

Full Length Research Paper

Specialized training organized among educated youths to help reduce road accidents of motorbikes

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Accepted 14 May, 2016

Motorbike collision affects the victim as well as other members of the community and society around the victim. Training of a motorbike rider plays a vital role in this social event. The objective of this study is to investigate and quantify the trainings among educated youth which is responsible in reducing the road accidents of motorbikes. The study consisted of the students of Bahauddin Zakariya University, Multan as universe with a 500 sample size which was selected through convenient sampling and data were collected with the help of questionnaires. Greater proportion of the respondents did not have a license for riding motorbike, while greater proportion of the license holders got their license without skill test. Respondents had little awareness about road signs and personal protective equipments related to motorbike riding. This research article suggests that traffic or road safety department should improve the law enforcement and licensing system, encourage the monitoring of the riding schools with international standard, and do campaigns about motorbike riding trainings for motivating motorbike riders.

Key words: Training, motorbike riding, educated youth, road accident, collision.

INTRODUCTION

Pakistan has four provinces namely: Punjab, Sindh, Khyber Pikteton Khan and Baluchistan, and Multan City is situated in Punjab Province of Pakistan. Multan City is the capital of Multan District and is the 5th biggest city of Pakistan. Multan covers an area of 3,721 km² (City District Government, Multan). The population of Pakistan has increased from 136 million in 1999 to 162 million in 2008. The increase was twice as high in urban areas than in rural areas (28% versus 14%), and the urban population was 42% of the total population. This urban population growth, coupled with an expected increase in road transport, will certainly lead to an increase in road crashes especially bike crashes injuries in Pakistani cities such as Multan (Pakistan economic survey, 2009). Multan is an economically developing area of Pakistan, of

which Pakistan is considered as a developing country; however, motorcycle riding is rapidly increasing in popularity in Multan because it is cheap and is used for economic private conveyance. Unfortunately, the part of motorbike-related collisions has been rising in recent years. Further, the amount of motorbike-related crashes in Multan is inaptly high as compared to other vehicles.

The official data of Rescue 1122, Multan (2013) showed that motorbike crashes were greater than other vehicle crashes comparatively in Multan in 2013. Total numbers of road crashes were 11,131 in 2013 at Multan City of which 8,036 were motorbike crashes with a percentage of 72.19% and 3,095 were other vehicles crashes with a percentage of 27.81%. The ratio of motorbikes and other vehicles was 5:2 with sequence.

Lin and Kraus (2009) exposed that without training and experience, riding of motorbike has greater risk of death in a collision than people driving other types of motor vehicles; and this risk is being increased with increasing of per mile traveling. Savolainen and Mannering (2008) said that appropriate safety awareness, trainings,

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education of motorbike riders increase the skills of riding and better skills and training of riding play vital role in reducing continual amount of accidents. Less skilled, beginner in experience of riding and unsuitable course material also becomes the cause of increasing the risk of motorbikes' collisions.

Haworth and Mulvihull (2006) described that better licensing system was projected to improve safety outcomes which included increase in minimum age, and prolonging training duration and provisional period. Baldi and Baer (2005) identified that the causes of road accidents are not clear but the practices of motorbike licensing play vital role in reducing motorbike crashes and fatalities, most excellent practices and the soundness of the model having the lowest rates of motorcycle victims with fatal injuries.

According to Wick et al. (1998), most motorbike accidents occurred by youth riders in Bochum, Germany. The 90.7% patients of motorbike collision were men with average age of 28.8 years and 27.9% accidents occurred by 25 to 30 years-old age group. The use of helmet in Germany was high with 98.8%, and in spite of this, motorbike riders had faced head injuries but only 2.3% respondents were involved in head injuries.

