



Knowledge and Perceptions about Helmet Law among the Two Wheeler Sellers in Gadag District of Karnataka, India

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ABSTRACT

Background

India is undergoing major economic and demographic transition coupled with increasing urbanization and motorization. Among the top 10 causes of mortality in the country, road traffic collision (RTA) was the tenth cause two decades back, but with the increasing urban expanse and lifestyle changes, it is projected that RTAs will occupy the fourth position in the list of major killers and third position among causes of disease burden in 2020.

Objectives: To assess knowledge and perceptions about helmet law among two wheeler sellers.

Methods: A cross-sectional survey was carried out in the headquarters area of Gadag town. A convenient sampling technique was used to collect data, and the sample size was sixty. Following oral consent, a questionnaire was administered to employees of a two-wheeler selling agency. To assess knowledge a pre-tested semi-structured questionnaire was administered to employees, and a three-point Likert scale was used to measure perceptions about the helmet law.

Results: A questionnaire was distributed to sixty employees in the current study. Almost all employees were aware of the mandatory helmet law. However, more than half of the employees stated that they did not receive any helmet law orientation, despite the fact that they were aware of the law. According to our findings, both show room employees are well-versed in helmet legislation. More than one-third of participants disagreed that helmets are not required for short-distance, less powerful engine, and slower speed driving, implying that helmets are required for all types of rides, regardless of engine power, speed, or distance.

Conclusion: Our study found that almost all two-wheeler selling agency employees were knowledgeable about helmet legislation and opined that wearing a helmet would only prevent head injuries if riders wore ISI Standards helmets.

Key words: Knowledge; Sellers; Agency; Helmet usage; Perceptions; Karnataka

I. BACKGROUND

According to the World Health Organization, road traffic injuries are expected to rise from tenth place in 2002 to eighth place by 2030 as a contributor to the global disease burden^{1&2}. One of the new SDG targets (3.6) is to reduce the global number of road traffic deaths and injuries in half by 2020³. Helmets and helmet-use laws have been shown to reduce head injuries and deaths in motorcycle accidents^{4,5&6}.

Motorized two-wheeler collisions account for a large proportion of all collisions in developing countries. A helmet provides excellent protection against head injuries. However, helmet regulations in India are inconsistent and poorly enforced. Drivers were required to wear helmets in 2004, and pillion riders were required to wear them in 2016. The purpose of this study was to assess two-wheeler sellers' knowledge and their perceptions about the helmet law in North Karnataka district of India.

II. MATERIALS and METHODS

Study design

A cross sectional study was conducted to assess the knowledge and two wheeler sellers' perceptions about helmet law.

Study Setting

A cross-sectional survey was done in Gadag town area between September and December 2019, data was collected by visiting vehicle selling showrooms with a pre-tested semi-structured questionnaire and three points Likert scale.

Participants

Employees who are working in two-wheeler dealership showrooms. The Convenient sampling technique was used to assess knowledge and perceptions about the helmet laws.

Variables

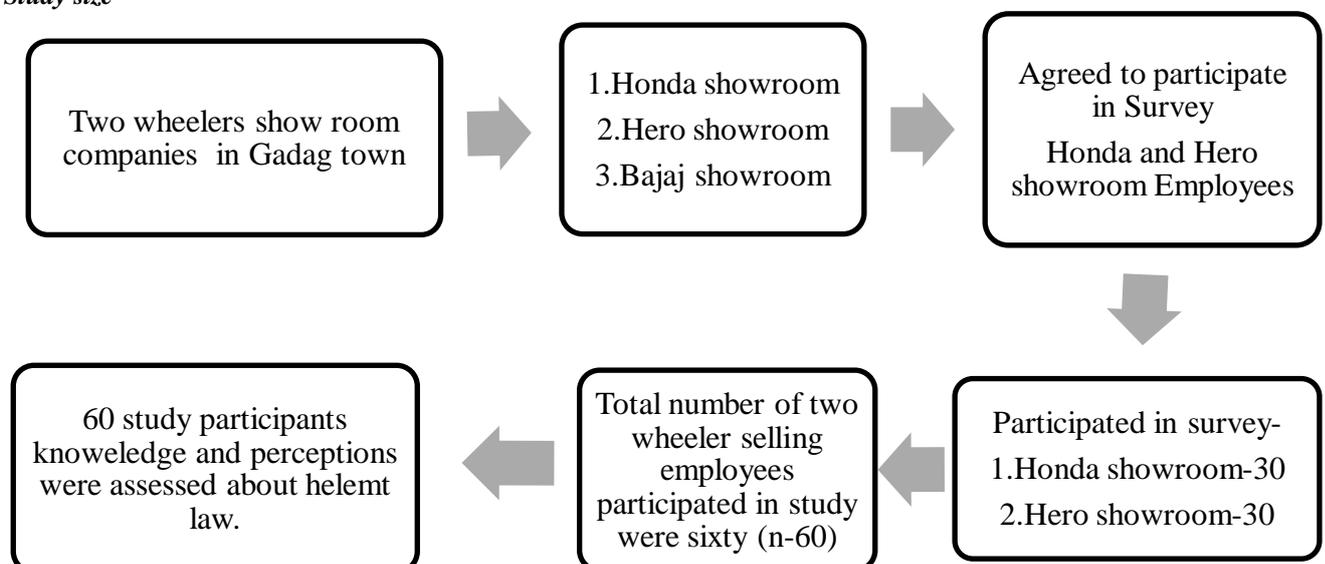
Independent Variable: Age, Gender and education status.

