A STUDY ON ROAD ACCIDENTS AND SAFETY MEASURES TO PREVENT ACCIDENTS IN JAMMU & KASHMIR

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ABSTRACT

Every single day, our nation's roadways are responsible for the deaths and injuries of thousands of people. Road travel is the most common and important form of transportation in Jammu and Kashmir. There is a wide variety of different types of vehicles used in J&K's road transportation system. It has been determined that automobile travel is one of the primary causes of accidents, as well as injuries and deaths. Even the roads inside the cities themselves are under a great deal of pressure due to the continuous urbanisation and migration to cities and towns. The main aim of this research is to carry out an investigation on the Road Accidents and Safety Measures to Prevent Accidents in Jammu & Kashmir. The study took an exploratory as well as descriptive approach to its objectives. During the course of the research procedure, the study utilised a survey as its primary means of gathering preliminary information. According to the findings of this study, the fact that more than lakhs of people have been killed and millions more have been hospitalised due to traffic accidents across the state may convince all parties concerned to develop and implement road safety based on scientific and systematic approaches. For this to happen, there must be a political commitment, the involvement of trained specialists, or the participation of protecting media and the general public.

Keywords: *Road traffic accidents; Traffic management; Enforcement rules; Preventive Measures.*
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INTRODUCTION

An accident is a circumstance that could not have been prevented and was uncontrollable. An accident is characterised as a situation in which an object or person's activity or response causes a person to sustain physical harm or property damage. A traffic accident occurs when the road-vehicle-driver system fails to correctly perform one or more of the tasks needed to complete a journey without injuries or material losses (Maqbool, Sethi & Singh, 2019). Due to the mix of slowly moving and quickly moving cars using the same carriageway in India's cities, it is challenging to guarantee safe traffic (Panda, Dash & Dash, 2022).

According to the Union Ministry of Road Transport and Highways, Jammu and Kashmir is India's second-most accident-prone state per 10,000 vehicles. For the previous five years, Jammu and Kashmir highways have murdered around 900 people annually. Jammu, the state's most populous city, topped the list with 1130 accidents in 2018. In the districts of Kathua, Udhampur, and Samba have a higher incidence of accidents (Dandona et al., 2022). Rajouri and Ramban had the most cases (394 and 252) in the mountains. Kashmir's Baramulla and Anantnag districts had 223 and 214 accidents, respectively, second and third after Srinagar. Road accidents were lowest in Shopian, South Kashmir. So, implementing an effective, efficient, and well-planned transportation infrastructure is a commitment to road safety. This requires trained and skilled human resources, capacity growth,

improved road engineering, modernised transportation modes, and most importantly, an efficient and effective traffic management system. To achieve this, Jammu and Kashmir needed a comprehensive traffic safety programme immediately (Maqbool & Sethi, 2019).

LITERATURE REVIEW

Mohan et al. (2015) demonstrated the spatial and temporal characteristics of road traffic injuries (RTIs) across several road networks in the Vellore region of southern India. The National Highway was the site of 522 of 3262 RTIs (NH). With pedestrian involvement being significantly higher, the NH RTI rate was 8.8/100,000 vehicles daily. RTIs were generally higher over the weekends. 13% of fatalities were due to RTIs. RTI rates differ across the state of New Hampshire, and hotspots are important town links. RTI information in India is available via FIRs.

Road transport dominates J&K, according to **Maqbool & Sethi (2019).** J&K has a diverse road transport system. 253 Jammu &Kashmir road users were chosen from Srinagar and Ganderbal. 26–35-year-olds were overrepresented. 155 male, 98 female. 152 (60.1%) were married, 101 (39.9%) unmarried. 166 (65.6%) saw the accident, 45 (17.8%) experienced it, and 42 (16.6%) saw and experienced it.

Singh, Raina & Arora (2021) stated that fatal road traffic accidents (RTA) are a global killer. RTA kills 1.35 million worldwide. Road traffic accidents kill almost 3700 people daily. This study investigated the injury patterns of victims of fatal traffic accidents who were discovered dead upon arrival or passed away while receiving treatment and were buried at the Govt. Medical College & Hospital, Jammu. 87 of 181 medicolegal autopsies were fatal road traffic accidents during the research.

METHODOLOGY

The study took an exploratory as well as descriptive approach to its objectives. By exploratory study, a conceptual framework that takes into account the pertinent variables were also proposed. The state of Jammu and Kashmir provided the sample for the research project, which was conducted there. In the investigation, a method known as stratified random sampling was utilised. The study involved 253 drivers and pedestrians who chose to take part in it, and it lasted for a period of six months.