Sociological significance of the study

The study has been conducted by sociologists and sociology is the organized and planned study of social events because all social behaviors are social events of man. Sociology mainly focuses on social systems including social behaviors of individuals, social actions and social structure and function of society. When an individual who is a motorbike rider involves in any motorbike collision, then there is not an individual phenomenon of collision because that event affects other people like the persons directly affected by the collision and his family members, relatives, friends, colleagues or business partner and economy of his or her designated society. So motorbike collision has become the social event and motorbike has many factors that cause road accidents like age of motorbike riders, millage of journey, experience of motorbike riders, type of journey, skill and safety training of motorbike riders and social format of traffic laws enforcement departments. For these reasons, researchers selected the sociological perspectives to investigate this event through quantifying the trainings of motorbike riders. The other reason for selecting the study on trainings of motorbike riders was the official data of Rescue 1122, Multan which showed that the number of motorbike accidents was greater than that of other vehicles comparatively.

Objective of the study

To investigate and quantify the trainings of youths which are responsible for helping to reduce the road accidents

of motorbikes.

METHODOLOGY

Universe

The universe for the present study consisted of motorbike riders in the district of Multan. The researchers selected the area of Bahuddin Zakariya University, Multan as universe because it was easy to approach educated youths who were motorbike riders. The main focus of the present research was to identify the trainings of motorbike riders which are responsible for helping to reduce motorbike accidents.

Sampling

In order to select a comprehensive sample, the researchers selected a sample size of 500 motorbike riders as respondents and convenient sampling technique was used to select the sample from the universe by students of Bahauddin Zakariya University, Multan. The first reason was to select university students for sampling because the students were mostly bike riders and it was easy for the researchers to select samples. The second reason was that it is a general perception about the educated persons that they have more tendency to participate in awareness sections and training workshops comparatively. So according to the researchers' point of view, the students of university were the best source to estimate the actual level of trainings on motorbike riding.

Tool for data collection

Due to the particular nature of this study, it was conducted by a survey method through the use of questionnaire as tool for data collection. The questionnaire seemed to be the most reasonable tool for data collection. In the case of the questionnaire as tool of data collection, there was greater probability of the collection of appropriate data by respondents.

Pretesting and finalizing the questionnaire

After structuring the questionnaire, it was pretested prior to the time the researchers went to the field or as at the time they actually went to the field. Pretesting was performed on the same universe. The outcome of pretesting exposed certain shortcomings in the questionnaire. In the light of the experiences of pretesting, the researchers included certain changes before finalizing the questionnaire.

RESULTS AND DISCUSSION

Statistical analysis of this study shows that 99.0% of the

Table 1. Percentage distribution of respondents with respect to gender.

Category	Frequency	Percentage
Male	490	99.0
Female	5	1.0
Total	500	100.0

Table 2. Percentage distribution of respondents with respect to age.

Category	Frequency	Percentage
Below 20 years	34	6.9
20 or above 20 years	466	93.1
Total	500	100.0

Table 3. Percentage distribution of respondents with respect to education.

Category	Frequency	Percentage
Below graduate	36	7.2
20 or above 20 years	464	92.8
Total	500	100.0

Table 4. Percentage distribution of respondents with respect to awareness about inspection of bike.

Category	Frequency	Percentage
Know completely	134	26.8
Know partly	306	61.2
Know nothing	60	12.0
Total	500	100.0

Table 5. Percentage distribution of respondents about collision of bike.

Category	Frequency	Percentage
Never	77	15.4
One time	102	20.4
Two times	141	28.2
More than two times	180	36.0
Total	500	100.0

respondents were male, while only 1.0% of the respondents were female (Table 1). According to the result of gender distribution, we can perceive that the females do not like to ride motorbikes and the other factor is that the cultural values of Multan (Pakistan) do not allow the females to ride motorbike frequently.

Age category of this study shows that only 6.9% of the respondents were below 20 years of age, whereas 93.1% were 20 years of age or above 20 years of age (Table 2). As regards the education level of the respondents, it was observed that 7.2% were undergraduates and 92.8%

were graduates or postgraduates (Table 3).

Research based data show that 26.8% of motorbike riders were having complete awareness about basic inspection of motorbike before embarking on a long journey, 12% were aware about inspection of motorbike to some extent and 61.2% did not know about inspection of motorbike (Table 4).

