

Medical and Socioeconomic Aspects of Road Traffic Accidents

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Road traffic accidents leave medical and social repercussions on families and individuals involved. Moreover, it is saddening that the most vulnerable are from the youth and middle age groups. This deprives the society of much needed and precious human resources. Hence, the mean which was originally designed to serve mankind has become a means of destruction, cause of disability and sometimes death. The medical profession has to assume a key role not only in the management of the injured, but also in the prevention of accidents and road safety measures. In order to reduce the incidence of road accidents it is important to establish an efficient organizational set-up, highlight the role of mass-transit, periodic checkup of the vehicle for its road worthiness and education of masses with the hope that they will adhere to the rules while on road

Key Words: Road traffic accident, traffic injury, accident

Traffic safety in Peshawar is a high priority goal. All those involved in traffic safety strive to achieve this goal during planning, design, construction or operation on the roads. The objective here is to make roads safe and efficient for all users, whether they are drivers, passengers or pedestrians.

The objective of the paper is to highlight some medical and socio-economic aspects of road traffic accidents and propose solutions so that the traffic safety picture improves on Peshawar roads.

Traffic accidents in Peshawar

A brief look at the history of road traffic accidents in Peshawar reveals that the number of accidents has steadily increased over the past twenty years. This is attributed to the unprecedented and tremendous increase in economic activities and social transformation brought about by the successive development plans. Road traffic accidents have increased from 280 accidents in the year 1981 to 670 accidents in the year 2000. However, as counter measures were implemented and the road network neared completion, accident rate steadily declined and traffic safety relatively improved. Statistics show that the number of accidents per 1,000 vehicles has decreased from 58 incidents in 1981 to fourteen incidents in 1990, and the rate was maintained at that level ever since.

Injuries have decreased from 64 per 1,000 vehicles in 1981 to twenty injuries in 2000, and similarly, fatality rates have steadily declined from ten fatalities per 1,000 vehicles in 1981 to four in 2000.

The intention here is not to detail accident statistics and discuss causes and promising remedies; but to highlight the problem which is exacting an unacceptable toll on our population, and state that the road traffic accident problem is a worldwide concern, and it needs constant attention at all levels.

Medical and social aspects of road traffic accidents

It is hard to measure the medical and social impact of traffic accidents due to the fact that the impact from traffic accidents remain long after the accident has occurred. These effects could be direct or indirect. Because of this

difficulty in quantifying the social impact of traffic accidents, researchers tend to qualitatively measure the impact and describe its effect on the immediate family of the road accident victim and the society at large. The following are some of these effects:

1. **Human Loss:** One of the most important and direct impacts of road accidents is human loss. In Peshawar, the human loss during the past 20 years (1981-2000) accounted for 2981 fatalities. This is a huge human and social loss when one considers the contribution of these victims to society, should they have lived normal and productive lives.

Table 1: Distribution of road traffic accidents, number of injured and dead from 1981 to 2000:

Year	RTAs	Injured	Dead
1981	280	216	73
2000	670	505	185
1981 to 2000	12389	8839	2981

2. **The loss of the more productive groups in society:**

Table 2: Distribution of road traffic accidents by age groups from 1981 to 2000:

Age Group (years)	No. of Accidents	%age
<18	619	5%
19-29	3035	24.5%
30-39	4833	39%
40-49	3097	25%
>50	805	6.5%
Total	12389	100%

It is inferred from the table that the age groups 19-49, the most productive years in life, are responsible for 88.5% of all road traffic accidents and the likely loss of life or injury is highest among this age group.

3. **Social Residues of Road Accidents:** Social residues of road accidents can be summarized as follows:
 - a. **Psychological sequelae of the injured:** The impact of road traffic accidents on the injured is manifested by changes in the victim's behavior and

daily routine. Road accidents resulting in serious injuries often leave the victim handicapped. Because of this, the victim is often unable to keep a healthy and continuous relationship with those he comes in contact with, even his or her immediate family.

- b. ***Social and psychological residue of the victim's family:*** The loss of family member in road traffic accident, or one causing a handicap of a family member, leaves long-term psychological and economic effects on the family. The family can lose its primary source of income, social standing or both, and the younger members might not be able to achieve their social and economic goals due to that loss. Economic and social pressures can build up in the one-parent household which increases the risk of psychological ailments and social misconduct of the family members.
- c. ***Psychological and economic burdens on the family and society at large:*** Caring for orphan children and providing social services for handicapped individuals due to road accidents, levy a heavy burden on the immediate and extended families of these individuals and society at large. Social and medical rehabilitation and medical facilities are heavily burdened as a result of road accidents and the damage it causes to public and private facilities.

Economic aspects of road traffic accidents

Economic aspects of road accidents focus on quantifying and computing the total cost of accidents. This includes direct and indirect costs.

There are several methods to compute the cost of accidents. Even though these methods differ in their approach, they are nevertheless, governed by the assumptions made and the accuracy of these assumptions.

1. **Direct Cost of Traffic Accidents:** These include the following:
 - a. *Cost of medical treatment of those injured*
 - b. *Cost of damage to private and public property*
 - c. *Administration costs of road accidents including accident investigation, reporting, and accident reconstruction, etc.*
2. **Indirect Cost:** These include costs due to the loss of life, loss of productivity due to death or long-term handicap, cost to family and society, and government subsidy to health care and rehabilitation agencies.

Mass-transit role in limiting road traffic accidents

There is a general agreement among professionals involved in traffic safety that there are several factors

which contribute to road accidents including driver error, the vehicle, the road, increase in vehicle volumes and driver actions inconsistent with traffic rules and regulations.

Based on world's experience, more dependence on mass-transit by bus or train will limit the use of the automobile, especially in urban areas, and will contribute to a more efficient travel environment. Consequently, it is essential to encourage the use of mass-transit modes to minimize automobile travel. This can be done by integrating mass-transit in the transportation planning process so that we can reap the benefits of mass-transit in its ability to transport more people, utilize smaller street space, and at less cost per passenger kilometer of travel. This action would result in reducing air and noise pollution, controlling safety aspects related to driver behavior and the vehicle, by ensuring that bus drivers are highly skilled and fit to drive, and by periodic inspection of the vehicles for road worthiness. Moreover, a streamlining of transportation activities by establishing a high commission for transportation would be a useful step towards more effective coordination and integration of transport services. Such a commission would include representative from the major agencies involved in traffic safety on the highways. Important goal of the commission would include:

- a. *Approving a long range plan for safe and efficient transportation in the city*
- b. *Adopting specific safety programmes*
- c. *Strengthening the coordination process with other agencies (public and private) who directly or indirectly affect traffic safety.*

Recommendations:

1. Increase public awareness and driver education programmes for safer driving behavior.
2. Encourage the use of mass-transit in urban areas and limit the use of the automobile in these areas.
3. Equip vehicles with all the available safety devices and ensure that the vehicle is road worthy
4. Establish a high commission for transportation to streamline public and private efforts to improve traffic safety on the road.

Reference:

Traffic Statistics for 1981-2000. Department of Traffic Police, NWFP Peshawar.