RESULTS AND ANALYSIS

A total of 253 road users volunteered to participate in the study over the course of the six-month study period. The questionnaire that the participants filled out served as the basis for the results. Parametric analysis is a term that is often used to sum up or encapsulate population features. By computing the measurements of the variables used for the study, percentage analysis allows for easy interpretation of the findings and the drawing of conclusions. It is easier and more effective to improve road traffic management when you are aware of the characteristics of the users of the roads. Consequently, researching the profile is essential for developing tactics and assessing results. Age plays a significant role in mobility and vehicle use, and these two characteristics together account for a significant portion of road traffic accidents (RTA). Out of 253 respondents, 68 (26.7%) were under 25 years of age, 82 (32.4%) were between 26 and 35 years of age, 65 (25.70%) were between 36 and 45 years old, and 38 (15%) were above 45. Compared to other age groups, the 26–35 age group has a higher representation.

The accident profile and experience of accidents involving road users are described in the table below in accordance with the study's findings.

ACCIDENT EXPERIENCE	FREQUENCY	PERCENTAGE
Met Accident	45.00	17.80
Seen Accident	166.00	65.60
Met & Seen Accident	42.00	16.60

Table 1: Frequency Distribution of Road User Accident Profile

This can be illustrated in following figure.

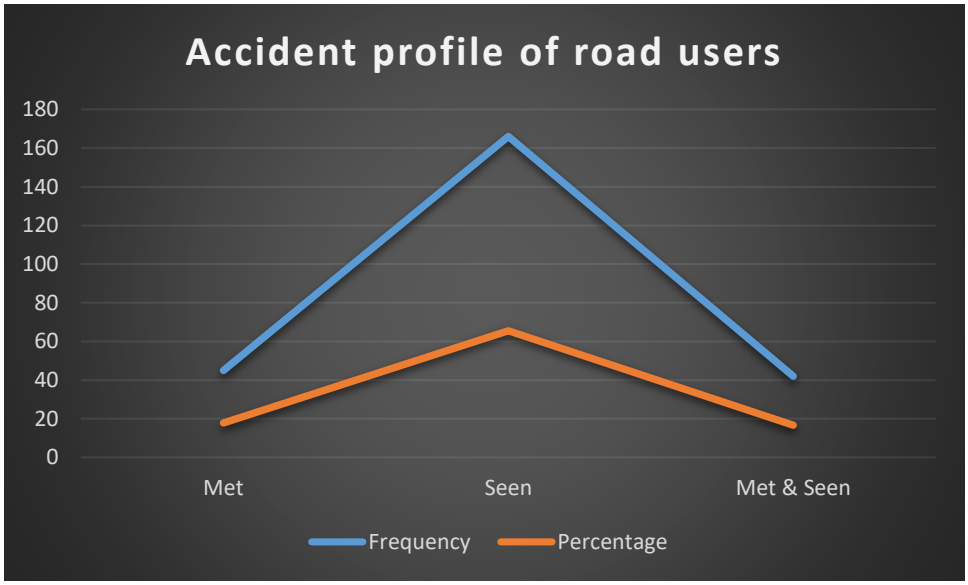

Figure 1: Accident profile of road users using frequency distribution

253 drivers and passengers responded to the survey; 166 (65.6%) had seen the accident, 45 (17.8%) had been in collisions, and 42 (16.6%) had both observed and been in the accident.

Road accidents are caused by a number of factors, including demographics, economic development, social deprivation, living standards, demographics, the design and development of transportation systems, varying conditions of traffic, and the development of roads as well as the manufacturing standards of vehicles. Accidents are complicated events caused by human, vehicle, and road environment interaction. To reduce these interactions, traffic management must analyse their causes. Table 2 shows the mean and SD of road accident causes.

THE REASONS FOR TRAFFIC CRASHES	MEAN	STANDARD DEVIATION (SD)
Driver error	4.30	0.81
Road defect	4.29	0.71
Other driver's fault	4.30	0.86
Inadequate lighting	3.89	0.92
Cyclist's Error	3.75	1.11
Road vehicle malfunction	3.76	0.94
Weather-related.	3.68	0.92
Pedestrian error	3.68	1.11
Other factors	3.59	0.97
Passenger error	3.36	1.19
Unknown causes	3.17	1.13

Table 2: Causes of road accidents using mean and SD

Road traffic safety prevents road users from being killed or wounded, according to this study. Road users include walkers, bikers, motorists, their passengers, and public transport passengers. Traffic rule offences include drunken driving, speeding, running red lights, lane violations, seat belt violations, and more. Given this, road user awareness of traffic laws is crucial.

CONCLUSION

Accidents cannot be prevented, but they can be minimised by adhering to the rules and guidelines established by the traffic department and other organisations. More assistance will be provided through improved transportation, improved roads, and technological advancements than by adding more workers. Concerning the matter of road safety, the State needs to shift from what is known as a "reactive phase" to a "proactive phase." More than lakhs of deaths and millions of

hospital admissions around the state may motivate all parties involved to develop and execute scientific and programmatic methods to road safety. This demands for a political commitment, professional involvement, media protection, and public involvement. It is time to take action.

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