Dependent Variables: Various variables related to knowledge about helmet law and three points Likert scale was used for assessing the perceptions about the helmet law.

Data sources

Primary data was collected using a pre-tested semi-structured questionnaire, and sellers' perceptions about the helmet law were obtained using a three-point Likert scale.

Study size



Statistical methods

The data were entered into an excel sheet, the variables were analyzed with SPSS v20, and the results were expressed in frequency and percentage.

Ethical approval: Obtained from OPJS Universityresearch committee Ref. no. OPJS/RD/2019/05/09/37.

III. RESULTS

Table1: Distribution of Socio-demographic details of the two wheeler sellers (n-60)

Category	Characteristics	Frequency (%)
Company	Honda showroom employees	30 (50)
	Hero showroom employees	30(50)
Gender	Male	60(100)
	Female	00
Educational status	Professional degree	03 (05)
	Graduate	27(45)
	Diploma	13(21.67)
	PUC	10(16.67)
	High school	07(11.66)
	Primary School	00
	Illiterate	00
Age-Group (In Years)	Less than 20	00
	21-25	16(26.67)
	26-30	30(50)
	31-35	14(23.33)
	36-40	00
	41-45	00
	46-50	00
	51&abobve	00
Work experience	Less than one year	17(28.33)
	More than one years	43(71.67)

In our study, almost all of the participants were men, nearly half of whom were graduates, young in age, and had more than one year of work experience.

Table 2: Distribution of two wheeler seller's responses about helmet law (n-60)

Variables	Responses	F	%
Do you know helmet wearing was compulsory in Karnataka	Yes	60	100
	No	00	00
Did you seen / listened any advertisement about helmet wearing / helmet law	Yes	38	63.33
	No	22	36.67
Are you aware that helmet wearing is compulsory for riders in this area	Yes	56	93.33
	No	04	06.67
Does Government have any guidelines to sell the helmet along with two wheeler	Yes	37	61.67
	No	23	38.33
Do you verify the Licence before selling the vehicle (Received as a proof)	Yes	57	95.00
	No	03	05.00
Do you verify the two wheeler buyer's age(Received as a proof)	Yes	60	100

	No	00	00
Have you received any orientation about helmet wearing / helmet law from any agencies or employer	Yes	09	15.00
	No	51	85.00
Are you aware that IND number plate is mandatory for motorized two wheeler vehicles	Yes	56	93.33
	No	04	06.67

According to the most recent study, the majority of survey respondents were aware of the importance of wearing a helmet, but more than half of the employees responded that they did not receive any orientation about helmet law, regardless of the fact that they were aware of the law.

Table 3: Distribution of knowledge level among two wheeler seller employees about helmet law.

Two wheeler selling agency	Knowledge scale		
	Poor	Average	Good
Honda Showroom	4 (06.67)	08(13.33)	48(80.00)
Hero Showroom	4(06.67)	11(18.33)	45(75.00)

Sources author: - Knowledge scale :1to 3-poor ,4 to 6-average & 7 to 9-Good

According to our findings, both show room employees are well-versed in helmet legislation.

