Original Article

AWARENESS AND ATTITUDE TOWARDS ROAD SAFETY AMONG UNDERGRADUATE MEDICAL STUDENTS FROM LIAQUAT UNIVERSITY OF MEDICAL AND HEALTH SCIENCES JAMSHORO PAKISTAN

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Abstract

Background: Road safety is not just a traffic law's enforcement problem for police; it is a major public health problem. It is public health concern, a burden of accident-related injuries, disabilities & mortalities on Health Services. Road traffic injuries are predicted to become the 5th leading cause of death globally by 2030, particularly amongst the young age group and middle aged group individuals who represent as most economically productive age group of the country.

Methods: A cross sectional survey was conducted to ascertain the level of awareness and assess the attitude towards road safety measures among medical students in LUMHS Jamshoro. A pre structured and translated questionnaire was developed in order to interview the participants, total of 351 students were included in this study. Data analyses was done on SPSS version 20.0 and MS excel was also used for tables.

Results: Over all attitude level towards seat belt usage shows (52.7%) were negative attitude level towards seat belt usage and remaining (47.3%) students had positive attitude. Over all attitude level towards helmet usage shows (47%) were negative attitude level towards helmet usage and (53%) were positive attitude. About 53.3% students were negative attitudes level to speeding. 57.3% students were having negative attitude level to driving after drinking alcohol or taking drugs. About Sixty five percentage students were shows over all negative level of attitude towards law and enforcement. Over all awareness level shows more than fifty percent 191(54.4%) having less level of awareness of road traffic measures and remaining 160(45.6%) were having more level of awareness, there is slightly high awareness in females (49%) then male (40.8%). more than sixty percent 63.5% participants were show over all less awareness about traffic signs and more female (40.6%) are aware then male (31.5%) about road traffic signs.

Conclusion: conducted study put emphasis to generate awareness and attitude in medical students through awareness campaign, trainings, and curriculum activities accordingly to change behavior of medical students and control the epidemic of RTA's.

Keywords: Attitudes, awareness, road safety measures, undergraduate medical students

Introduction

Road safety is not only a traffic law enforcement problem for police it is also a major public health problem. Road traffic accidents (RTA) and injuries are both a public health concern due to the burden of accident-related injuries, disabilities & mortalities on the current health system. Road traffic injuries are predicted to become the 5th leading cause of death globally by 2030 (1). Road traffic accidents are leading cause of mortality and disabilities in Pakistan. The World Health Organization (WHO) has estimated that without effective implementation of efficient counter measures, an 80% increase in road traffic accidents can be expected in low- and middle-income countries during the period 2000 to 2020 of which Pakistan is a part (2).

Children from uneducated mothers suffer more from RTA when compared with children from educated mothers because educated mothers somehow know the traffic rules and regulations and they teach child accordingly and prevent them from any fatal event (3). Road safety is a public health challenge in many developing countries especially in view of the large increase in the number of motor vehicles (4). The lack of legislation is one of the major risk factors for road traffic injuries and in many countries more than 85% of the legislation system (if it does exist) is incomplete with poor implementation; this is more common in low and middle income countries (5). Traffic calming schemes, curative highway engineering, the wearing of seat belt in cars and the use of helmets by motorcyclists has all

proven to be successful interventions to reduce or prevent road accident deaths and injury (6).

On the world's roads about 1.24 million population die each year, and further 20 to 50 million keep up nonfatal damages as a consequence of road traffic collapses, these harm and mortality results in major financial and productive losses to the country and families, their lives are also altered irreversibly by these misfortunes, and on the society where they live and worked, eighth leading cause of death was due to road traffic injuries Globally, and is almost similar to prevalence of non communicable diseases. And its leading cause of death in young people almost the age of 15-19 year and this is a major financial and productive loss to a country (7).

