid rise in alcohol consumption, from occasional and ritualistic use to everyday social use or consumption. This change in the pattern of drinking, as Das *et al.* (2006) observed, could be controlled through the regulation of alcoholic beverages in the markets, which is the crucial need for the prevention of alcohol-related problems.

Prohibition of alcohol on roadways and other measures

As alcohol intoxication increases the risk of road traffic collisions and other unintentional injuries, the Supreme Court of India, in July 2017, ordered that all alcohol shops, bars, and pubs within the range of 500 meters of all national highways shall lose their licenses in view of curtailing driving under the influence of alcohol. However, it does not apply in municipal areas, especially cities, for the hospitality and tourism industries. The availability of alcohol and proximity to highways factored into or led to the consumption of alcohol among drivers, who often ended up losing control of high-speed driving. The verdict is one of the reactions or a current strategy to reduce alcohol-related problems, especially driving under the influence. The verdict is giving extra attention to the accessing locations like bars, clubs, and alcohol shops; however, such banning is likely to lead to other sources like the black market of alcohol sales (see Kumar and Prakash, 2016). Such banning of liquor sales from the highways leads to the shifting of alcohol shops from national highways to the nearest distance beyond 500 meters and making continued availing of alcohol to drunk drivers and other drinkers. The other way to contain such cases would be to have national highway patrol units. It would help to check the problem of drunk driving among truck drivers and other drinkers. Many studies emphasize supervisory action or intervention. It is important to consider the relationship between impaired driving and the place of drinking. O'Donnell (1985) discussed the interventions to lower the risk of alcohol problems in different drinking settings, like the responsibility that the server should have so that patrons do not get too intoxicated or are not allowed to leave in the vehicles from the premises and availing of food to accommodate and reduce the level of intoxication. Likewise, Shepherd and Brickley (1996) also discussed that alcohol-related problems could be reduced by incorporating meals and more options of foods, which means spending more time in the place of drinking to reduce blood alcohol levels. But Blum (1991) found that supervisory intervention is more

likely to end up making excuses and manipulating to consume beyond limits. We need constructive intervention and cost-effective strategies. There are growing studies on alcohol use associated with other substances (see Chaturvedi and Mahanta, 2004; Neufeld *et al.*, 2005; Mohan *et al.*, 2002). Professionals who attended to alcoholics could also advise on the cessation of other substances among patients (Mohan *et al.*, 2002). Consumption of alcohol has been a burden or has made it more complicated for those individuals infected with diseases like tuberculosis, HIV, viral hepatitis, and sexually transmitted diseases (WHO, 2018). Alcohol use increases the risk of transmitting diseases like HIV and tuberculosis. Rehm *et al.* (2017) found that alcohol users were likely to have unprotected sex and could transmit sexually transmitted diseases. And it could also result in unintended pregnancy among alcohol users (see Oulman *et al.*, 2015; Lundsberg *et al.*, 2018). Highway hotspots have been the locations for many other vulnerable activities that are often associated with alcohol. Tripathi *et al.* (2010) studied the locations of vulnerable urban groups with sexual behaviors and alcohol/drug abuse and mapped them in the city of Delhi. The study was directed at combating HIV/AIDS vulnerability in Delhi, in which alcohol/drug use and abuse played a significant role. Such abuses are associated with an attempt to find sex workers who end up failing to use condoms and other risks, particularly truck halt sites and other locations like sex work “hot spots” and the usual places of concentration of drugs and alcohol-dependent persons. It is noticeable in highway hotspots where truck drivers, migrants, and other clients are actively involved in long-distance shipping and transport networks. Therefore, mapping such hotspots is an important tool for planning and implementing intervention activities, identifying groups of people at risk for HIV, and recruiting new patients to be treated.

Apart from the above-mentioned strategies, there are other means that are helpful in reducing the rate of traffic collision deaths due to intoxication. Lowering the legal blood alcohol content (BAC) could help reduce the rate of traffic collisions due to intoxication. A study found that, in New Delhi, a third of road traffic collisions involving two-wheeler riders that are admitted to the hospital are caused by driving under the influence (Mishra *et al.*, 1984). In India, under the Motor Vehicle Act 1988, an individual with alcohol levels exceeding 30 mg/100 ml of blood, which can be detected by a breath analyzer, is liable to be charged. The individual could be fined up to

3000 rupees and imprisoned for up to 2 years, and the court could cancel his/her driving license if the person is caught drunk driving again. License suspension is another strategy to control drunk driving (see Zobeck and Williams, 1994). Thus, lowering of legal BAC and regular blood alcohol testing through any of the testing devices (see Chawla *et al.*, 2014) and suspension or cancellation of a driving license could reduce road traffic collisions, especially for inexperienced drivers (see Hartling *et al.*, 2004; Shults *et al.*, 2001). The alcohol policy also needs to focus not just on roads and highways; it also requires attention on other aspects such as precautions and awareness. It encompasses treatment and giving health instruction to drivers who have drinking problems.

Conclusion

The banning of the consumption and sale of alcohol near highways does not assure people that drinkers will stop drinking or avoid drinking problems on roadways, particularly drunk driving. Institutions and academics need to orient toward the consideration of drinking culture or practice and its plurality that happen in our everyday lives for recreation. Drinking problems are more or less absent in societies where consumption of alcohol is taken as a part of everyday life (see Douglas, 2003; Heath, 1975). We need to consider alcoholism and its related social problems in society from a cultural lens by investigating how and in what form it has been practiced. Culture plays an important role in the production of meaning and its construction around alcohol in our society. There is a lack of cultural penetration at the intersection of transport and alcohol studies in India. This is reflected in various policies and strategies, especially for alcohol-related problems on the roadways in India. Research in India often ignores the nuances of drinking practices and associated activities that establish in a particular location over a period of time; therefore, it needs to focus on spatial factors that shape the pattern or subculture of drinking. The banning of alcohol is not enough to avoid road traffic collisions due to intoxication. It is high time to go beyond it. We need to explore more how drinkers incorporate alcohol into their everyday lives, and reducing harmful use of alcohol should be the strategy to reduce the rate of road traffic collisions due to intoxication.

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