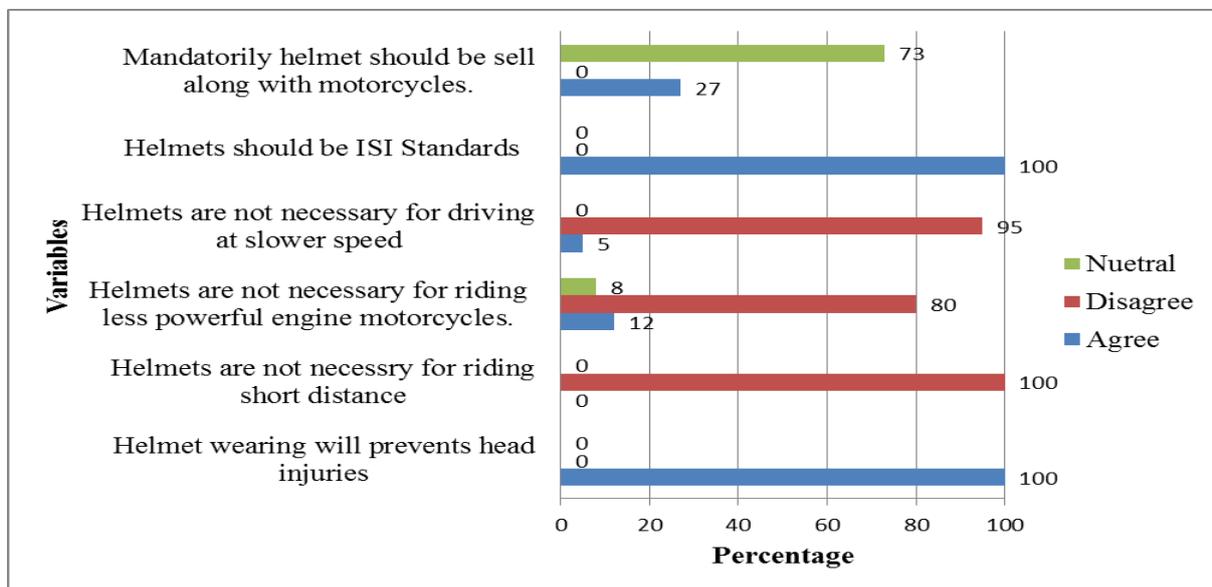


Fig 1: Perception of two wheeler sellers about helmet law (n=60).

As per our research, almost all two-wheeler selling agency employees agreed that wearing a helmet would prevent head injuries and that helmet should be ISI Standard.

More than one-third of the participants disagreed that helmets are not required for short-distance, less powerful engine, and slower speed driving, inferring that helmets are required for all types of rides irrespective of engine power, speed, or distance.

IV. DISCUSSION

Knowledge among two wheeler sellers

According to the current study, more than one-third of two-wheeler sales employees are aware of and comply with helmet laws. A review of project reports completed by Tom Bishop et al (2018) in Ghana, Kenya, Tanzania, and Uganda revealed that the majority of two-wheeler vehicle selling agency workers were aware of their respective national traffic injury prevention legislations.⁷

In our analysis it was found that majority of the two wheeler selling agency workers were didn't receive any orientation about helmet legislation. It is very much needed to provide orientation about road safety legislations. There is no similar study available in the literature search. This was the first study carried out to on two wheeler selling agency employees about helmet law implementation measures.

Half of those who took part in the present survey were knowledgeable that a helmet could have been offered along with the two-wheeler vehicle. A news article written in Times of India by Milton(2019) highlighted that the local traffic police department informed them to sold the helmets as per direction of the commissioner of highway safety and traffic management of Karnataka but nearly half of the employees doesn't aware about it⁸. As per newspaper articles, a similar advice found in Kerala and Rajasthan, as per their state government guidelines a free of cost helmets should be given along with every new two-wheeler purchase to the customer.^{9&10}

Knowledge among vehicle dealers

In our findings more than one third of the motorcycle selling employees have good knowledge about helmet legislation and road safety measures. A similar findings found an analysis done on Tamil Nadu's Traffic Safety Measures and Traffic Accidents by S Krishan et al (2019)¹¹.

Many of the Indian states issued notification regarding to give standard helmet along with two wheeler vehicle but two wheeler selling agencies are not providing the helmet to customers.

Perception about helmet law among dealers

In our analysis almost all two wheeler selling dealer employees perceived that helmets should be ISI standards and it's wearing prevents head injury. A similar opinion found in World Health Organization report (2006) Motorcyclists help protect riders' lives and brains when they're in a collision¹². Bicycle helmet users' behaviour was also studied by Thompson et al. (2002), who came to the same conclusion¹³. One more study conducted in Jabalpur MadhyaPradesh on motorcycle injury victims by JayantMarya et al (2017). In this analysis, it was verified that required helmet use is an excellent way to minimize damage of tissue, scalp, cerebral, and middle to upper 1/3 face injuries in motorized two-wheeler collisions, with obligatory helmet law as a result¹⁴.

V. CONCLUSION

Despite the fact that the mandatory helmet law was implemented in 2004 and amended in January 2016, roughly half of two-wheeler sellers knew the law. Proper orientation and training about recent helmet laws and road safety legislations is required for two wheeler selling agencies.

What this study adds:

- ✓ It helped to evaluate the compliance of helmet legislation in north Karnataka area.
- ✓ To know the percentage of employees aware about road safety laws.
- ✓ To know the two wheeler sellers perceptions about helmet law.

Competing interests: None

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