Methodology

This study used a cross sectional design with a quantitative approach to collect data from the undergraduate medical students of Liaquat University of Medical and Health Sciences Jamshoro (SINDH) Pakistan. The calculated sample size of the study participants was 351 (by taking prevalence of road traffic injuries as 50%, confidence interval 95% and margin of error 5%) and included males and females. The sample was collected by using multi stage simple random Sampling Techniques. At first stage semester were selected through balloting from 1st to final semester. In second stage students were selected by simple random sampling by balloting of roll number. Data was collected through a semi - structured questionnaire that had been piloted and modified according to the feedback. The data was analyzed using SPSS 20.0 to obtain means, frequencies, and syntax score. Ethical approval was obtained from the Internal Review Board of Health Services Academy, Islamabad. Written informed consent was obtained from all study participants students and confidentiality maintained.

Results

The main findings of the conducted research are presented into three parts. First parts contains the descriptive statistics of participants, second parts shows the overall awareness and third part overall attitudes of study participants about road safety measures. Descriptive statistics of the study participant's socio demographic characteristics is shown in the Table 1.

Ages were categorized in 16-20 years and 21-25 years, in our study 140 (39.9%) students were aged from 16-20 years, while 211 (60.1%) students were of age between 20-25 years. The marital status of students revealed, majority of students 335(95.4%) were single, 11(3.1%) were married and 5(1.5%) were divorced. Regarding place of resident of students during present student life, more than half 205 (58.4%) participants answered that they were residing in the city while 136 (38.7%) were living in the hostels and 10(2.8%) were living in the nearby villages.

Table 1: Socio demographic characteristics

Socio demographic characteristic	Frequency (N=351)	Percentage (%)
Age		
16-20 years	140	39.9%
21-25 years	211	60.1%
Gender		
Male	159	45.3%
Female	192	54.7%
Marital status		
Single	335	95.4%
Married	11	3.1%
Divorced	5	1.4%
Residence		
City	205	58.4%
Village	10	2.8%
Hostel	136	38.7%

In present study for assessing the attitude level towards road safety measures we divide our study participants in two groups of attitude level, one group who have negative attitude level and another group has positive attitude level towards, for this we compute our entire variable in SPSS syntax method and divide it in two groups on the basis of obtained mean score of and then find out frequencies and percentages. The overall attitude level of participants towards different road safety measures is shown in table 2.

Table 2: Overall Attitude level towards Road Safety measures

Variable	Frequency	Percentages
Seat belt usage		
Negative attitude level towards seat belt usage	185	52.7%
Positive attitude level towards seat belt usage	166	47.3%
Helmet usage		
Negative attitude level towards helmet usage	165	47%
Positive attitude level towards helmet usage	186	53%
Over speeding		
Negative attitude level to speeding	187	53.3%
Positive attitude level to speeding	164	46.7%
Driving after drinking alcohol/taking drugs		
Negative Attitude level to driving after drinking alcohol or taking drugs	201	57.3%
Positive Attitude level to driving after drinking alcohol or taking drugs	150	42.7%
Law enforcement		
Negative Attitude level towards law enforcement	231	65%
Positive Attitude level towards law enforcement	120	35%

It is found that that 191(54.4%) participants had less awareness of road traffic measures and remaining 160(45.6%) were had more awareness of road traffic measures. When study participants were asked about the road traffic signs then it is calculated that about 63.5% of participants had less awareness about road traffic signs as compared to 36.5% that had more awareness about them (table3).

Table 3: Overall Awareness level about Road Safety measures

Variable	Frequency	Percentages
Road traffic measures		
Less awareness of road traffic measures	191	54.4
More awareness of road traffic measures	160	45.6
Road traffic signs		
less awareness of road traffic signs	223	63.5
good awareness of road traffic signs	128	36.5

Discussion

The initial step is to understand how to decrease the RTA's which are increasing day by day in young people, so to prevent from RTA's peoples need to be educated on road safety measures, to explore the level of awareness and attitudes towards road safety measures in young people is necessary for promotion of "safe road safe lives". This present study has described both the level of awareness and ascertains attitudes towards road safety measures among undergraduate medical students of Liaquat University of Medical and Health Sciences Jamshoro.