Table 5 shows that 36.0% of motorbike riders had faced motorbike collision for more than two times, 28.2% of motorbike riders had faced motorbike collision for two times, 20.4% of motorbike riders had faced motorbike

Table 6. Percentage distribution of respondents with respect to injuries resulting from collision.

Category	Frequency	Percentage
Soft tissues	210	42.0
Fracture	119	23.8
Head injury	61	12.2
Nothing	110	22.0
Total	500	100.0

Table 7. Percentage distribution of respondents with respect to repeating of test.

Category	Frequency	Percentage
Annually	139	27.8
After six moth	133	26.6
No need to repeat	228	45.6
Total	500	100.0

Table 8. Percentage distribution of respondents on a dichotomous scale.

Category	Yes (%)	No (%)
Having license	47.6	52.4
Training of traffic codes	38.4	61.6
Having book of traffic codes	29.8	70.2
PPE's Knowledge	29.8	70.2
Training should be compulsory	59.8	40.2
Having First Aid training	24.6	75.4

collision for one time, and 15.4% of motorbike riders had faced no motorbike collision.

Distribution table of injuries in result of motorbike collision shows that 42.0 percent of motorbike riders faced soft tissue injuries, 23.8% faced fractures, 12.2% faced head injuries but only 22.0% did not face any collision of motorbike (Table 6).

The data of Table 7 show that 27.8% of the respondents stated that test of riding by related department should be repeated annually, 26.6% stated that it should be repeated every six months and majority of the respondents (45.6%) stated that there is no need to repeat the test.

As shown in Table 8, the analysis of this study shows that only 47.6% of motorbike riders were having motorbike riding license and 52.4% were not having license; the greater proportion rides the motorbike on the roads of Multan (Pakistan) without license and this thing shows the weak implementation of traffic law in Multan. The non-license holders riders are less experienced and do not know the traffic rules and road signs properly, so they have more probability of road crashes. The data show that only 38.4% of riders got training of traffic

codes, whereas 61.6% did not have any training about traffic codes. The reason for this is that licensing procedure gives awareness of traffic codes and most respondents did not face the licensing procedure. This table shows that only 29.8% of the respondents were having book of traffic codes and 70.2% had no book of traffic codes.

As shown in Table 8 also, the distribution about PPEs related motorbike shows that 29.8% of the respondents were having awareness about Personal Protective Equipments related to motorbike riding, 70.2% had no awareness about Personal Protective Equipments related to motorbike riding and this behavior of motorbike riders shows the carelessness of self-safety. Further data show that 40.2% of the respondents stated that the training should not be compulsory, whereas 59.8% stated that the training should be compulsory.

It was also observed in Table 8 that 24.6% of the respondents stated that they have awareness about First Aid, while 75.4% stated that they have no awareness about First Aid, though the majority of the respondents had already faced injuries due to motorbike collision. In spite of this, they are not ready to get any First Aid

Table 9. Percentage distribution of respondents on a likert scale.

Category	To a great extent (%)	To some extent (%)	Not at all (%)
Collision impact on economy	32.8	38.2	29.0
Collision impact on education	34.4	44.4	21.2
Family behavior	31.6	49.6	18.8
Collision due to other negligence	52.0	42.8	5.2

training because they have rigidity in their behavior which tends to ignorance and carelessness.

The data of Table 9 show that 33.1% of the respondents were thought to a great extent that motorbike collision have impact on the economy, 38.6% were thought to some extent that motorbike collision have impact on the economy, and 28.3% said that there is no impact of motorbike collision on the economy.

More data show that 34.4% of the respondents were thought to a great extent that motorbike collision have impact on education, 44.4% were thought to some extent that motorbike collision have impact on education and 21.2% said that there is no impact of motorbike collision on education.

Further data show that 31.6% of the respondents were thought to a great extent that motorbike collision have impact on family behavior, 49.6% were thought to some extent that motorbike collision have impact on family behavior and 18.8% said that there is no impact of motorbike collision on family behavior.

