

# Two Wheeler Riding Behaviour among Youth- A Case Study from Manjeri

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**Abstract** — *The alarming increase in the mortality rate of youth owing to road traffic accidents has been a great concern globally. Powered two wheeler constitute a very endangered type of road user. The notable increase in their share in traffic and the high risk of severe accident occurrence raise the need for further research. This study is undertaken to find the trends of two wheeler riding behaviour among youth around Manjeri town. This paper aimed at getting an insight into the psychological factors associated with road behaviours. The data collected through a questionnaire survey and detailed statistical analysis is carried out to understand the behaviour. Microscopic analysis like rider behaviour, interaction with other motorized traffic is examined in this paper.*

**Keywords** - *Two wheeler riding behaviour, Aggressive riding, Absence of enforcement, Traffic rule violation.*

## I. INTRODUCTION

Road safety is an important aspect which is unavoidable. Road traffic accidents have become a major public health concern. So there is a need to find the worsening road safety situation to take necessary actions. Theoretical perspective on attitudes and behaviours are useful for understanding riding behaviours and to plan behavioural change in two wheelers. Making aware of the problem of excessive speed and the psychological factors responsible for it is important when promoting a road safety intervention programme. Understanding the perception of two wheeler rider from the psychological point of view is important to identify the factors responsible for the risky riding. Several psychological and attitudinal factors are responsible for the aggressive riding behaviour among youth. A two wheeler rider survey was conducted on a sample of 412 college youth from Manjeri town. The sample included 47 female and 365 male. Two wheeler users from 3 colleges, which included governmental and private colleges, both professional courses and

undergraduate students. The participants age ranged between 18 – 25 years.

In the overall sample, majority of the respondents were male and female contributes only a very small percentage.

## II. OBJECTIVES OF THE INVESTGATON

- To understand two wheeler usage and riding pattern
- To identify factors affecting riding behaviour of two wheeler

## III. METHODOLOGY

In order to achieve the objectives of the study, various data regarding the socio economic status, financial status and all other relevant data are collected from selected youth around Manjeri town. For this Manjeri town is divided into different zones and the questionnaire survey is taken among youth around this zone.

### A. Primary data collection

Primary data relating to the causes of accident, financial repercussions of the accident and the impact of road accident were collected from the respondents through interview. Questionnaires were prepared for getting information regarding the socio economic status and financial status of the respondents.

The questionnaire includes socio demographic questionnaire in which characteristics such as history of accidents, time of the accidents during day and night, use of cell phone, drugs and alcohol and attitudes towards traffic laws are depicted, lifestyle questionnaire in which cultural factors, traffic related stress, road and environmental conditions and history of driving aggressions are included, driving behaviour questionnaire in which factors responsible for the lapses, mistakes, intentional violation, and uni intentional violation, psychological factors,

depression, personality trait of conscientiousness affecting the behaviour were discussed.

**B. Questionnaire survey**

The questionnaire survey locations were selected around Manjeri town. Participants were informed about the survey and asked to respond to the questions from their experience and opinion. Further it also includes the psychological factors responsible for the over speed and aggressive riding behaviour and general characteristics of motor vehicle.

**C. Analysis and interpretation**

The collected data are analysed and prepared the form of tables and bar charts to find the trends of two wheeler riding pattern and behavioural and psychological factors responsible for the risky riding.

**IV. RESULTS AND ANALYSIS**

On a sample of 412 college youth from Manjeri town, 365 were male and 47 were female. The result shows that 83.4 percent own their vehicle while 16.5 percent do not own their vehicle. When questioned about general characteristics of their motor vehicle, 45.6 percent have price of their vehicle in the range of 0.5 to 1 lakh and only a small percent of 5.8 above their vehicle priced above 2 lakh. Others lie in the range of 1-2 lakh. This shows that majority of the participants are middle class people. 42.9 percent of participants have their power of bike in the range 150-250 cc and only 26.6 percent have power above 250 cc. When asked about the category of bike, 84.7 percent have normal bike and only 15.2 percent have sports bike. When questioned about the past experience of accidents, 61.1 percent had met with an accident in the past and only 38.8 percent who have not met with accident in the past.

when questioned about tendency for speeding, hurry has become the dominant reason for riding fast (reported by 33.4 % participants) various other reasons like relief from heavy traffic (30%) competing with other driver was reported more frequently by men (29.3%) and anger (7%).

Typical aggressive riding behaviour was reported more often by male than female. About 57.2 percent participants were endorsed by the item ‘tendency for violating traffic rules’, 16.5 percent opted weaving/zigzag, 17.9 percent opted for chasing over and a very small percentage of 8.2 were opted for performing stunts.