Over all attitude towards seat belt usage shows in our study 52.7% had negative level of attitudes towards seat belt usage and remaining 47.3% had positive attitude towards seat belt usage, 40% participant feel restriction of movement that's why don't use seat belt, 47% in favor of law and enforcing agent mandatory use of seat belt, seat belt usage prevents so many cause of RTA's that ultimately decreases the mortality and morbidity more than 52.7% having negative level of attitude indicates emergency and raised concern and tackle it accordingly. In this study results shows that 58% students were convinced that it's extremely important for driver to wear seat belt and 47.6% were convinced on seat belt usage resemble finding were observed in a study conducted by Redwan AA and Karim AJ in Malaysia it shows 93% students were in favor of that its extremely important to wear a seat belt by driver 52.3% feel convinced to use it this shows that in Malaysia students attitude towards seat belt usage is good is due to students were convinced by law and enforcement agents through proper awareness programs about seat belt usage safety and strict rules and penalty for not wearing seat belt (8).

In this study result show that overall attitude to speeding more than fifty percent students having negative level of attitudes to speeding, 31% students were driven a vehicle over the speed limit, 48% students those who driven a vehicle in speed want to reach quickly to destination, 68% agree that faster the speed a person can suffer a severe crash injury. 39.9% drivers don't care and they not keep themselves in speed limit, 43.6% mostly speed on highways the same finding reveals in study conducted in Saudi Arabia by Gharazabeh et al. 66% driver exceed their speed limit (9).

In this study result shows that 64% students were less awareness level of traffic signs, 40% females were having good awareness level and remaining 60% were have less level awareness of road traffic signs , 31.5% males were having good awareness level of traffic signs and remaining 68.5% males have less level of awareness of road traffic signs, it shows that females is having more awareness level then male for road traffic signs but different findings are found in study conducted by manoj kumar et al it shows different finding males having more awareness level of traffic signs then females this difference due to settings its conducted in rural setting where boys have more exposure to outside world and girls are mainly bonded to homes but in our study urban setting girls exposure is more to outside world (10).

Conclusion

From this study it is concluded that students of Liaquat university of Medical and Health Sciences Jamshoro shows that there is less level of awareness and poor attitude for road safety measures, Low awareness and poor attitude towards road safety measures among medical students indicates that they are at risk for road traffic accidents and should be a major financial and productive lost to a country or family if someone may go to this tragic event of accident it may cause death or any un fetal disability. This study is just conducted in medical student and cannot be generalized; further research in this area needs to be conducted to assess the existing situation regarding road safety measures across various sub-groups of populations.

Health promotion activities should be done to promote "safe road safe lives" through sign boards, mass media campaign and poster campaign regarding awareness of road traffic measures to change attitude and behaviors of students, parents, and their teachers. Government device the policy accordingly to strengthen the law and enforcement agency to get strict action against law breakers and implementation of proper usage of seat belt, helmet and fine those who over speed during driving. Government should strengthen the training institution, testing institution and proper driver license system. Multifaceted approach should be needed to bring together various policy makers, law and enforcing agent, stake holder, parents, students, and teachers to get better road safety measures to reduce the road traffic accidents.

References

1. Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, Adair-Rohani H, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *The lancet*. 2013;380(9859):2224-60.
2. Organization WH. The world health report 2000: health systems: improving performance: World Health Organization; 2000.
3. Singer MS, Ghaffar A. Risk factors for road traffic injury in Pakistani children. *Journal of the College of Physicians and Surgeons--Pakistan: JCPSP*. 2004;14(12):709-12.
4. Pakistan Automotive Manufacturers Association. Production and sales of vehicles-Historic 2015[Internet]. 2015.
5. <http://www.pama.org.pk/statistical-information/historical-information/annual-sales-production>
6. Organization WH. Global status report on road safety: time for action: World Health Organization; 2009.
7. Organization WH. WHO global status report on road safety 2013: supporting a decade of action: World Health Organization; 2013.
8. Redhwan AA, Karim AJ. Knowledge, attitude and practice towards road traffic regulation among university students, Malaysia. *Int Med J Malaysia* 2010; 9:29-34.
9. Gharaibeh ES, Abu Abdo AM. Assessment of traffic safety and awareness among youth in Al-Ahsa region, Saudi Arabia. *J Emerg Trends Eng Appl Sci (JETEAS)* 2011;2:210-5.
10. Kumar M. Awareness and Practices on Road Safety among Students of Panjab University Chandigarh, India. *Asian Journal of Multidisciplinary Studies*. 2014;volume 2(11)