It was also observed that 52.0% of the respondents gave their opinion that to a great extent accidents occur by others' negligence, 42.8% said that to some extent accidents occur by others' negligence and 5.2% said that accidents do not occur by others' negligence.

SUMMARY AND CONCLUSION

With the passage of time, population and traffic is increasing just as road traffic accidents are also increasing. Road traffic accident has become a common phenomenon of the world and the cause of many deaths, injuries and material loss. These factors affect the economy, education, behavior of individuals and also other social institutions of the society. Road traffic accidents occur by almost every vehicle but motorbike has more tendency of road traffic accident. Many factors are involved in accidents of motorbike like trainings for motorbike riders. This study was conducted in Multan city of Pakistan and Pakistan faces about 10,000 deaths every year due to road traffic accidents and more likely motorbikes are involved. The youth generation is more involved in collisions of motorbike due to their less experience of riding, inappropriate riding skills and lack of different trainings which is related to safety of motorbike riders. Pakistan is a developing country that has low tendency of awareness programs especially about safety

of motorbike riding, so the collision ratio of motorbikes is three times more than collision of other types of vehicles. The present study was conducted among educated youths through questionnaires.

RECOMMENDATIONS

Licensing system should be improved by the traffic department, in order for them not to issue license without skill and written test, and thus improve the traffic law implementation. The subsequent recommendations should be followed to improve the system:

- a) Provisional license duration should be for 2 years so that applicants of motorbike riding license can learn appropriate riding skills and other related trainings of motorbike riding.
- b) Maximize the minimum age limit, that is, 18 years of age should be compulsory for provisional license and 20 years of age for permanent license.

Awareness workshop

Before issuing permanent license, the traffic department should conduct the awareness workshop to empower the competence of motorbike riders in two parts:

- (i) The first part of bike riding should consist of sensitizing the bike riders about hazards and risks of motorbike riding and how to reduce them.
- (ii) The second part should consist of traffic rules and regulation, road signals, road signs and skill based awareness.

Campaigns

Traffic department or road safety department should carry out campaigns for getting professional training of motorbike riding in schools, colleges, different organizations and through mass media periodically which should be based on aggressive marketing style.

Riding schools

A certificate of riding skills training should be compulsory by registered riding school before permanent license. All riding schools should be registered on international

standard by the concern department and they should be periodically monitored by traffic department, road safety department and other concern departments.

The contents, format, durations and standard of training should be registered and same for all riding schools.

Training by riding school

It should consist of the following:

- a) Riding skills.
- b) Road signs and signal.
- c) Traffic rules and regulations.
- d) Basic inspection of motorbike before long journey.
- e) Use of PPEs related bike riding because it is responsible for minimizing the hazards of injury in a case of road crash.
- (f) First Aid training to control or minimize the life threatening conditions in the case of road traffic crashes.
- (g) All the above contents of training should be made compulsory with annual updates and renewal of riding license.

REFERENCES

- City District Government, Multan www.multan.gov.pk.
- Haworth and Mulvihull (2006) "Review of motorcycle licensing and training" publication by Transportation Research Board of the National Academy, Australia.
- Marc W, Ernst J, Ekkernkamp A, Muhr G (1998). "The motorcyclist: Easy rider or easy victim? An analysis of motorcycle accidents in Germany" *The American Journal of Emergency Medicine* published by Elsevier.
- Mau L, Kraus F (2009). "A review of risk factors and patterns of motorcycle injuries" *Pakistan economic survey* (2009) www.finance.gov.pk/survey_0910.html
- Peter S, Mannering F (2008). "Effectiveness of motorcycle training and motorcyclists risk taking behavior" *Transportation Research Board of the National Academies*.
- Stephane B, Justin D, Baer Andrea L (2005) "Identifying best practices states in motorcycle rider education and licensing" published by Elsevier.
- The official data of Rescue 1122, Multan (2013) www.punjab-emergency-service-rescue-1122.html.