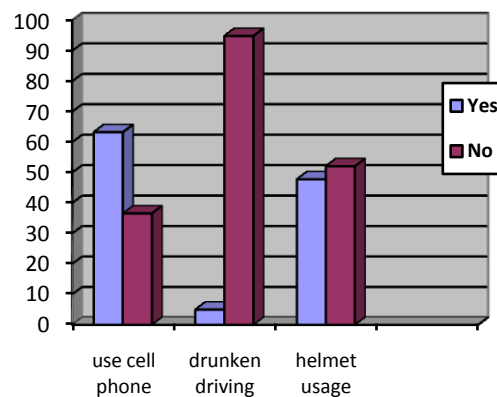
Around 60.6 percent of participants do not check their tyre condition regularly while 39.3 percent check regularly. Majority of the participants 66.2 % use two wheeler for their convenience. 24 % use as their occupational needs while 9.7 percent use it for fun and recreation.

When asked about drunken driving 94.9 responded that do not drink and drive and a small percentage of 5.1% responded that they drink and drive.

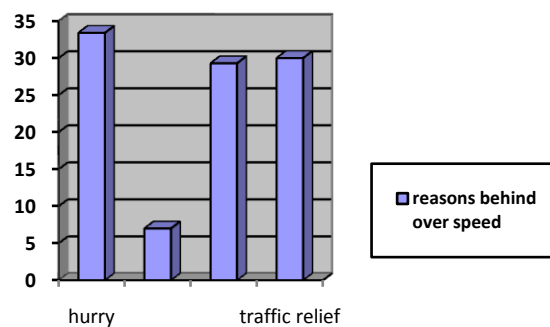
Majority of the respondents around 52.1 percent do not use helmet while riding and 47.8 percent use helmet. If helmet used type of helmet was fully covered 51.4 percent, half covered with glass by 24.7 percent and half covered without glass by 23.7 percent.

The widely varying helmet usage pattern observed that using a helmet only when law is strictly enforced rather than using helmet as a protective device. Around 65.7 percent suggests that they use helmet when made stricter enforcement, 20.1 opted for reduction in helmet price, 27.1 percent have a suggestion of better design and 18.4 percent need better awareness for how helmet usage be improved.

When questioned about the cell phone usage while riding 63.3 percent use cell phone while 36.6 percent do not use cell phone while riding.



**Fig 1: Risk behaviours related to motor cycling**



**Fig 2: Speeding characteristics**

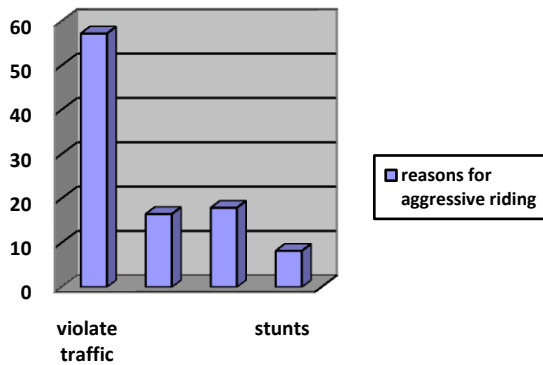


Fig 3: Riding patterns and two wheeler usage

## V. DISCUSSIONS

The findings of the exploratory survey suggest that both the positive and negative emotions, psychological factors and behavioral themes are associated with two wheeler riding in youth. It is important to consider the riders view and riding pattern and the present study was a step directed towards this.

The riding patterns of young two wheeler riders are of great importance because they constitute a significant percentage on roads and two wheeler riders comprises about three fourth of the registered vehicles and also most of the traffic injuries involve two wheeler riders.

The present study shows that a great percentage of young riders are involved in speeding and other aggressive riding behaviors.

It is important to note that in our study only 47 percent of riders use helmet frequently. The analysis of questionnaire survey indicated that majority of motor cyclists are aware of the benefits of helmet usage but wrong information and opinions associated with discomfort due to helmet use prevent them from using helmet.

Having a two wheeler may provide youth a sense of fulfillment of some psychological needs through riding and also the risk of harmful consequence.

Some participants choose motor cycles as a convenient vehicle for commuting so that they can save time. Some indicated that main motivation of purchasing motor cycle was for fun and entertainment.

The study indicated that risky riding can lead to fatal injuries.

## VI. CONCLUSION

Two wheeler risk factors are related with disobedience and psychological factors. So there is a need of inclusion of behavioural factors and emotional factors that may cause risky riding in the

intervention programmes. Promotion of the preventive emotion programme.

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